TOPIC 5. Design and Implementation of a Recordkeeping System

Week Eleven
DIRKS in practice - Project planning, implementation and review – for different outcomes

Week 11 will be class presentations of Assignment #2 for all on campus students; we will cover these notes and reading in Week 12. Off campus students can work on these lecture notes and reading.

Reading
1. See the Indiana University reading put on the website under Week 11. This relates to a research project completed in 2002, which has produced a string of documents that you should read to bring together various aspects of the course. It deals with an electronic recordkeeping project at the Indiana University (IU) in the USA that developed out of the Pittsburgh recordkeeping requirements research project. In Australia our 'post' Pittsburgh contribution has been in the area of standards.

You will see references to the IU project in two phases: 1995-1997 & 2000-2002. The style of the reports is perhaps a little quaint, but gloss through the chatter, especially in the final report and the core of them will make sense in terms of the topics we have covered. Start with the Final Report.

When reading the documents, highlight identified problems and consider:
• Whether the Indiana project had a clear 'technology' strategy using internet and web-browser technologies, and how does this relate to some of the problems identified in the report?
• Whether it had a clear understanding of the importance of business acceptable communications to a successful outcome?
• Whether it clearly set out the relationship between different forms of business analysis and records management (as the International Standard on records management does) or whether its view of business analysis is a systems functionality view.

I have selected only some of the reports, but they are all available plus more at:
http://www.indiana.edu/~libarch/ER/


DIRKS revisited
(much of this material is summarised from the State Records NSW - DIRKS manual 2003, Steps E, F, G & H with my additions. State Records also refers to the Indiana Uni project, above, as an example)

DIRKS = designing and implementing recordkeeping systems.

The DIRKS methodology = a structured process for designing and implementing recordkeeping systems.
Comprises 8 steps:
Step A - Preliminary investigation
Step B - Analysis of business activity
Step C - Identification of recordkeeping requirements
Step D - Assessment of existing systems
Step E - Identification of strategies for recordkeeping
Step F - Design of a recordkeeping system
Step G - Implementation of a recordkeeping system
Step H - Post implementation review

Why might you do DIRKS?
- to develop new systems with adequate recordkeeping functionality
- to ensure the creation and capture of records
- to manage record access and security
- to develop a staff training program in the essentials and musts of recordkeeping
- to ensure records are created and kept when business processes and systems are reengineered
- to specify and apply recordkeeping metadata
- to ensure records are kept of outsourced functions
- to select and implement off-the-shelf records management software packages
- to manage your vital records
- to create and implement a retention and disposal authority
- to create and implement a keyword thesaurus or business classification scheme.

Focus this week is Steps E, F, G & H.

Implementation Strategy (extract from Step E)
You might be implementing any aspect of recordkeeping (eg. see list above). You will need an implementation strategy. Why?
- So you know where you are going; provide direction; balance multiple tasks; manage priorities.
- To manage the change process.
- To ensure goals, objectives, timeframes and budgets are met.
- To ensure participants are informed and trained.

Factors to consider in developing your strategy?
- The organisation's corporate culture
- Availability of skills/competencies
- The organisation's systems and technological environment
- The organisation's geographic spread
- Risks and implications.
Make sure strategies meet your needs

- Revisit the requirements that relate to the system you are assessing.
- Look at the gaps you identified in this system.
- Ensure that your chosen strategies are capable of resolving all identified issues and meeting the requirements you specified.

**Be pragmatic**

“Depending on the nature of your organisation, it may also not be possible for the records management area to set organisation-wide information management practices and priorities. To help your objectives to be achieved, it may be possible to use other organisational initiatives to help leverage your project. That is, if knowledge management, work process re-engineering, business system redesign or other initiatives are current hot topics in your organisation, it is worthwhile trying to use these projects as means by which your work can be initiated.”

Some pragmatic options?

- Implement part of the strategy to address essential needs
- Opt for no further action at this time
- Revisit the preferred solution when its circumstances have changed
- Take a staged approach to the implementation of your solution.

**Design of a Recordkeeping System (extract from Step F)**

You do not need to develop all system components listed in this step. Break your system design approach down into the following activities:

- design a bit of the system (eg a new procedure, a training package, a piece of software, a paper-based template, or a screen interface)
- test it against the requirements, deficiencies and strategies documented during steps C to E
- review it with users and other stakeholders
- depending on the outcome of the review, either redesign that bit of the system to better meet recordkeeping requirements and incorporate user feedback, or modify the requirement if it is inconsistent with user needs or recordkeeping requirements or infeasible, and
- document any changes to the design or the requirements, indicating reasons for the change, and the authority under which the change was made.

