Narrator:

Welcome to the MIT CISR Research Briefing Series. The Center for Information Systems Research is based at the Sloan School of Management at MIT. We study digital transformation.

Barb Wixom:

Hi, I’m Barb Wixom, a principal research scientist with MIT CISR. Today I’m excited to share with you the April 2021 research briefing that I co-authored with Leslie Owens and Cynthia Beath, “Data Is Everybody’s Business.”

The MIT CISR Data Board, a community of senior data leaders from large global organizations, has spent the past few months discussing promising shifts inside their companies: Chief data officers are being appointed and elevated. Data literacy programs abound. Strategic data investments are getting approved.

Now that data is prominently featured on the C-suite agenda, Data Board leaders are determined to harness and channel all that new energy productively. They want everyone to see that data is helping their companies achieve core organizational goals, from social responsibility to customer satisfaction to shareholder returns. We call this pursuit “inspiring hearts and minds,” and it’s fostering among these executives’ colleagues a radical upsurge in the commitment to data.

As leaders incorporate data pursuits into their future-ready transformation roadmap, they tend to champion an easy vision (“data is a strategic asset”) and offer ubiquitous training (“data literacy”). But the boundless potential of data will not be realized via management jargon. To foster a radical escalation of commitment, organizations need their people to engage with and experience data firsthand. Only through action will employees come to believe that data can create value in new ways, that it can do so over and over and over again, and that everyone in the company can play a role. As evidence builds, organizations will no longer just talk the talk; instead, they will interweave data into future-ready business activities. MIT CISR research has identified three actions that business and data leaders can take to make this happen.

Leadership Action 1: Build five enterprise capabilities that support new value-creation opportunities.

Data is everywhere, yet in many cases it is tied to some context. Data is shaped and constrained by the processes that create it and govern it. To treat data like a corporate asset, organizations need to de-contextualize data so that it can be recombined and reused. Leveraging the data in this way requires five enterprise capabilities.

MIT CISR has long studied information businesses because their business models rely solely on data assets for sustained economic value creation. Companies with such business models—comScore, for example—instinctively understand the need to purposely craft reconfigurable data assets. To do this, they build five data monetization capabilities that fuel data asset recombination and reuse. These capabilities include:

A data asset capability that generates data people can find, use, and trust

A data platform capability that serves up data reliably and quickly inside and outside of the company

A data science capability that uses mathematical and statistical talent and tools to detect what humans can’t

A customer understanding capability that identifies important core and latent needs

An acceptable data use capability that governs data with regard to regulation, law, and ethics

MIT CISR research has validated that these five enterprise capabilities are important for any kind of organization, not just information businesses, in generating returns from data—and the better the capabilities are, the higher the returns. Over time, organizations build deeper enterprise data capabilities by engaging in more and more advanced practices. For example, an organization can strengthen an enterprise capability such as data science by moving from mastering reporting to statistics to machine learning. Organizations also build out their enterprise data capabilities broadly by incorporating increasingly more customer segments, product lines, and subject areas into the scope of the capabilities.

Measure the state of your five enterprise data monetization capabilities. Take BBVA, for example: their enterprise performance scorecard tracks how many data sets have been ported to the enterprise data platform and how many new algorithms have been inventoried for future applications. Such measures monitor progress on enterprise data monetization capability buildout.

Leadership Action 2: Design a data monetization strategy that optimizes your company’s data investment returns.

There are three ways in which organizations can convert data assets into economic capital: improving with data, wrapping data around products, and selling solutions. All of these are forms of data monetization. In order for organizations to treat data like a monetizable asset, they will need to develop a data monetization strategy that drives an ideal mix of improving, wrapping, and selling initiatives; “ideal” depends on the organization’s business model, strategic intent, and capabilities.

Improving is about using data to redesign business processes and work tasks. It is the most popular data monetization approach. Most organizations are already hard at work using data to make operations better, cheaper, and faster; leading-edge companies strive to make operations different. For example, some companies are redesigning processes to divide decision making between people and AI engines.

Wrapping is about using data to augment the value of existing products with complementary reports, visualizations, scores, benchmarks, alerts, and automated actions. Companies are clamoring to distinguish their products using data wrapping to address both the push to please customers and the surge in digital channels. Wrapping increases the customer’s willingness to pay, and creates the value that the company captures when customers pay more, buy more, or stick around longer.

