COMP 3056 Professional Ethics in Computing

Week 1 Introduction

Anthony Bellotti

Slides modified from Bernd Stahl & Elvira Perez Vallejos (UK campus)

Module Lead

Dr. Anthony Bellotti

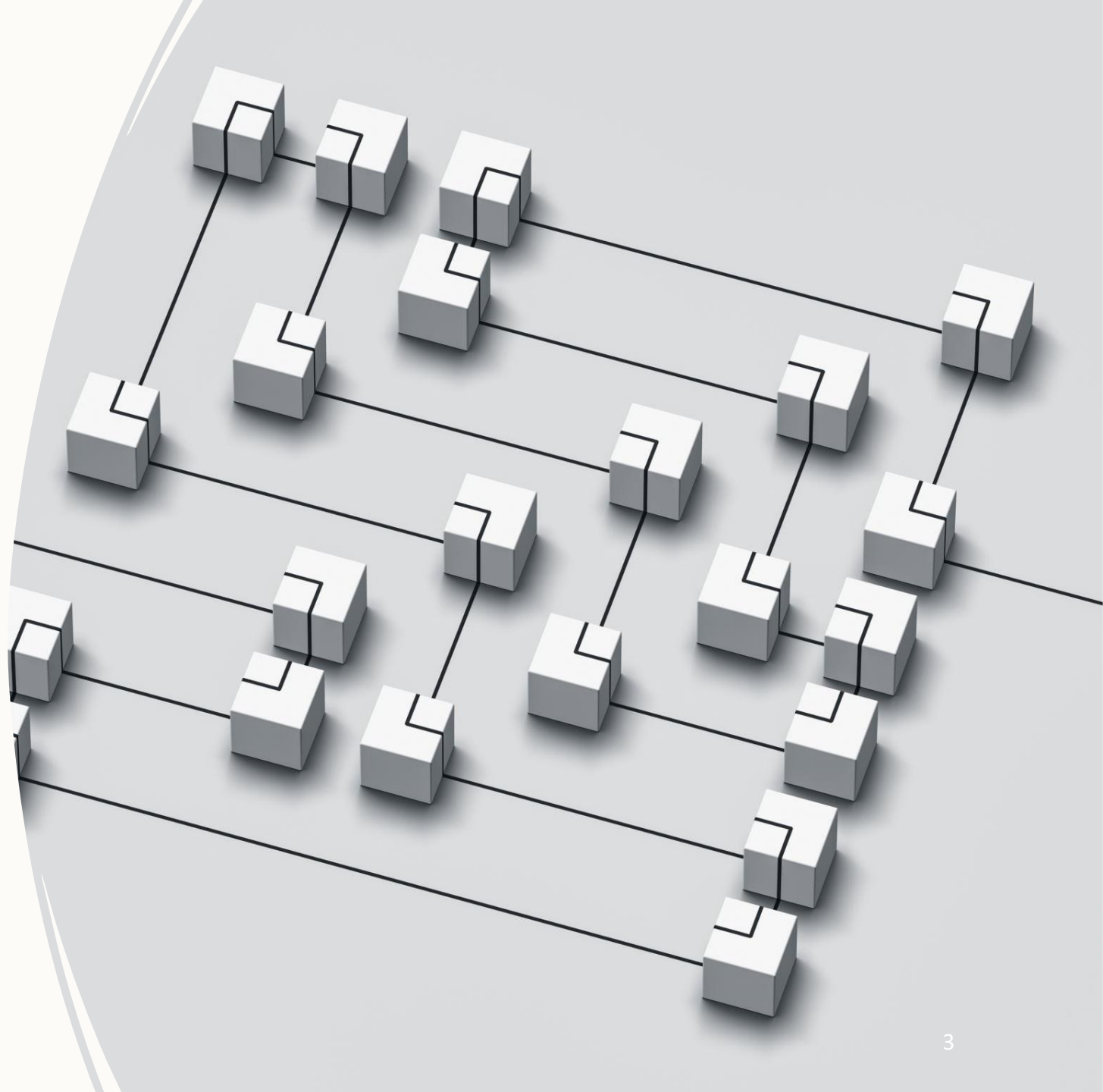**Email: Anthony-graham.Bellotti@Nottingham.edu.cn**

Office Hour: Mondays 11-11:50 and Thursdays 16-17

Room 419

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Learning outcomes

- Initial overview professional ethics in computing

- Structure and delivery of the module

- Assessment

Why are you here?

