It’s Data Quality’s World, We’re Just Living in It

Data is King

In an age when technology is quite literally a part of everything we do, data rules the day. Consider the number of devices that you interact with on a regular basis. In U.S. households alone, there are an average of 7.8 connected devices¹, each generating their own robust history of searching and saving, leaving behind virtual breadcrumbs about who you are as a person and as a customer. When this device-driven data is pieced together, a vivid self-portrait can be constructed, explaining every preference, life experience and question you’ve asked yourself. These days, this portrait begins in childhood, where the average age for a child to have their first smartphone is 10 years old and internet access is readily available years before then². Not only are we generating data on our personal devices and at home, data is created throughout our days, each time we stop our cars at a traffic light or swipe our credit cards.

The amount of data generated daily by each and every one of us is constantly changing and growing, creating a data pool of an inconceivable size. According to the International Data Corporation (IDC), data is growing by 40% per year into the next decade³. When thinking about your organization, consider your life as a customer. As we go about our days, giving life to data everywhere we turn, how can the organizations targeting us possibly sift through the “noise” to accurately understand and address our needs? Although data generation is constant, not all data builds an accurate picture of you as the customer for organizations who specialize in delivering personalized products and solutions that we interact with every day.
While there is no lack of data density, the quality of data is suffering, threatening your organization’s ability to provide the personalization customers crave and to see the value that their long-term loyalty provides. Of the pool of available data in the digital universe, IDC estimates that only 22% of data in 2013 was useful. By 2020, this percentage is expected to grow only to just over 35% of useable data. The abundance of data is clear, but its quality and usability has yet to be mastered by organizations across the world. Data quality is vital to the data-driven world that we live in, influencing long-term customer relationships and the future success of organizations.

Data’s Ripple Effect

Data has emerged as the most dominant influence on organizational operations and processes across industries worldwide, impacting more than just the IT department and opening doors for customers to connect.

Internet for All

As technology has made the internet accessible to the far corners of the Earth, an increasingly vast number of people are online creating their own data-powered self-portrait. With this accessibility, more data is generated today than ever before. By 2020 data generation will reach 44 zettabytes, or 44 trillion gigabytes. This means that if this data is represented by the memory in a stack of tablet devices, by 2020 there will be enough to reach the moon 6.6 times. That’s a lot of data and it will only continue to grow as people continue to get access to devices and the internet, creating a mass of customer data that is largely underutilized by companies today.

It’s not just our personal devices and connectivity to the internet that’s creating data. The vast majority of items that we interact with on a daily basis are connected to the digital universe, such as cars, toys, airplanes, dishwashers, turbines and dog collars. The number of products that track, monitor and feed data has grown so rapidly that it has produced its own industry term: Internet of Things (or IoT). A familiar term across industries worldwide, IoT refers to the sensors and actuators embedded in physical objects. While we use personal devices, data that lends to the personal story of a customer from IoT is also simultaneously generated with very little guidance or regulation in place for how to marry these two data sources together. IoT data is projected to grow from 2% of the digital universe to 10% in 2020.
There are few that remain untouched by data's influence, yet most organizations are just beginning to address its challenges. With data comes new opportunities for understanding customers and evolving to provide new products and solutions, but without processes for drawing out the cleanest data, organizations risk making costly mistakes. Widely available internet access, plus the ongoing genesis of IoT data has created a new set of challenges that have never been encountered before. With an infinite number of data sources identifying customers and their behavior and a lack of standards and regulation, the ability to scale globally, meet real-time demands and ensure security is increasingly difficult for all organizations.

Data Security is a Serious Issue

As the way of doing business has predominantly moved online, so have customers. Personal passwords, preferred portals and purchases are just available in the digital universe as the conveniences customers enjoy. Our personal information isn’t just under our mattresses or hidden away in our closet safes anymore. The scary reality is that everything about us (and the organizations we work for) is on the internet, from sensitive identification data to retail purchases and Facebook likes. In 2013, while about 40% of the information in the digital universe required some type of data protection, less than 20% of the digital universe had these protections⁸. While retail stores are saving purchase information for the convenience of return visits, the government is storing personal information on databases that may be siloed from retail, but are connected to the same digital universe. According to the Privacy Rights Clearinghouse, 900,875,242 records have been breached from 5,195 data breaches made public since 2005⁹.

