NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

CC0002 Navigating the Digital World

Module 5:

Principles of Data Ethics in the Digital World

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ETHICS

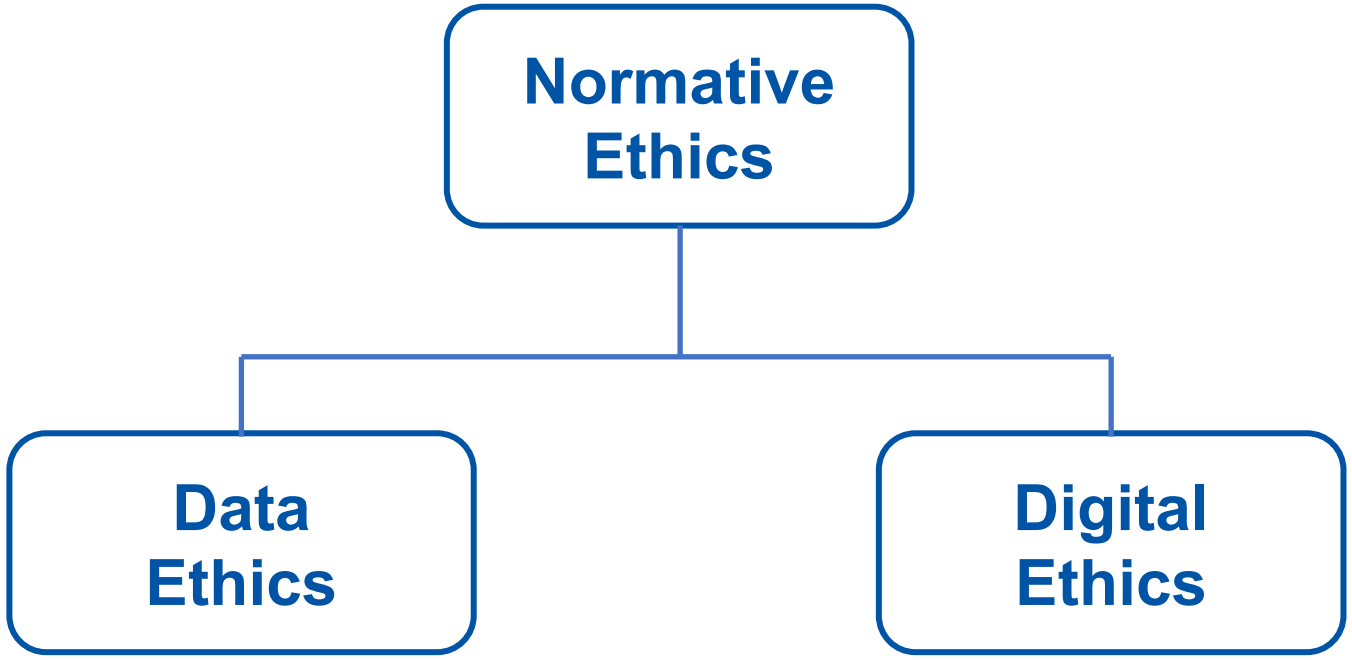
Ethics

- **Ethics** is the study of morality. Morality is a subject that pertains to right and wrong action (Oxford English Dictionary):
  - In all human societies on the ethnographic record, people make distinctions between right and wrong (Brown, 1991).
  - I take it that you have your own views about what is right and wrong.
  - In the branch of ethics called **normative ethics**, we try to arrive at *well-founded* views about morality.

Brown, D. E. (1991). *Human universals*. Temple University Press.

Ethics

- In this module, we'll delve into normative ethics as it relates to using, applying, and developing digital and online tools.



Why Do We Need Data and Digital Ethics?

- There is an international consensus that ethics is vital to the development, application, and use of digital and online technologies (Vallor, 2021).
  - Technology shapes the way people live.
  - While digital and online technologies offer remarkable benefits (e.g., knowledge, communication, efficiency, personalisation), they also pose risks of significant harms to privacy, security, autonomy, fairness, transparency, etc.
  - Lawmakers are often unable to keep up with the speed of technological advancement. Hence, not only expert technologists, but also ordinary users, must learn to develop and use technologies in ways that avoids harms while getting the most from the benefits.

Vallor, S. (n.d.). *An introduction to data ethics* (p. 2). Markkula Center for Applied Ethics at Santa Clara University.

MORAL THEORIES

Moral Theories

- In normative ethics, **moral theories** are developed to achieve two aims (Timmons, 2019):
  - **Theoretical aim:** To explain what features of actions make them morally right or wrong
  - **Practical aim:** To offer practical guidance in making morally correct decisions

Timmons, M. (2019). *Disputed moral issues: A reader*. Oxford University Press.