Workplace Surveillance – an example

- You work as the network administrator of a medium-sized firm.

- The CEO asks you to install a monitoring software that would make it easy for him to read all of the emails that anybody in the company sends or receives.

- In a second step, the CEO asks you to also install a CCTV system that monitors the main doors of the company as well as the central computer room where the server and the backup devices are located. The system is to be installed in such a way that the pictures can be displayed on the CEO's desktop.

- The CEO then asks you to install a camera in all of the company's toilets, so that it is possible to see who uses the toilet (not to see inside the cubicles).

- The CEO asks you to use all of these data feeds (email, CCTV, timekeeping data, user logs) into a machine learning system to detect and prevent systems misuse.

- How do you respond to the CEO? Why?

Workplace Surveillance – some thoughts

Arguments for

- Legitimate interest of the employer that employees work
- Improves productivity
- Ensures client confidentiality
- Avoids crime
- Avoids legal liabilities
- Is regulated by contracts
- Employees should not have anything to hide anyway

Arguments against

- Is an invasion of privacy, breach of data protection law
- Shows a lack of trust in the company
- Keeps employees from doing their best
- May hurt personal development
- Limits the "organisational slack" and creativity
- Contracts are one-sided
- Shows a lack of respect for others

One in five UK adults believe they have been monitored by an employer

Exclusive: Survey comes as unions say workplace surveillance increased during the pandemic

Clea Skopeliti

Mon 2 Oct 2023 17.00 BST

The Guardian, 02.10.2023

📷 The most common practice was tracking timekeeping and access, followed by monitoring emails, files, calls or messages. Photograph: JGI/Tom Grill/Getty Images/Tetra images RF

One in five UK adults believe they have been monitored by an employer, a poll has found, as the Information Commissioner's Office called for bosses to respect staff's right to privacy if they wish to keep tabs on them at work.

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Module learning outcomes

Knowledge and Understanding:
1.1 Social harms enabled by computing
1.2 Professional codes of ethics
1.3 Professional responsibilities
1.4 Equity-Diversity-Inclusion in computing
1.5 Privacy and data protection
1.6 Ethical challenges of contemporary computing
1.7 Responsible research and innovation

Intellectual Skills:
2.1 Understanding the nature of ethics in computing
Professional Skills:
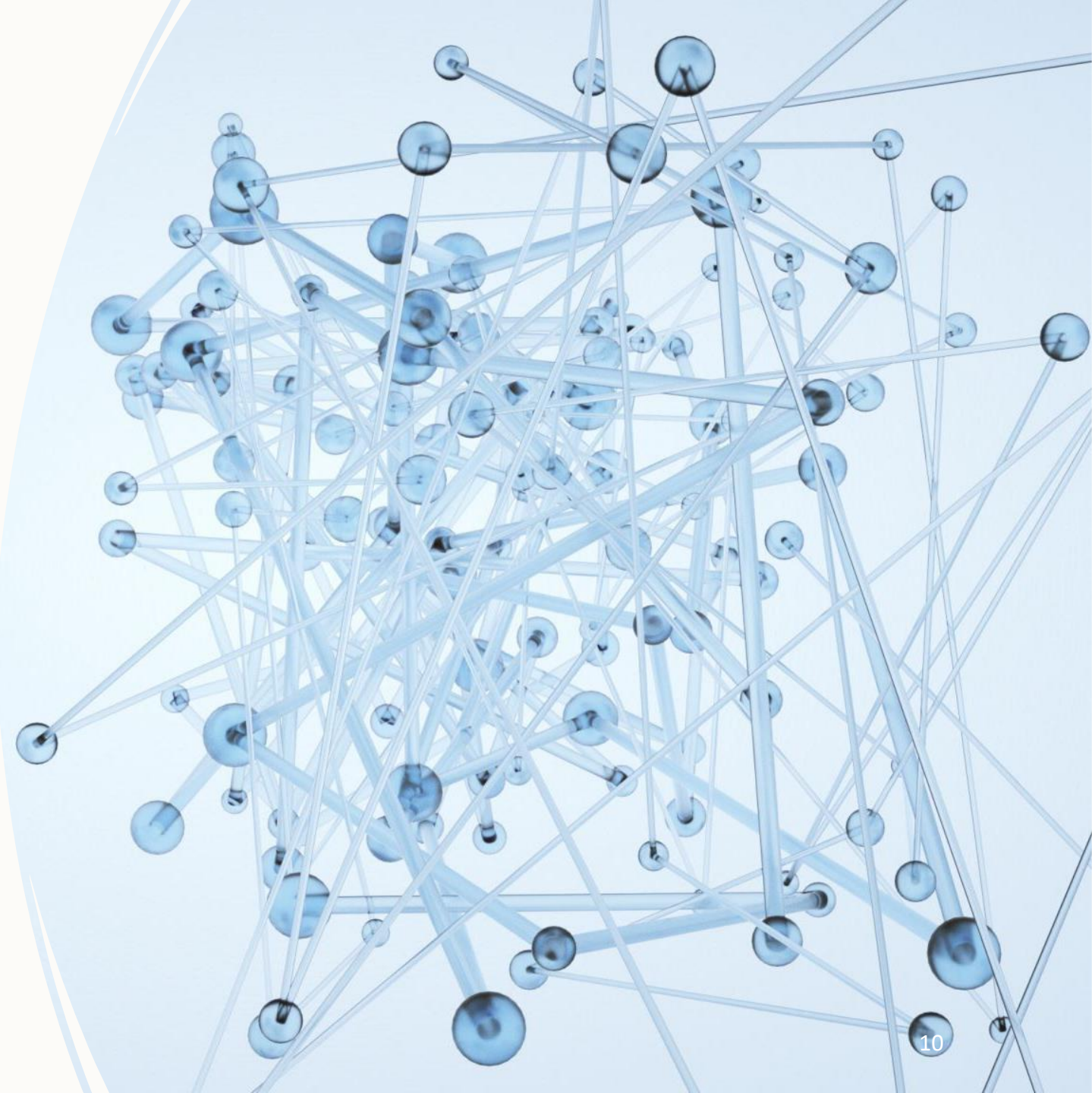3.1 Knowledge, understanding and application of ethical codes in computing

