The O-Line

How CDOs' offensive data priorities can help an organization become more proactive and drive mission performance

Warren "Lorenzo" Ross, Jr. and Keith Catanzano

D ata is an abstract term. We can't hold it in our hands or touch it, so it can be hard to communicate to the public the value data can have in government. Well, what about getting your stolen phone back?

Police departments, like so many government agencies today, are awash in data. The New York Police Department (NYPD) has discovered a way to put this data to use for the public. The department uses text analytics on crime reports to find similar patterns of words that human investigators may have missed, because they spanned precinct boundaries, for example. The goal is not to have an algorithm spit out exactly when and where a crime is likely to occur like a sci-fi movie. The goal is to reduce the amount of busywork that officers need to do to find patterns worth investigating.[1] Already, algorithms have helped solve cases as unusual as a series of phone thefts from gym locker rooms across the city.[2]

This is just one example of how the flood of digital data available today is being applied to help government organizations accomplish and maximize their mission impact. These "offensive" uses of data are not just important to government organizations, but they can benefit the public as well.

In the previous article in this series, we described the importance of an effective data strategy to outline the data needs for the organization, define a vision, and identify the resources needed to achieve the vision. The data strategy outlines the "offensive" and "defensive" data priorities within that vision (figure 1). Offensive priorities can help chief data officers (CDOs) describe how they intend to meet mission objectives by leveraging data

analytics, modeling, visualization, transformation, and enrichment to generate insights, support decision-making, and inform the organization's overall strategy. Defensive priorities describe how CDOs can protect against downside data and data use risk by optimizing data extraction, standardization, storage, and access to drive compliance, security, quality, and trust. This article focuses on the offensive priorities within the CDOs data strategy. In the article, *The D-Line* of this series, we discuss CDO's defensive data priorities that can help ensure they have clean, usable data for their offensive priorities.
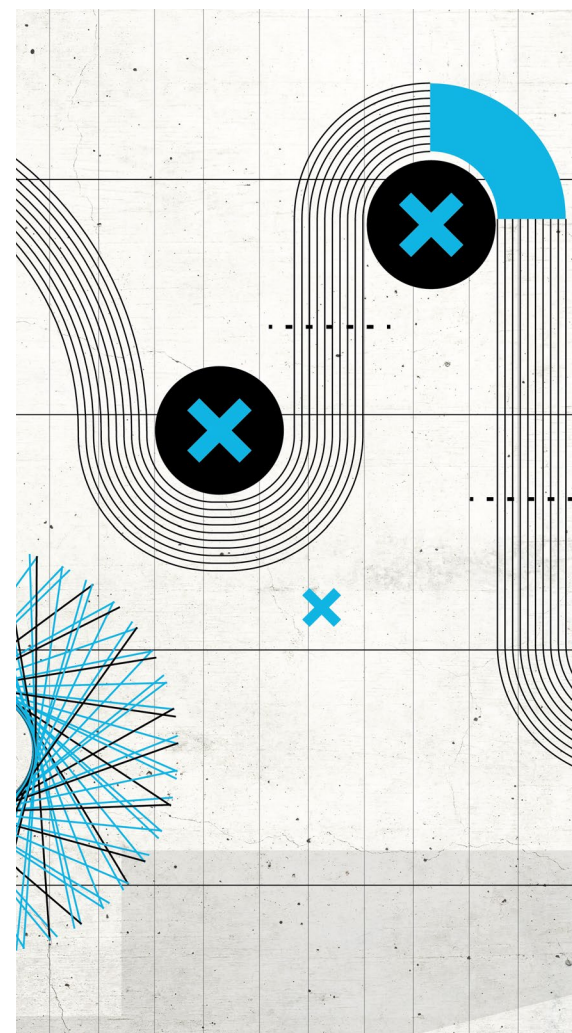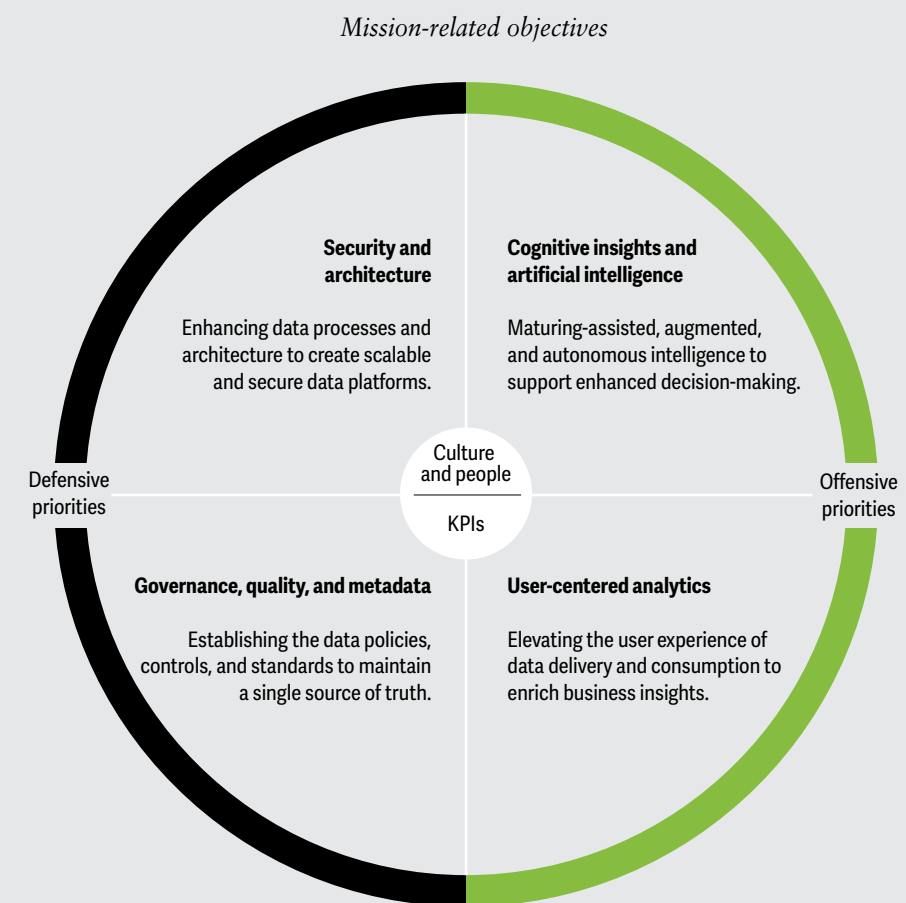
Offensive data priorities complement defensive priorities to turn data into mission value

