

Responsible Data Use Playbook for Data-Sharing Collectives

A PLAYBOOK BY THE
BEECK CENTER FOR SOCIAL
IMPACT + INNOVATION

PUBLISHED FEBRUARY 2021

By Natalie Evans Harris,
Bill Yock, and Divjot Bawa

beeckcenter
social impact + innovation

About the Beeck Center for Social Impact + Innovation

The Beeck Center is an experiential hub at Georgetown University that trains students and incubates scalable, leading edge ideas for social change. We believe impact at scale requires the courage to think and behave differently. Our work centers on investing in outcomes for individuals and society. We equip future global leaders with the mindset to promote outcome-driven solutions, using the tools of design, data, technology, and innovation. We convene actors across the public, private, and civic sectors to advance new tools, frameworks, and approaches necessary to achieve these outcomes.

About this Playbook

This playbook represents research by Natalie Evans Harris, Divjot Bawa, and Bill Yock as part of the Beeck Center's [Responsible Data Practices](#) project.

This report is released February 2021 under a Creative Commons Attribution-ShareAlike license, and should be cited as: Evans Harris, Natalie; Yock, Bill; and Bawa, Divjot (2021). Responsible Data Use Playbook for Data-Sharing Collectives, Beeck Center for Social Impact + Innovation, Georgetown University, Washington, D.C.

Table of Contents

Background and Context	3
Strategic Area 1 – Getting Stakeholder Buy-In for Data-Sharing Collectives	5
Play 1 – Document the Data-Sharing Collectives Shared Vision, Major Objectives and Desired Outcomes	5
Play 2 – Establish Clear Data Management and Decision-Making Processes for the Data-Sharing Collective	6
Play 3 – Formalize the Governance Structure of the Data-Sharing Collective	8
Strategic Area 2 – Helping Legal and Technical Teams Avoid Problems	10
Play 4 – Map Out the Legal Basis for the Data in the Collective	10
Play 5 – Standardize the Rules for Data Sharing Agreements	11
Play 6 – Assess Technical Capabilities, Context & Controls	12
Strategic Area 3 – Obtaining the Necessary Resources for Operating a Data-Sharing Collective	14
Play 7 – Develop Strategic Plans and Roadmaps Collaboratively	14
Play 8 – Assess the Data Literacy of the Workforce and Provide Proper Training	15
Play 9 – Establish Necessary Funding for Data-Sharing Collectives to be Successful	16
Strategic Area 4 – Sustaining Data Sharing Collectives	18
Play 10 – Avoid Breakdowns in Communications & Deteriorating Commitment	18
Play 11 – Create a Resilient Data-Sharing Environment	19
Play 12 – Evangelize the Value of the Data-Sharing Collective	20
About the Authors	22

Background and Context

This Responsible Data Use Playbook is a collaborative effort to provide Chief Data Officers (CDOs) at all levels of government with strategies and best practices in the formation and operations of a data-sharing collective. A data-sharing collective (or just collective) — for purposes of this document — is defined generically as a group of organizations with a shared goal for driving impact through linked data across different government business domains (health, education, justice, safety, commerce, etc.). Typically, collectives are formed for cross-domain analysis, and evidence-based policy decision making purposes. Here, we use the term synonymously with other common references such as [data trusts](#) or [data collaboratives](#). We acknowledge that the definition is broad and could encompass a variety of scenarios, from how to share data with external researchers to governance around enterprise data warehouse systems. Thus, this playbook focuses specifically on collectives, which is one of the many responsibilities CDOs within government often have.

With the growing number of companies and government agencies forming data collectives, and linking data across institutional and geographic boundaries in support of the social good, there are plenty of exemplars of government agencies using data to drive impact, from the Colorado Department of Education [creating a data governance board](#) to the North Carolina Early Childhood Foundation driving impact through [data collection and action](#). Despite these exciting success stories, there are still gaps between governance practices and the idealized version of data sharing. Data-sharing collectives, in particular, represent a unique challenge for CDOs in that access and use of cross-domain data requires numerous decisions to be made:

- weighing individual privacy with the interests of the greater public good
- integrating data for aggregated statistical purposes versus real-time operational coordination across domains
- balancing potential ethical implications and privacy concerns

These decisions — among others — highlight how the sharing of highly sensitive data must not only be compliant with data laws and regulations but also distributed in such a way that is mutual, strategic, and purposeful. One example of this is the European Union’s recently-proposed [Data Governance Act](#) to build trust in “data intermediaries” to safely facilitate sharing of commercial and public data.

