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Top Trends in Government: Data Sharing as a Program

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Initiatives: Governmentwide Digital Innovation and Application Modernization

> Data sharing as an ad hoc effort is no longer sufficient, given the systemic demands to drive value from data and analytics. Instead, CIOs must adopt data sharing as a program to accelerate access to advanced technologies and strategic data reuse, while driving innovation and improved outcomes.

Overview

Opportunities

- Continuing societal and environmental challenges have brought home to policymakers how important it is to leverage timely and accurate data across multiple fronts.
- Postdigital sustainable outcomes require precise actions in context — which requires a cross-organizational view of the situation and the proposed intervention.
- Previous obstacles and barriers to data sharing have proven to be surmountable where the need is sufficient. So it is now clear that government organizations can act at scale to achieve greater quality and efficiency.
- Nonspecialist analysts and business technologists across the organization now have tools that can improve the quality of data and increase the impact from reuse across sources.

Recommendations

Government CIOs focused on digital transformation and innovation should:

- Strengthen executive support and buy-in from mission leaders by building a pipeline of use cases that have a clear line of sight to decision making around critical challenges and outcomes across government.

- Maintain confidence in decisions that have been made more effective through enrichment with shared data by ensuring transparency and consistency in governance.
- Enhance the quality and efficiency of data sharing at scale by improving the rules and structures that govern it such that they are consistent and easy to follow and are clearly based on a transparent balance of benefits and risks.
- Raise the maturity of data and analytics capabilities across the organization by making available relevant toolsets and skills that can support nontraditional specialists — notably, business technologists and analysts in operational departments.

Strategic Planning Assumption

By 2024, 50% of government organizations will establish formal accountability structures for data sharing, including standards for data structure, quality and timeliness.

What You Need to Know

Government CIOs should view data sharing as a program as one of the top technology trends likely to impact their strategic plans for the foreseeable future. Organizations are rapidly increasing their use of AI for decision intelligence and their use of generative AI, such as ChatGPT. Both create an expectation that decisions are made on a broad base of information. In reality, though, many decision processes are based on procedure and on limited, specifically collected information.

This creates a challenge in which a growing number of organizations at every level of government, from local to federal and international, are implementing formal data-sharing programs and shared data spaces at scale.

Profile: Data Sharing as a Program

Description

Data sharing focuses on bringing together data sources to enable cross-analysis, creating additional value to outcomes across government. The value of sharing data in areas such as police investigations and intelligence gathering has been clear for many years. But overall, data sharing in government is often ad hoc, driven by high-profile incidents such as in child protection (see Queensland Government Finds Missing Children Using an Automated Data Sharing and Response System) or gender violence. [1] It also covers issues such as money laundering and the more recent acceleration of data sharing to combat international sanctions evasion. [2] These instances of data sharing rarely lead to a more structured approach toward data reuse.

By contrast, data sharing as a program is a systematic approach that works through:

- Incentives and high-level sponsorship to encourage structured sharing of data
- Standards, platforms and toolsets that enable consistency and quality
- Governance to contain risks created by the wider dissemination of data
- An innovation pipeline capable of supporting ideation, incubation of ideas and scale delivery
- A structure to elicit and maintain citizen agreement where this is appropriate

These factors will drive data sharing toward being a scalable service. In particular, the standards and platforms that are created support the drive toward more-composable approaches in government service delivery. This implies a need for cross-functional data governance across multiple agencies. Examples of this include New York City's Citywide Data Sharing, through California Health & Human Services Agency's Data Exchange Framework at the state level, and the European Strategy for Data with the set of shared data spaces at the supranational level.

