Optimize Customer Experiences With Digital Intelligence

Vision: The Digital Intelligence Playbook
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Why Read This Report

The opportunity to engage customers digitally has never been greater — but so is the threat of not meeting their expectations and losing out to competitors that do. Current digital analytics practices are siloed, tactical, and fixated on channel-obsessed dashboard reporting that is not actionable. This report describes Forrester’s vision of digital intelligence: a modern competitive approach to analytics that customer insights (CI) professionals can use to combine insights from existing, new, and emerging channels to enable timely, customer-obsessed decision-making.

This is an update of a previously published report; Forrester reviews and updates it periodically for continued relevance and accuracy. This update factors in advances in the business impact of traditional web analytics practices and current trends in the adoption of digital intelligence practices.

Key Takeaways

Existing Digital Analytics Practices Just Aren’t Good Enough
Competing for customers in the multitude of available channels requires levels of sophistication, strategy, and investment that existing digital analytics practices do not deliver.

Digital Intelligence Delivers Analytics That Supports Continuous Optimization
Modern analytics practices must give their firms a competitive edge by providing a holistic view of digital customer interactions that informs the continuous optimization of customer experiences.

Four Strategic Pillars Support Digital Intelligence
To elevate digital intelligence to a strategic initiative that provides competitive advantage, CI professionals must consider their technical approach, functional ownership, metrics and key performance indicators, and testing and optimization approaches.
Traditional Digital Analytics Don’t Support Today’s Customer Needs

Digital Intelligence Delivers Customer-Obsessed Experiences At Scale

Digital Intelligence Stands On Four Strategic Pillars

Digital Intelligence Practices Are Gaining Momentum

What It Means

Digital Intelligence Disrupts The Analytics Market

Supplemental Material
Traditional Digital Analytics Don’t Support Today’s Customer Needs

The age of the customer is unfolding — an age in which customers, not brands, hold the balance of power, supported by the growth of digital. No matter how embedded your brand is in your customers’ lives, they have many ways to digitally interact with both you and your competitors and will move on if you don’t meet their expectations. Meanwhile, digital marketing spending continues to grow unabated, cementing the importance of digital channels to commerce and customer engagement. Digital marketing is effective in all phases of the customer life cycle — driving traffic for discovery and exploration, supporting eCommerce for buying, and reinforcing engagement through loyalty and support — and it follows the ongoing shift of wallet share to digital channels. While these are exciting times for digital marketers, these more holistic approaches bring challenges. In today’s multifaceted digital landscape, traditional practices that typically focused on web analytics and aggregated customer views are ill-equipped to keep pace with:

› **Intricate digital customer interactions.** Today’s customers interact digitally across multiple channels and devices, creating opportunities to generate customer and brand value. But these opportunities are fleeting; customers expect a high degree of relevance in these moments, raising the bar for analytics and marketing execution. A firm’s website is now one of many digital destinations, along with social networks, communities, mobile apps, and other touchpoints such as the Internet of Things (IoT). Traditional web-focused analytics only track onsite behavior and lack the ability to understand customers in this complex digital world.

› **Demand for digital as a central part of the enterprise.** Firms typically build offline and online customer channels in isolation — but CI professionals have recognized that customer data is customer data, regardless of where they collect it. Smart firms are shifting from traditional traffic-focused web analytics approaches toward projects, technologies, and teams that bring the offline and online worlds together. For example, top-tier Dutch soccer club AFC Ajax combined offline season ticketholder data with website visitor data to drive programs that boosted fan loyalty and club profits.

› **Dynamic interaction management.** Firms must react to changes in customer behavior instantly, which makes the link between analytics and marketing crucial for coordinating interactions based on accurate and timely insights. To reach customers in the moment, CI pros require real-time analytics that deliver actionable insights and direct connections to targeting and marketing execution systems — but today’s web analytics solutions mostly offer isolated, retrospective reports and dashboards.