The improving and wrapping approaches are about making money indirectly through process or product change. Selling is about converting data directly into money; the approach involves selling offerings based on data sets, insights, advice, and information services. Today, more and more organizations are trying to solve marketplace problems by producing information solutions such as industry benchmarks, consumer insights, predictive maintenance, energy management, and supply chain optimization. But as organizations engage in selling these solutions, they discover that selling requires a very specific business model. Organizations with business models for selling non-information products need to make fundamental shifts to successfully sell information solutions—including structurally separating the selling business model into a unit where it can develop and thrive.

Measure the state of your data monetization strategy. Initiative by initiative, organizations can and do credibly measure outcomes from data monetization. This requires that an initiative owner report on outcomes resulting from changes: in respect to improving, the process owner reporting on changes to operations; regarding wrapping, from the product owner on changes in product; and as for selling, from the solution owner about new offerings. Ideally, as each initiative is funded and deployed, the impact of initiatives is linked to financial value on the company’s balance sheet or P&L statement. BBVA hired a person with financial credibility to establish distinct measurement methodologies for each of the company’s initiatives, to help initiative owners establish baseline states and track against them over time, and to record and publicize post-launch value creation.

Leadership Action 3: Actively drive deep, pervasive employee use of data.

Capabilities and value-creation initiatives are necessary but not sufficient for achieving desired radical change in commitment to new data practices. Organizations need to establish pervasive employee access to enterprise data monetization capabilities, a state that we call data democratization, and then motivate their use. In order for organizations to treat data like an endlessly reusable asset, they will need to provide employees with access and motivation to use data differently and more often.

Let’s be clear that data monetization capability building will never end, and data monetization initiatives will always change. As a result, there is no better time for a C-suite to communicate a guiding vision and democratize data than right now, whatever the current state of the organization’s data. While moving the organization forward, leaders naturally lean on organizational structure and motivation to activate data democratization. They lean on structures such as communities of practice, conferences, and centers of excellence to make using data capabilities feasible and appealing. For example, structures that link experienced employees with novices help spread knowledge and expose employees to novel data uses. Structures that link local efforts with centralized efforts help identify and sync up localized innovations with organizational activities meant to socialize best practices and scale the innovations across the company. Leaders will motivate engagement using “carrot and stick” techniques such as articulating clear value propositions for using data (a carrot) and establishing accountability for data use that informs employee performance (a stick).

Measure the state of employee use of enterprise data monetization capabilities. Consider Microsoft and the marketing program the company undertook to transform every Microsoft employee into a Power BI user. Transformation leaders at the company hired marketing people to design and execute a marketing campaign focused on employee adoption and use of Power BI. The leaders segmented employees to tailor appeals, identified and then remediated “adoption blockers,” and reported progress to the targeted business units—then as adoption became more widespread, evolved metrics to focus more on frequency of use.

Inspiring Hearts and Minds

Actively driving pervasive data use sets up an organization for greater data monetization outcomes—but in turn also nurtures and strengthens data monetization capabilities. Ultimately, every employee plays some role in cleaning data, sharing data, interpreting information, producing insights, and using data responsibly. As employees become more broadly capable of using and reusing data, they will also become prepared to participate actively in data monetization initiatives. Imagine how many data monetization initiatives you could execute if everyone in your organization could be an active, informed domain expert or participant! In the end, data capabilities, data monetization, and data democratization are everybody’s business.

Have you built enterprise data capabilities that employees routinely exploit and enhance? Are you creating both bottom-line and top-line returns using data? Is your data democratized and actively used? If your answer is “not yet,” you are not fully exploiting your data readiness investments. Don’t stop your data literacy programs—but also, don’t stop there.

An organization that seeks to be future-ready faces an imperative to learn how to create value from data. The key is to treat data as a corporate, monetizable, and endlessly reusable asset. And leaders need to inspire enthusiasm for treating data in this way by articulating a vision for data that aligns with their organization’s values. Now ask yourself: how can I inspire enthusiasm for creating value from data at my organization?

Narrator:

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