Mission-related objectives

Security and architecture

Enhancing data processes and architecture to create scalable and secure data platforms.

Cognitive insights and artificial intelligence

Maturing-assisted, augmented, and autonomous intelligence to support enhanced decision-making.

Defensive priorities

Culture and people

KPIs

Offensive priorities

Governance, quality, and metadata

Establishing the data policies, controls, and standards to maintain a single source of truth.

User-centered analytics

Elevating the user experience of data delivery and consumption to enrich business insights.

Source: Deloitte analysis.

Applying data to the mission

In alignment to the CDO's data strategic vision, offensive data priorities set targets for how data can be used to advance the organization's mission and speed innovation and growth. Offensive data priorities can help organizations achieve:

- Improved digital interactions with public services,

- Simplified and more efficient processes,

- Focused investments where value to mission is greatest, and

- Data-driven policymaking.

Each of these benefits can be seen in the work done by the Department of Defense's (DoD's) Chief Digital and Artificial Intelligence Office (CDAO). The CDAO

has brought together significant amounts of DoD's data to help create data-driven policies, such as its Ethical Principles for AI for the department, and improve services for its customers. For example, the CDAO has used data to place focused bets on predictive maintenance for the US Army to make readiness more efficient. It has also performed customer sentiment analysis for the Defense Finance and Accounting Service (DFAS) to improve interaction with digital services for servicemembers who are also DFAS' customers.[3]

Challenges with offensive data priorities

Setting, communicating, and planning for offensive data priorities is what typically differentiates a "strategy on a shelf" from a well-understood, well-resourced, and well-implemented data strategy.

The trade-off between standardization and flexibility

CDOs may be pressured to or predisposed to take a wholly defensive posture in their data priorities, which could result in an overcorrection into standardized, controlled but low-impact data investments that are misaligned to the organization mission needs. Offensive data priorities can help data investments enable mission impact by more effectively using data to harvest business insights and inform the organization's overall programmatic strategies.

