



How SMBs Can Put Big Data to Work

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IS BIG DATA RELEVANT FOR SMBs?

April 30th, 2013



There's little doubt that "big data" is the latest "big thing" in the IT industry. But for many small and medium business (SMB) decision-makers, big data is a somewhat fuzzy term. Ask any number of them what big data means, and you're likely to get different definitions. Making matters worse, the "big" in big data, along with endless discussions of petabytes and zettabytes, make many SMBs skeptical that big data is relevant for their businesses.

So it's not hard to make the case that "big data" is has become an over-hyped and poorly understood catch-all phrase. What does big data really mean, and what are the implications for SMBs? When we parse through the underlying trends and hype surrounding big data, what's left that is actually important and relevant for SMBs?

The Realities Driving Big Data Buzz

The big part of big data is easy to understand. Basically, the volume and variety of digitized data is increasing exponentially. Think about how much and how many kinds of information have moved from physical to digital form just over the last several years. Doctors have moved from paper charts to electronic medical records; merchants have moved from paper credit card imprinters to POS terminals to virtual terminals to mobile payment devices. Movies have moved from Blockbuster to Netflix; and photos have move from Kodak to Facebook and Instagram. "Smart" machines—from traffic sensors to seismographs—are creating entirely new digital data streams as well.

As a result, researchers report that we have already created 2.5 quintillion bytes of data, and that 90% of it has been generated in the last two years alone. While quintillions are hard to wrap your head around, these facts make the concept more accessible:

- [150,000 new URLs](#) are created each day.
- Twitter sees roughly [58 million tweets every day](#), and has more than 554 million accounts.
- [160 million emails](#) are sent every 60 seconds.
- Over [20 billion credit card payments](#) are processed annually in the U.S.
- Power companies are moving from physical meter to digital "smart" meter readings, and going from monthly reading to gathering meter information every 15 minutes. This adds up to 96 million reads per day for every million meters—or a 3,000-fold increase in data.

The term “big data” refers to having the ability to dig in to this growing data avalanche more effectively and quickly with tools that make it easier to store, manage, analyze and act on information.

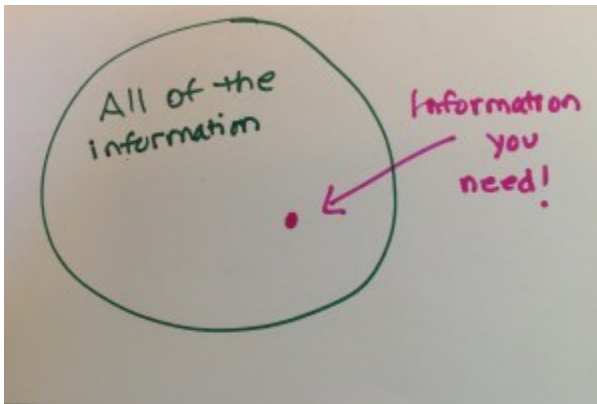
Big Is Relative When It Comes To Big Data

According to findings from the [IBM Institute for Business Value and Said Business School, University of Oxford](#), most large enterprises define the “big” in big data as databases with more than 100 terabytes, while most midmarket companies (less than 1,000 employees) consider anything more than 1 terabyte as “big”.

The fact of the matter is, “big” is a relative term—relative to the amount of information that your organization needs to sift through to find the insights you need to operate the business more proactively and profitably. Basically, if the data set is too big for your company to effectively manage and get insights from, then you’re facing a big data challenge.

This isn’t just a large enterprise problem. In SMB Group studies, SMB decision-makers repeatedly cite “getting better insights from the data we already have” as a top business challenge. SMBs may not be dealing with terabytes of data, but many are finding that tools that used to suffice—such as Excel spreadsheets—fall short even when it comes to analyzing internal transactional databases.

Welcome To The Insight Economy



With the amount and variety of digitized growing exponentially, these challenges and requirements will only increase.

Business that *can* find the right needles in the data haystack more quickly, easily and reliably than competitors can reap enormous market advantages. SMB Group’s [2012 Routes to Market Study](#) shows that SMBs that have deployed business intelligence and analytics solutions are 51% more likely than peers to

expect revenues to rise. Likewise, in the IBM-Oxford University study, three out of five midmarket respondents using business and analytics solutions reported that they are realizing significant advantages, most notably to “identify new opportunities in the marketplace” and to “understand and respond to customers better.”

