

Information Management Advice 72 Overview of a Business Classification Scheme development project

Introduction

When agencies transition from a paper-driven environment to an electronic records and document management system (EDRMS), a key aspect for consideration is how the records will be managed in the new environment. A digital environment offers multiple possibilities, releasing users from the constraints of traditional physical structures. Dynamic structures can be built 'on the fly' by using available metadata, and may permit multiple views of a single record in order to meet business requirements or user needs.

The complexity of developing a tailored classification scheme to suit the business in the digital world is often grossly underestimated. Records professionals may cling to conventional structures such as file plans and hierarchical folder views, reminiscent of traditional paper-based processes, in an attempt to apply records management concepts to the new system. They are likely to be caught between the competing demands of a flexible and intuitive system responsive to user needs, and the highly structured controls typically demanded by records management practice.

Agencies will typically want to develop (or redevelop) business classification schemes for use in the EDRMS, with records arranged according to the functions and activities they document. The benefits of implementing classification include:

- *Ability to link classification to disposal, access and security*
- *Ease of retrieval through consistent/controlled language*
- *Linking records to their business context*
- *Consistency across business units*
- *Flexibility and stability in response to organisational change (focusing on 'the what' rather than 'the who')*

This advice is intended to provide guidance to Records and Information Management professionals, and Project Managers embarking on the development and implementation of a business classification scheme.

Preparatory Steps

A project to develop a BCS requires appropriate resourcing, particularly if the work is to be undertaken in-house rather than engaging a specialist consultant. See the *Tasmanian Project Management guidelines*¹ for assistance with key processes such as management of project quality, risks, planning and scoping activities, budget, stakeholder management, change management and communication planning, etc.

Assuming the business case has been approved, and a project proposal for the initial development (or review) of an agency wide classification scheme has already been developed, critical skills and knowledge for the project team include:

- Knowledge of the organisation
- Knowledge of the regulatory environment
- Strong analytical skills with knowledge of business/work processes
- Interviewing skills
- Communication skills (including conflict resolution skills) in order to engage all levels of the organisation
- Technical systems knowledge
- Authority for decision-making

Project Team and Business Owners

The design of a business classification scheme requires a combination of solid analytical skills and knowledge of business processes. Project team members may include core 'subject matter' experts representative of the business, rather than solely Records and IT professionals. This ensures that technical requirements, records management needs and the user community have an equal voice and investment in the end product.

Representatives may be selected from existing agency Information Asset Owners², if these have been assigned. Note that involving representatives from the user community on the team does not eliminate the requirement for extensive stakeholder consultation and feedback opportunities!

Project team members should be dedicated resources, not attempting to complete the project "off the side of the desk".

Project Scoping

Scoping will help to establish the boundaries of your project, and will define what can be delivered within the timeframe and resource constraints imposed on it. If not clearly defined, it may be difficult to obtain sign off and agreement amongst stakeholders, with the result that the project is unlikely to be successfully completed.

Considerations should include:

- Purpose and application of BCS – limited to paper, hybrid, full EDRMS, or multiple digital repositories to enable identification of related information across platforms, and across business units/disciplines.
- Document boundaries, 'out of scope' etc.
- Who are the key stakeholders - who will benefit? Who will be expected to use it?
- What is the current records management model within the agency, i.e. centralised, devolved, etc

¹ http://www.egovernment.tas.gov.au/project_management/tasmanian_government_project_management_guidelines

² http://www.linc.tas.gov.au/__data/assets/pdf_file/0010/398701/Advice-40.pdf

- What is the current technological environment?
- Alignment with other tools (retention and disposal schedule, information security, access controls). How else might the BCS (or related research) be used within the agency?
- Workflow processes linked to it
- Change management implications
- Governance requirements (both for the project and of the classification scheme itself)
- Adequate resourcing

Note any changes in project scope should be agreed and documented by the Project Sponsor.

Information Gathering

A range of information should be collected and analysed in order to establish a comprehensive understanding of the agency's core functions and related activities, the regulatory/compliance framework in which it operates, and the associated outputs (records) produced. Information sources may include:

- pre-existing classification schema
- records disposal schedules
- strategic plans and policies/procedures, and business rules
- legislation and regulatory frameworks, standards, industry codes, etc
- business process analysis and workflow mapping
- Information Asset registers
- Information Architecture structures (or database relationship models)
- System design documentation
- interviews with key stakeholders and staff consultation, and
- the outcome of a records inventory or survey (include records held in all line of business systems, databases and records management systems, and other repositories such as email, network drives, physical storage, etc). See *Advice 61 How to review your records holdings*³ for more information.

