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KSRA Learning Academy

KSRA Learning System

Object Oriented Technique

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Problems in Information Systems Development

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In This Lecture You Will Learn:

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- The main players in an IS project
- The problems in IS development
- The underlying causes of these problems
- How the *stakeholder* concept helps identify ethical issues in IS development
- The costs of problems and ethical issues

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Problems in Software Development

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Difficulties in developing large-scale software systems:

- Long development time => technology changes, requirement changes

- Large team => communication problem

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The Main Players

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Three main types of player are involved in an IS development project:

- Those who will benefit from the system's outputs, directly or indirectly (end-users)
- Those who commission the project, pay for it or have the power to halt it (owners or sponsors)
- Those who will produce the software (developers)

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What Do We Mean by Problem?

- An IS project may fail before delivery
  - ❖ The LSE Taurus project was cancelled
- An IS may fail after delivery
  - ❖ The LAS system was withdrawn after implementation
- An IS may be continue to be used, despite causing problems to its users, its owners or its developers

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End-user View

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- End-users may directly operate the software, or may be more remote, e.g. a manager who receives printed reports
- Typical concerns include:
  - A system that is promised but not delivered
  - A system that is difficult to use
  - A system that doesn't meet its users' needs

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Owner View

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- Owners care about meeting business needs and about value for money

- Typical concerns include:
  - Projects that overspend their budget (may no longer have a net benefit)
  - Systems that are delivered too late
  - Badly managed projects
  - Systems that are rendered irrelevant by events

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Developer View

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- IS developers sometimes have a difficult time
  - Budget and time constraints often conflict with doing the job properly
  - Users and owners may not know how to ask for what they really want
  - Technologies, development approaches and business needs all constantly change

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Why Things Go Wrong

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- Whether a system is delivered or not, many things can go wrong
- Flynn (1998) categorizes the main causes as:
  - ❖ Quality problems
  - ❖ Productivity problems

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Quality Problems

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- The wrong problem is addressed
  - ❖ Failure to align the project with business strategy
- Wider influences are neglected
  - ❖ Project team or business managers don’t take account of the system environment
- Incorrect analysis of requirements
  - ❖ Poor skills or not enough time allowed
- Project undertaken for wrong reason
  - ❖ Technology pull or political push

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Productivity Problems

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- Users change their minds
- External events
  - ❖ E.g. introduction of the Euro currency
- Implementation not feasible
  - ❖ May not be known at start of the project
- Poor project control
  - ❖ Inexperienced management or political difficulties

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Ethics Issues and Stakeholder Problems

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- Some IS may affect people far beyond obvious users and owners of the system
  - ❖ Cellophane companies collect data about subscribers' calls and physical movements
  - ❖ This data can be passed to police and many other government agencies
  - ❖ Do you know what data is stored about you? Who by? And what it is used for?

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Stakeholder Analysis

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- This approach tries to identify everyone affected by a proposed IS
  - ❖ Who are the stakeholders?
  - ❖ How does the system affect each group?
  - ❖ What are their legitimate concerns?
  - ❖ Are there any legal implications, e.g. Data Protection Act in the UK?

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References

- Flynn (1998)
- Curtis H.K. Tsang, Clarence S.W. Lau and Y.K. Leung (2005) (For full bibliographic details, see Bennett, McRobb and Farmer)
- See also www.ccsr.cse.dmu.ac.uk

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WE FOCUS ON KNOWLEDGE-BASED ON EDUCATION

KSRA of Empowerment is a global non-profit organization committed to bringing empowerment through education by utilizing innovative mobile technology and educational research from experts and scientists. KSRA emerged in 2012 as a catalytic force to reach the hard to reach populations worldwide through Learning management system & E-learning & mobile learning.

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