BETTER ANALYTICS TO BOOST NONPROFITS

Today’s analytics tools streamline operations, effectively focus fundraising efforts and more efficiently fulfill their missions.

EXECUTIVE SUMMARY

Today, unstructured data that could prove very useful to nonprofit organizations is being created with growing speed and increasing quantities. However, an organizing force is necessary to render it useful. Enter analytics tools, which gather and make sense of relevant information to gain new institutional insights.

Analytics and business intelligence are not new concepts, but they are now more powerful, able to sift through the massive amounts of information created each day. To see maximum returns, organizational leaders must find the right tools and create the right strategies for their use.
Analytics Uses and Benefits

In the second it takes to say “data,” people around the world generate about 10,000 tweets, make 1,805 Skype calls, upload five hours of YouTube video and send more than 2.4 million emails. Globally, we produce 2.5 exabytes (or 2.5 billion gigabytes) of data in a day. IDC, a global market intelligence firm, predicts we’ll generate 40 zettabytes — that’s 40 trillion gigabytes — of data by 2020.

Among this trove of data is information to help nonprofits analyze and fine-tune their organizational processes, create targeted fundraising campaigns, effectively coordinate staff and volunteer deployments, efficiently compile reports and comply with regulatory requirements. But how to get at it? This useful data doesn’t generally come neatly packaged in databases.

That’s where analytics comes in. It’s a process that employs tools to gather those ever-growing volumes of disparate data types from various sources, process them at record speeds, and analyze and use that data to gain new organizational insights. The concept has been around for decades, but it has been reborn with new, more powerful tools to harness today’s data explosion.

Nonprofits run the gamut when it comes to analytics. Some are just getting started, applying business intelligence to their budgeting and forecasting processes, while others may be far along the business intelligence continuum and looking into ways to pull additional unstructured data to enhance existing predictive analytics models. What follows are some of the areas in which analytics can help nonprofits.

**Budgeting and forecasting:** The annual spreadsheet shuffle has become a dreaded yet inevitable reality for nonprofits. It’s an all-hands-on-deck process aimed at pulling data from different departments, systems and people. Analytics tools can help nonprofits eliminate the challenge of managing the budgeting, planning and forecasting processes through dozens of unsynchronized spreadsheets. Instead, they centralize the data and simplify collaboration, enabling sophisticated “what-if” modeling to enable complex planning and analysis. Integrated reports and scorecarding enable organizations to monitor progress toward goals in real time.

**Enterprise reporting:** The challenge for many organizations is not that they don’t have data, but rather that they can’t get to the data that they need when they need it. Data is in several repositories across multiple applications, and getting one “source of truth” takes a herculean manual effort. Rather than sift through various data silos, organizations can use enterprise reporting tools to consolidate multiple data sources into a single data model and get a global view of operations. They can get a better sense of who is using their products and services, as well as how they are using them.

Looking at past internal and external data, nonprofits can plan for the future. Analytics can help them spot patterns, address issues going forward and set goals that improve upon historic metrics.

Using graphs, charts and animation, customizable dashboards help users visualize data. Managers can create interactive dashboards, run queries and pull reports based on their needs. They can drill down to facilitate insight into operations never before possible.

**Fundraising and targeted outreach:** Fundraising is the lifeblood of nonprofits, so it needs to be handled carefully. If an organization invests too few resources into fundraising, it faces budget shortfalls. Too many, and they run the risk of cutting too deeply into revenue. Courting potential large donors is labor intensive, but blanket mailings can be costly and ineffective.

Organizations need to work smarter and target outreach efforts and campaigns to those most likely to donate. Predictive analytics can identify with a high degree of accuracy which prospects are most likely to give. Leveraging such tools can help organizations prioritize high-touch personal outreach and reduce overall marketing and outreach expenses to maximize returns.

*Source: iATSpayments.com, “Nonprofits Are Collecting Big Data, but Most Are Having Trouble Using It,” February 2014*
Authorization compliance: Nonprofits are bound by regulations governing the types of data they collect, how they use it and what to report. Business intelligence can help organizations gather, organize and analyze data; compile reports; and comply with requirements.

Improving global insight: Analytics can be used in all of these ways and more to help organizations get a global perspective of everything from staffing and asset management to fundraising and forecasting. In addition to consolidating and making sense of existing data, analytic tools can make new data sources available to organizations, providing unprecedented insight into operations.

Today’s Data Analytics Tools

In the past, data analytics solutions took years to plan and deploy. They did not adapt easily to changing operational realities and technologies. Furthermore, because these tools were so complex, IT staff had to conduct analyses for clients.