Moral Theories

- These three moral theories are among the most influential in normative ethics (Timmons, 2019):

    1) **Utilitarianism (Jeremy Bentham, John Stuart Mill, Peter Singer, etc.):** An action is morally right when it would likely produce at least as much well-being (welfare) as would any other action one might perform instead. Otherwise, the action is wrong.

        - The classical utilitarians, such as Bentham and Mill, took well-being to consist of pleasure and the absence of pain.

        - Peter Singer, a contemporary utilitarian, takes well-being to consist of the satisfaction of one's preferences/desires.

Timmons, M. (2019). *Disputed moral issues: A reader*. Oxford University Press.

Moral Theories

- These three moral theories are among the most influential in normative ethics (Timmons, 2019): **(continued)**

    2) **Virtue ethics (Confucius, Aristotle, etc.):** An action is morally right when it is what a virtuous person would do in the circumstances. Otherwise, the action is wrong.

        - Commonly recognised virtues include honesty, courage, justice, temperance, beneficence, humility, loyalty, and gratitude.

        - A truly virtuous person is one who has *all* the virtues. A virtuous person may only be a hypothetical ideal that we can strive to be.

Timmons, M. (2019). *Disputed moral issues: A reader*. Oxford University Press.

Moral Theories

- These three moral theories are among the most influential in normative ethics (Timmons, 2019): **(continued)**

    3) **Immanuel Kant's deontological ethics:** An action is morally right when it treats persons (including oneself) as ends in themselves and not merely as a means. Otherwise, the action is wrong.

        - Kant's theory says that all persons are unconditionally valuable insofar as they are *rational* and *autonomous*.

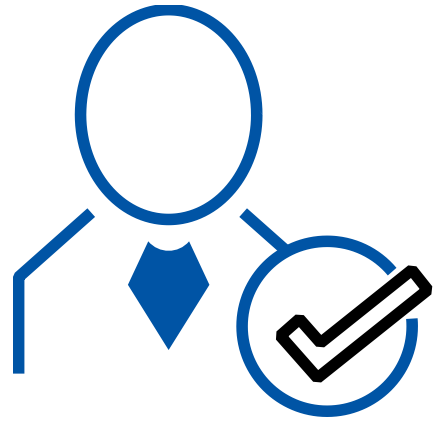
        - It also says that we should respect the value of persons, and not use them in a way that disrespects their value.

Timmons, M. (2019). *Disputed moral issues: A reader*. Oxford University Press.

PRINCIPLES OF DATA ETHICS

Principles of Data Ethics

- Moral theories are meant to provide very general explanations and guidance concerning what we morally ought to do.
- While moral theories have the advantage of comprehensiveness, it can be difficult to deduce what they would prescribe in a particular context.
- Several professional associations and private firms have formulated more specific *principles* to guide actions with respect to data and information technology.
  - Links to these sets of principles are provided in the Notes section below.



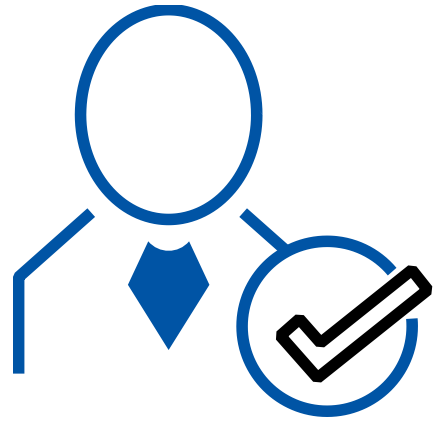
Principles of Data Ethics

- The following principles are sampled from the Singapore Computer Society's professional Code of Conduct:

  Integrity

  SCS members will act at all times with integrity. They will:

  - not lay claim to a level of competence that they do not possess
  - act with complete discretion when entrusted with confidential information
  - be impartial when giving advice and will disclose any relevant personal interests
  - give credit for work done by others where credit is due



Singapore Computer Society. (n.d.). *Code of Conduct*. https://www.scs.org.sg/membership/code-of-conduct

Principles of Data Ethics

- The following principles are sampled from the Singapore Computer Society's professional Code of Conduct:

Professionalism

SCS members will act with professionalism to enhance the prestige of the profession and the Society. They will:

- uphold and improve the professional standards of the Society through participation in their formulation, establishment and enforcement
- not seek personal advantage to the detriment of the Society
- not speak on behalf of the Society without proper authority
- not slander the professional reputation of any other person
- use their special knowledge and skill for the advancement of human welfare

Singapore Computer Society. (n.d.). *Code of Conduct*. https://www.scs.org.sg/membership/code-of-conduct

Principles of Data Ethics

EXERCISE 1:

- Can any of the principles in the Singapore Computer Society (SCS) Code of Conduct be supported by utilitarianism? Describe one such principle and explain how utilitarianism supports it.
- Can any of the principles in the SCS Code of Conduct be supported by virtue ethics? Describe one such principle and explain how virtue ethics supports it.
- Can any of the principles in the SCS Code of Conduct be supported by Kant's deontological ethics? Describe one such principle and explain how Kant's ethics supports it.