This playbook offers several suggestions to help CDOs reconcile these competing objectives. Building onto the three-phased approach depicted within the [“Sharing Data For Social Impact: Guidebook To Establishing Responsible Governance Practices”](#) guidebook, this playbook is organized around four key Strategic Areas. These include:

1. Getting Stakeholder Buy-In
2. Helping Technical and Legal Teams Avoid Problems
3. Obtaining the Necessary Resources
4. Sustaining Operations for collectives

These four overarching areas emerged after conducting an extensive literature review and interviewing numerous senior, public data-sharing practitioners. Each strategic area is composed of “Plays” which each contain two parts: (1) “Checklist” items of best practices and (2) “Key Questions” to ask regarding the context of the Play. The playbook includes numerous references to illustrate key concepts and provide examples of best practices.

This playbook is published by the Beeck Center for Social Impact + Innovation at Georgetown University. It includes input from the State Chief Data Officers Network that is coordinated by the Beeck Center. Special thanks to Divjot Bawa and Bill Yock who provided research and drafting support.

Strategic Area 1 – Getting Stakeholder Buy-In for Data-Sharing Collectives

Without the support of agency heads and executive leaders, data-sharing collectives will not be efficient or effective. Building trust among and between key stakeholders of the data-sharing collective is a strategic tactic that CDOs should facilitate and accelerate.

Play 1 – Document the Data-Sharing Collectives Shared Vision, Major Objectives and Desired Outcomes

Data-sharing collectives can serve many different needs and purposes. For that reason, clearly documenting what data is available, who has access to the data, how the data must be protected, and what the desired goals and objectives of the collective benefit the entire collective and its stakeholders. A critical step to honing in on a focus and discerning answers to such questions can be realized through identifying a shared vision for the collective. This provides a unique opportunity through which various stakeholders can assess technical, legal and business capacities to try to maximize public benefit. Collectives often involve a centralized infrastructure to hold collectively shared data. Security and privacy of the data are major objectives and stakeholders must agree on who can access and analyze data and under what conditions. Moreover, documenting a shared vision helps executives and agency heads ensure the collective delivers on their overarching goal for a robust [evidence-based policy making](#) capability.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Develop and publish a charter or other official statement that includes data principles and primary motivations. ❑ Align the vision to broader environmental, social, and governance (ESG) impacts as much as possible. ❑ Publish Information Sharing Guides that denote specific roles and scenarios in which it is appropriate to share sensitive information. ❑ Be transparent by maintaining a repository of major issues, risks, decisions, and outcomes made around the operation of the collective. 	<ul style="list-style-type: none"> ★ Does the data-sharing collective serve both operational and analytical data objectives? ★ Do operational frontline workers require always-on, real-time access to data? ★ Are key measures, metrics and indicators aligned across broad program and policy goals? ★ What are the constraints and assumptions for how data sharing occurs? (legal & regulatory, timeliness, user roles, data quality, identity matching, de-identification, etc.) ★ How are stakeholders engaged to provide input? (brainstorming, voting, business case templates, etc.) ★ How do you keep stakeholders informed of roadblocks and progress? (blogs, newsletters, periodic meetings, etc.)

Play 2 – Establish Clear Data Management and Decision-Making Processes for the Data-Sharing Collective

Data-sharing collectives require [well-defined decision-making processes](#) for what data is included and for how data is protected, shared and used. Curation of the metadata around the collective is also crucial in ensuring proper handling and use of the data. Factors such as having a common understanding of how data is linked across domains, instilling processes for authorizing new users, and allowing new research to be performed will be needed for the success of a collective in the long term. Additionally, standardization of workflows and formalization of escalation procedures for data management activities will speed up decision-making, instilling

confidence in executives and agency heads that the collective will be operated safely.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Identify and establish a champion at a high enough level to help clear obstacles and maintain momentum. ❑ Create a standard issue or request intake process with objective problem statements as well as pros and cons. ❑ Publish governance decisions for transparency and influencing desired behaviors, including the rationale for why decisions are made to build up a “case law” library of precedents. ❑ Establish standards and guidelines for emergencies or non-typical requests. ❑ Catalog and classify data assets to make it easy for requesters to understand what data is available, what related data products already exist, and the controls governing their protection and use. ❑ Define access controls and policies to the data collective and under what circumstances users can access, exchange and/or analyze data. 	<ul style="list-style-type: none"> ★ Do you have necessary administrative program support, tools, and staff? ★ Does your review process include the right data stewards? (i.e., business domain, legal, security, privacy, compliance, technology, ethics) ★ What is the expected volume of data sharing requests? ★ What is your organizational readiness to change and current data-sharing capacity?