Tips:

- take an iterative approach
- involve users in the process
- remember the importance of system useability
- look for and understand system integration requirements
- consider the requirements for long term maintenance of (some) records
- you may need experts with other skills, eg. change management
- use terminology familiar to the user base
- document your design, and subsequent changes.
Implementation (extract from Step G)
Implementation is costly - do not underestimate the importance of your implementation or the costs. In significant projects in large organisations implementation costs can account for over 50% of the total budget. Even in small projects, implementation time and costs can take up a large amount of available resources.

http://www.oict.nsw.gov.au/content/2.3.a.guidelines.asp

Implementing strategies and systems

1. Communicate, communicate, communicate! Inform staff about:
   • timeframes for the introduction of the new or revised system along with revisions to timeframes
   • methods of implementation and when they will be introduced eg. how the system will be rolled out
   • who will be trained in how to use the system and when this will happen
   • how they can give feedback on the system and the implementation process
   • how the system is likely to directly affect their work processes and practices.
   • tailor communication methods to your audience
   • only communicate the information people need

2. Roll out new or redesigned systems – Options:
   • Direct changeover - where the new system is introduced at an agreed point in time without any gradual implementation.
   • Parallel operation - where the new and old systems run in tandem for an agreed time.
   • Pilot operation - where the new system is implemented initially for only a discrete part of the organisation.
   • Phased changeover - where only certain modules of the new systems are implemented over time and the old system is phased out as functions are subsumed by the new system.

3. Train staff to use new or redesigned systems
   • Choose methods of training – venue, breaks, group sizes, delivery style, training materials, regularity, use innovative ideas, use real examples, be sure it is pitched/developed for the right level.
   • Programs should be well-planned
   • Be sure you have management support
4. Introduce new or revised processes, documentation and responsibilities. In the process of doing the research & analysis for new systems or methods you may have identified a need for:
   • new business processes or revision of existing business processes
   • new policies, procedures, guidelines or business rules, or
   • new or revised allocation of responsibilities to staff for particular recordkeeping tasks and issues.

5. Highlight support, feedback and review mechanisms. Establish support, feedback and review mechanisms such as:
   • user or interest groups
   • help desk support
   • contact people to respond to enquiries and comments
   • evaluation forms for systems and training
   • other methods of ongoing monitoring.

6. Managing ongoing implementation
   • Implementation is not a one-off process.
   • Staff may change, existing staff need to be regularly reminded of responsibilities and methods.
   • Organisational structure and functions may change.
   • Technology may involve regular new versions and upgrades.

   Therefore plan for:
   • mechanisms to monitor staff usage of the system, complaint and error handling
   • refresher courses/briefings
   • training or advice for new staff members on their responsibilities and the system itself.

Post implementation review (extract from Step H)

Why do this?
   • To measure the effectiveness of the recordkeeping system or system components, after they have been implemented
   • To identify and take corrective action where it is required
   • To evaluate the efficiency and appropriateness of the system development process and implementation
   • To evaluate user/staff understanding and use of a system or method
   • To establish and implement an ongoing monitoring regime for the duration of the system.
   • To help guarantee a continuing return on the organisation’s investment by maintaining the recordkeeping system to optimal levels of performance.
   • To have proof that your organisation is creating and managing appropriate evidence of its business activities appropriately.
• To minimise your organisation's exposure to risk through system failure.
• To enable you to anticipate significant changes in recordkeeping requirements and organisational needs that necessitate a new developmental cycle.

You need to decide:
• The scope of the review
• Who should review?
• When should you review? (eg. usually 6-12 months after a system implementation; earlier for review of the success of a training program)
• Performance indicators, measurement techniques or criteria for review? Review methods (see below).
• Who will do the review? (depends on skill and availability; can be internal or external)
• What should you review? (depends on your project)
• Documentation required for review

What sort of measurement techniques can you use for monitoring?
• Interviewing management, staff and other stakeholders (eg project sponsor, senior management, business experts, records management staff and representative users)
• Conducting surveys or questionnaires
• Examining documentation developed during the earlier phases of the systems development project
• Examining procedures manuals, training materials and other documentation
• Observing and randomly checking operations or practice
• Carrying out random checks on the quality of records and control information
• Obtaining computer-generated reports on usage figures for statistical analysis.
• Any criteria used must be objective, verifiable and quantifiable and should allow for comparisons to be drawn over time.

Is Step H scalable?
• You can conduct a full review of all components of the system (people, processes, tools, technology) that you have implemented.
• You can review elements of the project or sub projects independently.
• The scale can be according to the needs, resources and priorities of your organisation.

Take corrective action
Any remedial action suggested by the review or ongoing monitoring should be documented and assessed. It may also need to be prioritised. If the action is essential to the viability of the recordkeeping system it should be undertaken as soon as possible.
Continuous review and monitoring
Monitoring and review are not one off processes. Depending on your project, components of it may require ongoing monitoring and regular review. This is to:

- identify changes to recordkeeping requirements
- respond to environmental changes (such as legislative changes, user requirements)
- assess the efficiency of technological components
- anticipate the need for any modifications or systems redevelopment.