Traditional Analytics Fail To Support Customer Obsession

Given the investment and revenue at stake, analytics are critical in supporting the development and continuous optimization of digital channels. Yet most firms’ traditional approaches to analytics are vestiges of a simpler time, when understanding traffic sources and aggregated website user behaviors were the primary — but limited — goal. Given the complexities and opportunities of the modern digital world of customer interaction, CI pros who do not update and broaden their approaches to digital analytics will continue to be plagued by:
› **Poor customer experiences.** Customers expect to be recognized across multiple sessions, channels, and devices. However, traditional analytics strategies curtail firms’ abilities to recognize and track customers across the multitude of digital channels available to them and to find insights that enable continuous optimization of the customer experience.

› **Irrelevant business reporting.** Today’s best-practice analytics programs must move from generating retrospective traffic-based reports to gathering actionable insights from digital data. Online gaming firms have begun to automate the use of analytics to maximize user responsiveness and provide relevant experiences. However, this is the exception rather than the norm; web analytics teams are stuck in the paradigm of generating generic, retrospective, traffic-based reports with limited relevance to the business.

› **Siloed customer insights.** To deliver comprehensive and actionable customer insights, firms must merge digital and offline channel data. Web analytics and customer data teams are attempting to work together, but their initiatives struggle to get off the ground due to a clash of approaches and cultures from: 1) data types — structured versus unstructured, known data versus anonymous; 2) skills — data scientist versus web geek; 3) analysis — advanced analytics versus “good enough” analytics; and 4) time-to-delivery — best possible reporting versus satisfactory instantaneous reporting.

› **Customer intelligence blind spots.** Customers are increasingly giving up information about themselves via existing and emerging digital touchpoints such as mobile apps, wearables, connected cars, and other new and exciting connected possessions. Many of these developing forms of digital customer interaction are occurring outside of the marketing and eCommerce remit and are more in the domain of others, such as product owners and support teams. Traditional web analytics approaches are mostly ignorant of the customers within these new digital touchpoints.

**Digital Intelligence Delivers Customer-Obsessed Experiences At Scale**

As the remit for digitally driven CI professionals evolves to accommodate a growing catalog of intertwined touchpoints, digital analytics must also evolve. To close the gap between traditional web analytics and comprehensive analytics for digital customer interactions, CI pros must update their approach (see Figure 1). Forrester calls this “digital intelligence,” defined as:

*The capture, management, and analysis of customer data and insights to deliver a holistic view of customers’ digital interactions for the purposes of continuously optimizing business decisions and customer experiences across the customer life cycle.*
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FIGURE 1 The Evolution Of Digital Intelligence

The golden age of web analytics

1993 to 1999
- Web server log analytics
  - The World Wide Web and the web browser emerge.
  - Firms understand the volume of activity on websites.
  - Website analysis is conducted, using data collected from web server logs.
  - The first commercial website analytics software is created.

2000 to 2006
- Web analytics
  - Mainstream acceptance of interactive channels such as search, email, and websites.
  - Firms understand aggregate website visitor activity, content usage, and traffic sources.
  - JavaScript is accepted as the web analytics data collection mechanism of choice.
  - The second generation of web analytics applications cements the market; Google launches Google Analytics, a free web analytics application.

2007 to 2010
- Digital analytics
  - Mainstream acceptance of social media channels.
  - Firms understand interactions across interactive channels and track the success of interactive marketing campaigns.
  - Data collection expands to incorporate social and interactive channels; vendors extend native data warehousing capabilities and partner integrations.
  - Enterprise technology vendors enter and consolidate the web analytics application market; site optimization application vendors proliferate.

2011 to present
- Digital optimization
  - Mainstream adoption of mobile channels.
  - Firms start to consolidate views of a customer across multiple digital and offline channels and can take direct, timely action on insights.
  - Data collection and analytics expand to incorporate mobile, social, applications, media, and the Internet of Things (IoT). Tag management and data syndication become standard.
  - Specialist vendors enter the market to address emerging media, customer data management, and IoT analytics.