Principles of Data Ethics

QUESTION 1:

The Singapore Computer Society is “the leading infocomm and digital media society for industry professionals, leaders, students, and tech enthusiasts” (Singapore Computer Society)

Most of you are not and will never be members of the SCS. Nor do most of you consider yourselves industry professionals/leaders/students/enthusiasts in information communication and digital media.

Do you think people should follow the SCS principles, even if they are not members of the SCS and do not fit the profile of someone who could be a member?

CYBERBULLYING

Cyberbullying

Cyberbullying is the use of the internet or digital devices to inflict psychological harm on a person or group (Quinn, 2019; Media Literacy Council 2018).

Quinn, M. J. (2019). *Ethics for the information age* (8th ed.). Pearson.

Cyberbullying

- Examples of cyberbullying (Quinn, 2019):
  - Repeatedly texting or emailing hurtful messages to another person.
  - Spreading derogatory lies about another person.
  - Tricking someone into revealing highly personal information.
  - “Outing” or revealing someone’s secrets online.
  - Posting embarrassing photographs or videos of other people without their consent.
  - Impersonating someone else online in order to damage that person’s reputation.
  - Threatening or creating significant fear in another person.

Quinn, M. J. (2019). *Ethics for the information age* (8th ed.). Pearson.

Prevalence of Cyberbullying

- According to the 2020 Child Online Safety Index (Cosi) report, which includes data on 145,000 children across 30 countries, **45%** of 8- to 12-year-olds experienced cyberbullying, either as the bullies or as the victims.
- Within Singapore, **40%** of 8- to 12-year-olds and **52%** of 13- to 19-year-olds were exposed to cyberbullying.

Cyberbullying

- Effects of cyberbullying:
  - Depression and anxiety
  - Low self-esteem
  - Difficulty sleeping
  - Headaches, stomachaches
  - Suicidal thoughts
  - Suicide attempts
  - Eating disorders

American SPCC. (n.d.). *Effects of cyberbullying*. https://americanspcc.org/impact-of-cyberbullying/

Cyberbullying

QUESTION 2

What’s wrong with cyberbullying?

Cyberbullying

- What you can do if ***you*** are cyberbullied:
  - Don’t blame yourself.
  - Don’t retaliate.
  - Save the evidence: Take screenshots of texts.
  - Talk to someone you trust.
  - Block the bully.
  - Report the bully.
  - Keep social media passwords private.
  - Restrict others’ access to your social media pages.
  - Change your social media accounts: If you are harassed, delete the account and create a new one.

Media Literacy Council. (2018). *Cyber-bullying*. https://www.betterinternet.sg/Resources/Resources-Listing/Youth---cyber-bullying

Cyberbullying

- How to know if ***someone you care about*** is being cyberbullied:
  - Changes in mood or personality.
  - Work or school performance declines.
  - Lack of desire to do things they normally enjoy.
  - Upset after using phone or going online.
  - Secretive about what they are doing online.
  - Unusual online behaviour: Not using phone/computer at all; using phone/computer all the time; receiving lots of notifications.
  - Deleting social media accounts.

Media Literacy Council. (2018). *Cyber-bullying*. https://www.betterinternet.sg/Resources/Resources-Listing/Youth---cyber-bullying

INFORMATIONAL PRIVACY

Informational Privacy

- Digital and online technologies have a major impact on one's ability to secure privacy.
- In particular, these technologies affect what the philosopher Anita L. Allen describes as **informational privacy:** "confidentiality, anonymity, data protection, and secrecy of facts about persons" (Allen, 2005).

Allen, A. L. (2005). Privacy. In H. LaFollette (Ed.), *The Oxford handbook of practical ethics*.Oxford University Press.

Informational Privacy

- Consider this incident where some researchers released the personal profile details of 70,000 users on OkCupid, a dating website:

Brian Resnick, "Researchers just released profile data on 70,000 OkCupid users without permission," *Vox* (12 May 2016).

- Critics maintained that the (informational) privacy of the OkCupid users was violated by the researchers, because the researchers stored and re-deployed the personal information of the users without their consent.