Today’s data analytics tools are far more adaptable, with hardware, software, appliances and services that gather structured and unstructured data from disparate sources in various formats. The tools are simple enough that users throughout the organization can employ them, regardless of IT skill level. They process far more data in real time than their predecessors, and they’re available in user-friendly formats on a variety of devices. All users have access to data insights anytime, anywhere. The trend toward data democratization is likely to continue, according to Gartner, which projects that by 2017 most users in organizations will have access to self-service data analysis tools.

Modern analytics tools provide organizations with a wide range of capabilities:

Business intelligence looks at past, present and future business models to determine what works and what can be changed for improved operations.

Predictive analytics leverages statistical modeling and machine learning, using past and present data to anticipate the future. For instance, predictive analytics can examine donors’ behaviors to help nonprofits determine when, how often and the most effective ways to contact potential donors.

Social media analytics culls data from sites such as Twitter, Facebook and Instagram to help organizations gauge what people think about them and their services. Analytics tools can also track the effectiveness of an organization’s social media efforts — how many retweets or likes it received, for instance.

Machine data is the fastest growing category of data, but its unstructured or semi-structured formats can be challenging to traditional analytics tools. Organizations are leveraging new tools to put this data to use to improve IT operations, improve security and monitor important assets such as medical refrigerators, cars and airplanes.

Content analytics formats and analyzes unstructured content, including video, social media comments and emails, so it can be used with structured data to glean insights.

The Data Analytics Stack

Data analytics systems contain multiple tools that work together to glean intelligence from raw data. Today’s solutions need the capacity to store, sort and validate the reams of internal and external data. Just as critically, they must have the power to process that data so that it makes sense to non-IT staff users. To meet these needs, solutions have three layers of tools that together make up what’s known as the data analytics stack.

The data layer is the fuel of the solution. It has the tools to gather, integrate, clean, store and structure the data that drives the analytics engine. A data warehouse collects information from various sources, including different systems within the organization, unstructured data sources such as email, and data gathered from outside sources, such as business partners.

Data integration merges and structures that disparate information. Data quality tools verify and clean it. At the core of the data layer is master data — a central, accurate base of critical information about donors, products, employees, partners and other key elements that is accessed throughout the enterprise.

The analytics layer makes sense of the raw data gathered by the data layer. It uses data analytics to examine the effectiveness of operational processes and predictive analytics to determine what’s to come. The analytics layer derives the value of a technology solution by drawing insights from the data.

The presentation layer, which is the dashboard of the system, presents the gathered and analyzed data. It generates reports, creates customized dashboards, and sets up alerts to help users make sense of and act on data insights.
CDW: A Data Analytics Partner That Gets IT

The rapid changes in data and analytics technologies can make it difficult to piece together the right solution for your organization. CDW can help.

CDW Nonprofit’s team of certified engineers can provide organizations with in–depth knowledge and experience in assessing the value of their data; developing an analytics strategy; and choosing, installing and managing solutions. Working with top vendors, CDW’s nonprofit account managers, solution architects and engineers design and implement customized solutions that are scalable, flexible, secure and easy to manage. They also help their clients achieve greater efficiencies, improve fundraising efforts and gain new insights into their organizations. Discounted nonprofit pricing may be available for some solutions.

The CDW Approach

ASSESS
Evaluate business objectives, technology environments and processes; identify opportunities for performance improvements and cost savings.

DESIGN
Recommend relevant technologies and services; document technical architecture, deployment plans, “measures of success,” budgets and timelines.

DEPLOY
Assist with product fulfillment, configuration, broad–scale implementation, integration and training.

MANAGE
Proactively monitor systems to ensure technology is running as intended and provide support when and how you need it.

YOU and CDW

EMC²
EMC® XtremeIO™ is built to leverage flash media and deliver new levels of real–world performance, administrative ease and advanced data services for applications that require high levels of random I/O performance such as OLTP databases, server virtualization, database analytics and VDI.

Splunk Light
Easily find and fix problems across all IT systems and infrastructure with Splunk® Light. Splunk Light can gather and correlate log data from virtually any source, format or location and give you access to it in one place.

IBM
IBM® SPSS® Modeler is a powerful predictive analytics platform that is designed to bring predictive intelligence to decisions made by individuals, groups, systems and your enterprise. SPSS Modeler scales from desktop deployments to integration with operational systems to provide you with a range of advanced algorithms and techniques. Applying these techniques to decisions can result in rapid ROI and can enable organizations to proactively and repeatedly reduce costs while increasing productivity.