Turn Digital Intelligence Into A Competitive Asset

To develop an approach to digital analytics that adequately covers the breadth of data, analysis techniques, and delivery of insights to support decision-making and optimized actions, CI pros must reimagine their expectations and requirements (see Figure 2). Digital intelligence is an evolutionary step beyond traditional digital analytics — making it a competitive asset if executed well. It comprises a range of capabilities that make the practice:

› **Customer-centric.** As customers and prospects seamlessly move across channels and devices at will, digital intelligence supports the analysis of customer interactions in concert, rather than with discrete channel views. In addition to visibility across all channels, analysis is highly granular to identify, track, and interact with individual visitors.
› **Enterprisewide and data-agnostic.** To conduct multichannel digital analysis, digital intelligence incorporates customer data management capabilities across a broad range of data types. This includes melding interaction and behavioral data across all digital and offline channels with customer data and business data such as financial and product information. This enriched data set must feed advanced analytics and annotation capabilities for power users, nontechnical users, and business stakeholders alike. To be effective, role-relevant analytics user interfaces must provide persona-appropriate self-service functionality.

› **Action-optimized.** Digital intelligence emphasizes the direct application of analytics to generate insights that help business stakeholders make decisions and take actions to improve the customer experience. Native functionality supports insights that drive optimization and personalization, such as data mining, test and learn, and targeting, to connect data and analytics to the delivery of content and promotions. It also provides the ability to export analytics data and insights directly to third-party optimization and marketing execution systems.

› **Timely.** The incredibly fast pace of digital interactions and campaigns mean that marketers put a premium on timely, high-speed analysis. Waiting days or weeks for reports and analyses incurs an unacceptable opportunity cost for failing to continuously optimize customer experiences. Digital intelligence delivers analysis in real time or on demand, at a pace that more nearly matches users’ decision-making schedules.

› **Tightly managed.** The capacity to manage large volumes of diverse digital data sources is a baseline requirement for digital intelligence. Digital intelligence offers access to a suite of management tools — including tag management, data syndication, centralized user and functional administration, data warehousing, and data processing — to facilitate the availability of high-quality data for analysis.
**Digital Intelligence Stands On Four Strategic Pillars**

Digital intelligence is not a superficial attempt to revise web analytics history. It provides a strategy for comprehensive analytics based on a cohesive approach that combines technologies, a broad set of stakeholders and users, and multiple outputs spanning reports, data integrations, and a focus on optimization and direct action. Delivering digital intelligence requires that firms reboot their measurement strategy to break away from historical biases. To understand the requirements, gaps, and benefits of digital intelligence, CI pros must revisit these strategic pillars:

- **The technical approach.** There’s no all-in-one product suite that delivers digital intelligence. CI pros must employ a combination of technologies to collect, process, store, analyze, and distribute digital insights. When considering technology in this environment — in which data and functionality integrations between tools are a given — solution packaging, data integration capabilities, and partner programs matter as much as native functionality and user experience.
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› **Functional ownership.** Digital intelligence must be deeply embedded in the business rather than an isolated function, raising important questions about functional ownership. Although business stakeholders, such as interactive marketing and eCommerce professionals, are the primary consumers and beneficiaries of digital intelligence, the practice remains highly technical and dependent on advanced analytics skill sets. Because of this, Forrester believes that there is no one “right” organizational model. Rather, a spectrum of models exists, with centralized or federated extremes.¹⁰

› **Metrics and key performance indicators (KPIs).** By providing substantially more raw data and links across data points, digital intelligence introduces the opportunity to reconsider the data sources, calculations, and interdependencies of metrics and KPIs. For example, even the classic website “bounce rate” metric warrants reconsideration in a digital intelligence context to determine how it could be redefined as a universal metric to track low-engagement visits across social media, websites, and applications. Marketers could then use it to trigger individual-level messaging to drive marketing actions.

