



May 2018

Principles for the safe and effective use of data and analytics

Background

Guidance, oversight, and transparency are essential to fostering trust, confidence, and integrity around the use of data the government holds on behalf of New Zealanders. It's important for Kiwis to understand how their personal data is used.

These principles support safe and effective data and analytics. They will underpin the development of guidance to support government agencies on best practice for the use of data and analytics for decision-making.

The principles were jointly developed by the Chief Government Data Steward and the Privacy Commissioner.

Deliver clear public benefit

The use of data and analytics must have clear benefits for New Zealanders. Data and data analytics are tools that support decision-making and it's essential that in collecting and using public data, government agencies consider, and can demonstrate, positive public benefits.

This includes:

- considering the views of all relevant stakeholders
- ensuring all associated policies and decisions have been evaluated for fairness and potential bias and have a solid grounding in law
- embedding a te ao Māori perspective through a Treaty-based partnership approach.

Ensure data is fit for purpose

Using the right data in the right context can substantially improve decision-making and analytical models, and will avoid generating potentially harmful outcomes.

Decision-makers need to be aware of how data is collected and analysed, including the accuracy, precision, consistency, and completeness of data quality, and take special care when re-using data that was originally collected for another purpose.

They should also be conscious of analytical models constructed to interpret data, and any automated decision-making occurring as part of this process. Ensuring data and analytical models are fit for purpose will help avoid risks like bias or discrimination.

Focus on people

Keep in mind the people behind the data and how to protect them against misuse of information. It's essential to consider the privacy and ethical implications of any analytical process that draws on data collected about people, as using data and analytics for decision-making can have real-life impacts.

Consider the methods used to protect personal identifying information and preserve the security of any output. Combining multiple anonymous datasets can re-identify individual people.

Personal information should only be kept for as long as necessary.

Maintain transparency

Transparency supports collaboration, partnership, and shared responsibility, and is essential for accountability. This includes ensuring New Zealanders know what data is held about them; how it's kept secure; who has access to it; and how it's used.

Consultation with stakeholders and Māori as partners ensures manaakitanga (data users show mutual respect), and kaitiakitanga (New Zealanders are mindful of their responsibilities and the communities they source data from), by making sure all data uses are managed in a highly trusted, inclusive, and protected way.

Data use and analytical processes should be well documented and in line with all relevant legislation, and state sector guidelines. Explanations of decisions – and the analytical activities behind them – should be in clear, simple, easy-to-understand language.

Understand the limitations

While data is a powerful tool, all analytical processes have inherent limitations in their ability to predict and describe outcomes. These limitations are sometimes not evenly distributed, meaning they can perpetuate or intensify poor outcomes for particular groups. An awareness of these limitations is essential when analysing data. Decision-makers must be fully informed.

Developing data capability helps to create depth of understanding and implement the most useful data tools while keeping any limitations in mind.

Regular assessments to check for bias and other harmful elements, and address any over-reliance on correlations, are essential in the development and operation of analytical processes. Feeding assessment outcomes back into the design of systems and processes can help ensure unfair or discriminatory outcomes aren't generated.

Retain human oversight

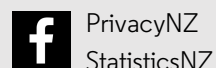
Analytical processes are a tool to inform human decision-making and should never entirely replace human oversight.

Ensure significant decisions based on data involve human judgement and evaluation, and that automated decision-making processes are regularly reviewed to make sure they're still fit for purpose.

Decision-makers should approach analytical tools with an appropriate awareness of limitations of data quality and other sources of error.

To ensure accountability, decisions based on analytical methods or automated processes affecting people should be openly disclosed, and appropriate review and feedback mechanisms developed to preserve fundamental rights and freedoms.

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