

#### **INFO5990 Professional Practice in IT**

Lecture 4A & B





The relevance of ethics to professionals in the IT industry





# Skipping slides today



This does not mean you don't need to review them on your own!



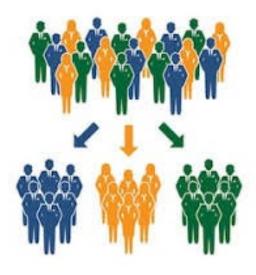
Source:hailburtonblog.com

### Guest Speaker – next week

From Australian Computer Society

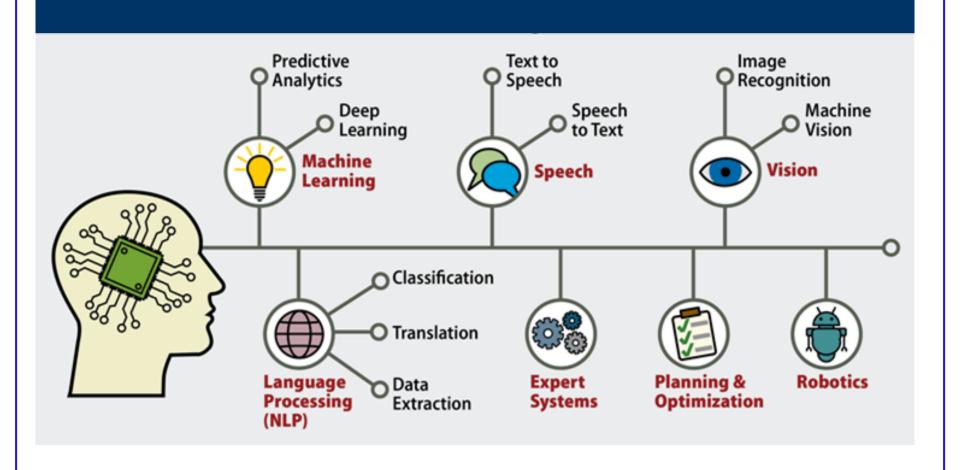
Marc Portlock - Executive

# Set your groups



#### Ethics In A.I – latest trend - ??

#### What is Artificial Intelligence?



# By the end of this lecture you will be able to:

- Describe the characteristics of three examples of ethical frameworks
- Understand the relevance of ethics to professional bodies in the IT industry
- Recognise the difficulty in making ethical decisions
- Appreciate that ethics can help IT practitioners to be better professionals

### Ethics through the ages

- The Golden Rule: "So in everything, do unto others what you would have them do to you".
   Bible, (Matthew 7:12)
- Similar found in the Talmud, Koran, the Analects of Confucius and Mosaic law: e.g. "Whatever is hurtful to you, do not do to any other person".
- "If an action cannot be taken repeatedly, then it is not right to take at all".
   René Descartes (1596-1650)
- "If an action is not right for everyone to take, it is not right for anyone".
   Immanuel Kant (1724–1804)

#### So what for IT Professionals?



Source: trainingprovider.com

Accessing work emails and using technology when you have left the company - recent example

### Sets of 'rules' we live by

#### Etiquette:

- Codes of behaviour and courtesy
- Failure to observe may lead to embarrassment

#### Law:

- Series of rules that are enforced by the police and the courts
- Failure to observe these can result in fines or imprisonment

#### Morals:

- Standards of right and wrong generally accepted by our society
- We develop a system of morals throughout our life

#### • Ethics:

- General and abstract concepts of right and wrong
- Can help guide our actions, particularly in our professional life

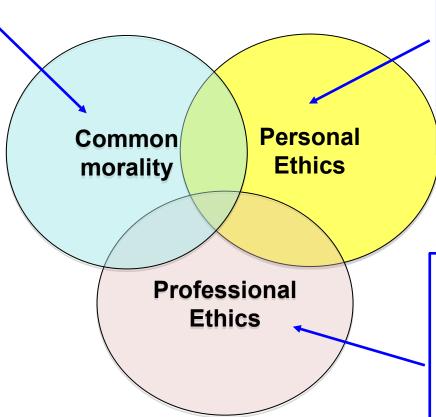
### **Ethics and Morality**

- Common morality
  - the set of moral ideals shared by most members of a culture or society
- Personal ethics
  - the set of an individual's own ethical commitments, usually acquired in early home or religious training but often modified by later reflection
- Professional ethics
  - a set of standards adopted by professionals to apply when they are acting in their professional capacity