› **Continuous optimization.** Conducting ongoing online testing is the only way to cut through the diversity and volume of digital customer interactions to determine which content, promotions, and interactions will optimize customer experiences and thus business outcomes.¹¹ CI professionals must cultivate a culture of continuous optimization and ensure that digital intelligence uses testing and targeting as key methods of making analytics actionable and embedded in all marketing activities.

Digital Intelligence Practices Are Gaining Momentum

While CI professionals are still struggling to find a place in the enterprise for digital customer data, they are exhibiting solid signs of holistic digital intelligence practices:

› **Technical approaches are expanding.** CI professionals are moving beyond web analytics and employing technologies focused on data collection, processing, and storage for digital insights. For example, tag management has evolved to become a key strategic tool for scaling the maturation of digital analytics practices.¹² Data from Forrester’s Q1 2014 Global Web Analytics Forrester Wave™ Customer Online Survey validated this trend: More than half of all respondents sought more than just standard web analytics capabilities. They now want advanced analytics tools to, for example, create and manage customer profiles and measure campaign attribution.¹³

› **Ownership structures are shifting.** CI organizations are varied, but all are designed to meet the parallel requirements of advanced, exploratory analytics and the delivery of accessible analytics to business stakeholders at the speed needed to keep up with today’s customers.¹⁴ CI pros must collaborate with marketers, eCommerce professionals, product managers, journey managers, business technology professionals, and other parts of the enterprise to communicate digital intelligence vision, strategy, road map, and value throughout the organization.

› **Measurements are pointing to business KPIs.** Mobile-centric businesses, eCommerce firms, and online gaming companies lead the way in measuring what’s important to their business’s interactions with customers. Rather than focus on discrete events, conversions, or transactions, these types of
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Firms are developing metrics and KPIs that provide a holistic view of customer activity and business value across the customer life cycle. For instance, Groupon drives revenue by matching millions of subscribers with merchant offers by measuring how customers interact with and use their service.\(^{15}\)

› **Optimization techniques are gaining traction.** The use of optimization approaches such as ad serving, behavior targeting, and recommendations is increasing, as is investment in related techniques like online testing.\(^{16}\) What’s more, investment in skills has reached a critical point; 60% of firms now employ dedicated optimization staff.\(^{17}\) These investment levels have now reached a point where firms are able to support the processes that continually optimize customer digital interactions wherever they occur.

**What It Means**

**Digital Intelligence Disrupts The Analytics Market**

Today’s digital intelligence changes the way CI professionals and the business gather, integrate, understand, and apply digital customer data. Digital intelligence also breaks down the traditional wall between analytics and the business. This modern analytics standard closes the gap between analysis, insights, and action to optimize digital customer interactions based on a more complete view of customer relationships, and delivers at the speed of interactions wherever they take place. The depth of data, organizational, and process integration required by digital intelligence offers opportunities to CI pros to serve all participants across the enterprise responsible for enhancing digital customer interactions. As the digital intelligence market matures, we will see:

› **Firms gaining a competitive edge from improved customer experiences.** Historically, the success of functions like marketing and eCommerce relied on scale, volume, and resources, but today it depends on an organization’s ability to deliver optimized customer experiences based on data and insights. CI pros and their firms — regardless of size — that develop digital intelligence practices will be in position to create sustainable competitive advantages within their markets. Why? Analytics practices will better understand customers and the context of their engagement and be more able to optimize customer interactions.