Activities

Activity	Per Week	Total Hours
Timetabled lectures	1	11
Timetabled workshops / tutorials	2	22
Timetabled computing	0	0
Coursework		12
Study, revision & examination		27
Other: Report		28
Total:		100

Module Content

1. Introduction and admin
2. Ethics Theory
3. Understanding the nature of ethics in computing
4. Professional responsibilities
5. Responsible research and innovation
6. EDI
7. Privacy and data protection
8. Intellectual and Intangible Property
9. Trust, Safety and Reliability
10. Trustworthiness of AI
11. How Computing is Changing Us

Assessment

- Coursework (50%):
  - In-lecture quizzes: 5 Moodle quizzes, 12 minutes each, 2% each.
  - Scenario-based project & report (approx. 2000 words): 25%
  - Team work: EDI poster and presentation: 5%
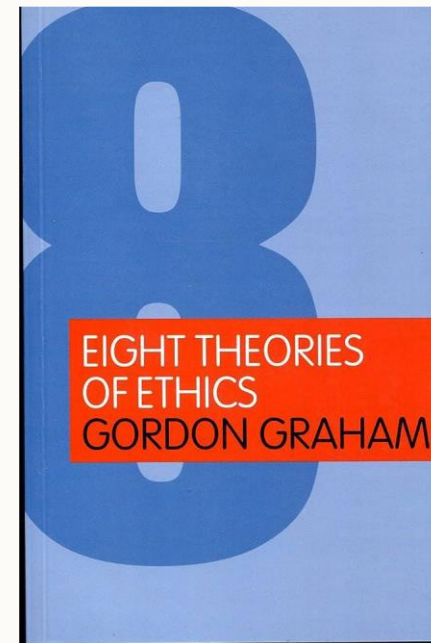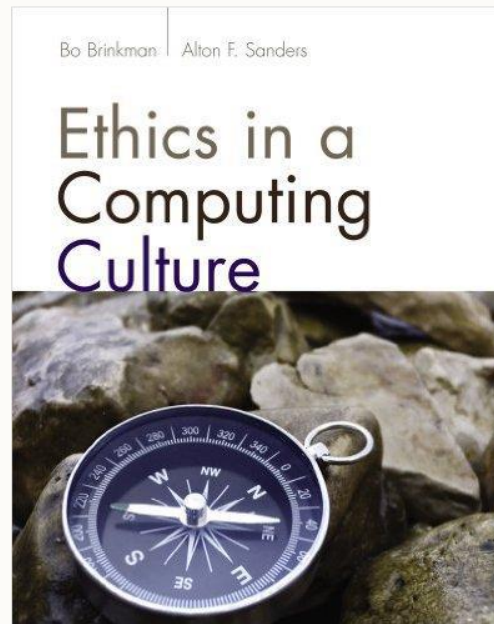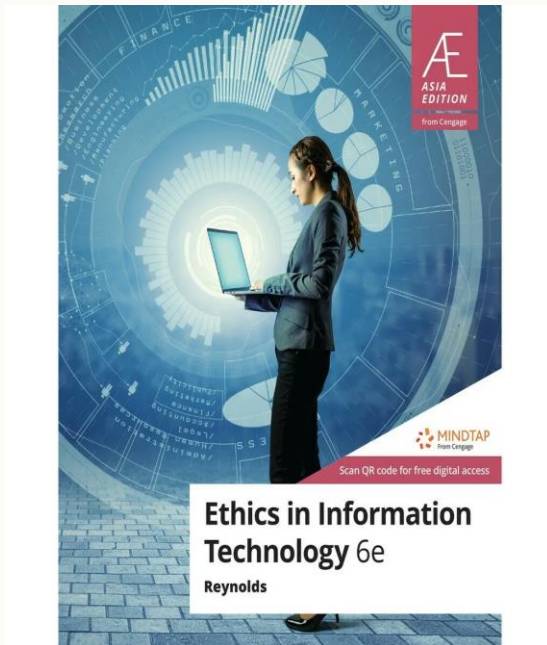 - Team work: Trust, Safety and Reliability research study: 10%