Determining the model/structure

This is about ensuring the design meets the needs of the business, *and* supports the management of the records over time. The standard *AS ISO 15489* supports a functional approach to classifying records, ensuring that 'records and their metadata accurately represent the business processes that created them'. It ensures independence from the agency's administrative structure, which improves longevity and stability as organisational structures change and evolve. It promotes effective information sharing rather than silos, as a single file can be 'owned' or shared across multiple units.

Subject-based classification is commonly used in libraries, with the emphasis on resource discovery and retrieval. It was popular in records management before standards were introduced, and allows records relating to broad subject areas to be grouped together, allowing the end user to see all transactions and activities under a single subject (think Property files for Local Government, or Client/case management files). Under subject-based structures, the focus however is on '*what - or who - it is about*', rather than the purpose or activity the record was created to document. Subject-based files will subsequently contain records of many differing retention periods with the result that files - whether paper or electronic - become large and unwieldy, burying

³ http://www.linc.tas.gov.au/__data/assets/pdf_file/0005/417740/Information-Management-Advice-61-How-to-review-your-records-holdings.pdf

valuable information, impacting system performance (where digital) and user experience. Because retention and disposal is typically applied at the file level in EDRMS systems (rather than at document level), the entire file must be appraised and the longest applicable retention period applied. This approach impacts end users from a usability perspective, and has implications for business efficiency, liability (maintaining records that could have been legitimately disposed of well past their useful life, but that are discoverable in the event of litigation), and technical resources. Additionally, electronic files that contain a mixture of permanent and temporary records will not be accepted for transfer as State archives by TAHO at the end of their retention period, requiring additional resources to 'cull' electronic files of their temporary value records at the end of life.

In practice, a hybrid model may facilitate a compromise between a purely functional approach, and operational flexibility. Functions, activities and transactions should reflect the actual way of doing work, using language the intended audience can understand and relate to easily. Additional considerations should include determining the ideal number of functions or top level terms, and the capacity to group 'like' or related items, versus usability from the viewpoint of the user community. The system may allow subject terms included in additional metadata fields, to assist in search and retrieval. Similarly, the use of free-text descriptors for file titling can improve retrieval, as can document naming conventions that include subject descriptors, such as the inclusion of a property address or Property Id (PID), or a name. See *TAHO Advice 6 Information Classification tools, and Advice 66 Classification Scheme Considerations for more information*⁴.

Some Questions to Ask

- Will an enterprise-wide taxonomy suit the business?
- Will there be certain elements that will suit most business units (e.g. budgeting), and others where specific or unique business requirements will need to be met?
- What is the intended reach of the BCS – is it being developed solely for the EDRMS, or is it being considered for enterprise wide application across multiple systems (e.g. network drive structures, SharePoint/Intranet, website tagging, paper filing systems, etc)?
- Are workflow/approval processes being considered as part of the project?

User Consultation

Engaging users throughout the design process often requires multiple approaches, perhaps most evident in the information gathering stage, where a combination of group sessions and one-on-one interviews may be required. These initial interviews of key staff and stakeholders are essential - they understand the organisation's business and should be able to articulate the essential elements of their operational area.

Where a BCS is an entirely new and foreign concept, card sorting may be a helpful way of demonstrating (or determining!) how users think about their information. Numerous terms can be written down on cards, and then the cards sorted on a table into logical categories. Users can then take turns to organise the cards as they deem appropriate (with someone taking note of the choices for consideration in the structure). In a 'closed' card sort, participants are presented with a set of predetermined top level terms, and are asked to sort the cards into one of the categories. This exercise helps to determine where activities rightfully belong, and where there may be potential cross-over or duplication that requires further consultation and decision-making.⁵

Users need to be able to easily find the 'right' place to classify information, to search for information, and to be able to locate folders created to document business activities (this in particular helps reduce accidental duplication!). During both consultation and testing phases, user feedback will clearly indicate requirements for

⁴ <http://www.linc.tas.gov.au/global/govtrecordkeeping/services/guideadvice>

⁵ <http://accidental-taxonomist.blogspot.com.au/2013/08/card-sorting-and-taxonomies.html>

training, and the need for additional support tools (such as ‘quick cards’ or a thesaurus of terms/synonyms to help locate the appropriate authorised term for use).