› **Battles between traditional and disruptive technology vendors.** Vendors that developed their offering starting from web analytics are in a prime position to lead the digital intelligence solution market. But that’s no guarantee of success, as a new category of technology provider could disrupt the market.\(^{18}\) Several categories are in the running. Mobile analytics firms like Apsalar and Localytics may win the day as customer app interactions continue to grab more digital traffic.\(^{19}\) Traditional tag management vendors such as Ensighten and Tealium have a chance as they add analytics capabilities to their sophisticated data layering capabilities.\(^{20}\) Other categories to consider: data management platforms from the likes of Adobe, Krux, and Neustar and big data predictive analytics platforms including those of IBM, SAP, and SAS.\(^{21}\)
New types of third-party digital analytics services taking hold. Advanced requirements and a lack of available packaged solutions create new opportunities for service providers as firms seek out tactical and strategic support to implement and scale digital intelligence. A range of service providers are expanding their traditional footprint to operate in the digital intelligence market. Digital marketing agencies are an obvious beneficiary, but providers like Accenture and Deloitte will also gain traction, either by specializing in an area like analytics consulting or having large teams to implement digital intelligence across the enterprise.²²

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Supplemental Material
Survey Methodology
Forrester fielded its Q1 2014 Global Web Analytics Forrester Wave™ Customer Online Survey to 54 individuals who were current clients of the vendors included in our Forrester Wave evaluation. Each vendor was asked to supply a minimum of 10 customers, but not all vendors hit the threshold. For quality assurance, all respondents were required to provide contact information and answer basic questions about their firms’ revenues and budgets. Forrester fielded the survey in January and February 2014. Respondent incentives included a copy of the published research.
Exact sample sizes are provided in this report on a question-by-question basis. Panels are not guaranteed to be representative of the population. Unless otherwise noted, statistical data is intended to be used for descriptive and not inferential purposes.

Endnotes

1 To compete in the age of the customer, firms should aggressively pursue customer obsession in the shape of four strategic imperatives: embrace the mobile mind shift, accelerate their digital business, turn customer data into insights, and transform their customer experiences. See the “Winning In The Age Of The Customer” Forrester report.

2 Digital marketing spending is expected to top $77 billion in the US in 2016, with continued double-digit growth forecast in each of the following three years. See the “US Digital Marketing Forecast, 2014 To 2019” Forrester report.

3 Forrester estimated that eCommerce in the US, after maintaining double-digit growth in the past few years, reached $335 billion in 2015 (a rise of 16% over 2014) to take a 10% share of overall retail sales. We project that US mobile commerce will more than double in dollar terms between 2015 and 2020 and represent a double-digit share of overall eCommerce. See the “Forrester Research Online Retail Forecast, 2015 To 2020 (US)” Forrester report and see the “Forrester Research Mobile And Tablet Commerce Forecast, 2015 To 2020 (US)” Forrester report.

4 BlueConic (a customer data platform vendor) published a case study of its relationship with its customer AFC Ajax. Source: BlueConic (https://www.blueconic.com/resources/case-study-ajax-gains-loyal-fans-profit/).

5 CI pros must apply digital analytics and optimization techniques to repeatedly learn from every customer interaction with the aim of continually improving the treatment delivered in future interactions and ultimately optimize the digital channels. See the “Transform Customer Experience With Continuous Optimization” Forrester report.

6 Campaigns and customer digital channels are built without full consideration of customer recognition, hobbling the ability to persist conversations across channels and over time. A customer recognition framework can maximize opportunities to recognize customers as they move across channels. These can then guide campaign and channel road maps as well as customer interactions. See the “Customer Recognition: The CI Keystone” Forrester report.

7 Firms struggle to break free of legacy analytics approaches that weren’t designed to handle the complexity of today’s multichannel interactions, exploding data volumes, and challenges in fostering direct connections between analytics and action. CI professionals should look to the gaming industry as a model of digital intelligence and utilize a road map to guide a holistic implementation strategy. See the “Sharpen Your Competitive Edge With A Digital Intelligence Strategic Plan” Forrester report.

8 During Forrester’s research into 2014 web analytics practices and 2015 continuous optimization practices, we found that most firms that had a web analytics practice did not have a mobile analytics practice, despite the fact that most of them had mobile websites and/or apps that they were using to engage with their customers. See the “Gauging Web Analytics Practices In The Age Of The Customer” Forrester report and see the “Transform Customer Experience With Continuous Optimization” Forrester report.