The wrong data and data tools

Organizations are often awash in data, and along with this deluge can come a rise in management's expectations of the wealth of work made possible from new, abundant information. Yet, much of an organization's currently available data may be misfit for use due to insufficient quality, coverage, timeliness, or accessibility. Depending on the state of the data, many data use options may be off the table. CDOs offensive data priorities should be informed by an assessment of whether the data an organization currently holds are an enabler of the vision and how current data are used for decision-making.

Low buy-in from the organization's data users

Even with the leading data and data tools in place, the organization's leaders, staff, and stakeholders may be low adopters due to lack of trust, interest, awareness, or skills. A CDO's offensive data priorities should take a customer-centric mindset to help ensure data investments meet the needs of those who will be using the data and tools.

Overcoming challenges to meet your mission

The following leading practices can help a CDO finalize decisions on which offensive data priorities to set and organize their investment goals around.

Lead with mission priorities that matter

Leaning into a clear agency mission can help clarify the sorts of data insights or pattern discoveries that can help fast-track future mission-focused analytics work and deliver actionable insights.

Tackling low-hanging fruit can help speed project approvals. Potential savings from an analytical project may help a proposal land an early and fair hearing because this goal is universally popular. Other valued gains from an offensive project can follow.

Also in this camp are concepts with established relationships, accessible data, and manageable scale, if the business case is clear. These sorts of projects, when approved, can serve as steppingstones to larger projects.

Work from a strong defensive base

Then come high-profile projects. Leaders are often inclined to invest in offensive analytical projects because they can herald value. Once these projects are approved, securing support for necessary priorities, including those largely unseen by leaders but critical to sustained operational success, may be easier.

Modeling algorithms can fail on weak data foundations and architectures. Strong offensive data capabilities are built on groundwork that pulls data from many available sources, which can effectively manage the subsequent collective repository, and which distribute information from that repository in machine-readable formats to users and applications across an organization.[4]

Build broad internal support

If a tree falls in the forest, does it make a sound? If a data project stays within the office of the CDO, can it have significant mission impact? Limiting talk of hoped-for analytical projects to those in silos could weaken their approval prospects. Likely team members can be project ambassadors, provided they use terms that many employees understand. Clear definitions and directives, shared early (such as that for metadata), can help build broad project buy-in. CEOs and elected officials are target audiences but alerting lower-level staff of projects that might make their jobs easier, more fulfilling, *and* meet valued organizational goals can help push chatter up and across to decision-makers.

In this process, starting the conversation with visualizations can help secure buy-in for larger investments, with mile-high views of trends or patterns that can be easily understood by everyone. Visuals can help organizations grasp the extent or complexity of a problem and fast-track possible solutions. Earmarking resources for data visualizations prior to project kickoff, irrespective of data or team maturity, can help set up a baseline for the resources required before settling on those needed for subsequent workstreams and teams. Visualizations showing progress after a system's launch can also demonstrate value for project backers, with useful metrics demonstrating success.

Draw on the right skills to meet your offensive aims

The range of tools and skills needed for one project versus another can vary considerably. For successful project execution, even advanced data teams will occasionally need partners with complementary strengths. But how can an organization decide which skills to build, borrow, or buy?

Consider matching business questions to your organization's mission statements and build and add skills around those questions. Skills core to your organization or where your organization has unique capabilities should be built upon. Conversely, areas with less experience should be borrowed or bought depending on the frequency of use. For example, agencies working on climate models may have leading talent on data science and modeling, and thus should look to expand those skills with further hires. However, they may have insufficient knowledge about the technical aspects needed to compute such large models, and so should look to perhaps buy such specialization from tech companies.

Real data, real benefit

Offensive data priorities are often where the rubber meets the road. They are the culmination of work by players across the organization to bring data to bear on mission goals. As such, offensive data priorities generally require careful sequencing and attention (you can read more about exactly how to sequence steps to reach data apps, one pinnacle of making data useful to the mission in the article, *From data assets to data apps*). But, if done right, offensive data priorities have the potential to bring transformational value to government and the public it serves.

Endnotes

1. Colin Wood, "How the NYPD is using machine learning to spot crime patterns," *StateScoop*, March 19, 2019.
2. Ibid.
3. Federal News Network, "JAIC driving more AI capabilities to where DoD needs them," webinar, November 3, 2021.
4. US Government Accountability Office, "Space command and control: Opportunities exist to enhance annual reporting," December 22, 2021.

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