Data security is a serious problem that’s still on the rise, threatening the level of trust customers have in organizations to protect their information. This is forcing organizations to reevaluate corporate security measures and data governance policies to proactively protect the high-quality data that fosters a sustainable relationship with customers. As a customer, you expect your information to be protected and these same expectations should be carried through to your organization’s data security strategy.
Going to the Next Level to Connect with Customers

Data is breaking down the barrier between the physical and the virtual when it comes to consumption and with a growing data pool, identifying key pieces of data to connect with and establish a long-term relationship with customers is like finding a needle in a haystack. Customers expect an increasingly interactive and personalized experience from their living room sofas and if their experience is less than stellar they quickly move on to another option. Organizations must store and provide on-demand customer-specific information, like auto-filling a shipping address or presenting products based on prior purchase history, to prove to customers that they are recognized and appreciated. A primary frustration of 77% of smartphone users across all age groups is the lack of context and customer history, causing them to start over when contacting an organization. If customers become frustrated they’re more likely to cut ties and move on to someone who can provide a superior experience.

Customers are spending less time in brick and mortar shops and more time taking advantage of the assumed convenience of online ordering, meaning that the experience they have through the digital universe is the one that counts when it comes to customer retention. The quality of data powering these customer experiences is key to presenting the correct information to the right customer at the right time. Without acknowledging the customer as an individual, the connection to the customer can be lost and any potential for a long-term relationship can be threatened.

Data Quality is a Team Effort

Ensuring the execution of data quality initiatives is no longer just the job of the IT department. As data is driving most of organization operations today, managing the goals, rules and metrics associated with improving data quality has become a cross-departmental focus. Made evident in Ascend2’s Data-Drive Marketing Trends Report that data quality is affecting more than just the IT department, 59% of companies say that improving data quality is the most challenging obstacle to data-driven marketing success. Data quality is driving organization efforts from marketing to implementation, sales to IT.

Source: Ascend2
The job title of Data Steward is also becoming more common on employee directories to implement processes for detecting, tracking and correcting data issues. Additionally, many technical solutions are now offering organization-oriented self-service capabilities that can be performed without IT to meet the demands of these new data quality roles.

The Data-Driven Organization

Data’s dominance is felt across every industry today, driving organization intelligence and analytics decisions, as well as the direction organizations take in the future. While there’s no shortage of data itself, it’s data of the highest quality that remains the most reliable and that accounts for only a small subset of the greater digital universe of incomplete, inaccurate and duplicate information. Organizations must juggle many initiatives to stay afloat, including customer retention, organization intelligence, marketing efficiency, compliance and data security. However, each of these functions can suffer from costly mistakes due to a lack of data quality processes.

Organizations struggle to:

- Identify Their True Customer
- Cultivate Trust in Data
- Fill in the Gaps
- Make Data Quality an Organization Function

Identify Your True Customer

With customer data coming from an infinite number of sources, pinpointing and tracking the most accurate and up-to-date information is vital to reaching the right customers in the most effective manner. An organization can have several systems, from an ERP to a CRM to in-store devices, tracking their interactions with customers and creating customer profiles based on individual system-based data models.

To truly connect with a customer, knowing their most current and accurate information is key to reporting ROI. However, organizations struggle to reconcile this duplicative data across systems and data models, maintaining a reactive strategy to the constant growth and evolution of their data. Dun & Bradstreet cited that, *41% of surveyed marketing professionals identified inconsistent data across technologies as the biggest obstacle for maximizing the return on investment (ROI) for marketing technologies.* With disparate systems reporting varying information for customers, the identity of an individual customer is blurred by inaccuracies.

Cultivate Trust in Data

Organizations are comprised of a number of units, each with their own system and specialized employees that perform functions to ensure the success of daily operations. You wouldn’t have your marketing team work in the accounting system, would you? Experts are needed in each unit to drive the organization forward, but the data in each of their individual systems is rarely cohesive, causing conflict between the systems and the experts that use them. It’s difficult to decide who has the most accurate data, creating a lack of trust in data altogether. Roughly one-third of a group of 200 IT decision-makers had some doubt about whether the data they were using was the correct data for their purposes. If employees can’t trust the data that they’re using to interface with customers or make strategic decisions, their confidence will diminish and the future of the organization will suffer.
Fill in the Gaps

The quality of an organization’s data relies heavily on consolidating and cleansing it to remove inaccuracies, the overall picture of your customer may suffer due to lack of completeness. Your organization can only gather data from the systems it has access to and you might have to look to third-party industry resources to provide the missing pieces that your systems are lacking. Dun & Bradstreet reports that 86% of the records they analyze are missing employee information and 62% are missing a phone number\(^3\). While your systems may provide you with just enough information to get by today, filling in the data gaps may be vital to achieving the accurate picture of your customers that you need to differentiate from your competitors.