#### Our ethical framework

#### Examples:

- Don't tell lies,
- Don't frighten little children,
- Don't sleep with brother's wife



#### Examples:

- Avoid alcohol,
- Help old ladies across the street,
- Attend church regularly

#### Examples:

- Keep company secrets,
- Tell the truth in company reports
- Admit a conflict of interest

# High profile cases

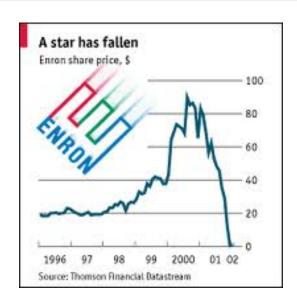
- stigations Stigations
- There are several high profile investigations and arrests in the headlines....
- Martha Stewart had a billion dollar empire when she made a decision to sell a stock based on an insider trading tip from her stock broker.
- Martha Stewart Article

"She was sentenced to prison for five months... and became the very emblem of corporate greed."

"She would never have felt the loss—she was coming up on a billion dollars, and by selling those shares she avoided a loss of \$45,673—but she couldn't resist the chance to daub at the blot on her investment record."

# One of the biggest

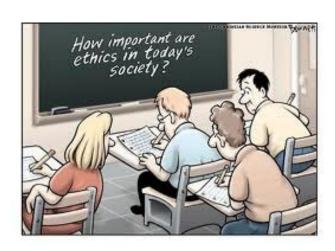
- ENRON Scandal
- Corporate officers and traders charged fraud, conspiracy and insider trading.



- ENRON was the Largest Corporate Fraud case in American history.
- ❖ ENRON executives' and traders' greed eliminated:
  - ❖ 4,500 ENRON jobs
  - ❖ 85,000 Arthur Anderson jobs
  - Investors lost over 60 billion dollars within a few days; for many it meant losing their old-age security.

# Unethical Business Practices

- Individuals can make unethical choices like:
  - Conflict of Interest
  - Bribery, gift-giving and receiving
  - Invasion of privacy or confidentiality
  - Dishonest <u>hiring</u> practices
  - Insurance Fraud / Credit Card Fraud
  - Internet Abuse

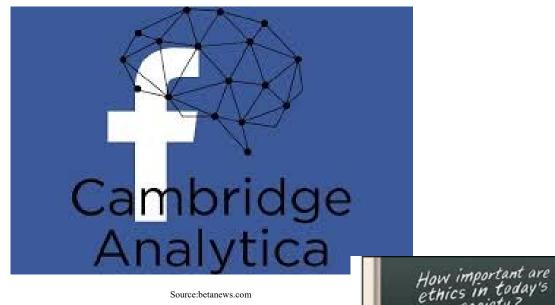


#### Conflict of Interest:

Situation in which a <u>business</u> decision may be influenced for <u>personal</u> gain.