- Examination (50%):
  - 2 hours written exam.
  - Demonstrate knowledge, understanding, and application of ethical frameworks.
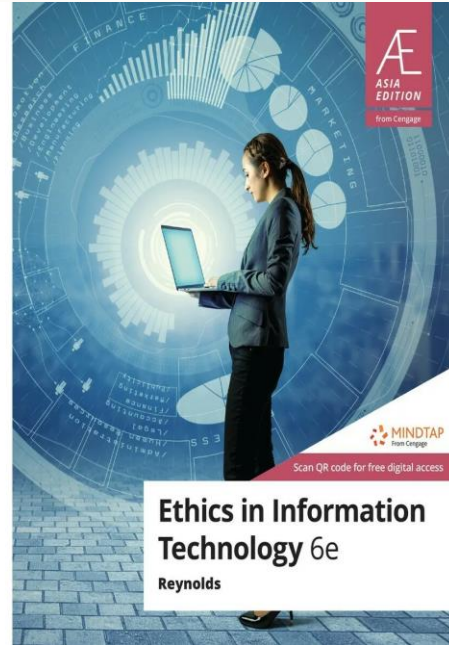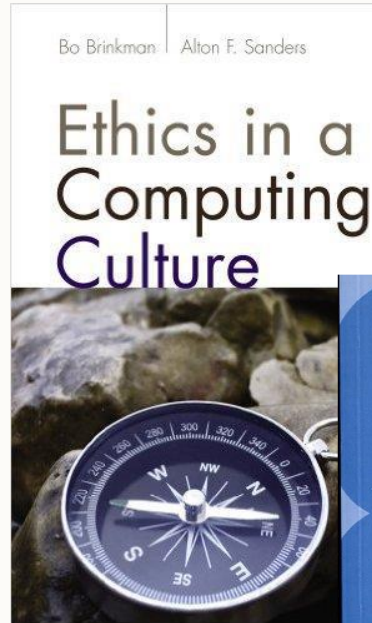
Textbooks

- No single textbook covers everything we learn completely.
- Some topics are not mature yet (e.g. trustworthy AI).
- Use variety of *reliable* sources from the library and internet.
- Here are some key texts from the library:

Textbooks

- George Reynolds, Ethics in Information Technology (6th ed.)
- Brinkman W.J. and Sanders A.F., Ethics in a Computing Culture
- Gordon Graham, Eight Theories of Ethics

All available hardcopy in library.

What is: Professional Ethics in Computing?

- Computing:
  - Hardware, Network, Algorithm, Media, Data, Communication.

- Ethics:
  - Human beings need to socialize and exchange products and information; ethics provides social convention to facilitate this.
  - Determine what is right and wrong.

