



University of
Nottingham

UK | CHINA | MALAYSIA

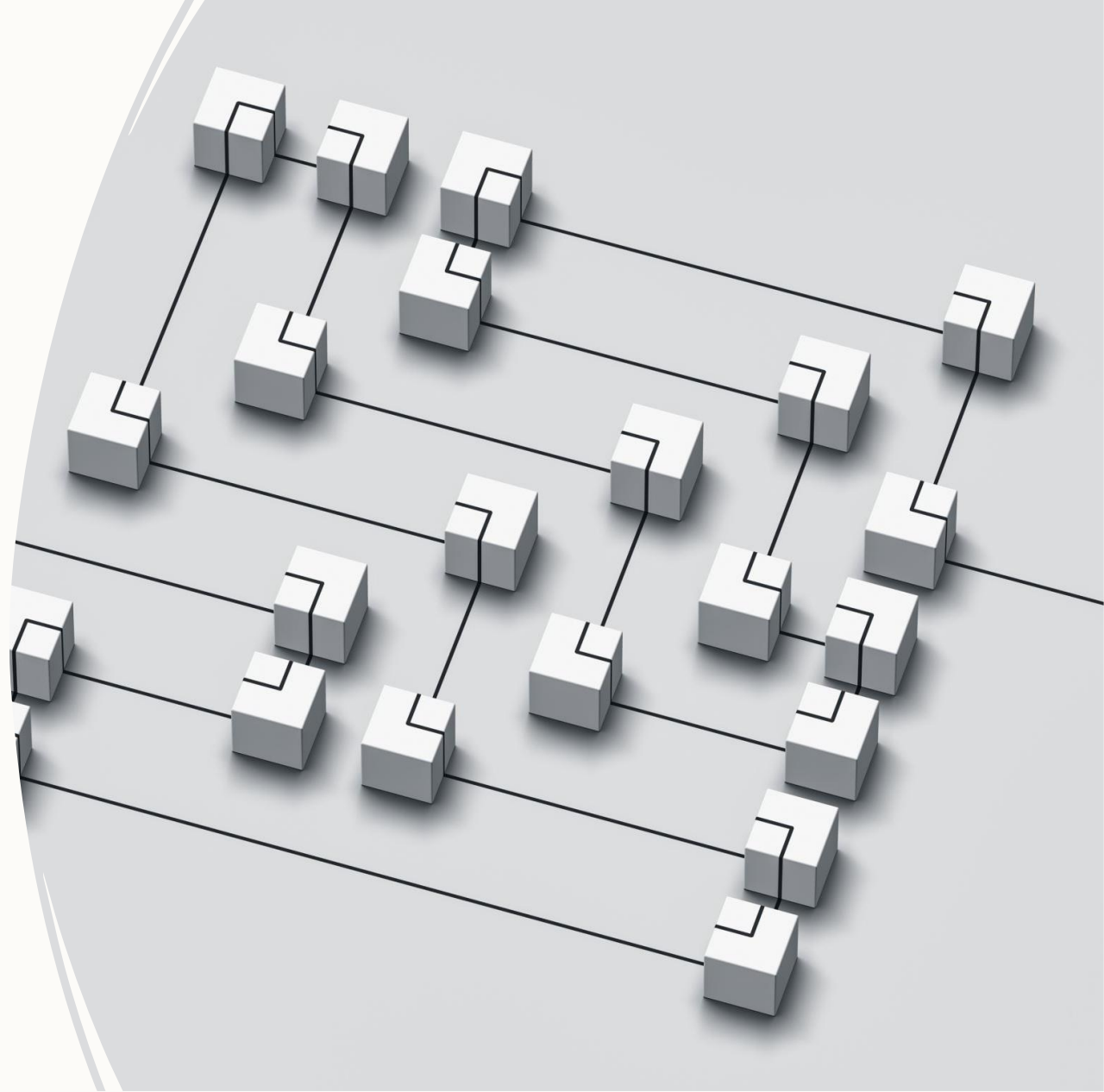
COMP 3056 Professional Ethics in Computing

Week 2 Theories of Ethics

Anthony Bellotti

Learning outcomes

- What is Ethics, Morality and Law
- Some interesting observations about Ethics
- Five Ethical Theories:
 - Cultural relativism
 - Categorical imperative
 - Utilitarianism
 - Contractarianism
 - Ethics of caring
- Critical reasoning and Ethics





Definitions: Ethics, Morality and Law

- **Ethics**: Set of principles of how each member of a group ought to behave, shared by the group.
- **Morality**: One's individual belief about how one ought to behave. This typically implies an expectation of others.
- **Law**: Social rules of right and wrong, enforced by the state (i.e. police and law courts).