Once a draft is available, further consultation will be required to verify the suitability of the proposed structure. Opportunities for feedback must be open to discuss alternatives, to ensure users feel engaged with the process, and the structure accurately reflects work practices. Adequate consultation and feedback mechanisms help to reduce the risk of low user acceptance of the final product.

Some Questions to Ask

- What business processes are performed by your area?
- How do you break these broad areas down?
- Do you work with other areas - internal / external?
- What terms do you use to describe your business?
- What type of transactions do you process?
- What documentation do you create?
- What legislation do you operate under?
- What are your reporting requirements?
- What information/data is collected to undertake your business?
- Do you share information with the public?

Testing and Validation

User acceptance testing is a critical component during the development phase in order to confirm that the structure is easily understood, and to ensure all relevant business process and records are accounted for, and presented consistently.

Development of concise ‘scope notes’ or descriptions that define the meaning, purpose and coverage of each term, assists end users to successfully navigate the structure. They help to ensure consistency by discouraging personal interpretations of a term by different people across the organisation. Scope notes can also include examples of record types relevant to identified activities, where appropriate.

Ask a group of user representatives to use the draft BCS to classify their documents and records – ideally everything they create and receive should fit comfortably within the structure. If there are items that do not fit cleanly into an available category (or meet multiple possibilities), refinement of the structure is in order. Similarly, you might select a broad range of example items for retrieval, and ask your user representatives to retrieve the target items. Where possible, undertake this testing in a development environment where the BCS structure is loaded and accessed in the same way it is intended for release to the user community.

Extensive testing should also be undertaken in scenarios where classification is allocated automatically, such as through online forms, document profiles, SharePoint managed metadata, or system integrations between business systems and the EDRMS. This is critical where classification is to be directly linked to the inheritance of disposal or access rights.

Implementation Plan

A separate implementation plan for the BCS should be developed. As the introduction of a BCS is often implemented concurrently with an EDRMS implementation, this can frequently be an oversight. The implementation plan for the software is not usually sufficient to deliver the new BCS to the user community. In

particular, change management aspects for users attempting to adapt to new records classification structures must not be underestimated.

Conversion

Conversion strategies will depend on a number of factors including the volume of the existing data and associated retention and disposal requirements, the complexity of the system, and available resources. Consider whether you will:

- Replace the existing system and implement from go-live date, drawing a defined 'line in the sand' and not converting over historic data.
- Retrospective conversion, either:
 - complete reclassification of all existing records into the new scheme, or
 - transferring only active, and long term temporary/permanent value records into the new structure.
- Maintain parallel systems until active use of historic records ceases. This is simplest where records have a short retention period (i.e. less than 5 years).

Consider how the preferred method aligns with any existing formal digital preservation strategies or policy.

Customisation

Consider who should be able to view the BCS, what flexibility is offered by the system with respect to customised views, and what tools are available at user level.

Some EDRMS provide tools such as 'favourites' or bookmarks, 'recently used' lists, or even sub-sets of the main structure in custom views. Ideally, user profiles may be able to be defined and configured for specific workgroups (permitting standard permissions, preferences, access and/or views), and deployed automatically as a starting point. Ensure these preferences are not automatically overwritten by system upgrades!

Some Questions to Ask
<p>When considering user-level customisations, include:</p> <ul style="list-style-type: none">• Are there business units who have staff with similar roles/responsibilities• Do they manage volume transaction-based or routine work?• Can you anticipate regularly used 'common' folders or documents, in order to develop a standardised user profile for a given workgroup?• Does the system have the capacity to deploy or share predefined favourites or bookmarks amongst individuals associated to workgroups?

Training

A critical part of the change management process, particularly where end users have not been exposed to a structured BCS previously, is in the provision of training. This provides an opportunity to explain what they are required to do, and perhaps more importantly 'why'. This understanding for the implications of their actions, particularly when inaccurate classification may result in incorrect sentencing and disposal (or unauthorized access), will assist with staff uptake of new procedures. Be careful juggling new system training with BCS training – this level of change may be too much for some users if not managed appropriately.

