

Thinking Small: Bringing the Power of Big Data to the Masses

By Allen Bonde

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Executive Summary

Large organizations love the idea of big data, yet many companies lack a clear vision for rolling out big data analytics in practical, measured steps. At the same time, most employees have seen what big data can achieve through their interactions with consumer brands and services such as Amazon, Nike, and Pandora as well as through their exposure to social networking and BYOD (bring your own device). Yet many organizations aren't equipping their employees to harness this power in their everyday work. The *small data* philosophy aims to address these challenges and re-envision the “last mile” of big data via consumer-style, more responsive, more social and collaborative tools and apps that truly turn insight into action for business users, marketers, and customers.

How are organizations thinking about this opportunity? Digital Clarity Group set out to answer this question with original research designed to explore industry perspectives, provoke discussion, and provide practical insights. This research included more than a dozen interviews examining business objectives and roles, along with how users want to analyze or consume data. It also comprises insights from DCG's ongoing market coverage as well as reviews of influential literature and related studies in this space. From this work, several business use cases emerged – each with a consumer analogue – as starting points for decision makers, vendors, and service providers. Coupled with a historical perspective on the evolution of web-era big data and analytics, these use cases provide a foundation for understanding how to bring the power of big data to the masses.

Starting with a look at the business rationale for “thinking small” (improved access to insights, better user experiences, and greater productivity), the report expands on the first principles of small data (be simple, smart, responsive, and social)¹ to define a playbook for creating small data applications. It will also examine the building blocks for distilling big data into small data as part of DCG's “small data manifesto.” Finally, this report will discuss how marketers should think about applying small data assets – and how service providers and vendors can seize these new opportunities – followed by a case study that illustrates the power of practical, rich analytics in digital marketing environments.

A Quick History – Moving Beyond the Hype of Big Data

Everyone seems to be talking about big data. From feature stories in popular media such as *Time* magazine to breathless predictions from *Fortune* that big data could generate millions of new jobs, there's a lot of steam coming out of the big data hype machine.² Want to uncover hidden patterns about customer behavior, predict the next fashion trend, or see where to focus ad spend? There's an app for that. Which is why it shouldn't be a surprise that last year Deloitte Consulting predicted more than 90 percent of the Fortune 500 would have some big data initiatives underway by the end of 2012.³

Yet despite significant investment in big data technologies and services – with spending expected to reach \$10 billion in 2013, according to IDC – many organizations continue to struggle to turn their big data vision into practical insights and tools for everyday workers.⁴ Moreover, some experts are starting to wonder if and when the economic payoff for big data will come.⁵ As one healthcare services executive put it in an interview, “People are getting infatuated with the shiny object of big data, yet it needs to have a purpose.”

The purpose of big data may in fact be its potential to revolutionize the way businesses interact with customers, transform how customers access and consume (and even wear) useful data, and ultimately


redefine the relationship between buyers and sellers. As one analyst for an online trading firm stated in an interview, “We need to get to a single view of the customer.” There's an emerging roadmap for how this is *already* happening at a local level.

It starts with marketing . . .

Gartner has projected that the CMO will spend more on IT than the CIO by 2017 – a forecast certainly influenced by increased spending on digital marketing tools and technology, such as predictive analytics, next-generation reporting, and web content management (WCM) systems.⁶ While the notion of the CMO's organization getting the majority of technology budgets may seem wishful, there's no doubt that marketing professionals in many ways are in the driver's seat when it comes to consuming and shaping the future of big – and small – data.

More than any other group, marketing organizations have been on the front lines of web and social innovation, and they have seen the potential of database marketing, social listening, and even data-driven mobile applications. Second, among the many marketers we have talked to, the majority of them are clamoring for new approaches to harnessing the power

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of data and turning it into practical tools, apps, and campaigns for customers and those who serve them.

For these reasons, while not exclusively focused on marketing, this study nevertheless considers the small data opportunity through a marketing lens with use cases particularly relevant to marketing and e-commerce teams and their audiences.

...and a focus on the RIGHT data

While big data (especially predictive analytics) has great potential, it must be actionable and accessible beyond the small number of “experts” that have access (and the aptitude to use) to high-end tools in order to deliver value. Plus, to serve the broadest set of business objectives and users, the goal isn’t just to accumulate *more* data assets. Rather, it’s about collecting what data is already available, discovering its meaning in the context of the task at hand, and delivering the right data in the right format to the broadest set of users.⁷

This is the essence of the small data philosophy – where apps and tools are simple enough for people who aren’t data scientists to get just the information they need, precise enough to deliver insights and answers where users need them, and easy enough for users to add new insights and even share them with peers.