Difference between “is” (shi) and “ought” (yinggai):

- “Mr. Smith is paying his tax”.
- “Mr. Smith ought to pay his tax”.

Important note:

- These definitions are modern interpretations (from Reynolds and Brinkman & Sanders textbooks).
- Traditional philosophy: ethics is philosophy of morality.
- **Please remember this when self-reading on this topic.**



Relations: Ethics, Morality and Law

- These three ideas overlap, but are not necessarily the same.



Examples:

Mr. Smith pays his taxes.

Moral ☒ Ethical ☒ Legal ☒

Lucy sells heroin to teenagers.

Moral ☐ Ethical ☐ Legal ☐

John is a gangster belonging to a criminal gang (ethical group). He withholds information about other gang members under interrogation by police.

Moral ☒ Ethical ☒ Legal ☐

It depends! : this is only true from John and the gang's perspective!

BigMoney is an online marketing company targetting elderly computer users, selling medical support products. They charge double the market price.

Moral (depends) Ethical ☐ Legal ☒



Some interesting ideas about Ethics

- Ethical decisions may differ between different groups
- Context
- “Cost” is important
- Egoism versus altruism
- Framework for Ethical Decision-making



Ethical decisions may differ between different groups

- Ethics depends on the group which is being considered.
 - Example 1: In many Muslim countries, selling and drinking alcohol is unethical.
 - Example 2: In 18th century, slavery was ethically acceptable in many countries, but now is not.
 - Example 3: It is ethical to use marijuana in California, but not Texas; also, different view held by younger and elder people.
- Even between two rational people in the same culture, they may make different ethical decisions.
 - Example: If a close elderly family member is very ill, in great pain, and unable to look after themselves, is it ethical to seek humane assisted death?
- This is important, since it is clear there are different viewpoints.
- For this module: **listen carefully, respect other viewpoints, do not personalize discussions.**



Context

- Ethical decisions often depend on context.

Example:

- Mrs. Smith lies to police that she is harboring people wanted by the police in her home.
- *Is this wrong or right?*
- Suppose additionally: Mrs. Smith is living in Nazi-occupied Denmark in 1942 and the people wanted by police are a Jewish family who have committed no crime.
- *Is she right or wrong?*

Lessons:

- Sometimes an ethical decision cannot be made until more information is gathered.
- Sometimes a poor ethical decision is made on misinformation.
- Sometimes an ethical decision needs to be changed in the light of new information.



“Cost” is important

- The consequence or “cost” of ethical decisions is important.

Examples: which of these is more severe?

- A programmer turns up 10 minutes late to a software development meeting.
- A programmer is drunk at work.
- A software engineer deliberately fakes outcome of some tests on control software for car brakes.

Lessons:

- Actions have different unethical “degrees” (not just true/false).
- Should we (can we) “cost” outcomes quantitatively?