Training should be aimed at multiple levels:

- **System administrators** – need to know when changes are required, how to add/de-activate terms, how to document authorized changes. They should be responsible for maintaining configuration documentation.
- **Records/subject matter experts** – have administrative responsibility for maintaining good standards of their work group. This group may include managers who review staff performance, but are typically business 'power users'. These users need a thorough understanding of the classification in relation to their business unit, and be able to conduct quality checks to ensure use is consistent and accurate.
- **Knowledge workers** – general users who will need to search for and classify records, and what the problem reporting mechanisms and available support options are.

FAQs, cheat sheets, documented help including helpdesk support and effective problem-reporting mechanisms are important to provide assistance and support. Note that training users in functional workgroups will tend to focus on the functions specific to the group's business activities, providing context to the participants.

Maintenance, Monitoring and Review

Once developed, the responsibility for maintaining and updating the BCS must be clearly allocated to an internal 'expert' such as the System Administrator. Amendments should be authorized, decisions documented and logged within the system to provide an audit trail, in line with IT change management protocols.

Security controls within the system should be used to restrict users from amending the BCS without appropriate authorization. Consider who will be able to add, delete or modify the structure, and the required training and documentation to support decentralised administrative permissions (if this path is chosen).

Classification schemes must remain relevant, current and adaptive to change. Consider:

- Rights and privileges of administrators
- Reporting
- Currency and relevancy of language/terminology
- Impact of government administrative change

A process of regular review and update should be implemented. Machinery of government changes will also likely be a trigger for review.

Some Questions to Ask
<p>When considering permissions, include:</p> <ul style="list-style-type: none">• Who should be responsible for oversight of the classification scheme?• What are the processes/approvals required for amendments?• What is the model for management - System administrator or (senior) local administrators?• What training/documentation is required?• Who will have add, delete, modify rights? At what level of the structure will these permissions be available (e.g Function, Activity or Transaction?)• How will edits be captured - is there an audit trail capacity?• What sort of reporting is required?• How will changes be monitored over time to ensure standards are followed?• What will a maintenance program look like, and who will be responsible?

Vendor Management during the Project

Agencies will often choose to outsource Business Classification Scheme development projects to vendors or consultants who offer specialised skillsets and experience that may not be available internally. Temporarily engaging specialists may also assist in boosting numbers to achieve a timely outcome where resources are tight.

Strong vendor management assists agencies to help control costs, ensure quality service provision, and mitigate risks to the project throughout the consultancy. It will help you as a client to meet your business objectives, minimise potential disruption to your agency's 'business as usual', reduce the risk of poor outcomes and/or delivery of products or services not 'fit for purpose', and drive the most value out of the agreement.

Tasmanian government agencies are required to adhere to the *Purchasing Framework*, policies and principles available from Treasury⁶ when procuring goods and services. Note these do not apply to state-owned companies or Government Business Enterprise, but may still offer useful advice during the procurement process.

Key points to consider include:

Developing requirements - You need to analyse your business requirements and know what you want/need, in order to put together a clear requirements document for potential vendors. Do some preliminary research to pre-prepare. Part of vendor management is in the ability to contribute knowledge/insight or resources to help the vendor provide the best possible service. You may be 'buying in' skills for your agency, but you should have a clear idea of what the desired end result might look like, and at least some understanding of what might be involved in order to achieve a successful outcome. Talk to your subject matter experts, take advantage of professional associations and networks, industry resources and publications to get a feel for what is likely to be involved, including the potential impact on the business both during and after the project.

You also need to be very clear on the role of the vendor during the project. Will they be expected to fill the role of consultant, project manager, subject matter expert? Will they just conduct the information gathering exercise? Will they produce a preliminary draft? Will they be required to develop change management and communication strategies to support implementation? If they are supporting the implementation, will that include conducting user acceptance testing (and multiple drafts if required) before broader release to the user community? Will they conduct user training and/or develop training material?

Developing a comprehensive requirements document provides criteria that each potential vendor must address when quoting for the job, and helps to ensure subsequent comparisons are fair and accurate.