While the term “small data” can also apply to the size of data sets or the amount of data that can be conveniently stored by an average user, our definition focuses on both the type and use of data assets to create value for non-technical users.⁸

Small data connects people with timely, meaningful insights (derived from big data and/or “local” sources), organized and packaged – often visually – to be accessible, understandable, and actionable for everyday tasks.

This definition applies to end-user apps as well as the analyst workbenches and tools for turning big data sets into actionable small data – a key priority for business and IT executives, the majority of whom struggle to convert their volumes of data into actionable intelligence.⁹ As one marketing analyst for a tech firm stated, “We have to make data digestible by everybody!”

So, what is the *right* data to look for upstream, from apps and tools? At the risk of oversimplifying the world of data management, Digital Clarity Group separates customer-related data into three main groups:

- **Transactional data** – the “classic sources,” typically the domain of data warehousing, customer relationship management (CRM) reporting, and large-scale analytics. It consists of mostly “inside” data. The ability to *create rich applications, dashboards, and reports to bring this type of data to life – and make it more consumable and actionable by more users – is a core element for delivering value in the last mile of big data.*
- **Online data** – the “digital sources,” delivered as web reports, user profiles, or predictive models. This group consists of mostly “outside” data.

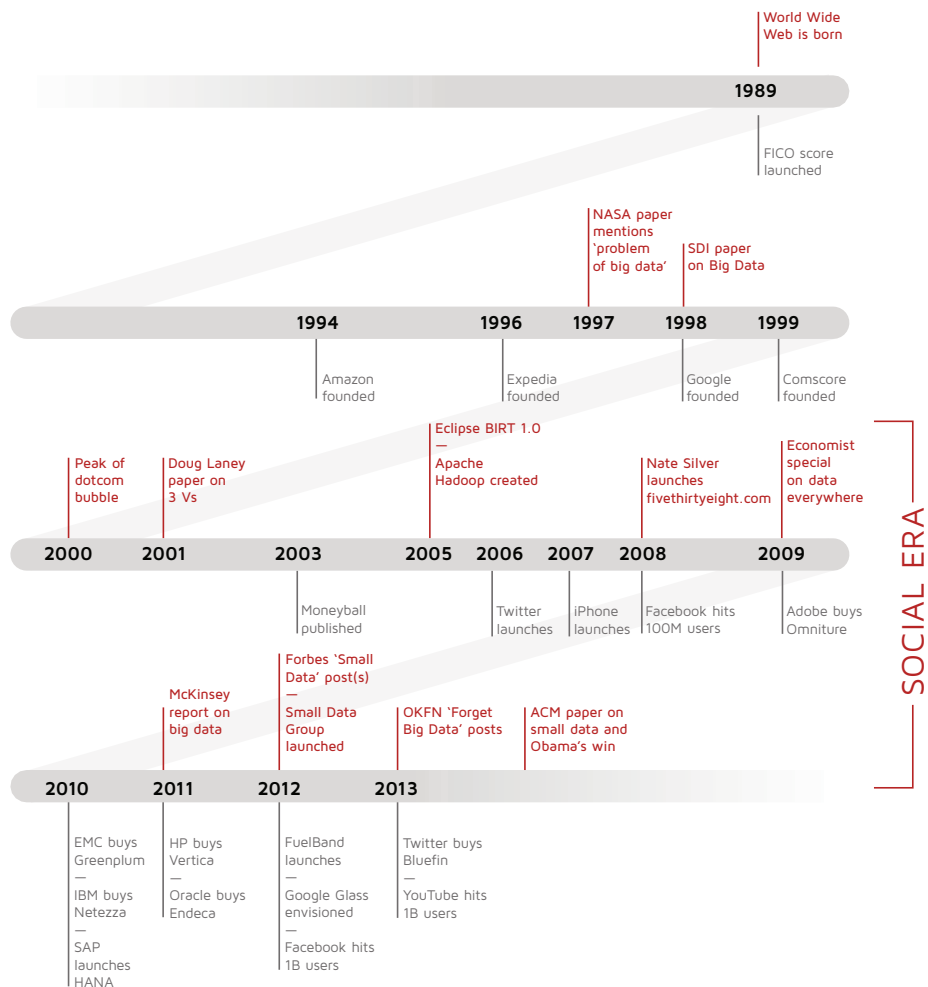
Web adoption has created massive volumes of customer preference, behavior, and user-generated product data that complement transaction data.