Take the example of the Cincinnati Zoo & Botanical Garden. With one of the lowest public subsidies in the U.S., the zoo needed to increase attendance and boost food and retail sales to operate profitably. But the zoo was unable to easily access the data—which resided on different systems—so it

could plan how to do this. The zoo implemented a business intelligence solution to get better insight into customer trends and its own operations, and answer questions such as, “How many people spend money outside of admissions costs?” and “What time of day do ice cream sales peak?” By answering these questions and others, the zoo was able to increase retail and food sales by 35%, save more than \$140,000 per year in marketing dollars through more targeted, successful campaigns, and increase overall zoo attendance by 50,000 in one year.

Unfortunately, many SMBs are lagging large enterprises in this area. The IBM-Oxford Study revealed that the gap between large enterprises and the midmarket is increasing, and the SMB Group 2012 Routes to Market Study shows that the smaller the company, the less likely they are to use or plan to use BI solutions.

Perspective

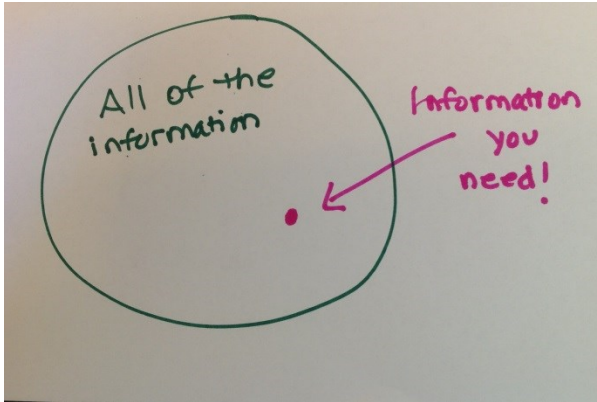
Businesses have always needed the ability to measure critical success metrics and make sound business decisions. Big data solutions are designed to help businesses to do this in a world where the volume and variety of data is growing at breakneck speed.

When you look at the realities that are driving the big data bandwagon, its clear that long after the buzz fades, these realities will have a long-lasting impact on how businesses of all sizes operate. Over time, the performance gap will widen between businesses that can readily get the insights they need, when they need them, and those that can't.

That said, figuring out where and how to start isn't easy, especially for SMBs who are often resource-constrained. The good news, however, is that this is definitely an area where you want to take small steps first. In the next blog of this series, we'll draw on conversations with IBM business partners to learn how they are helping SMBs to chart the big data journey.

PUTTING BIG DATA TO WORK FOR SMBs

May 10th, 2013



In my previous post, [Is Big Data Relevant for SMBs?](#), I looked at the underlying trends driving the buzz around big data, and why big data is relevant for SMBs. I also discussed why “big” is a relative term—relative to the amount of information that *your* organization needs to sift through to find the insights you need, when you need them, and the widening performance gap between businesses that can find the right needles in the data haystack, and those that can’t.

But, charting the course from information overload to actionable business insights isn’t easy, especially for resource-constrained SMBs. In this post, I’ll draw on my conversations with three IBM business partners to discuss what they are seeing, and how they are helping SMB analytics novices chart a course to a successful big data landing. They include:

- [FYI Solutions](#) is an IT consultancy based in Parsippany, NJ. FYI specializes in business analytics solutions for financial services, insurance, life sciences, media & publishing, and automotive companies. In business for 29 years, FYI Solutions takes pride in creating lasting value through lasting relationships—the average FYI Solutions client relationship is 15 years.
- [LPA Systems, Inc.](#) is a business analytics and business intelligence company with deep roots in the healthcare, hospitality, finance and insurance industries. Founded in 2001, LPA’s main office is in Rochester, New York, with additional offices in Houston, Dallas and Cleveland.
- [Waypoint Consulting](#) is a business analytics and financial performance management consultancy based in Newton Square, PA and a 2012 Philly 100 company. Waypoint combines proprietary methodologies, partner products and certified consultants to help customers deliver analytic solutions. Waypoint’s Project Management process provides clients with full transparency into a project while ensuring solutions are delivered on time and under budget.

