

# Professional ethics



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# Times change so rapidly

- **Moore's law:** the number of transistors doubled approximately every 18 months.
- The increase in computing capacity is exponential.
- Hardware costs are lower than software costs.
- Technological change is exponential.

# Challenge



## Influence of technology on human

- accident
- environment pollution
- internet addiction
- piracy

# Discussion

- ☐ Why must we learn professional ethics?
- ☐ What will happen without professional ethics?
- ☐ How to determine if an action is right / wrong?



Brainstorm  
Session

# Discussion

- ☐ The main goal of moral doctrines is to answer the question "is an action right / wrong?"



# Act utilitarianism

- ☐ Remarking benefits / harms
- ☐ An action is right if it benefits people and is wrong if it harms people.
- ☐ An action is right / wrong if it increases / decreases the benefit of the affected party.

# Example

- ☐ Lining up in the elevator
- ☐ Is this action right?
  - ☐ What is the benefit of this action?
  - ☐ Is this action harmful?

# Example

- ☐ Lining up in the elevator
- ☐ Is this action right?
  - ☒ What is the benefit of this action?
    - No mess, easy access, fairness
  - ☒ Is this action harmful?
    - Long lines, people who are in a hurry will be late
    - Some people's interests will be affected



# Act utilitarianism

- ☐ Put all the benefits and damages on the scale.
- ☐ If the scale is skewed to benefits, it means the action is right, even if it affects others.
  - ☒ The great benefit that it brings can help to ignore the damage



# Discussion

- ☐ An action that is wrong for some people but is true for more people is considered morally right.
- ☐ Indicate situations in which an action that benefits many people and disadvantages the minority may be considered right/wrong in IT?

# Discussion

- ☐ Online games bring works and profits but also harm young people's morality
- ☐ Websites share source codes to help programmers but also make programmers lazy to copy the code
  - ☐ Students copy source code and submit it to the teacher

# Discussion

- ☐ You must release the product tomorrow but there is still a big and rare bug.
- ☐ This bug takes 1 week to fix.
- ☐ Two solutions:
  - ☐ Silent and release
  - ☐ Delay → You will be deducted from wages
- ☐ Which solution do you choose? Why?

# Fair use

- ☐ (1) Purpose
- ☐ (2) Quantity
- ☐ (3) Current business affect
- ☐ (4) Nature of work

# Fair use

- (1) Purpose
  - ▣ Personal & educational
- (2) Quantity
  - ▣ 30% photocopy, restrict access (using password, Moodle...)
- (3) Current business affect
  - ▣ Using older editions
- (4) Nature of work
  - ▣ Non-fiction: mathematics, science, general knowledge

# Discussion

- ☐ Are the following actions fair use?
  - ☐ Sony integrates a program recorder into television.
  - ☐ Teachers provide ebooks and hard copies for students
  - ☐ Teachers provide Visual Studio software with crack for students

# Thinking

- ☐ Why must we follow professional ethics?
- ☐ Why must we change ourselves to do the right thing while the world is still unchanged ?



# Last words

"Whatever you don't like,  
don't do it to others"

“Kỷ sở bất dục, vật thi ư nhân”

# References

- Mike Quinn, **Ethics for the Information Age**, 4<sup>th</sup> Edition



