MAIN MESSAGES

Data for Better Lives

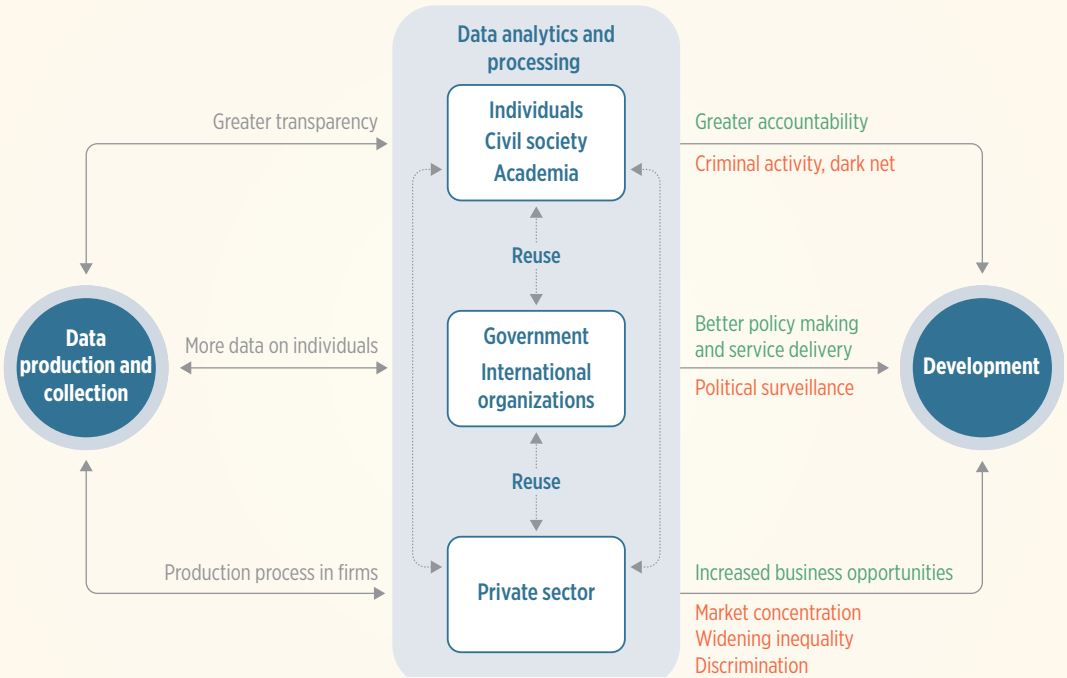
Data as a double-edged sword

World Development Report 2021: Data for Better Lives aims to answer two fundamental questions. First, how can data better advance development objectives? Second, what kind of governance arrangements are needed to support the generation and use of data in a safe, ethical, and secure way, while also delivering value equitably?

Recent technological innovations have led to a massive increase in the availability of real-time, granular data. These innovations in data generation create new opportunities for enhancing the economic performance of firms; for repurposing data to improve the design, execution, and evaluation of public policies; and for helping individuals and communities make better choices by accessing more information and knowledge.

Data can lead to better lives through multiple channels. Governments can use data to improve programs, policies, and the targeting of scarce resources to marginalized people and areas. The private sector can use data to fuel platform-based business models that stimulate economic activity and international trade in services. And individuals, empowered by data, can make better decisions and hold governments accountable (see figure 1, where the positive impacts are in green).

Figure 1 Three pathways along which data can foster development



Source: WDR 2021 team.

Note: Positive impacts are shown in green; negative impacts are shown in red.