Houston (or Parsippany, Rochester, Newtown Square), We Have A Problem

SMBs rarely seek out “big data” solutions. Instead, they’re looking to solve a business problem. They may need guidance to understand what data they need to solve the problem, where the data is that they need to use, and how to capture and use the data to address challenges and meet business goals.

Trying to solve business problems is nothing new. What’s changed is that they are dealing with more data, located in more places, and created in different formats. The other big thing that’s changed is that they need to get information and insights faster.

As Joe Rodriguez, Software Practice Leader, FYI Solutions states, “They can be coming at it from different angles. They may have delivery people in the field telling them that it’s too slow to do queries to check on inventory—they are waiting too long and losing money. Or their information is stuck in different silos, and it’s a time-consuming, laborious process to try to pull it into an enterprise wide view.” Or as Brendan McGuire, Managing Partner, WayPoint Consulting puts it, “With more external and internal data available, companies can no longer effectively leverage and use the data with the tools they’ve been using.”

The Right Stuff for Successful Outcomes

Most SMBs that come to these solution providers are just getting started down the analytics path. They come in frustrated with ever-more complicated Excel spreadsheets and pivot tables that take too much energy to create and update, and that propagate too many errors to trust.

Some are also coming from industries, such as healthcare, that have undergone a rapid transition to digital records due to new regulatory requirements. All of a sudden, they are swamped with data.

Few have in-house experts that are well-versed in analytic best practices and approaches, and many don’t even have business analysts. As Joe Rodriguez puts it, “We often have a brand new customer who will come to us because they have a problem to tackle. They may have limited knowledge about analytics, and need us to help them understand it and how it can help them.”



So what does it take for these novices to successfully navigate up the curve? The solution providers I spoke with shared common views on the essentials for good outcomes.

1. **Start with smarter decision-making, not tools.** Start with a close examination of the business drivers for a more advanced analytics approach—not with the tools. As Brendan McGuire noted, “The first and most important part of the conversation is working with the client to understand what processes do they have and what decisions do they need to make, and how can better data insights support this? Or as Barbara Schiffman, Director of Technology

Solutions, FYI Solutions says, “We don’t start out by talking about the tools. In fact, the tools are incidental. We start with what business problems are you experiencing? Where do you really want to be instead of where you are today?”

2. **Get on the right entrance ramp.** As mentioned above, many SMBs are just getting started up the analytics curve. With so many bright and shiny objects under the big data umbrella, it can be tempting to bite off more than you can chew. Jesse McNulty, Account Manager, LPA

Systems summed it up this way: “Most SMBs are just getting started and have enough to do with getting good basic functional reporting in place. They can get enormous benefits just from getting the foundation in place, then build on their analytics competency from there. But some are already farther along, and ready to move into location analytics, forecasting, predictive analytics or other more advanced things—like prescriptive analytics.” On the flip side, they may not have given much thought to mobile analytics right out the gate, but could benefit from it. According to Brendan McGuire, “Most SMBs don’t initially think about it. But once we end up talking about it, many of them realize that their executives and business users are using tablets and smartphones, and that mobile needs to be part of the plan upfront.”

- 3. Create the right roadmap for your business.** I know I just said to stay focused, but at the same time, you also need to create a roadmap that will serve your needs as things evolve in your business, the market and with the competition. As Barbara Schiffman advises, “You shouldn’t just put a tactical Band-Aid on the problem. You need enough detail to figure out the real problems, solve for those today, but also look ahead to the future, and the types of problems that could arise.” Keep in mind that this is your roadmap, for your business. Just as there are many different entry points, the roadmap for each business will be different. “At the end of the day, it’s all about what solution will deliver the best business ROI for your company,” notes Schiffman.
- 4. Decode data requirements.** Take time up front to think through what data your business needs to enable better decision-making. What data are you drawing on today for decision-making and business processes? Where is the data, and how can you make it more accurate and usable? What data are you missing that you need, and how can you get it? Once you have a clear picture of the key data sources you need to pull from, you can start to figure out which tools you’ll need for the job. If you’re like many SMBs, you probably have data in different “silos”, such as an internal financials application and a cloud-based HR or CRM solution. Integrating these data sources is likely an investment you’ll need to make. As Brendan McGuire advises, “Data silos are inconsistent, expensive to support, cause errors. When you have an integrated data store, and you use that for analytics, it doesn’t impact your transactional systems. You use that to do any level of reporting, build dashboards, create mobile interfaces.”
- 5. Evaluate industry-specific solutions.** While horizontal solutions may fit the bill in some cases, tailor-made, industry-specific solutions and a solution provider with expertise in your industry can often save time, money and a lot of aggravation. As Jesse McNulty explained, “There is tremendous change occurring in the healthcare industry as payment models shift from fee-for-service to pay-for-performance or full risk. There are many nuances, for instance, to areas such as managing chronic disease populations, and healthcare organizations have very specific metrics that they need to monitor to improve business performance against them.” Having a pre-configured solution that integrates the internal and external data, structured

