Releasing the power of digital data for development. A guide to new opportunities

Description

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Contents

Section 1 Executive Summary
Section 2 Introduction
Section 3 Understanding and navigating the new data landscape
Section 4 What is needed to release the new potential?
Section 5 Further considerations
Appendix 1: Data opportunities potentially useful now in testing environments
Appendix 2: Bibliography and further reading
Appendix 3: Methodological notes

Executive Summary

There are 8 conclusions we discuss in this report.

1. There is justified excitement and proven benefits in the use of new digital data sources, particularly where timeliness of data is important or there are persistent gaps in traditional data sources. This might include data from fragile and conflict-affected states, data supporting decision-making about marginalised population groups, or in finding solutions to address persistent ethical issues where traditional sources have not proved adequate.

2. In many cases, improvements in and greater access to traditional data sources could be more effective than just new data alone, including developing traditional data in tandem with new data sources. This includes innovations in digitising traditional data sources, supporting the sharing of data between and within organisations, and integrating the use of new data sources with traditional data.

3. Decision-making around the use of new data sources should be highly devolved by empowering individual staff and be focused on multiple dimensions of data quality, not least because there are no â??one size fits allâ?• rules that determine how new digital data sources fit to specific needs, subject matters or geographies. This could be supported by ensuring:
a. Research, innovation, and technical support are highly demand-led, driven by specific data user needs in specific contexts; and
b. Staff have accessible guidance that demystifies the complexities of new data sources, clarifies the benefits and risks that need to be managed, and allows them to be â??data brokersâ?? confident in navigating the new data landscape, innovating in it, and coordinating the technical expertise of others.

The main report includes a description of the evidence and conclusions in a way that supports these aims, including a set of guides for staff about the most promising new data sources.

4. Where traditional data sources are failing to provide the detailed data needed, most new data sources provide a potential route to helping with the Agenda 2030 goal to â??leave no-one behind,â?? as often they can provide additional granularity on population sub-groups. But, to avoid harming the interests of marginalised groups, strong ethical frameworks are needed, and affected people should be involved in decisionmaking about how data is processed and used. Action is also required to ensure strong data protection environments according to each type of new data and the contexts of its use.

5. New data sources with the highest potential added value for exploitation now, especially when combined with each other or traditional data sources, were found to be:
a. data from Earth Observation (EO) platforms (including satellites and drones)
b. passive location data from mobile phones

6. While there are specific limitations and risks in different circumstances, each of these data sources provides for significant gains in certain dimensions of data quality compared to some traditional sources and other new data sources. The use of Artificial Intelligence (AI) techniques, such as through machine learning, has high potential to add value to digital datasets in terms of improving aspects of data quality from many different sources, such as social media data, and particularly with large complex datasets and across multiple data sources.

7. Beyond the current time horizon, the most potential for emerging data sources is likely to come from:
â?¢ The next generation of Artificial Intelligence
â?¢ The next generation of Earth Observation platforms
â?¢ Privacy Preserving Data Sharing (PPDS) via the Cloud and
â?¢ the Internet of Things (IoT).
No significant other data sources, technologies or techniques were found with high potential to benefit FCDOâ??s work, which seems to be in line with its current research agenda and innovative activities. Some longer-term data prospects have been identified and these could be monitored to observe increases in their potential in the future.

8. Several other factors are relevant to the optimal use of digital data sources which should be investigated and/or work in these areas maintained. These include important internal and external corporate developments, importantly including continued support to Open Data/ data sharing and enhanced data security systems to underpin it, learning across disciplinary boundaries with official statistics principles at the core, and continued support to capacity-building of national statistical systems in developing countries in traditional data and data innovation.

Category

1. Uncategorized

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