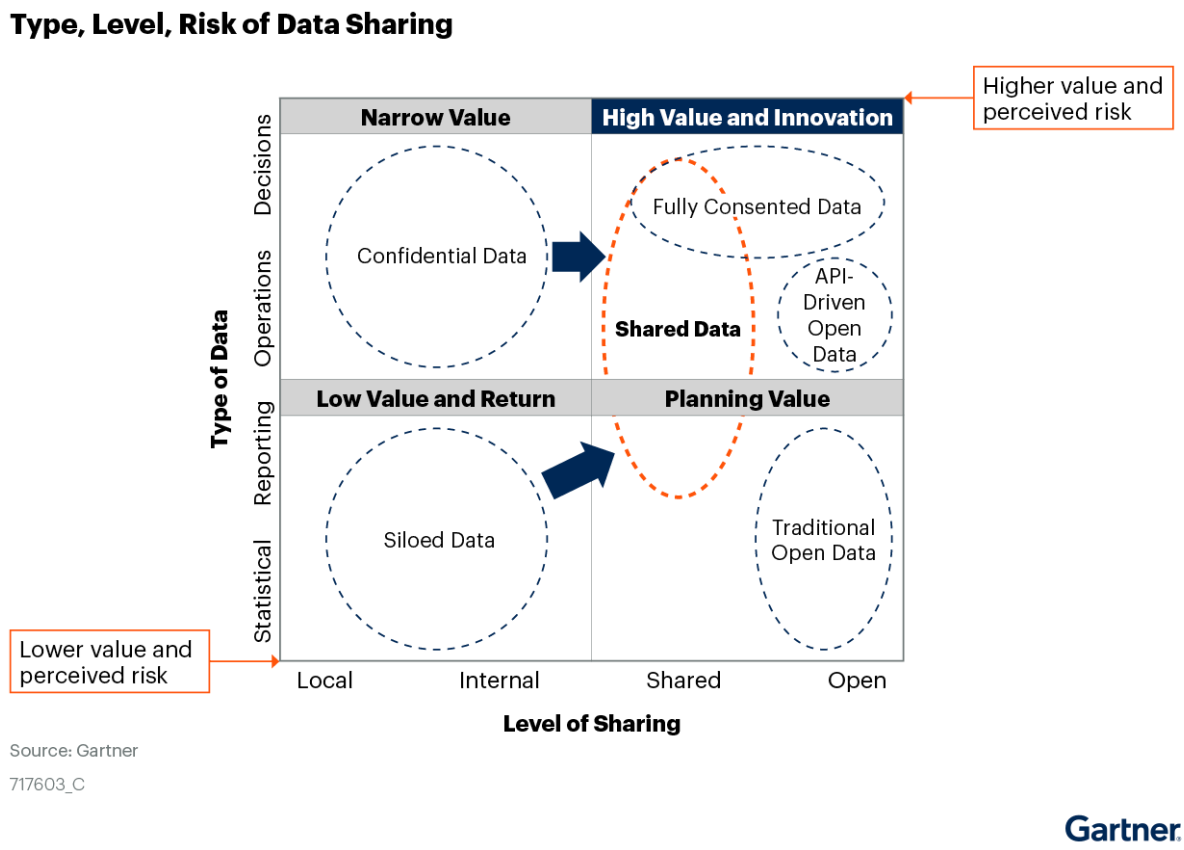
Where there are existing successful ad hoc collaborations, they can provide models for more-structured approaches. Where possible, there should be added more-consistent incentives for innovation — this, however, is rarely within the CIO's scope. This requires balancing decentralized ownership of data and distributed benefits of reuse with whole-of-government priorities and data-sharing policies.

Why Trending

Economic, environmental and health challenges — not to mention geopolitical instability — continue to put pressure on many governments. In a rapidly changing society, optimizing a narrow mission within a single agency is often no longer enough. In addition, policymakers have seen the power of rapid, continuous data sharing across agencies through the COVID-19 pandemic, and expect this in other areas.

Yet, government administrations still too often focus on local and case-specific data sharing due to the habit of compartmentalization — which is of low and narrow value (see top left and bottom left in Figure 1). Some have driven traditional "open data" initiatives for greater transparency with the hope of enabling innovation (bottom right). This is important, but there has not been sufficient impetus to deliver innovation at scale around public-sector data (see Tackle the Nontechnical Barriers to Postdigital Government Progress).

Figure 1: Type, Level and Risk of Data Sharing



Source: Gartner
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Greater value in government, as in the commercial arena, has been gained from data using consent and near-real-time access. This drives higher innovation and increased value (top right in Figure 1). Successful actors also leverage “open data” approaches and technologies such as API marketplaces for more than just public data sharing on a portal. They explore more-exclusive data-sharing arrangements and communities that add important benefits to a group of ecosystem actors. [3] Governments may not be able to easily achieve “fully consented data” due to their unique position as monopoly providers of certain services and their dual role as regulatory authority and service provider. But they can approach this level of value provision through shared data.