Selecting a vendor – You may have an established relationship with a particular service provider, but this doesn't always mean they've got the best tools for a specific job, or the most competitive price, etc. It's always a good idea to know what the current market has to offer, and what level of service/outputs you can expect for your investment. Ask questions to help determine whether your requirements are within a potential vendor's area of expertise. Don't assume vendors will always provide valuable (or critical) insight, if you aren't asking the right questions. A note on price: be aware that in most cases the lowest price brings the lowest quality (or constraints to the terms of engagement) - you should be willing to pay more for better quality outcomes.

Negotiating a contract - A successful contract will ensure that everybody benefits by achieving a fair and equitable arrangement. Contract negotiations should determine all essential prerequisites, conditions and

⁶ <http://www.purchasing.tas.gov.au/buyingforgovernment/getpage.jsp?uid=B7766495E4587A47CA25706E000C8D63>

terms; define the goods / services to be provided – who is responsible for delivering what and when; clearly state payment terms and schedule; identify and address potential risks and liabilities and any contingency strategies, as well as important dates that should be noted.

Allow vendors to advise you on your strategy/project planning - If you have brought them in for their expertise, chances are they've been down this path quite a few times and may have some valuable guidance to offer. This is not about handing over responsibility for the project however, in an attempt to lay blame if something goes wrong - it should be approached as a partnership with both parties bringing specific knowledge and skills to the table.

Sharing information and priorities – Communication is key. Don't expect the vendor to intimately know your business – that's your responsibility. Don't expect them to read your mind either, if something isn't going the way you expected, you need to communicate concerns sooner rather than later. Proactively addressing issues as they arise will help to mitigate risks that may compromise project outcomes.

Monitor performance – Once the project is underway, don't assume everything will go like clockwork. Clearly defined scope and project planning at the commencement will define project milestones and any deliverables. These checkpoints are helpful when monitoring progress and keeping the project on track and on budget.

It is worth noting that TAHO staff are an additional resource available to agencies, who are willing to review and provide advice on final drafts of Business Classification Schemes (whether developed in-house or in collaboration with a vendor) prior to implementation.

Future Directions in Classification Design

Traditionally, government agencies have been encouraged to base BCS design on Keywords AAA thesaurus (or Keywords for Councils), developed by State Records NSW. Whilst these tools may still provide a useful starting point, they should not replace the necessary functional analysis and staff consultation to identify potential gaps, and to meet the unique needs of the business. As the Keywords products were originally released in 1995 and 2001 respectively, language and terms may no longer reflect the current business environment and may need to be updated.

Agencies may need to consider tailored solutions, rather than a 'one size fits all' approach, depending on how, or if, their EDRMS can accommodate multiple views and/or structures. Does an enterprise-wide taxonomy actually work for the business, or are multiple versions required? Do individual business units require different views of the same information, depending on the way they interact with information?

For example, Finance staff and the Project Manager for a significant project may view "grant funding" records quite differently. Finance may insist it belongs under *Financial Management – Reporting – Grants acquittal reports*, whereas the Project Manager may find it more relevant under *Project Management – Project XXX – Grant management*, in keeping with all other documentation related to their specific project. Governance staff may prefer flipping it on its head, e.g *Grant Management – Projects – Project XXX*.

Where agencies are tied to a static folder structure, the business will generally need to rule in favour of one approach or another – or identify a neutral position if the system permits - and document these decisions and the reasoning behind them. Note this is only one of many such examples faced by teams developing a BCS.

Many BCS structures still tend to visually represent the historic paper-based folder structure. This has been reinforced by the familiar folder structure adopted by software companies (think of folder structures on your

network drives, and how this 'neatly' categorises information into groups and sub-groups). The technically savvy knowledge worker is increasingly comfortable with the presentation of Google-like search result lists rather than navigating 'down' an established folder structure, which may in fact miss critical information by inadvertently narrowing the field of investigation too far. This is increasingly true of user-dominated manual classification, which remains a largely subjective thing - no matter how many business rules you try to apply! Best practice increasingly requires enhanced capabilities to provide a range of user definable 'views' in addition to meeting the wider corporate needs of records in context.

Social media has introduced concepts of tagging and word clouds as ways of locating and retrieving information, and this has been replicated in collaboration systems such as SharePoint in an increasingly social business environment. Whilst this capacity may be of benefit to the individual user, it can still present problems for the user community at large, unless controls are developed that limit the available selections to a controlled vocabulary.