- **Social and mobile data** – the “new sources,” gathered from monitoring and listening tools, and processed via text and sentiment analysis. Social data can be both “inside” and “outside”

data, but it tends to be uniquely conversational in nature, as opposed to behavioral or transactional data. Social channels are rich with “local” small data that is ready to be collected to inform marketing and buyer decisions. It can also add context to transactional records as well as amplify digital campaigns via word of mouth and social sharing.

Figure 1

A Brief History of Web-Era Big Data, Analytics and Small Data





Of course, these three categories also represent “generations” of data and data processing, as illustrated in Figure 1 that highlights key developments, deals, and publications related to big data, analytics, and small data since the invention of the World Wide Web. Against this backdrop, it should be easy to see why it’s time to re-envision the “last mile” of big data. Not only are there many new data sources, formats, and delivery channels in play, but there are also increasingly savvy customers and support teams who need tools tailored to *their* needs.

This is where small data comes in. Taking a user-centric view means shifting focus beyond the three Vs (volume, velocity, and variety) of big data, and adding a new V – the elements that create value for the end-user.¹⁰ Even more so, if big data has been largely about machines and processing power, small data is about people, context and individual requirements. This means empowering users with visual elements and engaging experiences. It also means employing intuitive listening tools and campaign platforms.


On the delivery side, marketing organizations need to make their big ideas digestible and tap all sources of

data – including ready-made small data from customer profiles, reviews, or surveys – to better understand their audience and turn these insights into better service, offers, and products. The allure of a single view of the customer is strong and from recent discussions, is more attainable than most would think.

At the corporate and leadership level, there are significant opportunities to question the conventional wisdom about big data, to look at the possibilities when data ownership is more balanced across IT and lines of business, and to support a new generation of “digital natives” as both customers and employees. Specifically, there are a few themes that are likely to be part of boardroom discussions when it comes to the next wave of analytics and big data:

- What is IT’s new role? Will it be an innovator or gatekeeper and barrier to change? As data and content become the new currencies, a fresh look at big data can help to rebalance the relationships between technology, marketing, sales, and line of business.

“ Even more so, if big data has been largely about machines and processing power, small data is about people, context and individual requirements. ”

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- How can the business bring existing data assets to life and give users tools they actually want to use? A renewed focus on delivery and user experience, along with creation of smart, rich applications and tools, can boost adoption at all levels of the organization.
 - Where does big data fit with other social business, e-commerce, or customer experience management initiatives? Analytics is a key enabler across all of these business applications. Creating a mindset that isolates these capabilities, versus building them into every design, will create more barriers than insights.

Building on these perspectives, this report will look at how organizations are putting this theory into practice, examine common themes, and build out starter use cases.

Emerging Use Cases – Building Blocks for Data in Action

As part of this study, DCG interviewed more than a dozen social media, analytics, and big data planners, practitioners, strategists, and consultants to get their perspectives on how to bring the value of big data to the masses, the tools and approaches they are using, and how they see the demand for consumer-style apps within their organization and client base.

Overall, several themes emerged. First, most agreed that deriving value from big data starts with a discussion of the objective. That is, what is the team trying to accomplish? How will data support that goal? Second, a majority concurred that making analytics accessible and actionable are key drivers for adoption. In other words, how do end users want to access or consume data? What *action* will they take based on their new understanding?

Beyond these questions, some consistent requirements and comments emerged:

- The demand and desire to produce more accessible data and new data-driven apps that are more timely, personal, trusted, and easy to use
- The need for tools that integrate data from all channels – web, campaigns (like email), internal applications (like CRM), and social

networks – to have a more complete picture of the customer and better personalize interactions with them

- The importance of visual, accessible tools like dashboards and reports to support management and help them see the value of analytics and big data investments
- The emergence of *collaborative business intelligence*, data management, and analytics tools for analysts and their peers
- The potential of predictive analytics and next-generation personalization
- The imperative to be mobile-ready
- The need to chunk down the problem – as one technology executive put it, “Everyone is jumping on big data, but we need to do it in small steps.”