#### Unethical Case – 2018/9



Source:betanews.com

#### Unethical case



Source:slideshare.net



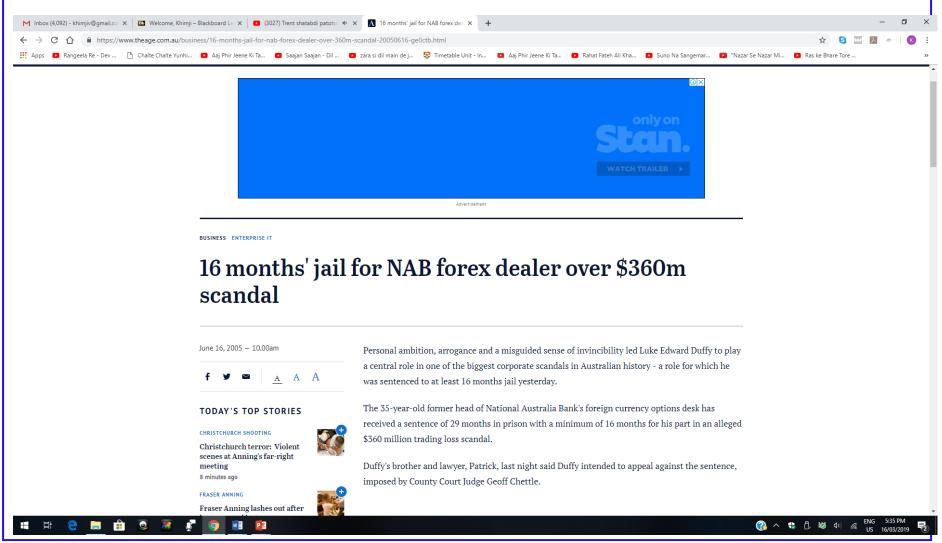
Source:slideshare.net

#### Case of business and I.T fraud





#### Another case



#### Ethical theories

- 1. Consequentialism
  - The evaluation of an action depends on the non-moral consequences that the action brings about.
  - The morality or otherwise of an action is determined by its consequences.
  - Often expressed as "The ends justify the means".

"Nine theories of ethics that rule the world", http://jan.ucc.nau.edu/~dgs2/theories.pdf

# Example: what would you do?



- Just ahead you see a man running out of an appliance store with an box under his arm. He jumps into a waiting car and takes off.
- The shop owner runs out calling "Stop thief"!
- You are just about to follow to get the registration of the getaway car when the traffic lights in front of you turn RED.
- What do you do?
  - What are the consequences?

#### Example: what would you do?

- Doctors plan an experiment on a small number of subjects.
- There is a risk that most of them will die, but it may mean that a cure will be found for a disease that will relieve the suffering of millions of people.
- Utilitarianists will approve if they see that the action produces the greatest good for the greatest number of people.

### Example: what would you do?

- You observe your best friend, Jack, at a conference in a passionate embrace with a woman you know not to be his wife, Jill.
- A few days later you meet Jill and she asks if you have observed Jack acting strangely.
- You know that lying is wrong and feel that it is your duty to tell Jill the truth.
- Should you tell the truth and wreck Jack's marriage or lie, and hope that things will work out for the best?

#### Examples of unethical behaviour in IT

- copying software illegally (piracy)
- disclosing personal information
- failing to give proper advice to boss
- using company assets for private purpose
- using privileged position to gain favour
- failing to take due care with data security
- failing to treat colleagues or seniors with respect

# Ethical behaviour at University \*Academic honesty\* Are you responsible, accountable or liable?

#### • Plagiarism

presenting another person's ideas, findings or work as one's own by copying or reproducing them without due acknowledgement of the source.

#### Recycling

the submission for assessment of one's own work, which is substantially the same as that which has previously been counted towards another unit of study.

#### • Collaboration

working in a group on an assignment which is supposed to be done individually.

# Professional ethics dilemmas 1. Conflict of interest

 A conflict of interest occurs when "influences, loyalties, temptations, or other interests" exist that might affect a professional's judgment

 A conflict of interest may be actual, potential or apparent

What action can you take that is considered 'ethical'?

# Professional ethics dilemmas 2. Whistle blowing

- Whistle blowing is "the act of an employee informing authorities of harmful, dangerous, or illegal activities by the company he/she works for".
- The whistle blower may suffer harmful consequences as a result
- What action can you take if you have evidence that management is not observing 'best practice'?

Source the shift com

What guidelines exist?

# Professional ethics dilemmas 3. Disobedience

 Should computer scientist refuse to design military software if he or she believes war is immoral?

 Should you refuse to collate data to create electronic dossiers on fellow employees?

What would you do?

# Why ethics matters The Challenger Disaster

Engineering failure or a question of professional ethics?