Play 3 – Formalize the Governance Structure of the Data-Sharing Collective

Governance around data-sharing collectives should not be ad hoc or ill-defined. Several states and agencies have developed [formal and transparent governance](#), using different organizational structures, to establish and operate a data-sharing collective. For example, the State of California Health and Human Services Agency developed a [bifurcated framework](#) governed by a Master Agreement and multiple Business Area Agreements among participating departments. The Commonwealth of Virginia established an [executive-level Data Commission](#) to govern inter-agency data sharing. Both provide clear instructions for how new members join the collective as well as rules for resolving data-sharing disputes. Each formally documents the purpose and structure of the governance bodies in the data-sharing collective, which is essential for obtaining confidence and buy-in from executive and agency head stakeholders.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Commission appropriate studies and reviews of data-sharing practices within complex collective ecosystems. ❑ Determine the key stakeholders and their interests, and pinpoint how they fit into the collective’s governance. ❑ Determine the governance structure and establish the formalized codes, regulations, ordinances, executive orders, official web sites, etc., to legitimize the collective. ❑ Communicate with all stakeholders, and educate the public on the purpose, principles, standards and protocols of the collective. ❑ Ensure the collective has clear lines of accountability defined 	<ul style="list-style-type: none"> ★ Is the governance around your data-sharing collective ad hoc and not codified in an official way? ★ Is there a mismatch between the culture and political orientation of the stakeholders? ★ Are consequences for non-compliance to the charter and agreements well understood? ★ Do the collective’s stakeholders agree on the value, and level of risk, in the use of the data?

along with contact information of key stakeholders and data stewards.	
---	--

Strategic Area 2 – Helping Legal and Technical Teams Avoid Problems

Data-sharing collectives require close coordination between legal and technical team members due to the complicated [patchwork of laws](#) and regulations around data privacy. The legal basis for the exchange of confidential data must be clearly understood and appropriate technical controls need to be implemented to safeguard it. Chief Data Officers should ensure that both teams understand each other and coordinate closely.

Play 4 – Map Out the Legal Basis for the Data in the Collective

Data privacy laws allow sharing (disclosing) of confidential data only under very specific circumstances. Sharing of de-identified data is often allowed for research and statistical evidence purposes. When data is shared it is important to document the expectations between the providers and recipients of the data according to the sensitivity and intended purpose. The terms under which data sharing is permitted are usually regulated by signed, [contractual legal agreements](#). Getting everyone on the same page regarding the legal basis that permits the sharing of data is important. Developing and promoting data [policies and standards](#) will help and should be an ongoing effort. The context in which data can be legally shared must be documented according to specific scenarios and purposes (i.e., coordinating healthcare, conducting social science research, etc.) between providers and recipients.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Make sure that legal and IT teams clearly agree on what personal data can be included in the collective. ❑ Classify all data elements that constitute confidential data paying attention to highly sensitive domains of education, criminal justice, social services, and healthcare. 	<ul style="list-style-type: none"> ★ Have you clearly defined the data stewardship responsibilities of business, legal, and technical team members? ★ Does the legal team have subject matter expertise in each business data domain and its associated laws and regulations? ★ Do you have well-established onboarding and request

<ul style="list-style-type: none"> ❑ Determine if any healthcare data includes highly sensitive substance-use and behavioral or mental health data. ❑ Summarize all relevant laws and regulations according to the business purposes involved in each anticipated data-sharing scenario. ❑ Educate data providers and recipients on what laws govern the data and validate that they understand their legal responsibilities. ❑ Assign “curation” responsibilities for inspecting and managing data quality to both data providers and recipients. 	<p>processes for data providers and recipients?</p> <ul style="list-style-type: none"> ★ Do you have proper data governance tools for classifying and understanding the quality and sensitivity of data?
--	---

