# COSC244

## Lecture 7: Data Ethics

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# Ethics (and Law) in Computer Science

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- Intellectual Property (IP) law:
  - How can people *protect* the works they create? (Esp. software...)
  - How can people *disseminate* their works to others?

# Ethics/Law in our CS curriculum

- Computers, ethics and society (COMP150)
- Internet ethics/law (COMP112)
- AI ethics (COSC343, COSC420)
- Machine Learning ethics (COSC471)
- Computer vision ethics (COSC450)
- Data ethics/law (COSC244)
- Intellectual Property law (COMP112, COSC345)

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- What is required *ethically*? (I.e. what’s right???)
- What is required *legally*? (In some particular country.)

# In today's lecture

I'll discuss two topics today.

- One relates to privacy: people have certain rights to privacy...
- One relates to freedom of information: people have certain rights to know things.

I'll first discuss the ethical issues surrounding these topics...
Then I'll discuss how they're dealt with in NZ Law.

# Privacy and freedom of information: Ethical issues

Can you give some examples of information you should be allowed to keep private?

Can you give some examples of information you are entitled to know?

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Can you give some examples of information you should be allowed to keep private?

- Your religion
- Your sexuality
- Your political opinions (especially your voting preferences)
- Where you live
- What you read, what you do in your private life, where you go. . .

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Can you give some examples of information you are entitled to know?

- How the government works (i.e. spends your money)
- What the government is doing with your personal data
- What companies are doing with your personal data

# Ethical issues: Consent

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Consent is an important ethical principle:

- You might *want* someone to infringe on your privacy. . .
- To negotiate this, they need your consent.

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  We have a right to know how governments/companies are using this data. . . but people have a right to keep their data private.

Can you think of ways we might *resolve* these conflicts?

- A useful technique is data anonymisation.
  An organisation using personal data can make the data available. . .
  But anonymise it, so individuals can't be identified.

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- Government agencies also have a lot of commercially valuable data. (For example?)

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Do we want to compromise privacy for the sake of public health?

# Covid monitoring apps: (I) Use

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  Phone locations are monitored for all citizens
  - E.g. in South Korea, for quarantine
  - E.g. in China, for quarantine and contact tracing

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- Indirect: people register at businesses, workplaces
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- Direct: contacts between people are registered 'peer-to-peer'
  (Only possible with bluetooth)
  E.g. The Australian govt's 'Covidsafe' app

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  - Single point of failure...
  - Will the government use this database *for other purposes*?

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Who do you trust more with your health data:
Governments, or big tech companies?

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- Transparency: the agency is obliged to make the person aware that their data is being gathered—and aware of the purpose for which it's being gathered.
- The *method* by which data is collected must not be 'unreasonably intrusive'.

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- Liability under the Act requires a breach of some principle, but *also 'some loss or harm to the individual'*. Harm can include humiliation, loss of dignity, hurt feelings but must be 'significant'.

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The latter principle echoes the EU's General Data Protection Regulation (GDPR).

- If you want to do business in the EU, you need to comply with the GDPR too!

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- Information can be withheld on several grounds—in particular, if it's necessary to protect the privacy of individuals.

# Open data initiatives in NZ

There's a push in NZ (and other countries) towards 'open data' in government. (Suitably anonymised, of course.)

In NZ, this is done under the Open Government Data Programme.

- NZ is ranked 6th in the world in the Open Data Barometer global rankings 'for readiness, implementation and impact of open data'.

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The IDI is only used 'for approved research projects that are in the public interest'.

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- Stats NZ (the census), Health, Housing, Justice, Education, Work and Income...

Data for individuals is *linked* across areas. (The Privacy and Statistics acts require linked data to be anonymised—which can be quite tricky to do.)

The IDI is only used 'for approved research projects that are in the public interest'. (But there's some talk that we might sell the data to other agencies—e.g. big healthcare providers. Is that okay?)

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In China, the rules about privacy allow government agencies to gather/integrate personal data very freely.

- The Chinese government aims to use its data-gathering powers to position itself as a global leader in AI.

# Bias in government data

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Māori groups are responding to this issue with an interesting initiative: the Data Sovereignty Programme.

- This programme advocates for Māori involvement in the governance of data repositories, and for processes that ensure the quality of data about Māori. (The IDI is a particular focus.)

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What are the benefits and risks in giving the government a back door to encrypted data?

- Benefits: helps the government monitor criminal/terrorist activity.
- Risks: if there's a back door, someone else could find it!

# Some URLs

NZ's Privacy Act:
`https://www.legislation.govt.nz/act/public/2020/0031/latest/LMS23223.html`

NZ Government's Open Data Programme:
`https://www.data.govt.nz/`

NZ's Integrated Data Infrastructure:
`https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/`

The Māori Data Sovereignty network:
`https://www.temanararaunga.maori.nz/`