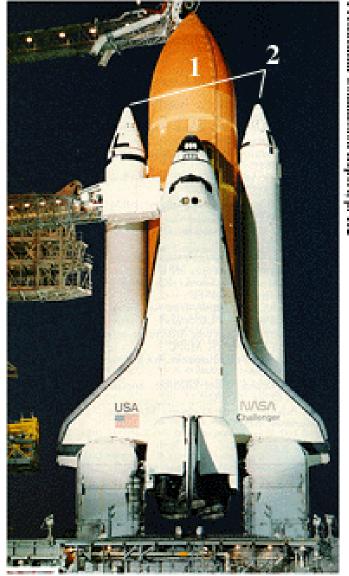
The Challenger launch, January 28th, 1986

http://www.engineering.com/Library/ArticlesPage/tabid/85/articleType/ArticleView/articleId/170/The-Space-Shuttle-Challenger-Disaster.aspx

#### What happened?

- O-rings were eroded and unable to seal and hot gases leaked out.
- A flame plume breached an external hydrogen / oxygen tank leading to an explosion
- Challenger broke apart
- All seven crew members died

http://onlineethics.org/CMS/profpractice/exempindex/RB-intro/Wrong.aspx



The Challenger on the morning of its final launch. (1) The External Tank. (2) The Solid Rocket Boosters.



#### **INFO5990 Professional Practice in IT**

Lecture 10B







The Role of professional bodies
Codes of practice in the professions
The Australian Computer Society /
Professionals Australia, IEAust, etc





# By the end of this lecture you will be able to:

- Understand the role of professional bodies
- Compare the code of ethics of two professional bodies
- Appreciate the benefits of membership
- Consider joining the Australian Computer Society (ACS)
- Thought about professional responsibilities
- Make decisions about whistleblowing

### What is a profession?

- An occupation, such as law, medicine, or engineering, that requires considerable training and specialized study.
- Classically, there were only three so-called "learned professions": divinity, medicine, and law
- By 1900 pharmacy, veterinary medicine, nursing, teaching, librarianship, optometry and social work, all claimed to be professions

### What is a Professional Body?

"a group of people in a learned occupation who are entrusted with maintaining control or oversight of the legitimate practice of the occupation"



(www.qualityresearchinternational.com)



# The Role of a Professional Body

- 1) To safeguard the public interest
- 2) To represent the interests of professional practitioners
- 3) Provide professional development programmes
- 4) To offer professional 'certification'
- 5) To uphold its status as the relevant professional body in its domain
- 6) Accreditation of university courses

# University Course Accreditation

- Ensures that academic institutions meet national and international benchmarks
- Evaluates degree programs against a designated criteria
- Ensures that graduates meet professional requirements





#### What accreditation covers

- The Teaching and Learning environment
- Course structure and content
- Quality assurance framework
- Attention to 'Soft Skills'
  - Hence the strong focus in INFO5990 on communication skills and team skills

# Australian Computer Society Code of Ethics

(7 Oct, 2009)

To uphold and advance the honour, dignity and effectiveness of the profession of information technology and in keeping with high standards of competence and ethical conduct, a member must:

- (a) be honest, forthright and impartial
- (b) loyally serve the community, and
- (c) strive to increase the competence and prestige of the profession
- (d) use special knowledge and skill for the advancement of human welfare.

http://www.acs.org.au/attachments/Code\_of\_Ethics.pdf



#### **Comparison of Codes**



#### **Aust Computer Society**

- a) be honest, forthright and impartial
- b) loyally serve the community
- c) strive to increase the competence and prestige of the profession
- d) use special knowledge and skill for the advancement of human welfare.

#### **Engineers Australia**

- Demonstrate personal and professional integrity
- 2. Promote the wellbeing of individuals, communities and the environment
- 3. Practice with professional competence
- 4. Exercise responsible leadership.

#### Why have a code of ethics? (1)

- Furnishes common, agree-upon standards for professional conduct.
   These are of benefit to both professionals and the public
- Provides a focus for debate on how the code should be applied or perhaps modified

#### Why have a code of ethics? (2)

 Provides rationale for a professional to adhere to professional standards even when pressured by others to violate them.

 But, the code of ethics cannot cover every possible ethical situation. The professional may sometimes have to decide for him/her

self.

### In a nut shell



- Members should place the interests of their client/employee and the community above their own personal/private interests
- Members should act only in areas of their competence and in a careful and diligent manner

(Committee member of Engineering Australia)



#### Standard of conduct



A member is expected to act at all times in a manner likely to be judged by informed, respected, and experienced peers in possession of all of the facts as the most ethical way to act in the circumstances.



(Statement of the Australian Computer Society)



### Code of Ethics: positives & negatives

Positive characteristics

Negative characteristics

Can help members make ethical choices.

