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Professional Issues in IT

Topic 1:
Introduction to IT Standards & Issues

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Scope and Coverage

This topic will cover:

- Introduction to the professional issues in IT module
- Introduction to ethics
- Introduction to social, legal & professional issues in IT
- Why standards and issues are so important

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Learning Outcomes

By the end of this topic, students will be able to:

- Define and explain social issues from perspective of IT professional
- Name key ethical considerations when creating a code of ethics
- Identify and explain key legal considerations as an IT professional

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Module Aim

- To introduce key professional issues in IT from the perspective of the IT professional, enabling students:
  - To gain knowledge of terminology and concepts facing IT professionals;
  - To identify, explain, develop, analyse, evaluate and report on a variety of IT industry issues.

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Module Content

- Social and legal issues as an IT professional
- Project management lifecycle and strategy
- Software deployment issues
- Risk management – its place in IT
- Service management within the IT sector
- Software quality – policies and procedures

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Key Module Points

- All topic areas will be explained during lectures

- Undertaking additional reading will enhance your understanding

- Ask questions – if you are thinking of a particular question, someone else probably is too!

- Work together – it will build your knowledge

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Social Issues in IT

- Social responsibility as an IT professional begins, and arguably also ends, with you.
- Underlying all social issues is your **moral code**:
  - Who you are
  - How you value others
  - What you are and are not willing to do

Ethics

- Before considering ethics within IT, it is important to understand what '**ethics**' means:

"a set of beliefs about right and wrong behaviour"

(Reynolds 2010: 333)

Ethics at Work

- If your line manager were ask you to download music from an unauthorised source (as a personal favour) would you do it?

Ethics in IT - 1

- Incredibly subjective
  - Based on an individual's learnt & taught behaviour
  - General consensus that ethics education has merit
- Always requires balance
  - Limiting others' actions can be resented
- Known as *Corporate Ethics* within organisations:
  - Can have internal impacts
  - Wider reaching than industry as answerable to wider audience (e.g. jail terms)

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Ethics in IT - 2

- Industry wide responsibility is now being taken. Many companies have:

  - Corporate Ethics Board
  - Corporate Ethics Officer
  - Corporate Code of Ethics
  - Ethics Training

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Kallman & Grillo's Ethical Framework

- Understand situation
  - Identify facts, identify stakeholders
- Identify key ethical issue
  - What is the issue? What action should be taken?
- Analyse alternative ethical solutions
  - What are the consequences?
- Make decision & implement action
  - Decide how to act and justify decision
  - Create an action plan and report to stakeholders
  - Document the findings

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Company Codes of Ethics - 1

- Many companies write their own codes of ethics
  - Aims section
  - Constraints section
- Key considerations:
  - Make code bespoke
  - Consult stakeholders & employees
  - In house development
  - Research
  - Set boundaries
  - Consider training
  - Enforce code
  - Review regularly

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Company Codes of Ethics - 2

- Many companies within the IT industry now publish their codes of ethics (conduct) on web.
  - Google: http://tinyurl.com/66lbjmk
  - 3D Systems: http://tinyurl.com/6daxz3n

- As do many companies not primarily in the IT sector
  - Walt Disney: http://tinyurl.com/5wb82ey

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International Bodies' Codes of Ethics

- International industry bodies
  - Variety of codes of ethics
  - Best practise

- Examples of industry bodies' codes of ethics:
  - IEEE Computer Society: http://tinyurl.com/65tle7n
  - Council of European Professional Information Societies (CEPIS): http://tinyurl.com/6kzb8zo

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Green IT - 1

- Starting to gain momentum
  - Arguable that has effect on generating business

- Green IT policies
  - Becoming more common especially amongst forward thinking organisations
  - Green IT being written in to Mission Statements

- As an IT professional, it is important to understand your responsibilities.
  - Shut down all IT equipment at the end of the day.
  - Remove active screensavers.

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Green IT - 2

- Operate environmentally friendly printing practises.
  - Paperless
  - Network printers
  - Default double side printing
  - Recycled products
- Operate data storage redundancy identification.
- Streamline software features
- Consider updates rather than automatically accepting them
- Virtualisation
- Can you name any others?

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Legal Issues in IT

- Many legal issues will affect you as IT professional.

- There are ever evolving legal requirements due to the nature of the industry.
  - It is essential if to consult specialist legal advise.
  - Legal requirements are complex.
  - There are many branches of IT law.