However, filling in these gaps is not a quick and easy task. Integration with third party resources can be a difficult road and mapping data models between your systems and third parties requires precious time from resources and additional money. These obstacles alone can be discouraging, causing many organizations to make do with the information they have, never allowing their data to reach its full potential to achieve a true customer view.

Make Data Quality an Organizational Function

No longer just an IT responsibility, data is affecting the way that many organization units do their jobs. As each function of the organization is running on their own unique data requirements, there is major room for error, especially when it comes to those outside of IT that are less familiar with data management. Data quality processes must be put into practice across the organization, spreading to other functional teams. However, these processes must be easy to adopt and perform for both technical and nontechnical organization users for them to be effective. In the same Dun & Bradstreet survey, it was found that 57.5% of IT professionals say data entry by employees is the top cause for poor data quality.
Despite the known issue that human error causes many data issues, setting the expectation with employees that they will be responsible for data quality processes can be hard. When making this change, data governance standards must be set and reinforced by specific roles within the organization and training must be easy for organization users who don’t have an IT role. Building an easily adoptable data quality process and reinforcing it is an organization-wide effort that may leave those who don’t feel comfortable with data behind.

**Making Data Work for You**

The digital universe of data is growing, customer expectations are increasing, and the time to proactively address your organizational data challenges is dwindling. The abundance of data across your systems is clear, but the quality and usability of it has yet to be mastered. If you put yourself in the shoes of the customer, recognizing the influence of your own connectivity and your own data, it’s clear that data quality is vital to the data-driven world that we live in. It influences long-term customer relationships and subsequently the future success of your organization.

To know who your customers really are, you must be able to find the most accurate and consistent information quickly from any business unit within your organization. Finding information that you can trust in an age when duplicate and outdated data runs rampant through your systems makes it difficult to ensure that you have the customer that you’re looking for. You need a trusted source with a comprehensive representation of your customers to deliver the most effective communication through the proper channels in your organization. By managing your data in one location, integrated from multiple sources across your organization, you can consistently identify your customers, ensuring that you have the right person at the right time.

A Master Data Management (MDM) solution consolidates and cleanses data from your varying systems and data models to create one master data record that can be distributed back out across the organization. This creates a consistent view of customers across your organization, enabling your employees to provide personalized experiences with each customer interaction. By managing the data from your systems in one place, the percentage of human error decreases, freeing up your resources to focus on more strategic initiatives to benefit the business.

However, the idea of one solution holding all of your data, from your ERP to your CRM, can be intimidating for business users who didn’t sign up for technical work. Ensuring that your MDM solution is user-friendly with data quality processes that are easy to understand is imperative to adoption by your IT and business users alike. Allowing teams such as Marketing to access data from a MDM solution empowers them to draw real ROI conclusions from the system and trust that the data they are drawing them from is correct. With an MDM solution in place, connecting with your customers won’t be an uphill battle because the data powering your performance will be of the highest quality.
Quality is Reality

The influence of data on the modern way of life is the reality that we must come to terms with. No longer just a pesky task or looming obstacle, data is the center of all things. With accessibility, customers will continue to connect, and expectations will continue to increase. Employees across the organization, from IT to marketing and sales, must have access to the right customer information amidst your growing pools of data to create a refined and personalized experience.

The quality of your data rules the day and the only path to success is with quick and accurate customer interactions. Without high quality data powering your organization, the customer experience will suffer, forcing you to fall behind your countless competitors. Quality in customer data will drive better interactions and processes across your organization, leading to greater satisfaction and sustained long-term relationships. It’s not just important to pay attention to data quality, it’s essential to staying afloat in the ever-expanding digital universe we live in.

For more information, visit www.stibosystems.com

About Stibo Systems
Stibo Systems is the global leader in multidomain Master Data Management (MDM) solutions. Industry leaders rely on Stibo Systems to provide cross-channel consistency by linking product and customer data, suppliers and other organizational assets. This enables businesses to make more effective decisions, improve sales and build shareholder value. During the last 30 years, Stibo Systems has helped hundreds of companies to develop a trusted source of operational information. A privately held subsidiary of the Stibo A/S group, which was originally founded in 1794, Stibo Systems’ corporate headquarters is located in Aarhus, Denmark.