THE PLAYBOOK

Data Sharing for Research
SUMMARY & RECOMMENDATIONS

Overview

Corporate data sharing for research connects companies with research institutions to increase the quantity and quality of research. The expanded adoption of data science in academia and business makes researchers both interested in and able to work with data collected by companies. Now is the time for both researchers and corporate data holders to consider data sharing that supports research. Not only can companies make more evidence-based analysis possible by sharing data, but doing so can also contribute to their environmental, social, governance, and corporate social responsibility activities.

Researchers benefit from data-sharing partnerships because they can get access to data that is different in content and scale than is possible through traditional collection methods. Universities and other research institutions can provide oversight, training, and support covering the wide range of personnel involved in research, associated technical infrastructure, and legal rights and responsibilities that might go into a data-sharing agreement. Research institutions anticipate common challenges that arise during research and have developed multifaceted safety nets for the ethical conduct of research.

Recommendations

FOR COMPANIES AND ORGANIZATIONS

» Develop a process to evaluate the quality of research proposals. Consider starting with the National Science Foundation's two criteria of intellectual merit and broader impacts.

» Conduct a cost and risk assessment covering both physical costs associated with sharing data for the research and potential privacy risks that might arise from how the researchers handle the data.

» Negotiate a legal framework — an agreement (e.g., contract) spelling out a data use agreement and other circumstances/terms and conditions relating to how researchers use a company's data, including how the data will be treated after the research is done.

» Consider the use of specialized intermediaries. Data trusts, data cooperatives, and other approaches are emerging to complement archives as means of third-party storage and support for access to data by researchers.

» Consider using encryption, hardware-based Trusted Execution Environments (TEEs), or a data clean room. All require specific support in the infrastructure of the research institution or the company.

» Assess the diversity, equity, and inclusion (DEI) dimensions of data sharing. These might be reflected in the kinds of researchers and research institutions involved, the goals and methods of the research, and/or the attributes of the data. Bias and discrimination should be mitigated as much as possible.

» Companies should plan to support the dissemination of the research when it is done. They might use company connections and public relations or communications capabilities to help amplify what has been learned from the research.

FOR RESEARCHERS

» Ensure open lines of communication between the data-sharing company and your institution to manage expectations, responsibilities, and necessary changes to address data protection concerns.

» Provide a proposal seeking data to the company that has it, explaining what would be done, why it is novel, methodologies, potential benefits, and limitations.

» Collaborate with institutional cyber and physical security specialists to build a data and software security and management plan for the shared data and relevant analytical software used.

» Collaborate with privacy specialists, including privacy engineers to ensure strong privacy protections for the data.

FOR RESEARCH INSTITUTIONS

» Establish open lines of communication with corporate partners' legal, development, and data governance personnel to assess readiness to engage in a corporate partnership.

» Assess cyber and data management capacity for the additional workload and costs associated with secure data sharing.

» Develop a specific process for reviewing and approving proposals involving organizational data sharing for research, including data management plans and partnership agreements.

» Determine the role institutional review boards and ethics committees will play, if any, in the review of corporate data sharing for research.

» Ensure personnel, privacy, and cybersecurity controls are in place that are appropriate to the level of sensitivity and value of the data.

» Ensure open lines of communication between the data-sharing company and your research teams to manage expectations, responsibilities, and necessary changes to address data protection concerns.

FOR POLICYMAKERS

» Incentivize data sharing by ensuring that federal and state privacy laws (1) provide the appropriate frameworks that consider the public value of such research, and (2) provide appropriate safe harbors or exceptions that support research and data sharing for research.

» Ensure that data protection laws provide for deidentification (factoring in technology changes that can facilitate or undermine it) to encourage data sharing.

» Support research and development of Privacy Enhancing Technologies (PETs) to support trusted methods of data research.

Companies sharing data with researchers can be a win-win. Public policy has already facilitated the use of government data by both researchers and companies, through open data initiatives and the development of mechanisms for sharing sensitive information. Although data is an asset to companies — sometimes providing the basis for their business — making company data available for research can both generate insights that benefit the source companies and yield knowledge that can have positive social benefits.