Several conversations brought up the idea of “immediacy” – a key foundation of DCG’s framework for identifying small data use cases. There are two dimensions to consider with respect to immediacy or timeliness of information delivery and access. First, is the organization in planning mode, or does it need

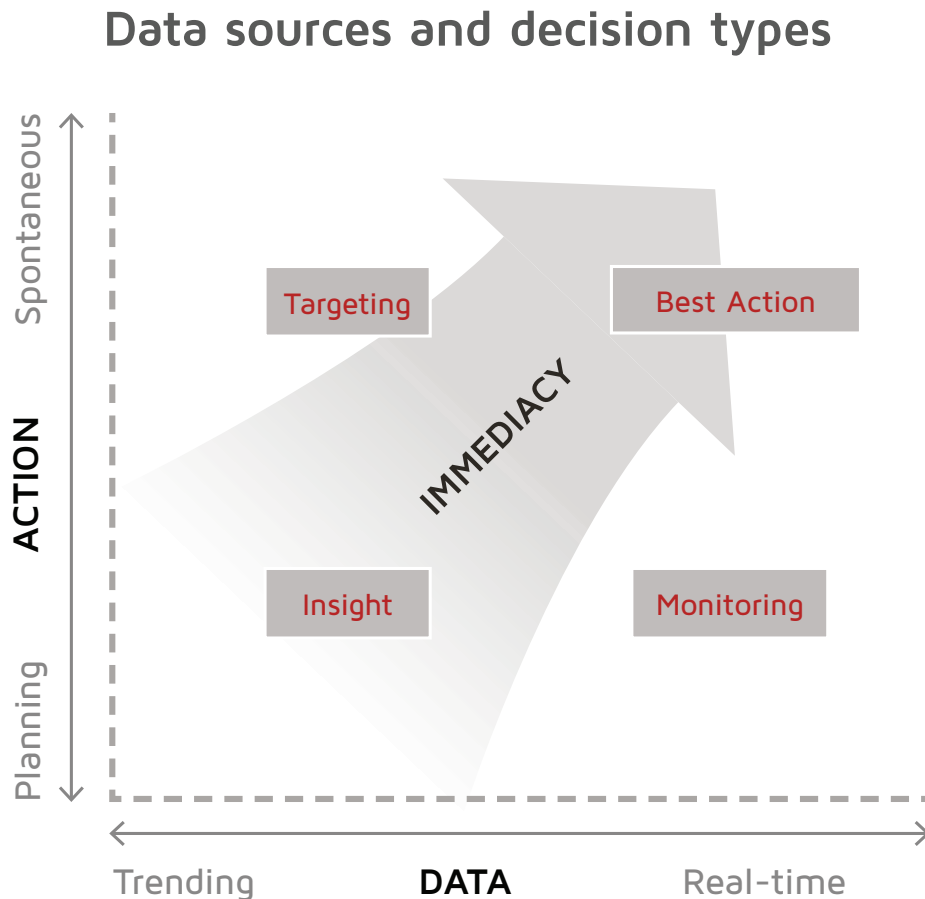
“ As one technology executive put it, ‘Everyone is jumping on big data, but we need to do it in small steps.’ ”

to take immediate action? Second, are its decisions mostly influenced by historical and trending data, or is real-time data necessary (like in financial trading) to reach a timely conclusion or to complete certain tasks?

These two dimensions (trending versus real-time data, and planning versus spontaneous action) along with the first principles of small data, provide the building blocks for defining and validating four areas where big data insights can truly serve the masses of non-technical users. In fact, these insights are already creating real value for business users, marketers, and their customers in forward-looking organizations today.

In a way, these areas are also important beachhead applications that illustrate the power of analytics in action and support social business goals, such as improved awareness, productivity, or innovation.¹¹ They also foreshadow additional use cases in areas like sales, field service, product engineering, and even operations. For each use case, this report will look at the key tools and techniques behind the scenes, as well as how they relate to being simple, smart, responsive, and social. It will also highlight one or more consumer analogues.

Figure 2



Use cases

Market insight (trending data, planning use) – to support such tasks as competitive intelligence, product planning, influencer outreach, and large-scale campaigns like trade-show marketing. Tools include rich applications and visual reports (to make it “simple” for non-technical users to explore data); multi-source data fusion and natural language processing or text analysis (to make it “smart”); and forums, hangouts, and sharing capabilities to facilitate group decision-making and discovery of collective insights (making it “social”). In a number of ways, this use case is a mash-up of social media analytics and reporting tailored for specific end users, since many organizations today turn to social channels as their primary data source for market intelligence and customer feedback or sentiment. Also note that mobile delivery is less important in this first use case.