Egoism versus altruism

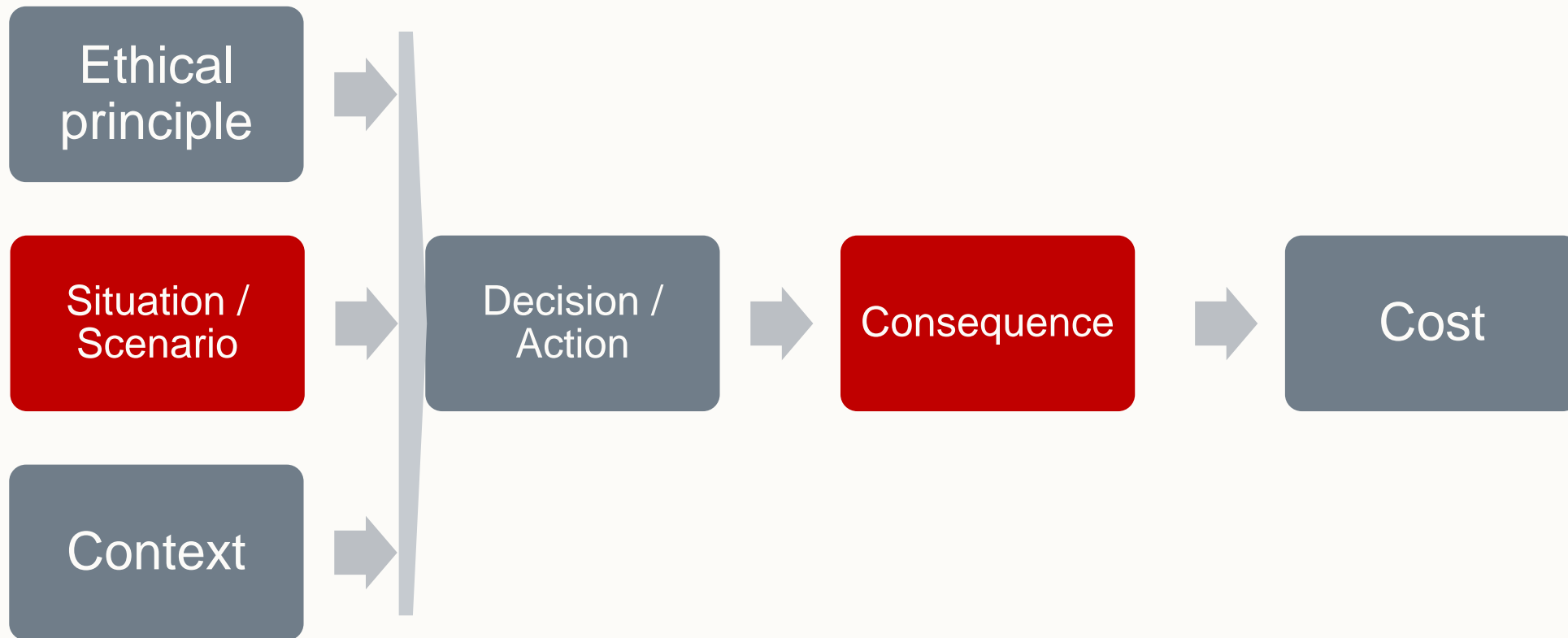
Two distinct philosophical viewpoints:

- **Egoism:**
 - Everyone is motivated to do only what is good for themselves as individuals.
 - Hence, only ethical theory is “Do what is best for me”.
 - Clearly, this is problematic: Selfish and uncaring society.
- **Altruism:**
 - Ethical principle: Do what is good for other people.
 - Altruism may not be realistic!
 - At its extreme, this is not good because people may not care for themselves.
- **Modern approach blends egoism and altruism:**
 1. Following social rules (altruism) is good for individual (egoism).
 2. Caring for self (egoism) is a requirement before helping others (altruism).
 - Q: Can you think of an example of (1) and (2)?



Framework for Ethical Decision-making

To help us discuss ethical decision-making we can therefore provide the following general framework:





Theories of Ethics

- Cultural relativism
- Categorical imperative
- Utilitarianism
- Contractarianism
- Ethics of caring



Theories of Ethics

- The quest for defining ethics is an attempt to answer these questions:
 1. How do I know that X is good?
 2. Why is X good?
- We will be looking at ways to answer these questions.
- Theories of ethics developed by philosophers for millennia.
- Large and complex topic. In this lecture we only look briefly at five theories which have modern impact.
- Important note: Focus is on Western philosophy, following the textbooks, but many important Eastern philosophers have written on ethics.



1. Cultural Relativism

- Ethical principle:

An action is judged good or bad based only on the standards adopted by one's society.

