Seminar Objectives

- Understand what information is and its role in society
- Discuss the issue of information overload and ways of overcoming this problem
- Highlight the ACS Code of Ethics as a means of addressing ethical issues

IMS1501: Unit framework

- Ethical Issues
- Documentation
- Efficiency Tools
- Communication
- Information System Fundamentals: The Role of Information in Society
- Group Work
- Project Management
- Maintenance
- Review
- Implementation
- Design
- Analysis
- System Development Methods
- System Development Life Cycle
- Developing Information Systems
What is information?
Data vs. Information vs. Knowledge

- Data – raw facts
- Information – value added data
- Knowledge – understanding what the information means or implies

Data

Request

Information

Knowledge

Decisions

Interpretation

(Benson & Standing, Ch 1, p4)

Data vs. Information vs. Knowledge
An example:

- Data – student enrolment details
  - The name, ID, entry history, etc. of every student enrolled in the BIS
- Information – summaries of enrolment information
  - Total no. of students by entry type – VTAC, TAFE, Other, Local, International
- Knowledge – understanding what the information means or implies
  - Have the numbers reduced or increased from previous years? What does this mean for timetabling, staffing, etc…
  - Knowledge about the system will help you make this type of decision.

Valuable Information Characteristics

- Valuable information is essential if an organisation is to achieve its goals

  accurate    complete    economical
  flexible    reliable    relevant
  simple      timely      verifiable
  accessible  secure

(Stair & Reynolds, Ch 1, p7)
Why is information important to us?

- **Information has a huge impact on society**
  - Information is power
  - Is it always of value?
- **For IS developers**
  - The systems you produce will provide
    information in many different forms for many
    different purposes
  - If you do not understand its importance … you
    will not be able to produce successful systems

Information in society

- The advent of technology and the globalisation of
  information with the internet has changed the face
  of information management, provision and
  consumption
  - Examples:
    > The Encyclopaedia Brittanica
    > Web enrolment system at Monash
    > On-line dating, friendships
  - Free or at a cost?
  - Easy to provide to a global audience … very easy to
    ‘muck it up’ on a large scale
  - Has forced organisations to reconsider how they develop
    their systems

Information in Society

Example: Forming friendships

“On the Internet, no-one
knows you are a dog”
(The New Yorker)

(Courtesy: Sue Foster)
Information in Society
Example: Crossing the cultural divide

Papua unplugged: the future gets a cool reception

(Courtesy: Kathy Lynch)

Information in Society
Digital equity

- Does the advent of mass provision of information overcome the economic, social and cultural divides our world faces?
  - Age barriers
  - Access
    > Remote
    > Cultural
    > Economic
  - Economic considerations
  - Examples:
    > UK Government aims to deliver all services electronically by 2008. Will their ageing population like this?

Information overload
The double bind – Not enough vs. Too much

- Quality of work/decision suffers when information is not available where and when needed
  - How did you feel making your elective unit choices … without adequate detail of the units available

OR

- We are ‘incapable of taking in all the information that is targeted towards’ us
  - Email INBOX at any time, but especially after returning from leave

(Koniger & Janowitz)
Information overload
Why do we have this problem?

Some reasons:
• Information not structured appropriately in its creation, distribution, reception of information
• Does not arrive where and when it is needed
• Our information handling strategies are challenged by the new information provision methods
• Fewer information ordering structures shared by people involved in an interaction – expectation vs. actual
  – People are generally aware of the structure of their local newspaper
• The physical message of the modern medium does not make a strong statement of connected with its content
  – A CD-RW may contain a business report, classical music and extracts from the Bible

Information overload
How do we overcome this problem?

• ENHANCE the information structures we provide by considering the following classification elements

  Information about information

  Selection

  Information Profile

  Time

  Sequence

  Hierarchy

   'Clarity about the type of information to be included’

   > The selection of articles for a newspaper

(Koniger & Janowitz)
Information about information

Time

A clear message about the life span of the information ...
Is it of temporary importance or of a lasting nature?

> Weather report, An annual company report

(Koniger & Janowitz)

Information about information

Hierarchy

Ideally select one that is accepted and broadly shared, else establish one where the user of the information will immediately profit

It should be obvious in the presentation of the information

> User Guides – introduction, quick ref, specialised section
> Textbooks – Table of Contents, Chapters, Glossary, Index

(Koniger & Janowitz)

Information about information

Sequence

Most common are numbering systems, Latin alphabet, bullet points and indentation

> Telephone books – alphabetical index
> Textbooks – numbering systems
> Timetables – time dimension

(Koniger & Janowitz)
The ethical issues

Because of the growing impact of IT on our lives, there are many ethical issues to be considered such as:
- The provision of misleading information
- Unauthorised or fraudulent access or use of IT resources
- Violating copyright, intellectual property laws, licensing agreements

(Martin et al. Ch. 16, p612-613)

The ethical issues
How do we handle it?

• Most international computing associations have ethics frameworks for their membership
• The Australian Computer Society
  The membership subscribes ‘to a set of values and ideals which uphold and advance the honour, dignity and effectiveness of the profession of information technology’.
  > Code of Ethics

Summary

• The provision of information that is of value to our users in a growing challenge to the IT industry and our society
• Effective structuring is one of the most important contributors to reduction of information overload
• You and your organisation will be responsible for the good or bad results of the use of IT … a code of ethics helps with identifying and analysing ethical problems
References

- Information, Society, Policy and Economy – Introducing the issues:
  - http://www.idgl.lu/theme1/theme-1.htm
- Australian Computer Society – Code of Ethics:

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