Campaign and content targeting (trending data, immediate action) – to support such tasks as media buying, public relations and crisis communications, online merchandising, and smaller-scale, more frequent campaigns like social or email marketing. Tools include interactive reports, charts, and alerts (“simple”); listening and monitoring, predictive analytics, and business rules to spot trends and

drive real-time insights and decisions (“smart”); and social sharing to promote insights/offers and gather immediate feedback (“social”). In the consumer world, Kayak’s price-driven “When to Book” tool is an excellent example of a small data approach that uses special-purpose trending data presented via helpful, simple charts to help customers decide between booking their travel now or waiting for prices to fall.¹²

Performance monitoring and analytics (real-time data, planning use) – to support such tasks as web content optimization, social profile management, and overall customer experience design. Tools include alerts and dashboards (“simple”); web analytics and social listening (“smart”); mobile analytics and tracking (“responsive”); and forums, hangouts, and sharing capabilities to facilitate group decision-making and discovery of collective insights (“social”). In the consumer world, a good analogue for envisioning how real-time data can come together with planning tools in a simple, mobile package are ESPN’s Fantasy Football app¹³ and other fantasy sports apps.

Best action or offer optimization (real-time data, immediate action) – to support such tasks as target account selling, daily deals on e-commerce sites, and proactive customer service. Tools include recommendation engines (“simple”); transactional or behavioral data fusion (“smart”); mobile apps for

“ In all cases, there is also a social component, either around listening and data acquisition or social sharing. ”



delivering offers (“responsive”); and social sharing to promote insights or offers and gather immediate feedback (“social”). In the consumer world, a good example of optimized offers using real-time inventory data and collected profile information are online retailer Gilt City’s personalized flash sales and offers.¹⁴ Also, the “Signals” notification tool from HubSpot uses real-time data from social profile changes, email opens, and web interactions to generate alerts that drive sales insight and productivity – a great new example of small data in action.¹⁵

These examples illustrate the potential of combining insights gathered across multiple data sources with clever packaging and a unique value proposition for specific user segments. In all cases, there is also a social component, either around listening and data acquisition or social sharing. Bringing these types of apps and approaches to life within modern business environments – at scale – is the critical jumping-off point for bringing the power of big data to the masses. Ultimately, however, building a business case requires a deeper dive into the pillars of small data and where it will have an effect. That’s the focus of the next section of this report.

The Small Data Manifesto – Foundations and Benefits of “Thinking Small”

For most companies, there’s already been significant investment in data warehousing, business intelligence, and the like. Although investments in back-end infrastructure and data processing are necessary, they are not sufficient to deliver *value* to all end users. This back-end has to be connected to integrated workbenches for analyst teams with the latest modeling, targeting, and social interaction tools, as well as consumer-style, visual apps and tools that empower end users to help themselves.

The business rationale for this approach is clear:

Cost and control. Doing big data at scale and waiting for trickle-down benefits can take a lot of time and money (assuming the organization even *needs* big data). Big data has too often been defined by the size of data sets, processors, or storage, as opposed to the business goals or benefits. In a way, it’s the ultimate example of the centralized approach to information processing, a point argued by the Open Knowledge Foundation in some of its recent work.¹⁶ Additionally, one can argue that the IT department wants big data because it perpetuates a centralized model with big servers, big processes, and big budgets. *Small data can help to break this cycle.*

Consumerization. The introduction of consumer-style products and experiences into the enterprise – and the related “consumerization of IT” – is well underway, and coupled with massive social and mobile adoption and even wearable computing, requires a new design approach for business apps and services. Consumer products from companies such as Amazon, Foursquare, and Nike show the potential benefits of


delivering specific data in context and on any device. These types of consumer sites and apps show highly targeted, easy-to-consume information in action, and they are a valuable roadmap for next-generation business apps.¹⁷ In other words, *small data can transform the user experience.*

Collective insight. A better user experience (for analysts and data consumers) drives adoption, lowers learning curves, and boosts responsiveness. Consumers and businesses both benefit when marketers can blend perspectives and deliver insight in easy-to-consume formats more quickly. Savvy marketers with access to visual data on their audience, segment, or location can spot trends faster, and make decisions, such as when to run their campaigns and where to target them to get ahead of the competition. An analyst with access to all data sources and the ability to easily visualize, share, and validate insights delivers superior reports and packaged insights. *Small data can boost productivity and innovation.*

Foundations

Beyond characterizing small data as the last mile of big data, our first principles can be expanded to define a “playbook” for creating small data applications. Each aspect attempts to translate the most common user requirements into simple guidelines and examples that draw from and represent best practices among progressive social, mobile, and open-thinking enterprises.

