Software Development Methods

Recommending an ISDM

Lecture Objectives – Lecture 9b

- To consider what to take into account when recommending an ISDM for a project

- To understand how to arrive at a recommended ISDM for a project
  - Evaluate and make an informed decision

Overview

- Start by understanding the project
- Identify the criteria that matter in this instance
- Analyse available methodologies
- Compare the project with the ISDMs
- Choose an ISDM
- Explore how that ISDM will work for the project
- Identify issues of adoption
- Give a rationale

Understanding the project

- List the key aspects of the project - these are the project characteristics
- As we did in early seminars to understand the project in the Borchester case study
- Several different kinds of characteristics
- Some examples follow
- Can put on a mind map or a list or whatever works

People-related aspects

- Size of development team
- Existing team? New team?
- Experienced people?
- What skills are available?

- Users willing to be involved?
- Users know what they need from the system?
- Users share the same perspectives?
- Users agree?
- Senior level support for project?

Task-related aspects

- Complexity of task
- Familiar task? New task?

- Timescale known?
- Timescale very tight?

- Large number of requirements?
- Requirements all needed at once? Can be phased?
- Requirements can be defined unambiguously?

Technology-related aspects

- Familiar technology? New technology?
- Availability of test data
- Understanding of requirements

Criteria framework

- Next identify the important criteria
- As we did in an earlier seminar

- Set up a framework with one column for the project characteristics and a few columns for the ISDMs being considered

- Example on next slide

Example framework

Criterion	Project	ISDM
Philosophy		
Model		
Tech's and tools		
Scope		
Outputs		
Practice		
Product		

Criteria comment

- This framework is based on Avison & Fitzgerald's suggested criteria
- Consider one of the other sets of evaluation criteria studied earlier (week 5)
  - One of them might be more suitable
- Or come up with your own set of criteria

Analyse the project

- **Fill in the project column with characteristics found earlier**

- **You may find the need to adjust the criteria in doing this**

Analyse available ISDMs

- Identify the methodologies that are available to choose from
  - Probably not all the ISDMs there are – some will be immediately unsuitable for one reason or another
- Fill in a column for each ISDM you are considering
- May need to explore characteristics of ISDMs new to your organisation

Comparison

- Compare the ISDM columns with the project column for each criterion
- You may be prioritising criteria in doing this
- Does each methodology seem to be a good fit to the project?

Choice

- Which methodology seems to give the best fit to the project?
- Will you be recommending that ISDM?
- Make some notes of the reasons for your choice – you will need them later in the process

Will it work here?

- Think about how that methodology will actually work for this project in this organisation

- Questions to explore might relate to:
  - User involvement
  - Technical readiness
  - Are there any people issues
  - Budget constraints
  - Time constraints
  - Likely helpfulness to future projects

Issues of adoption

- Think about issues of adopting the methodology

- Technical staff training on technology
- Technical staff training on the methodology
- Obtaining the support material for the ISDM
- User understanding of their requirements and when that matters in the ISDM processes
- User training on the methodology
- User availability
- Budget for ISDM-related materials, training

Confirm or revisit decision

- Having considered all those things…
- …does your recommendation change?
- If so, go back and look at the methodology in practice and the adoption issues again for the new ISDM

Rationale

- When you have made a final decision, write a rationale
- It may well form the core of a business case for investing in the ISDM

- Outline why that methodology is a good choice
- Use the comparison done earlier
- Use the reasons noted when making the decision
- Identify foreseeable problems and how they might be avoided/resolved

Addressing issues of adoption

- At this point you are equipped to outline steps and activities in adopting the methodology
- For example
  - Technical staff training
  - User training if they will be involved
  - Timescale for obtaining support material
  - Pilot project or sub-project
  - Impact on your usual estimating methods

References

- Avison D and Fitzgerald B (2006) *Information System Development: Tools and Techniques.* McGraw-Hill