Information Systems Failures

the World of Systems

- we live in a world of systems - many are under pressure
  - ecological systems
  - political systems
  - financial and economic systems
  - health systems
  - trading systems, financial systems, banking systems
  - religious systems

Recent Local System Failures

- the Longford gas disaster
- Intergraph (the Victorian ambulance system)
- Metcard
- the Auckland power disaster
- NSW water
- the Victorian TAB
- aviation fuel
- Colonial Stadium
- Ansett Airlines maintenance
- the refugee management system

Information Systems Failures

Types of IS failure

1. Correspondence failure
   - the system fails to meet the design objectives

2. Process failure
   - development problems lead to the project being unable to deliver a working system - project runs over budget in terms of cost or time

3. Interaction failure
   - if the system is heavily used it is a success - if it is hardly ever used it constitutes a failure

4. Expectation failure
   - the failure to meet the requirements of a key stakeholder group

Runaway Projects

- this is a very characteristic type of IS failure - runaway projects are quite frequent in practice
- runaway projects are those which continue past the point at which completion was expected, and then keep going...and going...and going
  - nobody seems to have the nerve or the will to stop them
  - they are no longer economically justified, and to continue is to throw good money after bad
- the “CONFIG” project commenced in 1981 and was finally terminated in 1994 but only when the project sponsor had a coronary

Problem Factors

- project
  - special characteristics: technical difficulty etc.

- psychological
  - pride, responsibility, don’t quit

- social
  - competition, prestige, justification

- organizational
  - lack of resources including funding, weak management, lack of support
Taurus - the London Stock Exchange

• this was a systems development which ran from 1986-1994 and failed to deliver a working system
• there were no clear lines of control for dealing with user requirements
  – London Stock Exchange
  – Stockbrokers
  – Bank of England
  – various software developers
• the project was managed during its later phases by a committee

The Problem of Stress

• systems development and installation is a highly stressful activity
• stress increases the likelihood of human errors occurring

Why Will Your Projects Fail?

• 1 poor group integration (dominant characters/failure to involve everybody etc. - so lack of teamwork, lack of commitment, lack of shared responsibility)
• 2 over-confidence (how hard can this be? type thinking)
• 3 lack of appropriate technical skills (programming was a problem last year)
• 4 poor estimation skills (testing requirements are always seriously underestimated)
• 5 poor management (95% complete syndrome dominates thinking)
• 6 wrong focus (bells and whistles before the fundamentals)
• 7 stress - stress can lead to friction, poor decisions, mistakes

Statistics on IS Failures

a survey (1997) by the US Government's Accounting Agency found that:
• less than 3% of the software that the US Government had paid for was actually being used as delivered
• 75% of all development undertaken was either never completed or not used
  – 25% never delivered
  – 50% delivered but not used

Steps You Could Take

• 1 take progress reporting seriously
• 2 take specific steps to involve everybody (give everybody a public leadership role of some sort, even if temporary) - also make real delegations of authority
• 3 do some hard work early in the semester - try to get ahead of what you think is a reasonable schedule (what's the worst that can happen? - you get some time off towards the end)
• 4 you probably have too many people to do the job, which is really a worse problem than too few - that means you really need good internal group processes so spend time working them out