Here are DCG’s expanded first principles for a small data approach:

- 
1. **Make it simple.** As Leonardo da Vinci famously observed, *simplicity is the ultimate sophistication*. A small data approach should be as visual, intuitive, and single-purpose as possible. In the world of consumer products, think about Apple, Dyson, or Swatch. In terms of output, “simple” means providing no more than three search results above the fold, presenting a featured recommendation at just the right point in the buying cycle, or delivering a proactive text alert to notify customers that their order is ready. Additionally, tell the story with pictures, charts, and infographics, versus numbers.
 2. **Make it smart.** Does this approach deliver useful or unique insights? Small data apps should be the “go-to” source. “Smart” means using predictive analytics, proactive service, and contextual understanding. Tell customers just what they need to know and in the fewest steps. On the tools side, use structured (rule-based) and unstructured (search-based) tools and insights from online and offline channels. And make sure results delivered to end users are trusted and repeatable. As one CIO who was interviewed put it, “To be actionable, you need to have confidence in the data.”
 3. **Be responsive.** Deliver insights and answers where customers are and where employees want to work. A small data approach is portable, localized, and mobile-ready. In the consumer world, think Google Glass or the Nike FuelBand.¹⁸ As the form factor of computing evolves and innovations such as wearable devices come online, small data applications are likely to be the first killer apps. In some ways, they already are.
 4. **Be social.** Small data is social by nature. Some of it is directly sourced from social interactions and “breadcrumbs,” while tools for creating apps and insights need to foster sharing (collective insight). In terms of delivery, all apps, insights, and content need to be “in the language” of relevant social networks and wired up for collecting feedback. Engineering data-driven apps for social sharing immediately helps to amplify an audience and create new inputs for further analysis.
- In practice, data and business architects, analysts, designers, marketers, and even domain experts will come together to construct the last mile of big data and deliver compelling apps and services. The small data approach orients the discussion to the end state,

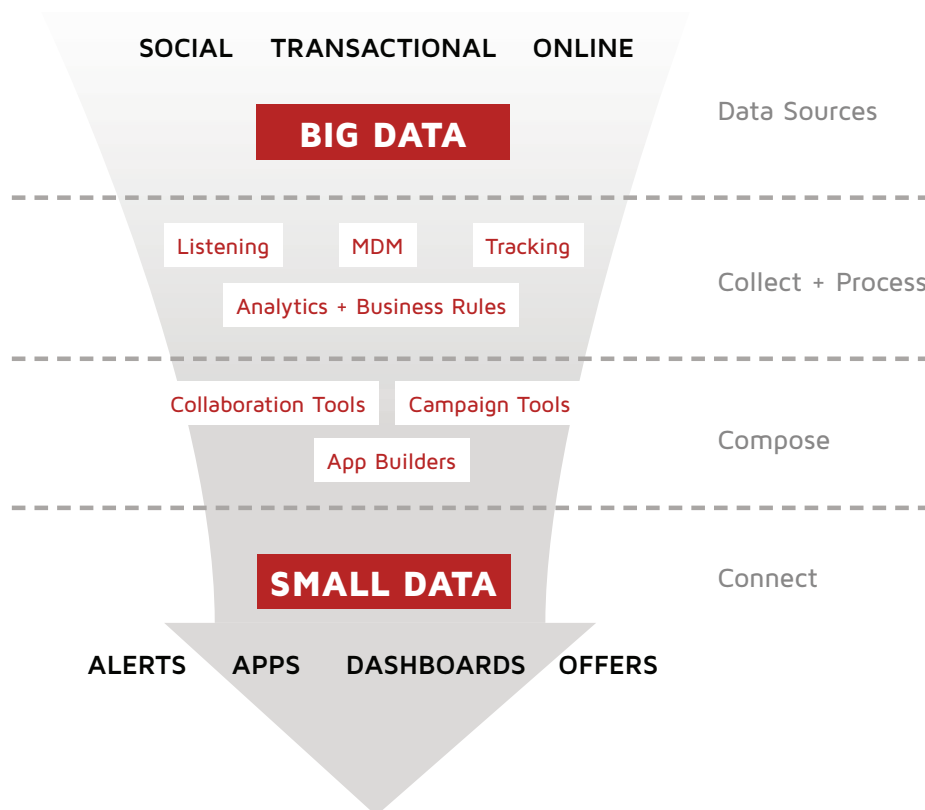
“ As one CIO who was interviewed put it, ‘To be actionable, you need to have confidence in the data.’ ”

but it does not negate the importance of the activities upstream. In a way, one can think of the production process for creating small data solutions as a funnel – with big data at the top, data “building blocks” (both big and small) in the middle, and small data at the bottom. In the middle are analytics workbenches and tools and even automated processes for *collecting*, organizing, and processing data; *composing* and sharing insights (by analysts and even potentially new roles, such as the “*Manager of Meaning*,” DCG analyst Robert Rose has proposed); and ultimately packaging up and connecting these insights to specific users and their devices.¹⁹