and unstructured, into one location, and addresses specific healthcare needs with healthcare terminology and business practices helps save clients time and money. According to McNulty, “This enables us to get a client’s electronic medical records (EMR) system connected to and running on our Chronic Disease Management analytics in as little as two weeks.”

6. **Find a partner that provides comprehensive services.** Because most SMBs will take an incremental approach, it’s important to seek out comprehensive services in this rapidly evolving area. Look for solution providers that offer consulting, and implementation and support services, and demonstrate a deep commitment to establishing ongoing relationships with their customers. However, since no one provider is ever likely to be able to do it all, in this volatile space, selecting a vendor that’s part of a strong ecosystem is also important. Being part of a bigger ecosystem gives solution providers the knowledge and training they need to stay ahead of the big data learning curve, and improve the offerings and services they provide to you.

Perspective

As all investment literature warns, past performance is not a guarantee of future success. Just ask Blockbuster, which was blindsided by consumers’ shifting preferences for renting movies; RIM BlackBerry, which underestimated how much the bring your own device (BYOD) trend would impact its smartphone sales to businesses; or Energizer, which missed the boat on how fast the sales of single-use, disposable batteries was dropping.

For most SMBs, being able to mine untapped data for business benefits is still at the aspirational stage. But now is the time to seriously consider what impact big data and analytics will have for your business, your customers and your industry. Think about trends you see taking shape—and even about the ones that you can now only imagine. What information and insights would help you capitalize on these trends? Likewise, what information are you missing that puts the business at risk?

Clearly, the perfect storm is taking shape as data volume, variety and velocity continue to soar ahead, almost guaranteeing that the businesses that can harness it to their advantage will benefit, and those that don’t will be blindsided.

CHARTING YOUR BIG DATA JOURNEY

May 30th, 2013



In the first post in this series, I examined the underlying [trends driving the buzz around big data and its relevance for SMBs](#). In the second, I discussed how three IBM business partners ([FYI Solutions](#), [LPA Systems, Inc.](#) and [Waypoint Consulting](#)) are [helping SMBs take a pragmatic approach](#) to successfully apply analytics and big data solutions to solve business problems. In this third and final post, I'll talk about how to determine business readiness for big data solutions, and considerations to keep in mind as you help your business move ahead in this area.

Big Data Readiness

Today, even small companies are generating and accumulating staggering amounts of data. The question is, can you turn this data into reliable, accessible and actionable information that you can apply to solve business problems and make better decisions?

Many SMBs rely on Microsoft Excel to generate information and reports. If you're in this category, you can get ahead simply by taking advantage of analytics tools built into the financials, HR, CRM and other core systems that you use. Taking it a bit further, combining Google Analytics data from your website with CRM data can offer you fresh insights about who's coming to your website, from where, and what they're doing when they get there.

But as business complexity grows, data and reports are spread across more databases, spreadsheets and applications, and stored on servers, personal computers, mobile devices and in the cloud grows as well. Using disparate data sources and tools to answer key questions such as "what products can I price at a premium" and "what are the best ways to increase repeat sales?" becomes difficult, time-consuming and burdened with inconsistencies.

"When customers approach us, the top reason is because they don't trust their data and reports. Too time-consuming always comes up as well. They are also struggling to get an enterprise-wide view of their data," according to Joe Rodriguez, Software Practice Leader, FYI Solutions.

If you answer yes to the questions in Figure 1, your business probably needs to integrate key data sources into a central repository. As Brendan McGuire, Managing Partner, Waypoint Consulting puts it, "You need to pull data from the cloud and on-premise applications into an integrated, rationalized data store. You can do this on your own systems, or you can do it in the cloud in a subscription model."