Can alert members to ethical aspects they otherwise might overlook.

Can be used to discipline members when they violate the code.

Can inform the public about the role of the profession.

Are never complete or exhaustive.

May tend to be too general and too vague.

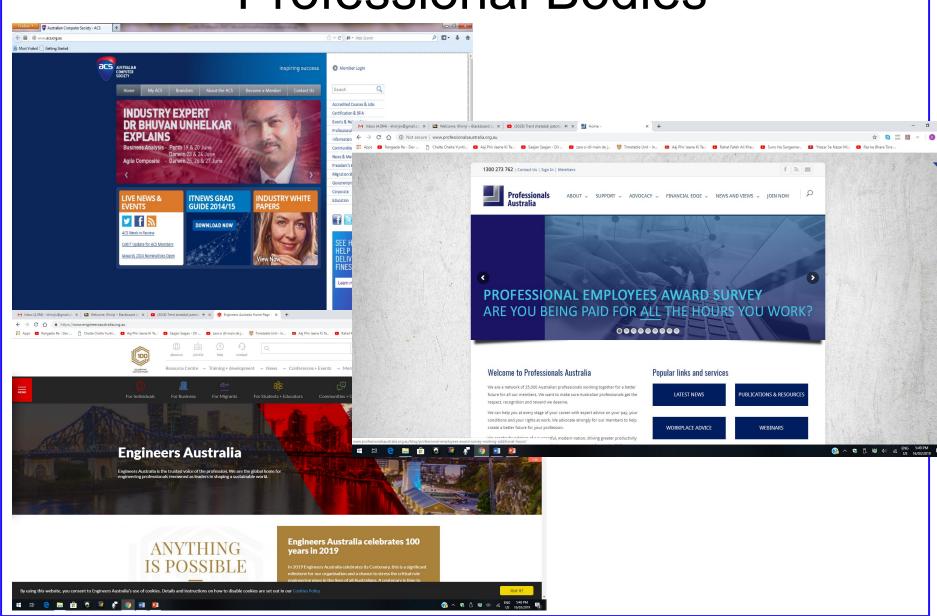
May be inconsistent

May not always be helpful in resolving conflict.

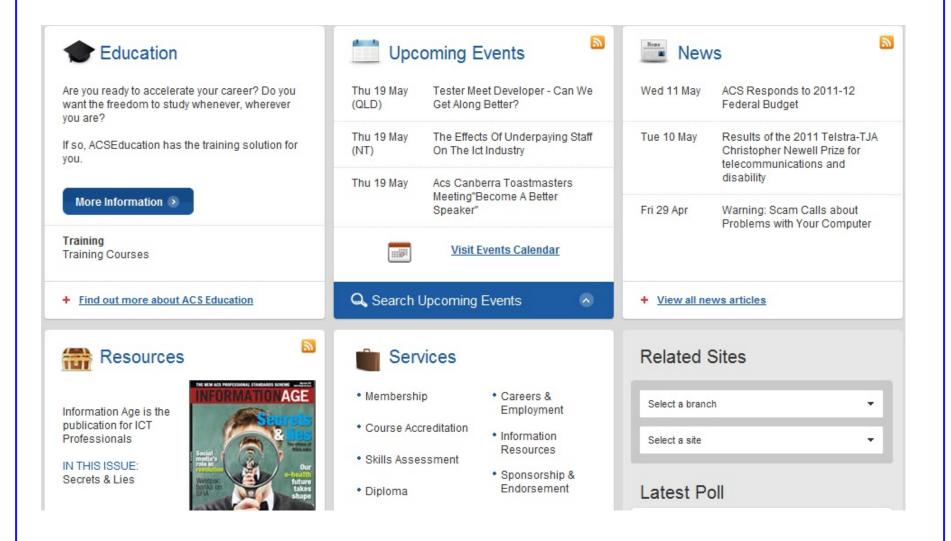
Are ineffective in disciplinary matters.

May be self-serving for the profession.