Informational Privacy

- A right to privacy is recognised in all international and regional human rights instruments, including Article 12 the Universal Declaration of Human Rights:

> No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.

United Nations. (2021). *Universal Declaration of Human Rights (Article 12)*. https://www.un.org/en/about-us/universal-declaration-of-human-rights

Informational Privacy

QUESTION 3:

What's so bad about not having informational privacy? What negative outcomes could befall someone who loses informational privacy?

WHISTLE-BLOWING

Whistle-Blowing

- In large organisations, it can be difficult to hold people accountable for unethical or illegal acts.
  - Law enforcement and regulators are not able to constantly monitor the internal operations of organiaations. Such constant surveillance isn’t even desirable.
  - Leadership within the organisation may cover up any corrupt activities.

Whistle-Blowing

- There are many examples of misconduct in organisations not being brought to light until much damage has already been done, or only after a private citizen reported it at great personal cost.
  - The 1986 Challenger Disaster is a memorable case where something catastrophic happened as a result of internal mismanagement.
  - A more recent case involving Wirecard, an electronic payment company, was reported in Singapore.
  - Data analytics firm Cambridge Analytica crossed many ethical lines.

Whistle-Blowing

- Sometimes it is up to ordinary, low-level people to “blow the whistle” on unacceptable conduct in their organisations.

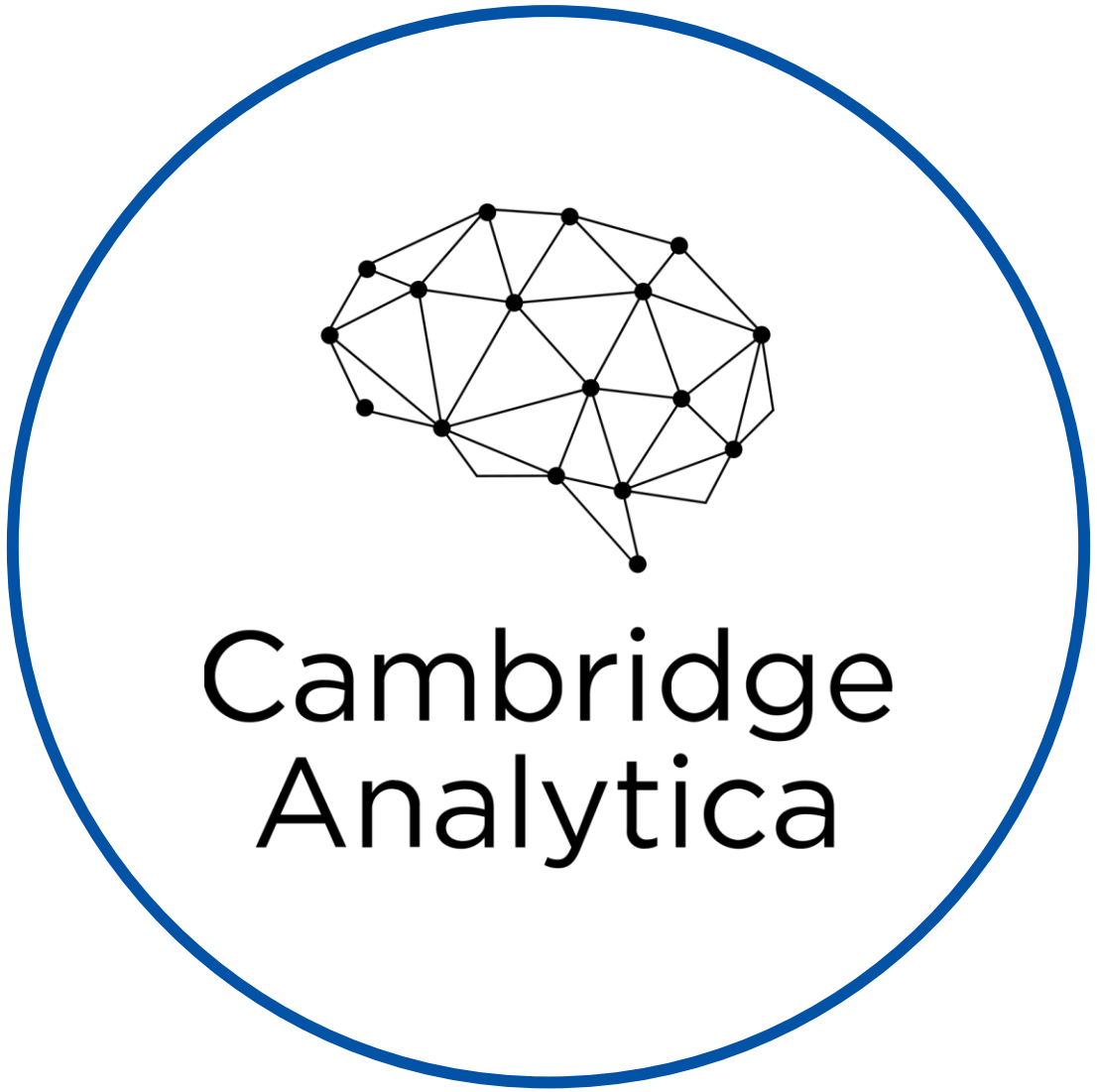
- “A **whistle-blower** is someone who breaks ranks with an organization in order to make an unauthorized disclosure of information about a harmful situation after attempts to report the concerns through authorized organizational channels have been ignored or rebuffed.” (Quinn, 2019, emphasis added)