- Cyberspace has been established as legal territory.
  - This allows prosecution of organisations/individuals.

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Intellectual Property Rights (IPR) - 1

- As an IT professional, it is important to have an understanding of *IPR*.

- Financial barriers to distribution of software are broken down.
  - Downloading
  - Threatens companies' return on investment (ROI)

- It is vital that organisations protect their products
  - Excludability

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Intellectual Property Rights (IPR) - 2

- Technical
  - Licensing fees
  - Product codes
  - Encryption

- Legal
  - IPR specific laws
  - Protection of own & companies from overseas

- IPR is controversial
  - Exclusion

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Intellectual Property Rights (IPR) - 3

- Currently no single international authority in IPR
  - Moving closer to this
  - World Intellectual Property Organisation (WIPO)

- More and more importance being placed on IPR

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Copyright

A copyright is a set of exclusive rights granted by a state to the creator of an original work or their assignee for a limited period of time upon disclosure of the work

http://en.wikipedia.org/wiki/Copyright

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Copyright – Ownership - 1

- Organisations write ownership into contracts

- As an employee, the organisation will usually 'own' your ideas & deliverables
  - Even ideas developed outside of working hours can be claimed by an organisation
  - As IT professional, you should always remain aware of this fact. If there is an issue you must negotiate before signing a contract
  - On leaving an organisations employment, ownership remains with the company.

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Copyright – Ownership - 2

- Software specific copyright
  - Incorporates individual programs/code & software package compilation
  - Can incorporate screen display formatting (where other alternatives exist)

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Copyright - Reproduction

- What percentage of work can be reproduced without the original author's permission?

- Author/originator receives legal 'rights'
  - One's 'own' expression of an idea not idea itself
    - Reworking of idea is legal (knowledge/experience)

- Fair use is the term for a rule allowing a certain amount of the original work to be reproduced without getting further permission from the owner.

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Data Protection - 1

"If information of a personal nature is held it must comply with the legal obligation to protect that information under the Data Protection Act."

Source:http://www.ico.gov.uk/for_organisations/data_protection /the_guide/key_definitions.aspx

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Data Protection - 2

- Data Protection Act
  - International

- Personal data focused

- Response to computerisation of personal data
  - When paper based by its nature, access to data was containable.
    - Locked file cabinets
    - Limited copies
  - Hacking of secure data is becoming more common place!

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Data Protection - 3

- Key focus
    - Personal data collected for specific purpose only
    - Relevant data collected only
    - Data used for specified purpose only
    - Data deleted
    - Individuals supplying data have right to inspect
    - Limited access to data
    - Secure transfer of data essential
        - e.g. Sony hacked – millions of consumers data
        - Time for even tighter legal protection?

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Privacy - 1

- A balancing act!
    - Organisation need vs. customer rights

- How organisation collects & uses data
    - Hiring job applicants (you!)
    - Increasing use of social networking sites by organisations to gather information
    - International market of buying & selling data

- Linked to Data Protection
    - Privacy laws mean organisations must disclose privacy breaches.

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Privacy - 2

- As IT professional it is your responsibility to disclose data breaches to your manager, but where does your responsibility end?

- What if your organisation does not report data breaches to relevant authority?

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Privacy - 3

- Potential arguments:
  - My responsibility ends with informing my manager.
  - How far my responsibility extends is more ethical than legal.
  - If my organisation fails to act, I would feel obligated to take breach to relevant authority.
  - I would lose my job for sure – it is not worth it.
- A serious situation which has and will occur again
- Industry codes available
  - Code of Fair Information Practices
  - European Union Data Protection Directive

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Code of Fair Information Practises

- Originated in the USA

- Developed in response to online data collection to provide safeguards on privacy protection

- Not legally enforceable

- Best practise guidelines
  - Organisations can tailor to industry

- Self regulatory

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European Union Data Protection Directive

- Regulation of personal data processing within the EU
- Prohibits personal data transfer to non-conforming, non-EU countries
  - To gain standard can be costly & lengthy
  - May require creation of government data protection agencies
- 3 key principles:
  - Transparency
  - Legitimate purpose
  - Proportionality

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Workplace Enforcement

- Increasingly common in IT
  - "We are watching you"
- Official organisation policies
  - Establishes acceptable behaviour
- Protect organisations against:
  - Productivity
  - Lawsuits
- Monitor
  - All communication
  - All activity
- Legal but ethical?

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