- This follows from observation that ethics is different between groups.
- No valid *rational* criterion for determining the right thing to do exists.
- Different cultures cannot be judged against each other
- **Positives:** Promotes tolerance
 - We do not unfairly judge other cultures
- **Negatives:** Difficult to defend
 - (e.g., slavery in 18th century);
- Questions:
 - What are the boundaries of a culture?
 - How do we determine whether two people belong to the same culture?



*Do Maasai and Canadian
have same ethics?*



1. Cultural Relativism (Pluralism)

- Cultural relativism is problematic because it is not objective: we cannot apply the same ethical standards to people from different cultures.
- We need a *universal* ethics code for the computing profession.

Pluralism:

- However, two attributes of culture appear to be universal amongst all humans: language and morality, there is a “natural morality”:

The existence of a common morality is supported by the widespread agreement of most moral matters by all moral agents... killing, causing pain or disability, depriving of freedom ... unless there is an adequate justification ... deceiving, breaking promises, cheating, breaking the law, and neglecting duties also need justification in order not to be immoral.

[Bernard Gert , Common Morality , 2004, pp.8-9]

However, for us on this module, the case for cultural relativism is weak

- It does not provide clear guidance in deciding what is right when interacting with people of other cultures.



2. Categorical imperative

- Ethical principle:

An action is moral if it can be stated as a universal rule without contradiction.

- Example:
 - Suppose “It is OK for me to steal”.
 - This presupposes that people own personal property (that can be stolen).
 - State “It is OK for me to steal” as a universal rule: “it is OK for *anyone* to take *anything*”.
 - But if it is admissible for anyone to take anything, then the whole idea of personal property is meaningless.
 - Therefore:-
 - There is no such thing as stealing, or,
 - Stealing is wrong.
- This derives ethics directly from reason.
- The process is called the “*categorical imperative*” and was introduced by German philosopher Immanuel Kant (1724 1804).





2. Categorical imperative

- A flaw with the categorical imperative is that it forms universal laws that must be logically true.
- No room for exceptions.
- Consider this scenario:
 - Yifan starts works at a software helpdesk. He is horrified to learn the company is tricking customers to buy additional security software that they do not need and does not even work. He know where documents to prove this are kept in the office building. Unseen, he takes them and hands them over to the police authorities.

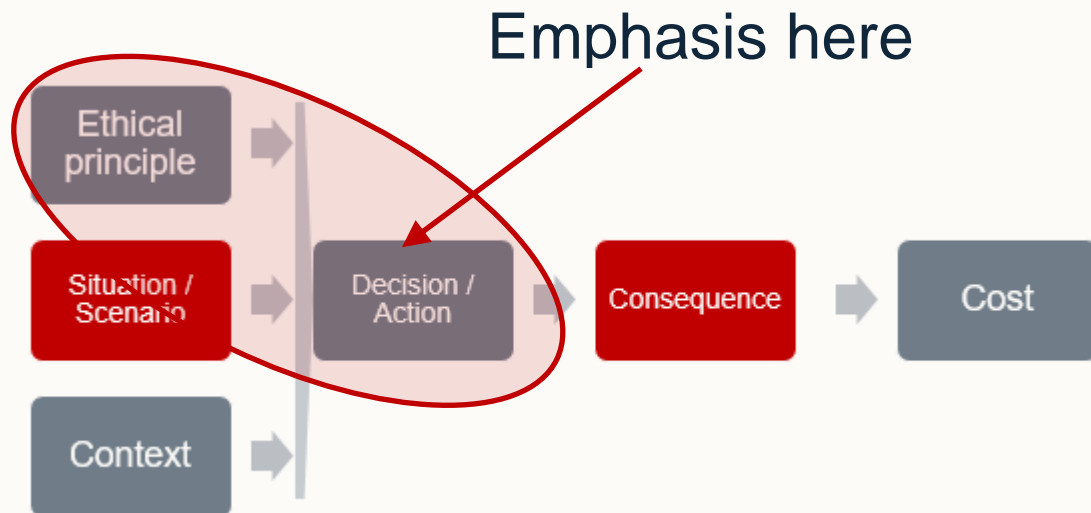
But “taking” the documents is “stealing”, and the categorical imperative says he is wrong.

But is he? What do you think?



