Computing Ethics

Lecture 1
General Introduction

Outline

• What is Ethics?
• What is Computer Ethics?
• Why we need Computer Ethics?
• Why we should study Computer Ethics?
• Identify Ethical Issue
• The relation between Ethics and Law
• Ethical Theories
• Professional code of conduct
• The Framework for Ethical decision making

Computer Ethics

Information Ethics

Business Ethics

From your own point of view provide a definition of the term ‘ethics’

Write down your answer in a piece of paper. and prepare for short discussion
What is Ethics?

Is it a law?

The law uses ethical standards to construct legal standards

Is it religion?

Religion encourages ethical actions and ethical thinking. But the absence of religion does not mean an absence of conscience or an absence of ethical actions/ethical awareness

Is it morality?

Morality refers to particular beliefs or norms on what is good and bad, what is right and wrong

Different people have different moral standards, so what is right in one society might be wrong in another society

Is it a value?

A value is a set of beliefs that influence behaviours

Values of members of a particular cultural group tend to influence indirectly their behaviour via their attitudes and goals
What is Ethics?

... so what is ethics?

**Ethics** is a mechanism through which ethical standards and theories are applied to ethical cases and **Ethics** refers to the science or system of morals, or to a particular ethical standards.

What is Ethics?

• Is a **process** (ethical analysis)
• Is **neutral**
• Is not based on **bias** or **prejudice**
• Involves **rational thinking**.
• Involves **deep thinking**

What is Ethics?

... so what is ethics?

**Ethical standards** provide straightforward answers to what is right/wrong (set of rules). E.g. Religion, codes of ethics.

What is Ethics?

• Involves **critical thinking**
• Involves **reflective thinking**
• Is not based on what we feel is right/wrong on that particular day.
“Computer Systems perform tasks, and the way they perform these tasks has moral consequences that affect human interests.”


What is Computer Ethics?

Computer Ethics represents:

The analysis of the nature and the social impact of computer technology and the corresponding formulation and justification of policies for the ethical use of such technology

Why we need Computer Ethics?

Computers are a special case

Logical malleability

Invisibility factor

Impact on Society
1) Logical malleability

In contrast to the majority of manufactured products, computers can be shaped and moulded to perform any activity that can be characterised in terms of inputs, outputs and connecting logical operations.

The logic of computers can be shaped in infinite ways through changes in hardware and software and in term of their usage.

Write an example of the logical malleability of computers in a piece of paper

2) Invisibility factor

Most of the time, and under most conditions, computer operations are invisible

- Invisible abuse: The intentional use of the invisible operations of a computer to engage in unethical conduct.
- Invisible programming: A programmer makes some value judgments about what is important and what is not. These values become embedded in the final product and may be invisible to someone who runs the program.
- Invisible complex calculation: Computers today perform calculations which are too complex for human inspection and understanding

Invisibility factor

Write an example of each factor in a piece of paper, and prepare for short discussion

3) Impact on Society

Computers have been used for years in businesses to expedite routine work, such as calculating payrolls. However, a personal computers become widespread and allow executives to work at home, a robots do more and more factory work, the emerging question will not be merely how well do computers help us work? but what is the nature of this work?
Why we should study Computer Ethics?

Our society is changing rapidly as it incorporates the latest advanced technology, i.e. cell phones, laptop computers, and World Wide Web (www), these technologies change how we spend our time and interact with others. Give an example of the changes in our time and interact with others.

These inventions have brought us many benefits. However, some people selfishly exploit new technology for personal gain, even if that reduces the overall benefit for the rest of us. Give an example.

Identify Ethical Issue

- Most people can distinguish between what is ‘ethical’ and what is ‘not ethical’
- It is difficult to explain our reason for deeming an action to be ethical or unethical
- We often base our judgement on a complex set of criteria:
  - Personality
  - Common sense
  - Instinct
  - Wisdom (based on experience)

These are some issues that relate to computer ethics:

- Stealing
- Intellectual property
- The right of privacy
- The right of equality
- Keeping promises
- Not lying

Ethics and Law

- Why we need ethical principle to guide our decision when we have the law to turn to? Laws, should tell us when it is right or wrong to do something.
- Laws are not always ethical, they are created by governments and may be introduced to further ethical or not-so-ethical aims.
- As far as law and ethics are concerned, we can have laws that are ethical, and laws that are unethical.
- The course of action can be:
  - Legal and ethical
  - Not legal but ethical
  - Not ethical but legal
  - Not ethical and not legal
Using the following scale of legality and ethicality, give an example of an action to each case and prepare for discussion on your choose.

- Not ethical
- Ethical
- Legal
- Not Legal

Ethical Theories

- Theories are used to explain natural phenomena
- Theories provide us with understanding of the world we live
- The process of using theories are:
  - put the theory forward,
  - assess the theory,
  - discusses it,
  - then either accept, revise or discard it
- More than one theory could be used in one topic
- Some people will be convinced by one theory and not by another

- Relativism (Subjective and Cultural)
- Divine Command Theory
- Ethical Egoism
- Kantianism
- Utilitarianism (Act and Rule)
- Social Contract Theory

A brief description of the above theories would be covered in lecture 2.
Professional code of conduct

- Most of professional bodies have codes of conduct (code of ethics)
- The purpose of the codes of conduct is to:
  - offer guidance to the professional members
  - set standards for the professional
- There are a number of professional code of conduct in computing:
  - Code of Conduct for British Computer Society (BCS) Members
  - Association Computing Machinery (ACM) Code of Ethics and Professional Conduct
  - Software Engineering Code of Ethics and Professional Practice by IEEE-CS/ACM

The Framework for Ethical decision making

<table>
<thead>
<tr>
<th>Guiding principle</th>
<th>Questions to consider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Law</td>
<td>Is there a law applicable to this issue?</td>
</tr>
<tr>
<td></td>
<td>What dose it say?</td>
</tr>
<tr>
<td></td>
<td>Is it a good law?</td>
</tr>
<tr>
<td>Code of conduct</td>
<td>Do professional codes of conduct have anything to offer on this issue?</td>
</tr>
<tr>
<td>Ethical theories</td>
<td>What solution dose an (Ethical Theory X) approach offer?</td>
</tr>
<tr>
<td></td>
<td>What solution dose an (Ethical Theory Y) approach offer?</td>
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<tr>
<td></td>
<td>Are their conclusion the same? If not, which provides the most convincing argument?</td>
</tr>
<tr>
<td>Social norms and other arguments</td>
<td>What do social norms say about this?</td>
</tr>
<tr>
<td></td>
<td>Are the arguments valid?</td>
</tr>
<tr>
<td></td>
<td>Are there other argument that might help- for example, economics?</td>
</tr>
</tbody>
</table>

Reading List

- Books:
  - Quinn, M (2013), *Ethics in The Information Age*, Addison Wesley
- Journals:
  - Ethics and Information Technology (e-journals)
  - Information, Communication, Ethics and Society (www.emeraldinsight.com/info/journals/jices/jices.jsp)

Case Study 1: The Disgruntled Consultants

- Please read the provided case study (*The Disgruntled Consultants*) and be prepared for a brief discussion on this case next week
Summary & Checklist

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Thank You!

Website: www.c2learn.com
s.zahrani@tu.edu.sa
admin@c2learn.com