#### **Professional Bodies**



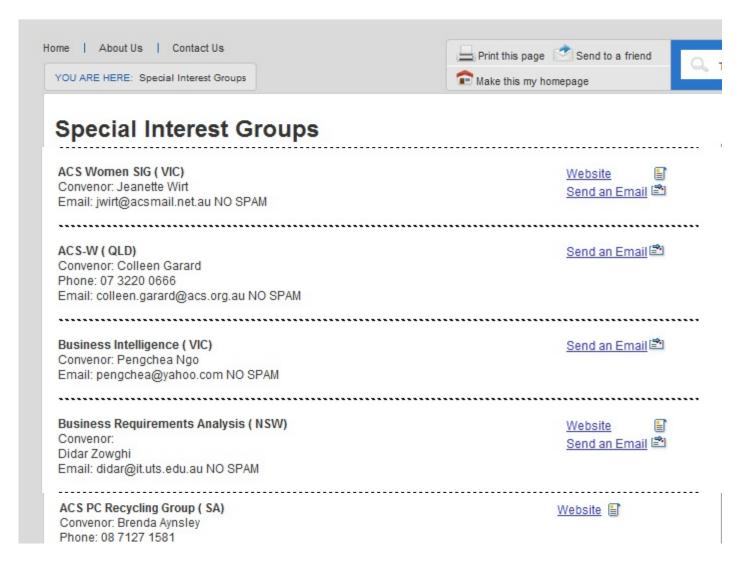
## Australian Computer Society



### Benefits of membership for you

- Opportunities to "network" with other professionals in the area
- Careers Service
  - job hunting, resumé writing, interviews
- Publications and professional Library
- Continuous professional development
  - seminars and information sessions
- Achieving Certified status

## ACS: Special interest groups (SIG)

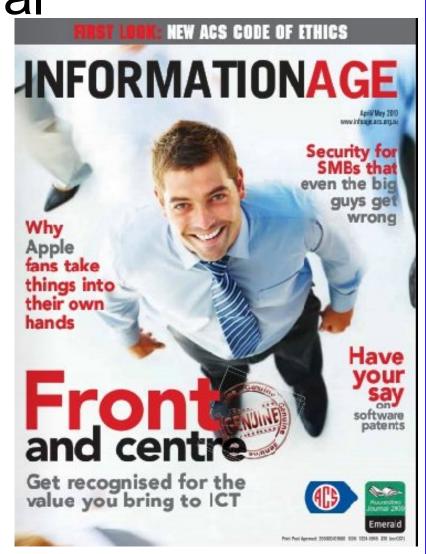


Australian Computer Society

Journal

"Information Age" is the official bi-monthly publication of the ACS, supplied free to members.

The Australian Computer
Society has won international recognition for, "Information Age" when it was launched



### **ACS Membership Fees**

Student membership	\$66 per year
Full Member	\$352 per year

# What happens if an ACS member breaches the code of ethics?

Where a breach is proven, the ACS may choose to apply any of the following sanctions:

- Admonition
- Reprimand
- Fine
- Suspension
- Expulsion
- Specified professional development
- Withdrawal of certification

# Dealing with professional dilemmas

Advice from your professional body

### 1. Acting as expert witness

- Prepare reports in objective and accurate manner
- Reveal any potential conflict of interest
- Ensure that reports and opinions include all relevant material
- Listen carefully to each question
- Have regard to normal practice and state of knowledge at the relevant time.

knowledge at the relevant time



Source:smarterecommerce.com



Source:durhamcourt.com

# 2. Unauthorised release of information Referred to as 'Whistle blowing'

- A term used to describe the act of an employee informing authorities of harmful, dangerous, or illegal activities being carried out by the company he/she works for.
- When performing such a public duty, the whistle blower must be prepared to pay the consequences.

#### 3. Conflict of Interest

- A conflict of interest exists where a professional is subject to "influences, loyalties, temptations, or other interests" ....
- ... that may tend to make the professional's judgment less likely to benefit the customer or client than the customer or client is justified in expecting"
- Such as existing business or family relationships, or financial interests
- A conflict of interest can be actual, potential or apparent.

#### Ethical dilemma case 1

Your firm is in competition with another firm for a large construction contract for the local council.

Your boss asks you to write a letter to the local paper pointing out that the engineers in the competing firm were responsible for a failed project for another local council only last year and are not as competent as the people in your firm .

You suspect that this claim is false.

What do you do?

What about if you know the claim to be true?

# Case study IT in construction