Of course, this journey will start with a number of small steps. The next section of this report discusses how marketers can start this journey by applying a small data approach to their daily campaigns and customer experience (CX) design, and by gathering data assets and insights to boost productivity and gain greater market insight. This report will also look at how marketing leadership, service providers, and vendors can seize these new opportunities by exploring the latest rich application builders, social listening tools, web content management systems, and integrated marketing platforms.

Figure 3

Data funnel — turning insight into action



Getting Started – For Marketers, Vendors, and Service Providers

With the above foundations and use cases as guides, the next step is to pick a beachhead opportunity to start putting a small data approach into action. Naturally, this process starts with a well-defined objective, strategy, and action plan. So, what might that objective be? Perhaps it's driving greater market insights into the organization. This was the case with a global pharmaceutical firm DCG interviewed that is using social listening and creation of briefs to help with market research and spark innovation. In this case, product development and innovation was the driver, and actionable insights – available to more people – drove the company's organizational "IQ."


Or perhaps the objective is to build a more agile and responsive online marketing team. This was the case with a global technology provider DCG examined that is using real-time insight to adjust featured items in its online store and create real-time offers, thereby streamlining the path to purchase. In both of these examples, insight drives action (by internal teams and end customers), and the *right data* is applied at the right step of a learning or decision process.

Tips for marketers

The careful application of small data to drive behavior is the shortest route to a return on investment (ROI). This is especially true in digital marketing, where marketers can create and measure responses to campaigns and offers in near real-time. In fact, marketers have a unique opportunity to apply small data assets to reach and engage with customers, as well as help them get to the end of the buying (or service) process, if they consider the following strategy:²⁰

First, **consider how we can inform** (that is, help or educate) our audience with the right data. Buyers pay attention when brands say something useful or unique, and reach them when they are thinking about what the brand is saying. This requires harnessing the power of storytelling and rich media, and also what we know about our market from *transactional* small data (purchase history, what's in stock) to tailor campaigns and shorten the path to checkout.

“ Marketers have a unique opportunity to apply small data assets to reach and engage with customers ”



Second, **look at ways to connect buyers with the brand** (and with each other) via insights and tailored experiences. *Web tracking and social listening* are rich with small data and can be incredibly valuable for finding and engaging these connections. Social comments, reviews, and testimonials can be powerful tools for amplifying the message, validating decisions, and getting customers ready to buy.

Third, **focus on how we can motivate our audience**. As marketers, our goal is to drive action. No action, no ROI. And no ROI means no budget for marketing. The right data in the form of a recommendation or a targeted offer or message can boost conversions and drive hard ROI. Being a good motivator also means anticipating what an audience needs via predictive analytics and being tuned into where they are by *drawing on environmental small data like location and device information*.

Behind the scenes of these customer-facing activities, marketing leaders should also be considering how to better share information, collaborate, and combine data from new sources to create deeper customer insights and experiences across all channels. It's also important to look at what new skills and roles (like DCG's *Manager of Meaning*) may be necessary to better understand the data, analyze it, and know the right questions to ask. This is especially true at the *middle* of our data funnel, where the bridge between big and small data can be significant.

The potential ability to drive smarter decisions and more responsive campaigns with rich applications, dashboards, and predictive analytics – and boost

productivity via socially enabled marketing workbenches – can be accelerated if we “think globally, but act locally.”

Opportunities for vendors and service providers

As DCG recently explored in our study of North American digital service providers, there is a tremendous opportunity in helping organizations make the transition from WCM to customer experience management.²¹ There's a similar opportunity in building on the large-scale investments organizations have made in big data and helping to turn these insights into action in simple, smart, and responsive ways.

Strategists, service providers, and vendors should adopt the following strategies:

- Look for ways to integrate multiple data, analytics, and digital content capabilities, and simplify the creation, delivery, and consumption process.
- Invest in personalized analytics and insights application building tools like those from Actuate, and social listening (like Visible's tools) as core building-blocks, and align with providers that have these capabilities tuned for growing self-service and mobile audiences.
- Leverage web content management and campaign tools to deliver small data offers in context to online, mobile and social users.