  - The question of whether to “blow the whistle” can arise in any organisation—not just in government agencies and private businesses.

  - NTU has its own dedicated whistle-blower channel, which is taken very seriously.

Quinn, M. J. (2019). *Ethics for the information age* (8th ed.). Pearson.

Whistle-Blowing



Whistle-Blowing

- But when should one whistle-blow? In his well-known textbook on business ethics, Richard T. De George proposed that whistle-blowing is **morally permissible** when three conditions are fulfilled (De George, 2006; Brenkert, 2009):

    1. The firm…will do [or has done] serious and considerable harm to employees or to the public;
    2. Once employees identify a serious threat to the user of a product or to the general public, they should report it to their immediate superior and make their moral concern known;
    3. If one's immediate supervisor does nothing effective about the concern or complaint, the employee should exhaust the internal procedures and possibilities within the firm.

De George, R. T. (2006). Business ethics (6th ed.). Pearson. | Brenkert, G. G. (2019). Whistle-blowing, moral integrity, and organizational ethics. In G. G. Brenkert (Ed.), The Oxford Handbook of Business Ethics (pp. 564–601). Oxford University Press, Inc. https://doi.org/10.1093/oxfordhb/9780195307955.003.0020

Whistle-Blowing

- De George went on to suggest that if two *additional* conditions are met, then it would be **morally obligatory** for someone to whistle-blow (De George, 2006; Brenkert, 2009):

    4. The whistle-blower must have, or have accessible, documented evidence that would convince a reasonable, impartial observer that one's view of the situation is correct; and

    5. The employee must have good reasons to believe that by going public the necessary changes will be brought about. The chance of being successful must be worth the risk one takes and the danger to which one is exposed.

De George, R. T. (2006). Business ethics (6th ed.). Pearson. | Brenkert, G. G. (2019). Whistle-blowing, moral integrity, and organizational ethics. In G. G. Brenkert (Ed.), The Oxford Handbook of Business Ethics (pp. 564–601). Oxford University Press, Inc. https://doi.org/10.1093/oxfordhb/9780195307955.003.0020

Developing Digital/Online Tools: Whistle-Blowing

- First objection to De George's criteria (Quinn, 2019): **The criteria are too stringent.** It can be morally *permissible* to whistle-blow, even when not all of conditions 1 through 3 are met.
  - For instance, it may be morally permissible to whistle-blow when you know that serious harm will be done to the public, but there is not enough time to lobby supervisors and exhaust all internal reporting procedures.
  - By itself, the effort to prevent serious harm may be enough to make whistle-blowing morally permissible.

Quinn, M. J. (2019). *Ethics for the information age* (8th ed.). Pearson.

Whistle-blowing

- Second objection to De George's criteria (Quinn, 2019): **The criteria are not demanding enough.** It can be morally *obligatory* to whistle-blow even when conditions 4 and 5 have not be fulfilled.
  - For instance, a single employee may have satisfied conditions 1 through 3, but still be unable to acquire enough documented evidence to convince an impartial observer that any wrongdoing has been done.
  - However, it may still be morally obligatory to whistle-blow, if one is confident that another organisation, such as law enforcement or the media, would be able to persuade an impartial observer of the organisation's wrongdoing.

Quinn, M. J. (2019). *Ethics for the information age* (8th ed.). Pearson.

Whistle-blowing

EXERCISE 2:

Read about the Cambridge Analytica Debacle (suggested articles are in the Notes section below).

- As far as you can tell, did Christopher Wylie fulfil conditions 1 through 3 of De George's criteria before he blew the whistle?
- Do you think it was morally permissible for Wylie to whistle-blow? Explain.

Christopher Wylie
Cambridge Analytica Whistle-blower