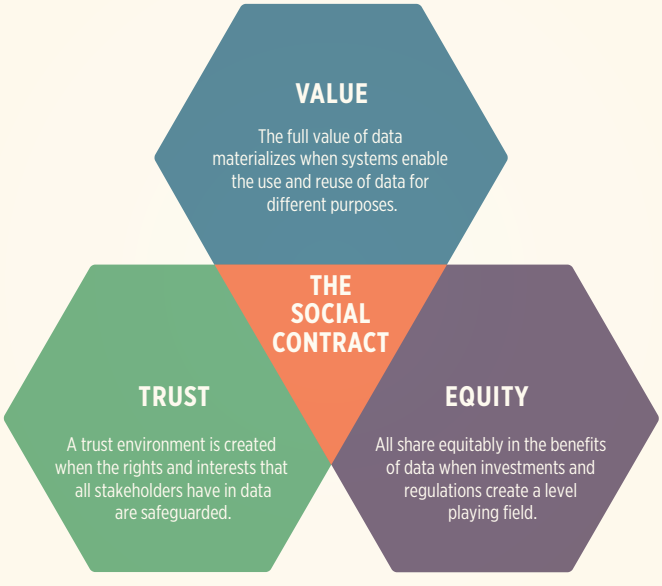
Data create economic and social value, which can be multiplied through repurposing and reuse. However, economies of scale in data analysis create incentives for data hoarding and can lead to concentration of economic and political power. This hoarding creates barriers to data reuse, preventing data from delivering on their full development potential, while also raising the possibility that data could be mishandled. Mounting concerns about the risks associated with data misuse and the inequities in global data systems are increasingly tempering enthusiasm about the potential of data to further development goals.

Data can be subject to abuse through multiple channels. For example, a government could use data to undertake political surveillance or target certain social groups for discrimination. Private sector actors could exploit market power arising from data to take advantage of their customers. Or individuals could access data illegally for criminal purposes (in figure 1 the negative impacts are in red).

Governance arrangements to address such concerns remain in their infancy, particularly in lower-income countries. Legal and regulatory frameworks for data are incomplete, with gaps in critical safeguards (such as cybersecurity, data protection, and cross-border data flows) and a shortage of measures to enable data sharing (such as open licensing and interoperability). Even where nascent data governance frameworks exist, a dearth of institutions with the requisite administrative capacity, decision-making autonomy, and financial resources constrains their effective implementation and enforcement.

The COVID-19 pandemic is a timely illustration of how countries are struggling to balance the use of data to advance public health objectives and manage spread of the virus with the need to safeguard against harmful misuse of such data. In some countries, call detail records from mobile phone usage, created in the private sector, have been repurposed to allow public health authorities to identify and trace those exposed to infected individuals. To guard against any misuse of these data, several countries have had to strengthen governance frameworks by passing emergency legislation that enacts or enhances data protection regulations.

Figure 2 The social contract for data



Source: WDR 2021 team.

Toward a new social contract for data

To address these concerns, *World Development Report 2021* puts forward five high-level recommendations: (1) forge a new social contract for data that (2) increases data use and reuse to realize greater value; (3) creates more equitable access to the benefits of data; (4) fosters trust through safeguards that protect people from the harm of data misuse; and (5) paves the way for an integrated national data system.

Forge a new social contract for data. Breaking out of the current impasse in data governance calls for a new social contract for data. Such a contract would enable the use and reuse of data to create economic and social *value*, while ensuring *equitable* access to the value realized, as well as fostering participants' *trust* that they will not be harmed by data misuse (see figure 2). On these aspects, lower-income countries are too often disadvantaged, lacking as they often do the infrastructure and skills to capture data and turn them into value, the institutional and regulatory frameworks to create trust in data systems, and the scale and agency to participate equitably in global data markets and their governance. A new social contract needs to be forged at both the national and international levels.

- *National level.* Governments should engage in dialogue with individuals, civil society, academia, and the private sector to develop rules for the safe use of data that promotes the public good.

- *International level.* Given the global scale of data industries, some of the most challenging aspects of the social contract call for closer international cooperation to harmonize regulations and coordinate policies—whether on a bilateral, regional, or global level.

Increase data use and reuse to realize greater value. Using data for one purpose does not diminish their value. Increasing access to more users through open data and data sharing initiatives, for example, increases the potential of data for positive development impacts. Furthermore, harmonizing definitions, standards, and classifications—that is, ensuring interoperability across data—enhances the realization of synergies across different data sources. Much of the recent explosion in new data has stemmed from digitization of firm operations. Combining these data with traditional sources such as censuses, national surveys, government administrative data, and data produced by civil society organizations could help fill data gaps, provide timelier and finer-scale assessments of programs and policies, and serve public policy needs. Realizing this increased value calls for changing both mindsets and frameworks guiding data use.

