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ata has quickly taken its place among the most important tools for leaders of social impact organizations. Around the world, non-profits and foundations are regularly utilizing advanced internet technology and data analysis to effectively handle important tasks like improving awareness, fundraising, recruiting and managing volunteers, and demonstrating impact.

For instance, in recent years, many organizations have implemented new data dashboard technologies to interact with supporters, boosting transparency and communication. To optimize a range of issues—from foreign aid to charter schools—organizations are using data to streamline processes, boost donations, and target actions that deliver results.

Technological growth in the social sector invites innovation in day-to-day operation, enabling leaders to expand their vision and achieve their goals more effectively. In this white paper, we discuss five pillars that organizations can use to become truly data-driven: strategy, capital, prioritizing, security, and culture. Our goal here is to provide both strategic approaches and actionable steps that leaders can implement to achieve short-term and long-term results.

Pillar 1: Articulate a Data Strategy that Serves the Strategic Imperatives of the Organization

It's no secret that solving society's myriad challenges is hard. Really hard. On one hand, millions have left poverty in the last few decades and the world has seen significant progress toward the Millennium Development Goals. On the other hand, the history of the social sector is littered with examples of failed projects and billions of wasted dollars in everything from foreign aid in developing countries to education reform in the United States. Even so-called silver bullets like microfinance delivers mixed results and unmet expectations when new innovations follow old, ineffective patterns. ii

Moving from vision to reality requires a strategic plan. Future-focused leaders in the social sector define a strategy that matches their vision of leveraging data. From optimizing microfinance to reforming schools around the world, leaders with effective data strategies can harness analytics methods to derive specific value from the nearly infinite possibilities available. By tying advanced technology to the most important organizational initiatives, leaders focus on the areas that provide the most value.

When defining a high-impact data strategy that is right for their organization, leaders should consider the following:

- Create a data strategy that is informed by the organization's desired outcomes, not by the technology that services it. Focus first on defining indicators that track key performance indicators, and then move to defining the tactical elements of the data strategy.
- Base the data strategy on measurable outcomes and milestones. Leaders move their organizations from current state toward desired outcomes by laying out clear steps with timeframes, and communicating these consistently. Define a clear path to executing the strategy, and celebrate milestone successes along the way.
- Communicate the data strategy with staff at all levels so that the organization as a whole can understand and articulate how data will be used to create real value.

To be frank, defining a strategy can be largely a matter of narrowing the focus. Since every organization and every community has several outstanding needs, we recommend that leaders do research and gather data to quantify which needs, if met, will provide the highest-impact return. Having research and data in hand, leaders can collaborate with their teams to articulate a clear, actionable strategy.

Pillar 2: Address the Realities of Human and Technical Capital

Becoming a data-driven organization begins with honestly assessing internal capabilities for generating real value from data. In launching new data initiatives, this assessment helps leaders know where their organization stands and chart a realistic journey forward. In ongoing initiatives, this assessment becomes a tool for measuring progress and staying on course.

By addressing the realities of human and technical capital, leaders can leverage strengths, adapt skillsets and shore up gaps. In this discussion, we define human capital as inclusive of skills and expertise, and technical capital as inclusive of technology, systems, and infrastructure.

Human Capital Capabilities

Ensuring the right human capital capabilities is paramount in the social sector. For example, it makes little sense to spend money on expensive systems within a humanitarian project or poverty-focused reform without having the talent on board to derive meaningful value from those systems.



When hiring or training to boost the organization's expertise level, leaders often struggle to identify which skillsets are most critical. We recommend that leaders base skillset requirements on their data strategy roadmap, pinpointing the skillsets which are critical to execution. Talent management processes should include a strategy around sourcing, developing, rewarding, and nurturing technical and analytical talent.

A data-driven organization thrives with a deep bench of analytical professionals who know how to use the tools at their disposal, and who think critically about key issues, sophisticated problems, and abstract questions.

Human capabilities grow with continuous training and development. Leaders should learn new skills to stay ahead of the curve, and then should provide learning opportunities for the entire organization.

Technical Capabilities

In the social sector, new technology solutions may be needed to enhance current IT and communications capabilities. Organizations should be open to investment if new technology is aligned with their data strategy and will generate value. New "big data" ecosystems can create enormous value-generating opportunities when they are aligned with the right data strategy and human capital.

Because so many good technical solutions are available, selection and timing are key to maximizing value. We recommend organizations implement sophisticated IT systems when leaders and staff are prepared to leverage the features effectively. This includes having the required data strategy, analytics talent, organizational will, and data sourcing to realize the value that the technology provides.

The most successful data-driven organizations pay attention not only to backend infrastructure, but also to data reporting, communication, and visualization tools. Effective reporting tools streamline data collection while simplifying "query" functionality—this allows staff to more easily access particular data, track performance, and incorporate data into the decision-making process.