Play 5 – Standardize the Rules for Data Sharing Agreements

Sharing of sensitive data must be done only in accordance with the terms outlined in formal Data Sharing Agreements. Agreements may take different forms but are legal contracts that stipulate what data is shared and under what circumstances. Agreements should cover both sharing of individual records as well as aggregated data sets. Each agreement should detail clearly who the data providers and recipients are, what roles they assume, and what their responsibilities are. It must specify the specific data elements to be shared. Well-defined agreements give legal teams confidence that data sharing will not violate laws and regulations and provides IT teams with direction for how to implement security and privacy.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Document the scenarios in which sensitive data can be legally shared in a manner that makes it easy to understand the flow of information under different circumstances. ❑ Classify agreements based on usage patterns, types of systems, data use licenses, etc. ❑ Make sure that the specific data elements to be exchanged per each agreement are listed and are the “minimum necessary” to achieve the purpose. ❑ Create templated Data Sharing Agreements that standardize the rules for all providers and recipients. ❑ Define aggregation and mosaic effect rules and thresholds for avoiding easy reidentification of confidential data. 	<ul style="list-style-type: none"> ★ Is the data-sharing collective used for social or health science research involving human subjects? ★ Is any of the data in the collective from the highly regulated data domain areas of education, criminal justice, substance-use, mental-health, or healthcare? ★ Have you conducted a benefit and risk analysis around the data sharing scenarios? ★ Do you have decision trees and guidelines that data providers and recipients can follow? ★ Are the rules for “Authorization to Disclose” understood for confidential data? ★ What legal court orders might be needed for release of confidential data? ★ Can or must data be redacted or obfuscated before sharing?

Play 6 – Assess Technical Capabilities, Context & Controls

The [technical environments](#) that data providers and recipients use can be complex and varied. It can range from a simple shared file folders, where raw data sets are deposited, to elaborate data warehouse and business intelligence systems with data highly engineered and structured. Systems administrators, analysts and end users should have the right skills and knowledge to manage the data safely and appropriately. Encryption and authorization processes are required for maintaining appropriate technical controls. Auditing and compliance including reporting requirements need to be defined and implemented.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Create cybersecurity standards and audit processes for the technical network, computing, and database environments. ❑ Inventory and classify all data management systems and associated hardware and software used to operate the collective. ❑ Perform Ethical Risk Assessments on the data managed in the data-sharing collective. ❑ Document Authentication and Authorization systems and processes used for Identity Management and Static and Dynamic Based Access Controls. ❑ Standardize data encryption and key management processes ❑ Understand regional and situational contexts that may impact data-sharing collectives (i.e., geographic jurisdictions, emergency response needs, etc.). ❑ Ensure proper record keeping and logging requirements for processing and accessing the data. 	<ul style="list-style-type: none"> ★ Have you conducted security and risk assessments of the technical environments of all data providers and recipients and any third-party operators or associates? ★ Does your organization have significant technical debt with legacy systems that are hard to maintain and keep secured? ★ Do technical, legal and business users have the necessary training and certifications? ★ Do new user access requests to the technical environment(s) of the data-sharing collective have business owner approval as part of the process? ★ How are privileged accounts that have access to the data monitored and validated?

Strategic Area 3 – Obtaining the Necessary Resources for Operating a Data-Sharing Collective

The operation of data-sharing collectives should never be undertaken if proper resourcing and funding is not available. Under-resourcing will lead to short cuts and compromises being taken that will increase risks. Making sure that adequate resourcing is available to set up and run a data-sharing collective is a strategic tactic that CDOs must undertake.

Play 7 – Develop Strategic Plans and Roadmaps Collaboratively

Data-sharing collectives require considerable strategic planning to be coordinated across agencies and departments. Roadmaps from these strategic planning activities must balance competing needs for meeting quality and availability expectations of the collectives users. Data engineering and analytic production can become bottlenecks if plans and roadmaps are not synchronized and communicated with all the stakeholders of the collective.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Determine the frequency for strategic planning and roadmapping exercises, and schedule all appropriate stakeholders far in advance. ❑ Facilitate the strategic planning process by establishing and educating on common architectures and standards for data sharing platforms and tools. ❑ Assess priorities by analyzing specific business use-cases along 	<ul style="list-style-type: none"> ★ Is a formal strategic planning methodology followed for new and incremental data projects in the collective? ★ Is a formal enterprise architecture group or function established to plan and leverage shared resources? ★ Is it clear how distributed and central data engineering and analytics team members will work together on roadmap items?