Figure 1: Big Data Readiness—Key Questions to Ask

1. Do people work from different sets of data that tell different stories?
2. Do decision-makers question the company’s business data?
3. Is it difficult measure key metrics such as customer acquisition costs, customer retention, lifetime customer value, which products are most profitable, procurement and spending, etc.
4. Do you have lots of potentially valuable information that would help you answer these questions that you aren’t using?
5. Do managers spend too much time creating Excel spreadsheets? Are there too many mistakes made and propagated in Excel spreadsheets--which then take too long to unravel and fix?
6. Can managers track actual performance against the strategic plan?
7. Do budgeting and forecasting processes take too long?

With a core foundation of common, trustworthy and accessible data in place, you’ll be able to get deeper insights into operations and customer behaviors and preferences. Companies typically start out with “descriptive” business intelligence (BI) tools to dig in and get more visibility into key metrics such as those noted in Figure 1, and make better decisions. For instance, if you’re a retailer, these tools can provide analysis to pinpoint optimal locations for new stores, more accurately forecast customer demand, minimize inventory or negotiate better pricing from suppliers.

Moving Up the Curve

Until recently, having solid analytics capabilities for internal, structured data was enough to give many businesses an edge. But, with more data and different kinds of data pouring in from more places, companies are looking for new ways to help them access, analyze and use data to gain market and competitive advantages.

In broad-brush strokes, big data helps do this in two ways. First, big data technologies crunch through both structured and unstructured data exponentially faster than was ever possible before. Examples of technologies that enable this super-charged data crunching power include hardware

with increased memory and parallel processing capabilities, and Hadoop and MapReduce, which harness the power of multiple, distribute computers for problem solving.

Using this kind of technology, you can run analyses that used to take days or weeks in minutes. This make it possible to analyze data that you may have collected for years, but were never able to analyze before, or to weave new, external data sources into your analysis.

In addition, new kinds of analytics tools and solutions make it easier to explore data in more accessible, actionable ways, including:

- **Mobile business intelligence.** Nowadays decision-making is as likely to happen in an airport or at a customer site as in headquarters. Mobile solutions let users see, share, report, and analyze data on smartphones and tablets. They take advantage of native, user-friendly mobile interfaces, such as touch screens, and give users the ability to make smarter, faster decisions regardless of location.
- **Visualization.** You may be able to look at a hundred of rows of data and make sense of it, but can you look at thousands of rows and figure out what's going on? Visualization solutions help people to see what's happening across hundreds of thousands of data points quickly and easily.
- **Sentiment analysis.** Social media and digital sites have given customers and potential customers a much bigger and louder voice. Sure, you can easily tell how many followers or fans you have, but do you really know what it means to your business? Sentiment analysis identifies the user attitudes towards a brand, product or event by using variables such as context, tone and emotion.
- **Predictive analytics.** Using mathematical algorithms, predictive analytics helps you to spot what's likely to happen next. With predictive tools, you can examine large amounts of historical data (internal and external, structured and unstructured) to identify hidden patterns to alert you to future trends and stay ahead of the market.
- **Prescriptive analytics** take things a step further, actually guiding you to a course of action, via options for what you should do next. Prescriptive analytics solutions can fine-tune themselves as they take in new data to continually improve your decision alternatives.

Choosing Your Big Data Path

Where you go next depends on where you are today, and your business goals, as discussed in [Putting Big Data To Work For SMBs](#). Often, explains Brendan McGuire, “the greatest opportunity is to make data more consumable...making it easier for the business person to have conversations with the data, whether its structured or unstructured, through better mobile solutions, or visualization.”

Meanwhile, LPA Systems is helping hotel chains use forecasting and planning solutions to get a better idea of expected occupancy rates based on historical transactional data mixed with external

information about upcoming events and other factors to optimize pricing and marketing initiatives. As Jesse McNulty explains, “Now they can better assess if they’re going to be overbooked on a weekday in July, and charge more, or if they’re going to have occupancy issues, and need to do a promotion”.

Although prescriptive analytics is still further out on the horizon for most companies, Joe Rodriguez sees customer interest in this area growing. “Just like your GPS provides you with alternate routes, tells you where to go, and what turns to make in your car, prescriptive analytics can be like a crystal ball to help predict outcomes and improve decision-making for the business.”

