

# The Data Dilemma: Balancing government needs and privacy in the digital age

By Ayesha Arora and Tarun Jain | Jul 16, 2024

B2G data sharing will play a vital role in shaping our digital society. Finding the right balance between using data for the public good and protecting individual privacy will be crucial in building trust

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Business-to-government (B2G) data sharing, a concept gaining traction among government bodies worldwide, is sparking intense debate about the balance between public benefit and personal privacy Image: Shutterstock

In an era where digital footprints are as common as physical ones, a new frontier is emerging in the world of data sharing. Business-to-government ([B2G](#)) data sharing, a concept gaining traction among government bodies worldwide, is sparking intense debate about the balance between public benefit and [personal privacy](#).

The idea is straightforward: companies like ride-hailing services, social media platforms, and e-commerce giants would share the [customer data](#) they collect with government officials. This information could then be used to [improve social and economic development](#) for the public interest. Imagine, for instance, how the travel data from Uber or Ola could help city planners optimise road networks, manage traffic flow, and enhance safety measures. It's a tantalising prospect that has

already led countries like [Egypt](#) and the European Union to mandate such data sharing, with India considering similar approaches for tech behemoths like Facebook, Google, and Amazon.

Proponents argue that this approach offers a win-win scenario. Government regulators gain invaluable insights to improve public services and infrastructure, while companies benefit from these improvements and potentially enhance their reputation among customers for contributing to the public good. However, the path to implementing B2G data sharing is far from smooth, with significant hurdles arising from customer scepticism and privacy concerns.

Many individuals are understandably wary about their personal information being handed to government authorities. Fears of being tracked, ethical concerns, and worries about potential data leaks are common among consumers. This scepticism was evident in India during the COVID-19 pandemic when citizens were asked to sign up for the government-owned [Arogya Setu app](#). The Indian government has recognised these concerns, with the Ministry of Electronics and Information Technology passing a [bill in 2023](#) to address privacy issues related to data collection by businesses and government officials.

The level of privacy concern often correlates with the granularity of shared data. Aggregated data with low granularity tends to raise fewer red flags among consumers. However, privacy concerns skyrocket when it comes to high-granularity data—such as individual-level information containing sensitive details like travel trajectories or GPS coordinates—potentially leading customers to avoid using certain services altogether.

This complex landscape presents a significant challenge for decision-makers: How should B2G data sharing be regulated, if at all? Should a universal approach be implemented across all businesses, or does a more nuanced strategy better serve the interests of both consumers and companies? In our paper, "Data Sharing between Firms and Social Planner: An Economic Analysis of Regulation, Privacy, and Competition," published in the *Service Science* journal by Institute for Operations Research and the Management Sciences (INFORMS) Society, we construct an economic model utilising a game-theoretic framework to analyse the granularity of data shared by firms with government authorities, considering customers' privacy concerns[8]. Our findings offer several key insights for those grappling with B2G data-sharing regulation.

We found that the need for government intervention in B2G data sharing varies depending on the market stage of a product or service. In the early stages, when competition is low, companies might voluntarily share detailed data without the need for regulation. These firms do not face the risk of losing customers to competitors due to the higher granularity of data shared. In fact, the detailed data can lead to significant infrastructure improvements, benefiting both the company and its customers.

However, as markets become more competitive, increased governmental oversight may be required to ensure the continued sharing of high-quality data. In highly competitive environments, the threat of losing customers due to privacy concerns limits companies from sharing detailed data with regulatory agencies. This, in turn, can lead to lower infrastructure improvements and poorer customer service experiences.

Business collaboration also plays a crucial role. When companies cooperate in data sharing, decision-makers might allow businesses more autonomy in their data-sharing choices. A jointly determined, homogeneous data-sharing policy among competing firms can mitigate customer privacy concerns, ensuring no single firm has a competitive advantage. However, in highly competitive markets where collaboration is not feasible, stricter regulation may be necessary to ensure that businesses provide sufficiently detailed information.

The customer profile associated with different products or services is another important factor. For services where customers are highly sensitive about data sharing—such as health-related services—the government may need to ensure minimal data sharing to protect privacy. Conversely, when customers benefit significantly from infrastructure improvements, such as better traffic management, the government might seek more detailed data from relevant businesses.

Overall, our research suggests that a nuanced approach to B2G data-sharing strategies is necessary. Rather than adopting a one-size-fits-all solution, decision-makers should consider factors like competitive dynamics, business collaboration, customer profiles, and potential infrastructure benefits. This tailored approach can help balance data-driven governance with privacy rights. As we navigate this complex issue, it becomes clear that B2G data sharing will play a vital role in shaping our digital society. Finding the right balance between using data for the public good and protecting individual privacy will be crucial in building trust between citizens, businesses, and governments in our connected world.

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