<p>with decisions and incentives that are expected.</p> <ul style="list-style-type: none"> ❑ Leverage enterprise licensing agreements and leasing options for major technologies and plan growth and cost estimates. 	<ul style="list-style-type: none"> ★ Can data in the collective be segmented and worked on separately by teams or is there a central repository that must be scheduled and data jobs sequenced?
---	--

Play 8 – Assess the Data Literacy of the Workforce and Provide Proper Training

Data-sharing collectives are used by many data and business professionals. Making sure that team members are knowledgeable and trained in the proper handling of the data is important. HR job classifications in the government sector are sometimes lagging industry and do not reflect current skills needed. Analyzing the data work force and implementing proper [Data Literacy](#) education and training is critical in meeting objectives and reducing risks.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Consider partnership in the Data Literacy Project and collaborate in developing educational, assessment, and training materials. ❑ Develop “center of excellence” and/or “shared service” workforce models that plugs gaps in missing or needed job functions. ❑ Standardize HR data job classifications across agencies and departments, and ensure market-comparable wages. ❑ Drive data culture change with networking events, recognition programs, and training opportunities. 	<ul style="list-style-type: none"> ★ Are HR job classifications outdated and not reflecting current needs or labor market realities? ★ Do non-technical job classifications perform data analysis (i.e., management analysts, policy analysts, budget analysts, epidemiologists, etc.) ★ Are there any enterprise licenses of online training software that includes data content that can be leveraged to deliver more affordable training to departments? ★ Do higher education institutions in your state have a vested interest in developing talent?

Play 9 – Establish Necessary Funding for Data-Sharing Collectives to be Successful

Operating data-sharing collectives requires resources to help govern and maximize use. Often, existing data resources are called upon to take on new responsibilities or serve ad hoc requests. Deciding on the proper funding models and budget processes can be daunting. Technology that underpins the data-sharing collective may be shared hardware and software complicating the budgeting and resourcing decisions. Creating clear funding and staffing models for collectives will help in the planning and obtaining necessary resources.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Decide on the funding source(s) (shared services, chargebacks, general funds, grants, etc.) for both implementation and ongoing operations. ❑ Develop technology operating models for major processes associated with the collective. (i.e., onboarding new providers, anonymizing data sets, backup and recovery, etc.) ❑ Explore philanthropy and Opportunity Zone or other tax incentives to support the collective. ❑ Document future-state funding model expectations and build in reserves and contingencies in case revenue expectations are not met. ❑ Establish appropriate capital and operating cost centers and clearly identify financial, accounting, and budget decision-making authorities. 	<ul style="list-style-type: none"> ★ Will the data-sharing collective be used for fraud detection and cost recoveries? ★ Is funding documented clearly in ordinances, tax levies, and/or budget documents? ★ Are IT chargeback service models perceived as fair for big and small departments? ★ When using cloud technology platforms is consumption, storage and usage tracked, and costs allocated to individual cost centers or aggregated? ★ Does the data-sharing collective require a lot of data engineering? (i.e., fixing data quality, real-time and batch data feeds, aggregating and de-identifying, etc.) ★ Are query and business intelligence access tools familiar and easy to use for users accessing and analyzing the data?

- | | |
|---|--|
| <ul style="list-style-type: none">❑ Set service-level agreements that consider the demand for data and capacity to deliver. | |
|---|--|

Strategic Area 4 – Sustaining Data Sharing Collectives

Nurturing and sustaining data-sharing collectives requires an ongoing commitment from all stakeholders. CDOs can employ strategic actions to prolong a collaborative’s success which include maintaining stakeholder trust, building resilient environments, and demonstrating ongoing value — tactics that require patience and resilience.