Perspective

As revealed in the [IBM Institute for Business Value and Said Business School, University of Oxford](#), three out of five midmarket respondents report that analytics, information and big data solutions “create a competitive advantage in their industry,” representing a 66% increase since 2010. Given the rapid rate and pace of change in business and technology, this gap will widen.

While turning information into insights isn’t easy, the good news is that vendors are increasingly recognizing that big data isn’t only for big businesses. Whether you are just starting to think about the relevance of big data for your business, or you have some of the basics in place, more vendors, including IBM, are focusing on SMB customers. Not only are they building more solutions tailored to SMB requirements, they are also developing educational materials to help you learn how more about applying big data solutions to real world business problems. As important, they are growing and training their business partners to help you get up the learning curve, implement solutions and optimize the value you gain from them.

So do your homework. Assess your company’s key challenges, where you’re at today, and where you want to go. Talk to colleagues and business advisors you trust. Start developing a strategy to get the wisdom you need to grow your business and stay ahead of the competition.

How Zoos and Museums Use Big Data to Refresh and Reset Visitor Experience

JULY 11TH, 2013

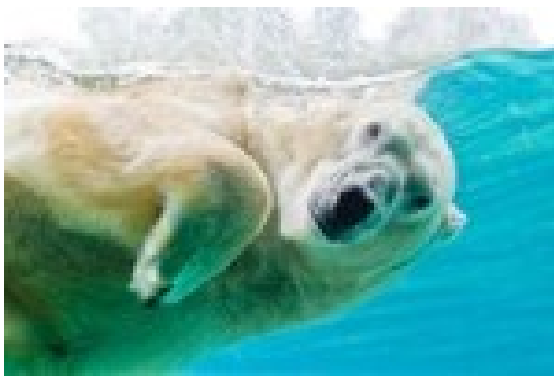


For most of us, a trip to the zoo, museum or an aquarium is a fun and interesting way to learn about animals, history, art and other cultural experiences first hand. Behind the scenes, however, these organizations must work hard to create the engaging, interactive experiences that today’s visitors want, and successfully market that experience to the public.

This is especially true today, when these typically not-for-profit venues must compete with an expanding array of theme and amusement parks, live and digital entertainment events and sports attractions. To remain viable and vibrant, zoos and museums must continually fine-tune their vision and exhibits to grow visitor traffic and membership. They need to be creative with concessions, and optimize use of their meeting rooms and cafes.

In this post, I discuss how Point Defiance Zoo & Aquarium and History Colorado Museum are using analytics and big data to better understand what visitors want and to deliver it.

Point Defiance Zoo & Aquarium Refreshes Visitor Engagement and Conservation Initiatives



At the 100-year old [Point Defiance Zoo & Aquarium \(PDZA\)](#) in the Pacific Northwest, Manager Donna Powell oversees all business, budget and visitor services. The 29-acre combined zoo and aquarium promotes and practices wildlife and ecosystem conservation initiatives, and attracts more than 600,000 visitors a year.

PDZA generates millions of data records daily on attendance, exhibit and event preferences and participation in conservation initiatives—but didn’t have a good way to pull information out of it. As Powell explained, “Staff generated a SQL sales report from our point-of-sale (POS) system each morning but it only gave us turnstile sales and didn’t include online and reseller sales. So staff had to pull this all together manually, which took days.”

“It also couldn’t tell us what customers do while they visit, or what they’re saying about us on social media” adds Powell. “We need to know things like, which exhibits visitors prefer, and what conservation initiatives they’re participating in, what they liked and what they didn’t like.”

Powell knew that PDZA needed to better understand visitor trends and feedback, but had concerns that an analytics solution might be too difficult and/or expensive for an 80-person organization with 2 IT staff to deploy and use. Then she attended a presentation from the Cincinnati Zoo, and learned about the analytics system that they had deployed. “They were using the same POS as we use. They introduced us to [BrightStar Partners](#) an analytics solution provider that did their implementation that really understands zoos. The light bulb went on—if they could do it, so could we.”

