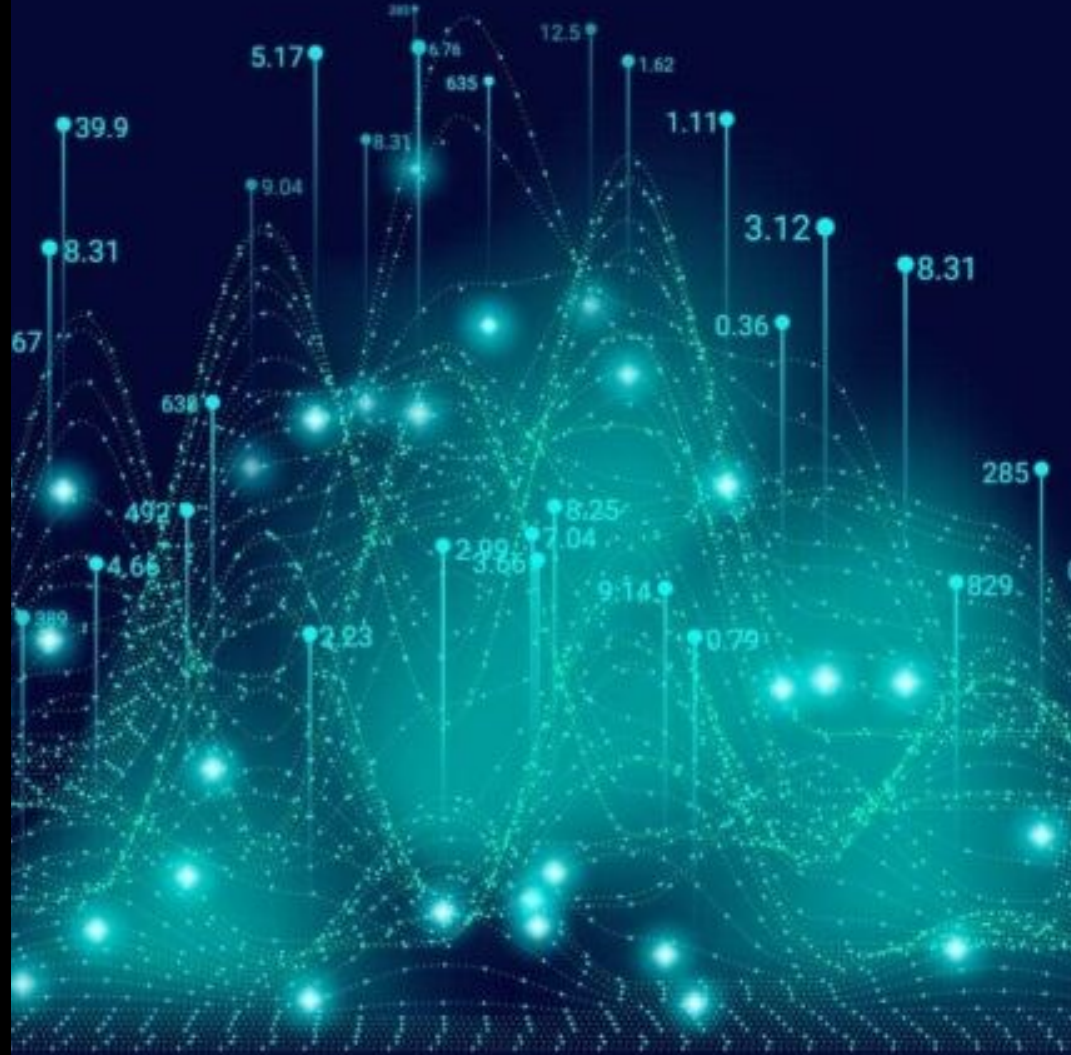# From Statistics to Data Science: Implications for Democracy

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Key message #1

Architectural design of data infrastructure should not be left to chance but should be designed deliberately and with care.

Official Statistics (and data?) as Public Goods

Principle 1 - Official statistics provide an indispensable element in the information system of a democratic society, serving the Government, the economy and the public with data about the economic, demographic, social and environ-mental situation. . . are to be compiled and made available on an impartial basis by official statistical agencies to honour citizens' entitlement to public information'

Key message #2

All data and statistics are not equal.

Good **quality** is essential to qualify as a public good

Key message #3

In an information age –

access to data is absolutely critical

Some key drivers of the need for evidence

Algorithms - semi-savant mini-Frankensteins

Tufekci

Key message #4

For public debate, accountability and democracy – we must understand the origins of the statistics. They must be reproduceable and be accompanied by metadata.

Data and statistics should inform decisions – they should not drive decisions.

Key message #5

Approaching data governance from a purely national perspective is a mistake.

It is to misunderstand fundamentally what is happening in the data world.

Conclusions

In the digital era, data are a key piece of infrastructure – they underpin the entire digital economy, from banking to research, to AI. To manage this infrastructure properly, careful architectural design is required.

Not all data and statistics are equal. Quality standards and metadata matter. Good quality statistics are integral to being a public good. Data and statistics on their own are insufficient. To properly inform public debate, to support accountability and democracy, we must ensure the veracity, progeny and reproducibility of statistics.

Statistics should inform decisions – not drive decisions. Making decisions is the role of our elected officials. In an era of governance by numbers, of quantification, it is seductive to fall for the illusion that data can tell us what to do. But I urge you to remember that data and statistics are not substitutes for judgement: data and statistics demand judgement.

Developments in the data world are not trivial. Privacy and the protection of our digital person is more important than ever. Globalization of data is challenging national sovereignty and is a global issue. An international approach is required to manage data and ensure we use and re-use data safely. There is no AI governance without data governance.

Support, resource and protect your FSO and your national statistical system. Don't take it for granted.