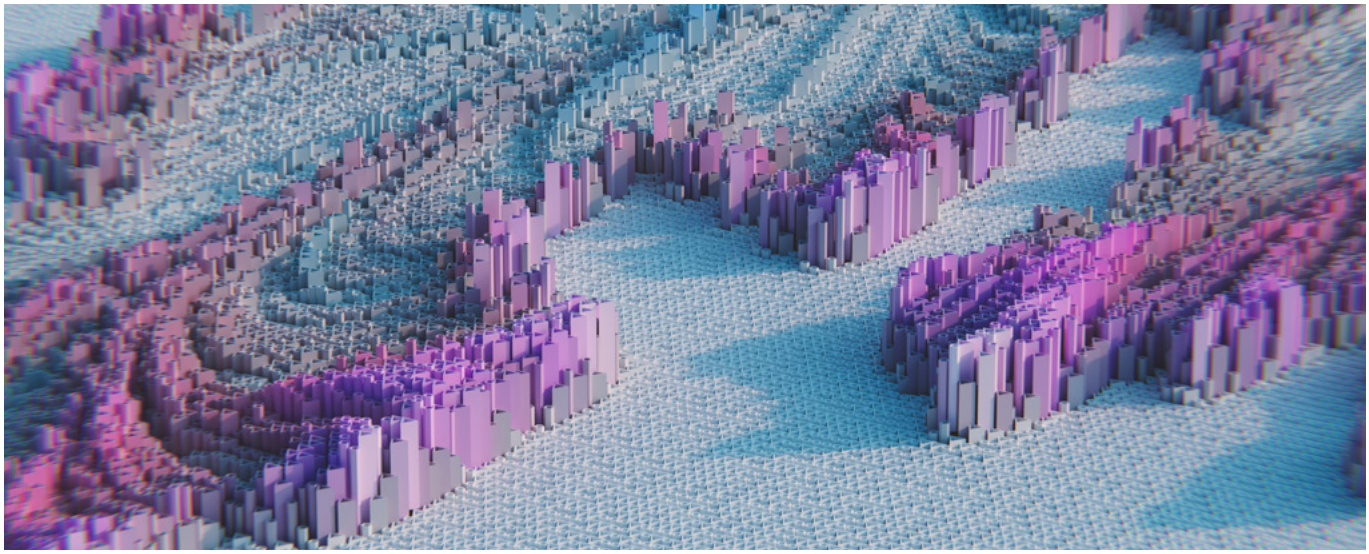
OPPORTUNITY #17

What if comprehensive data was a public good?

A WIDE WORLD OF DATA

Enabled by incentives for data-sharing, a secure platform is set up where entrepreneurs, researchers and policy-makers can share and access vast aggregated and anonymised user datasets and related analysis, which aids global innovation, learning and discovery.



MEGATREND
Devaluation of Raw Data

TRENDS
Artificial Intelligence
Distributed Ledger Technologies (DLT)
Ideation, IP & Entrepreneurship
Open Data

SECTORS AFFECTED
Materials & Biotechnology
Communication Technologies & Systems
Consumer Goods, Services & Retail
Cyber & Information Security
Data Science, AI & Machine Learning
Financial Services & Investment
Health & Healthcare
Immersive Technologies
Insurance & Reinsurance

WHY IT MATTERS TODAY

In 2021, around 2.5 exabytes (1 exabyte = 1 billion gigabytes) of data[n] were being generated daily and, with the Internet of Things (IoT), this number is set to grow exponentially to 175,000 exabytes[o] per year by 2025[366] and a yottabyte of data per year, i.e. 1 million exabytes, by 2030.[367]

In a worldwide survey of academic researchers, 80% of the respondents stated that data should be made openly available as a standard practice.[368] In contrast, however, researchers are more inclined to share their research data where it is likely to have an impact on citations (67%) and the visibility of their research (61%), rather than where it might be of public benefit (56%).[369]

In the business world, open data supports innovation and growth by revealing opportunities for companies to build new services, identify savings and improve their operations.[370] However, only an estimated 6% of businesses globally use, access and share data to attain business benefits.[371] Even when they do collect data, only 38% are in a position to extract value from it to inform their decision-making.[372]

Over the next decade, 70% of the new value created in the economy will be based on business models that rely on digitally enabled platforms.[373] While cross-border data flows are key to the growing digital economy, legislation – such as the European Union's General Data Protection Regulation (GDPR) and other data privacy laws coming into effect[374] – will continue to change how and what data is accessible by both the public sector and private businesses.

The Organisation for Economic Co-operation and Development (OECD) has been exploring government access to private data integral to the global digital economy.[375] It recognises that open data can unlock new social value, enabling better policies.[376] Agreed in October 2021, the OECD's 'Recommendation of the Council on Enhancing Access to and Sharing of Data' includes the first ever set of principles on how governments could access cross-sectoral data while protecting the rights of individuals and organisations.[377]

In the Middle East and North Africa (MENA) region, datasets covering national censuses, government budgets and international trade data are available but only two-thirds are available online.[378] Dubai Pulse is an example of a portal in the United Arab Emirates where transactional and economic data pertaining to entities within the government of Dubai are accessible and available for analysis.[379]

n 2.5 quintillion bytes, converted to exabytes. Just over 900 exabytes per year.
o Converted from 175 zettabytes.

THE OPPORTUNITY

A central shared, aggregated, anonymised dataset could accelerate progress across many fields and sectors. Allowing broader access to data, even if just within borders, would open up new avenues for research and innovation. Supported by advanced machine intelligence and possibly distributed ledger technologies, local and international agreements on data-sharing and advances in cybersecurity would ensure anonymisation in the aggregation of user data from private, public and research organisations.

Initially, the repository could include user data shared through mobility, learning, e-commerce and digital services. These sources could then expand over time to include data points relating to health, wearables and the living world, including plants and the environment more generally. This wealth of data would spur developments in advanced machine intelligence and powerful predictive Artificial Intelligence (AI) models, enabling real-time simulation of impacts and generating innovation and growth opportunities in fundamental and applied research and also in entrepreneurship.

BENEFITS

Faster, more accurate modelling in research and innovation. More of a level playing field for actors in the public and private spheres.

RISKS

Exploitation of data (even aggregated data) to identify individuals for criminal or malicious purposes, unless extremely advanced security measures are implemented.

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