Play 10 – Avoid Breakdowns in Communications and Deteriorating Commitment

A breakdown in commitment from stakeholders is often directly connected with deteriorating interest. It is important to have a strong communication plan to avoid problems and sustain interest in the data-sharing collective. Providing timely and relevant information to different stakeholders not only improves the overall value of the collective but also encourages long standing commitments from all stakeholders. The best practices that have been identified are keys to fostering such an environment and developing requisite social capital and goodwill.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Conduct regular (scheduled), in-person meetings with diverse stakeholders to sustain interest and actively close feedback loops. ❑ Monitor quality of shared data and ensure factors (standardization, interoperability, validation, aggregation, anonymization, etc.) meet agreed-upon standards. ❑ Develop an official data-sharing collective web page that is regularly updated with meeting 	<ul style="list-style-type: none"> ★ Are the collectives shared vision and principles referenced and reinforced frequently? ★ How will feedback from throughout the data and analytic supply chains be solicited? ★ Which stakeholders will be responsible for closing feedback loops? ★ Does your communication plan target both internal and external audiences? ★ Are there cross pollination and marketing opportunities with

<p>notes, news, event notifications, and progress reports.</p> <ul style="list-style-type: none"> ❑ Actively illustrate the data sharing projects that are mutually beneficial by pointing out high-value outcomes cross domain data sharing. ❑ Create recognition programs and award ceremonies to celebrate hard work and successful outcomes. 	<p>other stakeholder communications initiatives?</p> <ul style="list-style-type: none"> ★ Do you have a standard elevator pitch memorized when asked about the purpose and value of the data-sharing collective?
--	---

Play 11 – Create a Resilient Data-Sharing Environment

Technology, and the fast-growing volume of data it provides, requires building data-sharing collective environments that are resilient and adaptive. Personal data by nature is sensitive and governance and control of it is constantly changing. Having flexible and agile technologies, as well as governance processes, is key to building responsive and resilient environments that accommodate the rapid pace of change.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Ensure modern data management technologies are being used and replace technical debt as quickly as possible. ❑ Invest in Privacy Enhancing Technologies that anonymize, pseudonymize, and mask sensitive data. ❑ Utilize agile data warehousing methodologies, like Data Vault 2.0, to engineer data quickly. ❑ Periodically review and update data-sharing, and other governance agreements, to 	<ul style="list-style-type: none"> ★ What is the process for removing member access from the data-sharing collective? ★ What processes will be instituted to ease continuation (transition plans, cloud migrations, etc.)? ★ What aspects of the data-sharing collective are likely to change over time (business, legal, technical, etc.)?

<p>address changing needs and audit access controls.</p> <ul style="list-style-type: none"> ❑ Formalize roles and responsibilities around data access and report change request processes. ❑ Establish a competitive fellowship for building a technical assistance/support program. 	
--	--

Play 12 – Evangelize the Value of the Data-Sharing Collective

CDOs need to actively promote the value propositions of data-sharing collectives and help to mature the usage of them. This can be achieved through establishing frameworks to measure the impact and success of data-sharing collectives, sharing best-practices of how to handle data safely and productively, and educating others on the power of advanced analytics applied to high quality data. Most importantly, this step is critical in sharing progress and building connections with others spearheading similar initiatives and must be a critical component of every CDO’s mission.

Checklist	Key Questions
<ul style="list-style-type: none"> ❑ Engage in storytelling – share your impact with all stakeholders via blogs, speaking engagements, newsletters, etc. ❑ Integrate public participation (where applicable) into impact assessment. ❑ Survey end users regarding their satisfaction in being able to find and use data effectively. ❑ Build processes and metrics to monitor satisfaction and publish 	<ul style="list-style-type: none"> ★ Do other stakeholders help you evangelize the value of the collective? ★ Are service level agreements and performance metrics written down and agreed upon? ★ Can data quality problems be quantified and value of sharing be calculated in some tangible way?

<p>dashboards with uptime and usage statistics.</p> <ul style="list-style-type: none">❑ Create education and training materials to highlight what data is available and common techniques used in analyzing it.❑ Share research, sponsor demonstrations, and brainstorm ideas on how to increase privacy and leverage emerging technologies.	
---	--

About the Authors



Natalie Evans Harris

Natalie is a sought-after thought leader on the ethical and responsible use of data after nearly 20 years advancing the public sector's strategic use of data, including a 16-year career at the National Security Agency, and 18 months with the Obama Administration. Natalie co-founded the data collaboration organization Brighthive and was a fellow at the Beeck Center from 2019-2021. She is currently a Senior Advisor to the U.S. Secretary of Commerce.

She is known for working with a broad network of academic institutions, data science organizations, application developers, and foundations to advance the responsible use of data standards, APIs, and ethical algorithms to directly benefit people.