Deontological Ethics

- Categorical imperative is a type of Deontological Ethics:
- Concerned with **what people do**, not with consequences of actions.
- Do the right thing because it is your duty.
- “Deon” is Greek word for duty.





Good intentions

- Deontological Ethics focusses on the intention of an action.
- Principle of “good intention”.
- But if an ethical decision is *badly informed* then it may lead to bad consequences.
- Example:

Bob has to go home, but wants to continue working. Therefore he emails the files he was working on to his personal account. However, the files he was working on including personal data, were stolen (external email is not secure), and he caused a data breach.
- So Bob was well-intentioned, but the outcome was bad.



3. Utilitarianism

- **Hedonism** is the principle that actions that make me happy are the best. However, this is egoistic.
- **Utilitarianism** is the altruistic development of hedonism:

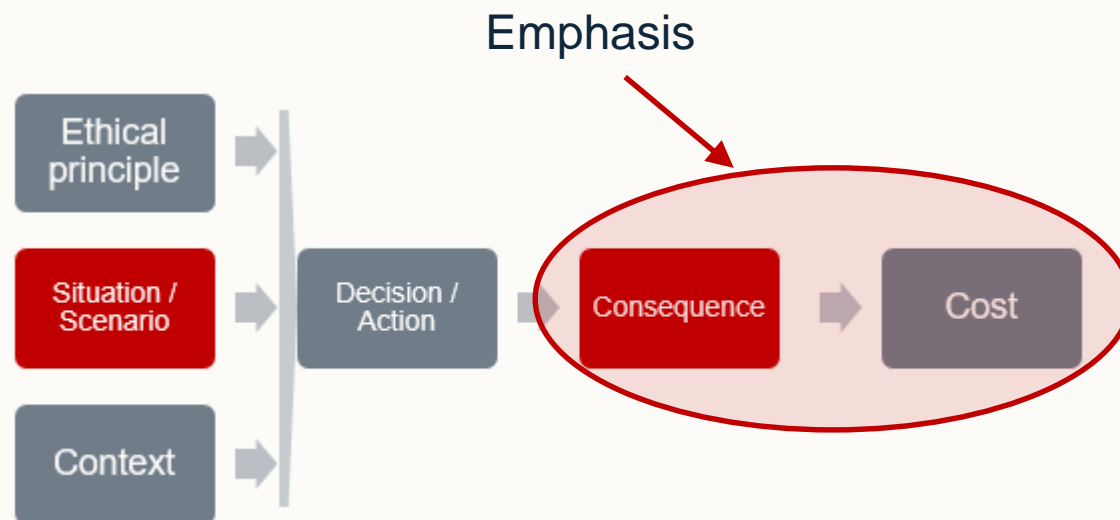
The right decision is the one that causes the most happiness, amongst **all people affected by the decision**.

Jeremy Bentham (1748 1832) regarded as founder;
John Stuart Mill (1806 1873) regarded as strongest proponent.

- Utilitarianism is a reaction to Deontological Ethics focusing on the consequence.
- Hence, it is a form of *Consequentialism*: focus on outcome, not intention.



3. Utilitarianism



Maximize happiness (consequence)

- But what is “happiness”?
Physical, emotional, mental:
 - Satisfaction of accomplishment, appreciation of interesting idea, aesthetic pleasure of art, pleasure of helping others, ...
 - Absence from pain and suffering.
- Sometimes “happiness” is called “utility” (usefulness).



3. Utilitarianism



Example:

You can spend \$1,000 on educational resources for children. You have two options:

1. Spend \$1,000 on books for local library.
 2. Spend \$1,000 on e-books for distribution on the school intranet.
- One physical book costs \$10 and e-books are \$8 on average.
 - 95% of children attend the library each week, whereas only 70% look at the school intranet at home each week.

Therefore,

- Average number of library books accessible to each child = $0.95 \times 1,000 / 10 = 95$.
- Average number of e-books accessible to each child = $0.7 \times 1,000 / 8 = 87.5$.

Hence, measuring happiness by access to books, option 1 is best.