Resistance to sharing data in government is often driven by multiple factors:

- Officials handle data on behalf of their citizens and must protect them.
- Organizations focus more on process compliance, rather than the creation of value.
- Organizations may be concerned that historical quality issues will become an embarrassment to the current data controller.

Several factors are accelerating the need for data sharing to follow a more pragmatic, results-oriented approach. This leads to the trend of data sharing in government becoming more programmatic, rather than project-based:

- Citizens increasingly expect to be served by government in a way that is lean, efficient and effective, as offered by major commercial platforms. The loss of skilled staff during a period of rapid change continues to stress organizations and lays bare serious deficiencies in governments’ ability to provide high levels of services at all times.
- Government leaders increasingly want information on which they make decisions to be consistent, current and correct across all services.
- There is a realization that it is the user of data who receives immediate value, while cost and risk lie largely with the provider. This can be corrected by feedback on data quality and other incentives. [4]
- Demand to exploit data and analytical tools is outside historical IT or statistics departments.

Implications

Data sharing requires compromise, strong sponsorship and political leadership. This means that:

- CIOs must work with stakeholders to develop a data-sharing strategy across multiple scales, focusing on value and driving government goals.
- All participating parties must accept an increased risk to data they previously controlled, as well as exposure of data inadequacies, in return for contributions to mission delivery or budget savings (see 4 Steps to Drive Sustainable Value for Government Shared Data Initiatives).
- Organizations have a responsibility to deliver value and improve over time. A data-sharing program does not need to solve the whole problem at once, and can develop value in proportion to effort.

Risk should be shared. Data of mixed quality exposes the originator to criticism for lack of control, but also puts the user at risk of inaccuracies in decisions based on flawed data. Systematic mechanisms should be established to encourage corrections to flow back to the data controller.

Governments have roles as both providers of services and regulators — for example, the provision of human services to support children, and the need to police substance misuse. This creates ethical governance challenges not found in the commercial sector.

The data-sharing environment must work across these differences in a manner that can create and maintain trust. The data subject or originator and the data stewards must believe that the information is being shared appropriately, despite occasionally conflicting stakeholder expectations. Years of a culture of compartmentalization for security reasons now needs to be shifted to use of data to serve citizens and accelerate improvements (see Why Situational Trust Is Key to Data Sharing for Business Value).

Organizations cannot justify building a complete data-sharing fabric in the absence of an early return on investment or specific problem to be solved. However, having the ability to share data at scale is becoming a critical capability (see Quick Answer: How Are Organizations Overcoming Issues to Start Their Data Fabric or Mesh?). Changing the culture of data compartmentalization and control and bringing in data from legacy systems are likely to be challenges that last through multiple administrations and changes in leadership. Agencies without a strong track record of value from data sharing should identify “quick win” opportunities that illustrate tangible value beyond mere compliance.

Actions

- Focus initially on common policies for sharing and use cases that will provide early value, with supporting multidisciplinary organizational structures and incentives. [5] The supporting environment built must be exploitable for new use cases, and the policies must be adaptable to more-sensitive or more-secure environments.
- Where possible, develop or exploit central resources like communities of practice or data and AI innovation programs. This is what "data sharing as a program" means, and is critical for success.

Evidence

[1] VioGén System, Ministry of the Interior, Spain.

[2] Singapore Preps Data Sharing Platform to Tackle Money Laundering, Finextra.

Global Advisory on Russian Sanctions Evasion Issued Jointly by the Multilateral REPO Task Force March 9, 2023, European Commission.

[3] Common European Data Spaces, Real-time Linked Dataspaces.

[4] Case Study: Crisis Delivery of New Furlough Systems for COVID-19 (HMRC).

[5] Case Study: Expanding Data Insights in Culture and Tourism (DCT — Abu Dhabi).

Other examples:

- Gartner's Eye on Innovation Awards for Government Winner in the EMEA region: The Danish Safety Authority Wins International Innovation Award for AI Tools, Danish Safety Authority, Denmark.
- Case Study: Swedish Government's Rapid Response to Social Service Demands (Försäkringskassan).
- Welcome to the Behavioral Health Data Sharing Toolkit!, Integrated Behavioral Health Partners (IBHP).
- The Economics of Business-to-Government Data Sharing, JRC Technical Report, European Commission.

Document Revision History

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