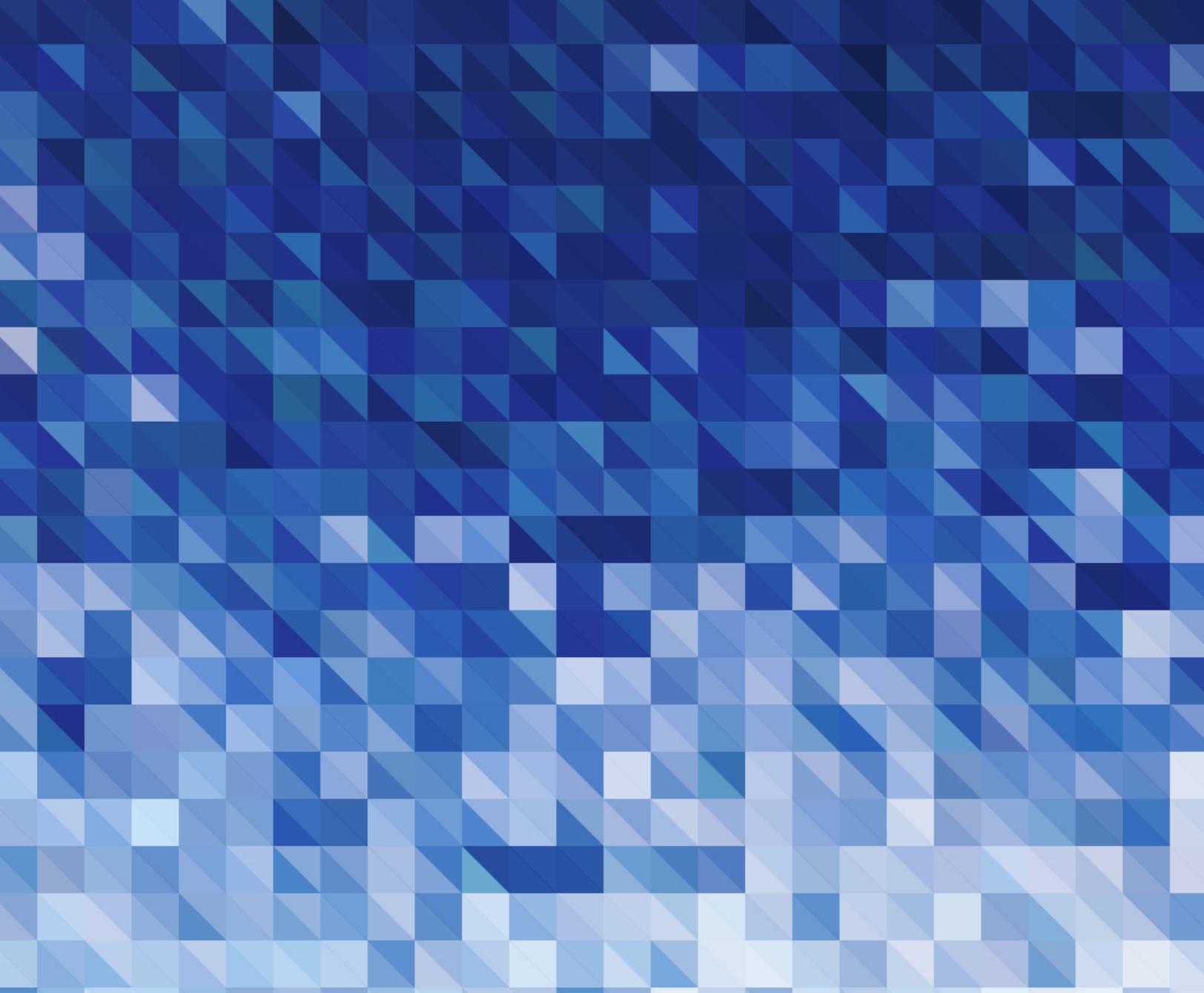
Bill Yock

Bill is the former Chief Data Officer at Santa Clara County, CA and King County, WA. Bill helped establish new data governance processes and was instrumental in building new data integration hubs for their Public Health departments. Previously he was the Executive Director of Enterprise Information Services at the University of Washington and active in higher-education consortiums building identity and access management solutions. Currently, he is a Principal Data Architect at Alaska Airlines and assisting with new data privacy and security solutions.



Divjot Bawa

Divjot is currently a student in the Georgetown University Walsh School of Foreign Service, and was a Student Analyst at the Beeck Center in 2020.



Follow us on



beeckcenter
social impact + innovation



GEORGETOWN UNIVERSITY