3. Utilitarianism

- Utilitarianism has been very influential in Economics.
- However, utilitarianism requires a way to quantify or “cost” the consequence.
 - This is not very easy and may lead to crude oversimplification.
 - It may not even be possible.
 - For example, how to compare the pleasure of eating an apple and a banana? Is this the same for all people?
 - A utilitarian calculation is required by ordinary people for all actions?
 - This is called *act utilitarianism*.
 - An alternative is called *rule utilitarianism* which provides general rules that have already been costed (on average!).
- Utilitarianism either can only be applied after the decision (when cost is known), or using a *prediction* of consequence and cost, which may be wrong / misinformed.



?





3. Utilitarianism

- Utilitarianism has a worse problem: “tyranny of the majority”.
- Because utilitarianism seeks to maximize total happiness amongst all affected people, then improving happiness at the expense of a minority is ethically acceptable, according to utilitarianism.
- Consider the example on slide 21 again:
We chose to invest in books for the library. However, the 5% of children who do not attend, may not be able to because of mobility problems (disability or lack of transport resource). This decision would exclude them from access to the books.
- Of course, the “utilitarian calculation” can be adjusted, but this is ad hoc, and relies on introduction of new principles.



3. Utilitarianism

Consider these questions from the perspective of utilitarianism:

1. Should we give all school children candy for lunch?
Consider short and long term effects.
2. A profoundly unhappy person has no friends or family. Is it morally right to kill this person?



4. Contractarianism

- Both a political and a moral theory.
 - Initially from writings of English philosopher Thomas Hobbes (1588 1679): *The Leviathan*.
- Can be merged with consequentialist , or deontological theories.
- Premise:
 - People are rational and wish to promote self interests (egoism).
 - The best way of doing that is to promote the common interests of society.
- Ethical decisions are those that are in accordance with common interests; the social contract.





4. Contractarianism

Social Contract:

- Originally, we were in a state of nature:
Humans live “*solitary, poor, nasty, brutish, and short.*” [Hobbes]
- The only way to overcome this “state of nature” is to come together with others for mutual benefit.
- We enter into contracts in which each party agrees to certain obligations in exchange for other benefits
- Contracts are often implicit i.e., not written down, or spoken about); but they are enforced by social norms and state institutions (police, law courts, government).



5. Ethics of Care

- Originated by Nel Noddings, American feminist and philosopher [1929-2022]
- Critical of Utilitarian and Kantian approaches.
- Believes logic and maths not helpful for moral philosophy:
“The hand that steadied us as we learned to ride our first bicycle did not provide propositional knowledge”. [Noddings]
- A single moral ideal virtue : **caring for other individuals**.
- Goodness is whether or not we take care of people around us.
- *One-caring*: someone who fulfils the role of a care giver.
- To act morally, we need to make ourselves one caring for those with whom we have relations.



Components of Caring

- Caring is characterised by feeling of *engrossment* in the needs of another person and by acting to care for that person.
- For caring to happen, it is necessary for the cared for person to be receptive.
- We can “care about” everyone, **but we cannot “care for” everyone.** Hence, it is morally acceptable (and necessary) to only care for a small number of individuals
- Since caring involves the specific situation of the specific individual, it does not lead to universal moral rules.
 - Focus on specific cases and analogy, **not** reasoning.



Caring by Computer Professionals

- It's not possible to “care for” all (hundreds or millions of) users of a software application; but, software *can* help people.
- Computer professionals can ask important questions related to the ethics of caring:-
 - ☐ Does the action enhance the ideal of myself as one-caring, or detract from it?
 - ☐ Will the product that I am creating allow its users to enhance their ideals of *themselves* as one-caring, or detract from it?
 - ☐ Is the person I am trying to help actually receptive to my help?
 - ☐ Is my mental attitude one of engrossment in the care of users needs, or am I mentally distant?



Caring by Computer Professionals

Examples to think about:

- If designing a GUI interface, do you give attention to making the interface beautiful and easy-to-use?
- In particular, do you feel motivated to provide accessibility features (e.g. changing font size and colour).
- If the system is a health system, does it assist and encourage health workers as carers for their patients?



Workshop w/c 7th October

- Apply Theories of Ethics to scenarios.

