Professional Issues: Introduction

informatics

This Course

- We have two 2 hour slots per week on Mon 1600-1800 and Thurs 1600-1800. The Monday slot will introduce the topic, the Thursday slot will be used for followup and feedback.
- There are 8 topics plus two guest slots.
- The sessions are interactive.
- To be successful, you need to be prepared.
- I'll take some of the sessions, some will be guest talks, some may be given by our commercialisation people.

What it's about

- Much of your degree course is technical – you are gaining a deep understanding of Information, Computation and Communication.
- In the world there are many additional constraints and interests that need to be taken into account in exercising the skills you acquire on your course.
- Professional Issues considers the wider context in which you are likely to work and how that wider context shapes technical decisions.

Learning Outcomes - 1

- After completing the course successfully:
    - Given a work context, you should be able to identify how attributes of computing graduates can make an effective contribution to tasks in that context
    - Given a scenario involving professional conduct, you should be able to identify failures of professionalism and successes and justify this with reference to appropriate codes of conduct.
    - Given a situation where a computing system could be deployed you should be able to identify how and where social and ethical implications arise in that potential deployment

Learning Outcomes - 2

- After completing the course successfully:
  - Given the description of a particular work setting you should be able to identify likely legal issues that are relevant to that setting and how account should be taken of those issues in the setting
  - Given a description of the structure and operation of commercial computing organisations you should be able to assess whether the structure is appropriate for the kind of business the organisation undertakes
  - Given a description of a deployed or planned computing system you should be able to identify the relationships between scientific, technical & engineering issues and the deployed system and be able to assess the consequences of those relationships
  - You should be able to communicate effectively

PI is different from what you're used to…

- Typical Science/Engineering topic – all required information is in the lectures and textbook, often there is a "right" answer.
- PI more like Social Science – you need to draw on experience from real world; often there is no single or right answer.
- In doing PI, discussion is important because:
  - It lets you see the issue from other perspectives
  - Those perspective may be important and you may have misssed them.
  - Discussion can change your mind about things

PI Syllabus - 1

- Personal Attributes:
  - study skills, personal development, interpersonal skills; employers' views and expectations of graduates; verbal, writing and presentation skills.
- The Computing Profession:
  - professional bodies; codes of conduct and practice
- Social and Ethical:
  - security, privacy, software ownership
- People:
  - management, work psychology, groups, dealing with change

PI Syllabus - 2

- Legal:
  - legal and regulatory frameworks; software contracts and liability; intellectual property, copyright and patents; computer misuse, data protection; health and safety.
- Commercial:
  - organisational structures; finance, accounting, audit; resource management.
- Computing Projects:
  - design, prototype and product; product development cycle; marketing and market research; project management and team working, change management.

Book List

- "Professional Issues in Information Technology", Bott, BCS, 2005 [***] £19.00
- "Scientists Must Write", R Barrass, Routledge, 2002 [***]
- "Computer Ethics and Professional Responsibility", Bynum Rogerson (eds), Blackwell, 2004 [**]
- "The Essence of Professional Issues in Computing'', R Ayres, Prentice Hall, 1999 [**]
- "Law and the Internet", L Edwards C Waelde, Hart, 1997 [*]

Assessment

- Lectures:
  - Copies of slides will be available via the website.
- Assessment:
  - Coursework essay 15%
  - Examination paper 85%
- You'll declare that the essay is your own work

Lecture Timetable (provisional – firm by next week)

- 24-09-12   Overview, Law and the Professions
- 01-10-12   Organisations, structure and management
- 08-10-12   Finance
- 15-10-12   Project Management and Risk
- 22-10-12   Human resources
- 29-10-12   Intellectual Property
- 05-11-12   Trust, Privacy and Security
- 12-11-12   Internet, Cloud Issues

- Two guest sessions will be included in the programme – the dates have yet to be confirmed.