Using Metadata

With increased sophistication in system functionality, the visual representation of the BCS as a flat folder structure is likely to become less and less relevant into the future. Metadata is the glue that connects information together, and it is this 'data about data' that is being used to return search results, apply filters, and otherwise connect and manipulate information that users require. Where possible, the automation of classification, by the use of document profiling for example, is already becoming standard practice - particularly for those agencies that produce volume transactional and/or process-driven records.

Objects in information systems can be thought of as existing in 'space' with multiple connections joining them together and/or to different access points, rather than as flat one-dimensional things belonging to a single folder. In reality, records are not really located 'in' folders in the virtual realm as they are in the physical one, they simply have metadata pointers that associate them with a visual representation of a folder. The capacity to improve search and retrieval functionality, whilst catering for different, competing and/or subjective views of content by individual users and user communities, threatens the accepted practice of inherited retention and disposition rules in the traditional way: through linking to a folder. It also challenges the notion that a piece of information should be appraised once in a singular way – as a piece of information (as we now see) may have many valid purposes, depending on the context and the audience, and the application within the business at a given time.

Role Driven Classification

It is possible that retention and disposition requirements may become routinely managed by the association of the information to a specific 'document profile' or 'content type', rather than inherited by virtue of the topic it is linked to – as each piece of information may be connected to, associated with or related to, many others. This is similar to the information security model whereby individual user accounts are created, and 'roles' are created that are directly associated with certain permissions in the system. The user accounts are then associated with a specific role, and inherit the permissions associated with that role. This is a far more flexible method of managing security and access rights, rather than relying on the more simplistic approach of applying restrictions at the folder level in the BCS, and takes advantage of security classifications applied/inherited at the document level.

The challenge may then be in the analysis required to identify all the possible uses for the information, in order to create a profile that will assign retention and disposition rules appropriate to each stage within the information lifecycle, or at least, one that provides adequate coverage for each eventuality.

Recommended Reading

Information Classification tools (2014: Advice 6)

Classification Scheme Considerations (2014: Advice 66)

Change Management - Preparing for Change (2014: Advice 55)

How to review your records holdings (2014: Advice 61)

Managing Change in EDRMS implementation projects (2014: Advice 20)

Further Advice

For more detailed advice, please contact:

Government Information Strategy Unit
Tasmanian Archive and Heritage Office
91 Murray Street
HOBART TASMANIA 7000
Telephone: 03 6165 5581
Email: gisu@education.tas.gov.au

Acknowledgements

- Overview of Classification Tools for Records Management, National Archives Australia
http://www.naa.gov.au/Images/classification%20tools_tcml6-49550.pdf
- Using a Business Classification Scheme, Northern Territory Government,
http://www.nt.gov.au/dcis/info_tech/records_policy_standards/business_classification_scheme.shtml#development_bsc
- Establishing a best practice enterprise classification scheme, Recordkeeping Innovation, HP Business Whitepaper
http://www.records.com.au/pdf/Best%20Practices_Business%20Classification.PDF
- Business Classification Schemes, Experience Matters Business Advisers
http://www.experiencematters.com.au/services/records_and_document_management/business_classification_schemes
- An introduction to Business Classification Schemes and thesauri, Queensland State Archives,
http://www.archives.qld.gov.au/Recordkeeping/GRKDownloads/Documents/bus_class_schemes_thesauri_200505.pdf
- Functional vs Subject-based Classification, Queensland State Archives,
http://www.archives.qld.gov.au/Recordkeeping/GRKDownloads/Documents/functional_vs_subject-based_classification.pdf
- Business Classification Scheme design, National Archives UK,
http://www.nationalarchives.gov.uk/documents/information-management/bcs_toolkit.pdf
- Vendor Management Success Tips, James Bucki, About.Com
<http://operationstech.about.com/od/vendormanagement/tp/VendMgtTips.htm>

Information Security Classification

This document has been security classified using the Tasmanian Government Information Security classification standard as PUBLIC and will be managed according to the requirements of the Tasmanian Government Information Security Policy.

Document Development History

Build Status

Version	Date	Author	Reason	Sections
1.0	Feb 2015	Sam Foster-Davies	Initial Release	All

Amendments in this Release

Section Title	Section Number	Amendment Summary
		This is the first release of this document

Issued: August 2015

Ross Latham

State Archivist