PDZA went live with [IBM Big Data Analytics](#) in 2012. “Everyone immediately made the connection of how they could use this to help. We can strip things out, and see how things relate. Now we can pinpoint how different weather patterns will affect attendance and exhibits, and change scheduling as required. We can also use it for marketing. For example, after analyzing sales data and open rates, we sent a promotion to members whose membership was about expire and offered them a discount if they renewed before the end of the day. We had a 6% buy in on that campaign compared to the typical mail renewal rate of 3%.”

Other benefits Powell points to include:

- A 700% rise in online ticket sales over the past year, with an expectation that online sales will go up another 25% by the end of this year.
- The membership team can pull the data they need in minutes instead of waiting days for IT to extract data from the POS system to create a mailing list for campaigns.
- PDZA also uses social media and analytics to more effectively engage millennial visitors in its conservation initiatives.

Zoo employees now use iPads to access financial, attendance, membership and retail information so they can make decisions anywhere anytime. Looking ahead, PDZA plans to introduce a mobile ticketing solution. In the future, visitors will be able to “check in” at different areas within the zoo, providing zoo managers with more data to better understand which exhibits are most popular and how much time visitors spend at them.

History Colorado Center Resets To Attract a New Target Audience



History Colorado Center likes to think of itself as a brand new 134 year-old museum. Founded in 1879, the museum had shared the same block with Colorado's State Justice Center for more than 40 years. "The location wasn't ideal, and the museum wasn't as interactive or engaging as we would have liked," as COO Kathryn Hill explained. "Most of our visitors were senior citizens and children on obligatory school field trips."

In 2008, History Colorado had the opportunity to build new, state-of-the-art museum—and to bring Colorado's history alive through storytelling and interpretative exhibits. According to Hill, "We wanted to understand how we could bring history alive, attract more families, and best sustain our mission over time."

In conjunction with planning and construction of the new building, History Colorado conducted extensive audience research to test design ideas and stories. During this process, Hill "stumbled on the story of how the Cincinnati Zoo was using analytics to drill down into all aspects of visitor behavior so they could continually improve the visitor experience."

"As a non-profit, we don't have a lot of money for marketing, so we needed to find a strategic way to keep a close pulse on how we can best engage families. We hadn't budgeted for analytics, but once we learned about IBM's Big Data Analytics, it was a no-brainer for us," according to Hill.

In collaboration with IBM Business partner BrightStar, History Colorado deployed IBM Big Data analytics simultaneously with their new POS system. "I'm not a tech person, but I can go in and look at admissions, programs, merchandise, food, and membership data in real-time," notes Hill. "We have a single view of the data, and can see patterns now, such as when retail sales peak and what exhibits attract the most traffic." This helps the Center's 125 employees fine-tune exhibit and marketing strategies.

The museum is also developing more personalized experiences for its visitors by analyzing social media commentary, and expects that this will boost engagement and repeat visits.

"We have a unique mission to help visitors understand the present in the context of the past so Coloradans are better informed in making decisions for the future," explains Hill. "To make this happen, we need to bring people in and provide a compelling experience. Analytics helps us do this."

Perspective

Chances are that your organization isn't a zoo or museum. But these stories underscore the fact that big data analytics solutions are within reach for organizations of all shapes and sizes.

However, these experiences also reveal some important pointers for getting successful outcomes from an analytics investment that other SMBs should keep in mind. First and foremost, PDZA and History Colorado had clearly articulated what information they needed, and how they would use it. In addition, both organizations:

- Selected a solutions designed for SMB requirements and for limited IT and budgets.
- Worked with a partner that had experience in your industry, and could tailor the solution to best meet their specific needs.
- Had input and guidance from organizations with similar requirements.

Whether you need to know more about visitors or customers, exhibits or products, with a clear vision, solid planning, big data analytics can provide the insights your organization needs to thrive in an increasingly complex and competitive world.



[SMB GROUP, INC.](#)

The SMB Group focuses exclusively on researching and analyzing the highly fragmented “SMB market”—which is comprised of many smaller, more discrete markets. Within the SMB market, SMB Group areas of focus include: Emerging Technologies, Cloud Computing, Managed Services, Business and Marketing Applications, Collaboration and Social Media Solutions, IT Infrastructure Management and Services and Green IT. Read our [2013 Top Ten SMB Predictions](#) for our views on game-changers in these and other areas of the SMB market.