- Professional:
  - Competence in skilled work.
  - Certification.
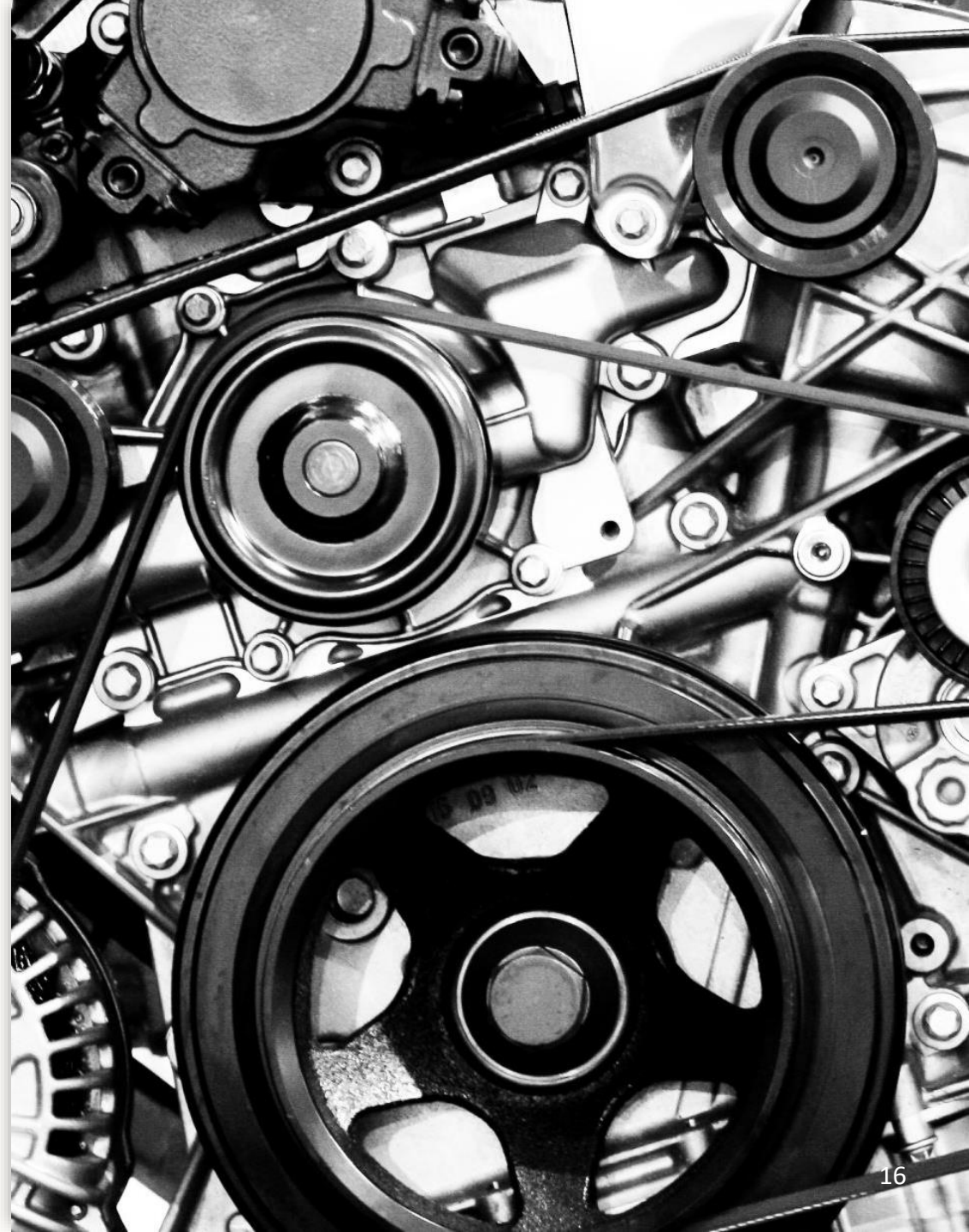 - Agency: make work decisions that may require ethical judgement.

What makes an action good or bad / right or wrong?

Another example

- You are proud to be employed by one of the largest and most prominent car manufacturers in the world.

- Your work involves developing software for the control of diesel engines.

- Your line manager assigns you the task of writing code that will allow the engine to detect when its emissions are measured.

- What do you think about this request? How do you respond?

Was what VW did wrong? Why?

https://www.youtube.com/watch?v=Y5TvFY7xRDM
Volkswagen emissions scandal

Problems of Ethics and Morality

- How might we resolve ethical dilemmas?
- Philosophers (East and West) have been trying to work this out for millennia.
- For example, Plato and Kongfuzi.
- Developed Theories of Ethics.
- We can use these to help reason about scenarios we may face.

Next week we explore in detail.

Workshop w/c 23rd September

- Form module teams.
- Consider and discuss an ethical scenario in computing.