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- Explore the latest integrated marketing solutions that support small data principles and advanced analytics, and integrate with core business processes. There are a number of top offerings that bring all of these capabilities under one umbrella. Smaller and mid-size businesses may be interested in solutions such as HubSpot, while enterprise marketing teams may consider products such as Adobe Marketing Cloud.

As organizations retool their marketing capabilities to take full advantage of big (and small) data, there will be significant opportunities for vendors and service providers to provide tools, frameworks, and specialized consulting services to assist marketers and other employees who lack the right data experience but still want to put their *big and small* plans into action.

Case Study: Lenovo Global Business Intelligence Team

A global leader in personal computing, Lenovo leads PC manufacturers worldwide in unit shipments and has a heralded track record for innovation in its industry. Recently, the company started building a Global Business Intelligence (GBI) team around marketing, to match the innovation achieved by its product development teams. Using the Adobe Marketing Cloud solution, GBI is able to mine through terabytes of data in real time and generate actionable steps, such as improved insight into sales cycles across multiple channels, and optimized placement of online offers to boost sales and enhance customer satisfaction.

The Lenovo GBI team focused on starting small in its efforts to turn insights into action, and it set up several tactical proof-of-concepts to demonstrate to business areas the power of website optimization to make a meaningful impact on revenue and engagement. For example, Lenovo ran tests on the placement of the company's PC finder tool, which allows website visitors to configure the PC they are interested in ordering. By testing various placements and moving the tool from a dropdown menu to the right-hand margin, the team saw a 495% lift in clickthroughs.


When stakeholders wanted to know whether it was worthwhile to feature a "free shipping" message more prominently throughout the site, the Adobe Analytics and Target solutions (part of Marketing Cloud) provided a way to find an answer in the online data. The results: a 17% lift in conversion rates when the free shipping message was placed in the masthead throughout the customer's journey, and an additional 26% jump in revenue per customer when that message

was added in the shopping cart along with the masthead.

With these early successes, Lenovo consolidated its online marketing testing within the GBI and has started to align its program with larger analytical objectives. Working with Adobe's technical and marketing consultants, the team created a formal blueprint to scale its efforts and bring the power of big data to more users. The Adobe Analytics solution also provides the data quality essential to going from simple reporting to complex data modeling, with engagement models and a visitor index score.

Making better predictions about purchase behavior has been a key focus as well. Using data from the Adobe Analytics and Adobe Target solutions, the team built its own segmentation scoring model that calculates in real-time the likelihood that a web visitor will make a purchase, and it stores the resulting score with cookies. Adobe Target reads the cookie to deliver personalized content that is likely to be relevant and persuasive to that site visitor. Going forward, Lenovo aims to enhance this segmentation model using the Adobe Media Optimizer solution to incorporate data from third parties and deliver more personalized, interactive experiences.

Ultimately, understanding the multichannel customer journey was key to Lenovo optimizing the experience and subsequent conversion rates. For example, the GBI team was able to analyze data from six sources – web, post-purchase survey, CRM, call center, email, and live chat – using Adobe Analytics to identify customer satisfaction issues, and the team is looking



at the profitability of social channels as well. With a more complete picture of online and offline activities, coupled with tools that fit the way the team works, the digital marketing team has increased its ability to do multichannel analysis and has achieved a twelvefold return on investment within six months.

Study Sponsors

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As people spend more time and money across web, mobile and social channels, CMOs, marketers, advertisers and publishers are forced to rethink how they engage and compete for customers in the digital world. The Adobe Marketing Cloud provides a set of solutions across analytics, social, advertising, targeting and experience management, as well as a real-time dashboard that brings together everything you need to drive results from your marketing. The Marketing Cloud effectively delivers personalized experiences from websites to mobile applications, optimizes online ad spend to drive customer acquisition, and monetizes audiences to command the highest ad rates. Adobe helps marketers get from data to insights to action, faster and smarter than ever. Learn more at www.adobe.com.

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References and Further Reading

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Digital Clarity Group

With a global research-driven advisory team, Digital Clarity Group (DCG) helps business leaders navigate digital transformation in their organization. DCG works with its clients across four distinct themes - Consumer Engagement, The Social Enterprise, Innovative Change and Adaptive Technology. DCG provides independent research, customized consulting, events, and one-on-one executive advisory programs. DCG also provides guidance to technology companies and the service providers that implement their products to help deliver insight that can guide them to better strategic decisions and more useful products and services. For more information about DCG, visit www.digitalclaritygroup.com or email info@digitalclaritygroup.com.

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