9 You need multiple components to build a complete digital intelligence suite, including those for data management and collection, analytics, and optimized customer interactions. No single technology currently provides all these components. See the “Decipher The Digital Intelligence Technology Code” Forrester report.

10 No ideal digital analytics ownership model exists. Firms should consider different approaches, understanding the balance of benefits and compromises each brings. See the “Compete With A Digital Intelligence Organization” Forrester report.

11 Continuous optimization is a process driven by data, analytics, and insights that seeks to repeatedly learn from every customer interaction with the aim of continually improving the experience delivered within and across future interactions. See the “Transform Customer Experience With Continuous Optimization” Forrester report.
The value of modern tag management practices value now extends way beyond foundational technical and operational benefits of managing tags to boosting customer data quality, insights, and actions across channels. See the “Boost Digital Intelligence With Tag Management” Forrester report.

We surveyed 54 web analytics customers of leading web analytics vendors about their web analytics practices. The survey results showed that the capabilities of analytics tools can now support multichannel analytics, democratize insights across multiple stakeholders and businesses, and apply them at a speed that that could keep up with the customer. See the “Gauging Web Analytics Practices In The Age Of The Customer” Forrester report.

A large US financial services conglomerate has a team of analysts dedicated to lead generation through offsite digital media buying, while a global travel and leisure firm’s digital on-site optimization team focuses on real-time customized offers to convert browsers into guests. Both models accomplish their mission to first drive traffic and then drive revenue. See the “Compete With A Digital Intelligence Organization” Forrester report.

A major part of Groupon’s business strategy is engaging consumers in their mobile moments. It uses mobile analytics to deliver highly optimized moments within which it matches the right coupon to the right customer at the right time. See the “Case Study: Groupon Differentiates On Mobile Analytics Expertise” Forrester report.

Forrester surveyed 123 firms currently using online testing tools. When we asked firms how they expected their budgets to change in 2016, 44% of respondents said their budgets were increasing; a further 53% said their budgets would hold steady. Source: Forrester’s Q3 2015 Global Online Testing Platform Customer Online Survey.

Forrester surveyed 123 firms currently using online testing tools. When we asked firms how they are staffing online testing programs, 33% said they were staffed by multiple full-time resources; 14% said it was a single full-time resource; 13% said it was a combination of part-time and full-time resources. See the “Optimize Customer Experiences With Online Testing And Continuous Optimization” Forrester report.

Leading web analytics vendor platforms are extending web analytics capabilities outside of their traditional scope to deliver analytics to other types of digital touchpoints such as mobile apps and social platforms. They are now able to track customers as they interact across different channels. See the “The Forrester Wave™: Web Analytics, Q2 2014” Forrester report.

For an overview of the mobile analytics vendor landscape, see the “Forrester’s Shopping Guide To Mobile Analytics Vendors” Forrester report.

CI professionals can use leading tag management tools from the likes of Ensighten and Tealium to boost their digital analytics practices as they enable flexible, safe customer data management and scalable digital analytics and optimization. See the “Boost Digital Intelligence With Tag Management” Forrester report.

Forrester reviewed and compared the leading data management platforms and the leading big data predictive analytics solutions in two Forrester Wave evaluations. See the “The Forrester Wave™: Data Management Platforms, Q4 2015” Forrester report and see the “The Forrester Wave™: Big Data Predictive Analytics Solutions, Q2 2015” Forrester report.

Third-party service providers offer CI professionals expertise, processes, and flexibility across a wide variety of web intelligence services. The seven primary categories of web intelligence service providers are: analytics agencies, business process outsourcers, customer engagement agencies, digital agencies, enterprise service providers, management and strategy consultants, and marketing service providers. See the “The New CI Services Lens” Forrester report.
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