- *Changing mindsets.* Decision-makers should view data as foundational and shift their focus from generating data for onetime use to expanding access, reuse, and analytics for both new and existing data.

- *Changing frameworks.* Rules and standards are needed to facilitate overlaying different data sources to leverage analytical synergies and to allow safe and agile data transfer among domestic stakeholders, as well as across international borders.

Create more equitable access to the benefits of data. Major inequities in the ability to produce, utilize, and profit from data can be found across both rich and poor countries and among the rich and poor people within them. Data systems for public and private intent data alike tend to exclude poor people, and statistical capacity and data literacy remain limited in poor countries. Many lower-income countries lack the data infrastructure needed to speedily exchange their own data traffic over the internet and secure cost-effective access to modern data storage and cloud computing facilities. Their small economic size also limits the availability of data for machine learning and constrains the development of home-grown platform businesses that could be globally competitive. Efforts to improve the fairness of the global data system need to address both types of inequities.

- *Between people.* Marginalized people need better representation in data systems, greater access to modern data infrastructure, and the skills to benefit from it. Careful design of competition and regulation can help keep costs at affordable levels.

- *Between countries.* Greater domestic attention to, and international coordination of, economic policies on competition, trade, and tax for platform businesses will help lower-income countries capture more of the economic value from data-driven businesses.

Foster trust through safeguards that protect people from the harm of data misuse. The more data are *reused*, the greater is the risk of data *misuse*. This risk is evident in growing concerns about cybercrime and the potential for politically or commercially motivated surveillance. The scope for discrimination based on ethnicity, religion, race, gender, disability status, or sexual orientation may be further exacerbated by the growing use of algorithms. Addressing these concerns calls for the regulation of personal data grounded in a human rights framework, supported by policies that secure both people and the data systems on which they depend.

- *Protecting people.* Measures are needed to strengthen data protection not only for personal data, but also for the broader category of personally identifiable data that permits identification of individuals (and sometimes social groups) to be inferred through statistical analysis of nonpersonal data.

- *Protecting systems.* Countries should protect the infrastructure and systems through which data flow by paying more attention to strengthening cybersecurity regulations that are often deficient and lack adequate implementing institutions.

Work toward an integrated national data system (INDS). Although a new social contract can rebalance and reset the rules of the game for data governance, implementation of this vision further calls for an INDS that allows the flow of data among a wide array of users in a way that facilitates safe use and reuse of data. A well-functioning INDS explicitly builds data production, protection, exchange, and use into planning and decision-making and actively integrates the various stakeholders—individuals, civil society, academia, and the public and private sectors—into the data life cycle and into the governance structures of the system. Achieving a well-functioning INDS requires proper financing and incentives to produce, protect, and share data. Greater investment in physical and human capital is needed to improve data governance, specialized analytical and data security skills, as well as data literacy of the general public. Dependent on starting points, countries will need to work gradually toward this goal.

- *Laying the foundations.* Any INDS must be built on an intentional whole-of-government and collaborative approach to data governance. Critical is the establishment of a strong culture of data use that builds demand for reliable, credible data.

- *Building on the foundations.* Countries should take a phased approach to creating integrated data systems that are tailored to specific local conditions and reflect the state of institutional maturity. What works in one context may not work in another.

A moment of decision

The global community stands at a critical juncture. Some see data increasingly as a bone of contention, amid concerns that data-based value creation may come at the expense of human rights and continue to remain beyond the reach of the many. Others believe data can be harnessed as a potent driver of economic and social progress, integrating safeguards that establish confidence in data systems and building on a level playing field that provides equitable opportunities for all. Which of these views will prevail hinges on renewed efforts to improve data governance domestically in the context of closer international cooperation. Forging a new social contract for data—one grounded in principles of value, trust, and equity—is what ultimately will make the difference.

SKU 33432