Occasionally, organizations' data become locked in silos when particular sections of the organization are not willing to share access to their data. This is a problem that should be addressed in context of the organization's overarching data strategy. Sharing becomes easier for data hoarders when they are shown how sharing their data will help reach organization goals.

Pillar 3: Creatively Source, Select, and Prioritize Data Types

To achieve the most powerful results, social sector organizations need to source and select powerful combinations of data. Sourcing external data to combine with internal data can yield impactful analytics. It is especially important to not overlook sources of internal data that can give the organization new and proprietary insights.

How can leaders hedge against oversight? It helps to have a process for ensuring data are accurate, timely, and secure. Without certainty that data is accurate, any insights generated become unreliable.

To meet the needs of the organization's data initiatives, leaders should make an effort to collect the right data. To choose data based on the needs generated by initiatives, leaders should:

- Discern between interesting data and useful data by grounding data sourcing in the initiatives.
- Focus on just the data that will meet the needs of specific initiatives. This allows the organization to hone in on value-generating activities amid the nearunlimited sources of data.
- Understand how the data currently being collected reconciles with the organization's data needs. Then, adjust which data is collected and how it is collected.
- Keep in mind the potential value of unstructured data such as text, voice, and other under-utilized data types. Advanced data mining techniques, natural language processing, and text analytics allow for this information to be used in powerful ways.
- Consider the power of data from unconventional sources when combined with the organization's own data. For instance, sensor data from the internet of things, or data from web and social media are potential powerful additions to an organization's data strategy and associated analytics initiatives.

Pillar 4: Maximize the Value of Data While Maintaining High Levels of Data Security and Quality

If an organization's data governance structure isn't clearly defined, it tends to fall into one of two camps. Many organizations within the social sector struggle to create a broad culture of "data-drivenness" when data and analytics initiatives are kept structurally separate from ongoing operation—often even within a single specialized



department. On the other hand, some organization share all data and systems openly, creating potential problems with data quality and security.

To overcome these challenges and build a solid data governance structure, leaders should consider the following actions:

- Define appropriate organizational data requirements and rules based on needs and structure.
- Integrate technical savvy with organizational coordination: data and analytics should not be left entirely to data scientists and IT departments.
- Embed data and analytics deep into the organizations to ensure that information and insights are shared across all units and functions.
- Identify how analytical decisions are currently being made. Then, infuse data and feedback into decisionmaking and course alteration.
- Eliminate questions of ownership: create clear understanding of who is accountable—from executive level to analyst—for facilitating any given analysis and leveraging its insights.
- Manage the supply and demand for analytics services effectively across the organization by tracking and supporting departments or units that are consistently under-utilizing analytic capabilities.
- Break down organizational walls between initiatives, workflows, and staff in order to combine data in powerful ways. Data silos are often created when departments or units keep their data technologically and structurally separate.
- Comply with regulatory and industry-specific requirements to ensure individual level data meet the requirements defined by the organizational and constituent expectations.

Pillar 5: Promote and Train a Culture that is Driven by Data

The most successful leaders in the social sector create a culture wherein data drives decision-making. They support a culture of measurement and adjustment based on data and analytics, encouraging the use of technology to deliver services more efficiently.

To create or bolster such a culture in an organization, we recommend that leaders focus on educating the entire staff about how data can generate value. Teach staff members how to ask the right questions of data in order to harness data for unique tasks and goals. By fostering a shared

understanding of data value, leaders build consensus, consistency, and buy-in.

At its foundation, a culture of data-driven decision making leverages advanced analytics. Successful organizations run a continuous cycle of evaluating impact and changing based on the data and outcomes. In such a culture, calculating outcomes and results through predictive analytics becomes the norm. Continuous improvement comes from feeding prediction errors back into predictive models for continuous refinement.

In building such a culture into their organization, leaders invite a mindset of:

- Continuous testing
- Weighing and prioritizing decisions
- Sharing data with others in the organization
- Continuous improvement
- Using analytics to inform and influence others

For decades, most work in the social sector has been dominated by what people believe and care about—that's one of the sector's greatest attributes. But to solve social ills, social sector leaders need to combine passion with data analysis in order to drive lasting success.

Creating a data-driven organization of the social sector requires significant upfront and continuous effort; however, this effort has proven, time and again, to bring about benefits that far outweigh the costs. The five pillars described here are the framework for achieving that type of success, and they can be tailored in specific application to each organization's unique context and specialties.

Cicero Group is a premier data-driven strategy consulting firm. Cicero integrates inductive problem solving with insightful data analytics to guide social sector strategy.

Cicero Social Impact works with private and corporate foundations, non-profit organizations, educational institutions, social enterprises, and government agencies.

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ⁱ Portions of this section originally printed in the article, "The Science of Social Impact: Measuring to Prove and Improve Your Theory" by Jacob Allen (n.d). Retrieved from:

https://www.philanthropreneurshipforum.com/socialimpact-measuring-theory/

