



Eight Steps to Successful Taxonomy Design

When users are not involved in classification system design, their deployments frequently fail.

Jim Connelly, CRM

The least flexible part of any system is the user.
– Lowell Jay Arthur

The word ‘user’ is the word used by computer professionals when they mean ‘idiot’.
– Dave Barry

The goal of implementing an enterprise content management (ECM) system is to improve how an organization does business by making it easy for staff to find records or documents. Typically, though, records management classification systems designers do not consider users when designing and constructing classification structures. The inevitable result is the deployment of an ECM system structure that may be elegantly designed and theoretically correct – but that no one wants to use.

The system’s subsequent failure might be blamed on the software, the training, or the users, who may have chosen to rely on personal systems rather than the new one. The real problem, though, is that users were not involved in the design. User involvement is quite simply the most critical aspect of functional classification system design.

At the Core

This article

- ▶ Explains why user involvement is key to successful taxonomy system deployment
- ▶ Discusses how to adapt the DIRKS model to provide maximum user involvement
- ▶ Examines how creating the user states of mind – conflict, comfort, and control – are vital to a successful design

The Value of the DIRKS Model

As one of the first formal design methodologies used, *Designing and Implementing Records Keeping Systems 2000* (DIRKS) has provided badly

Figure 1: DIRKS Approach to Implementation

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 record-keeping
Step F	Design of a recordkeeping system
Step G	Implementation of a recordkeeping system
Step H	Post implementation review

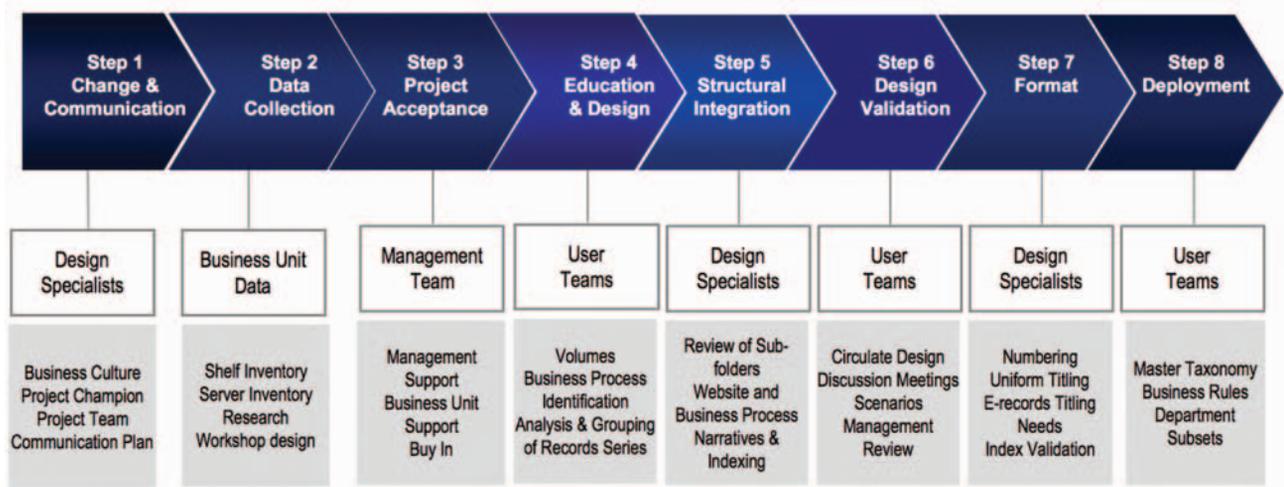
needed rigor to records management (RM) approaches. (See Figure 1.) It challenges RM professionals to ensure that their designs are thorough and that they make all possible resources available in the design process.

The user-as-a-resource, however, seems strangely absent in the methodology. The DIRKS process suggests user interviews, but it does not mention actually engaging the user in developing a functional design. Modifying the DIRKS approach to include more user involvement provides significant advantages. (See the sidebar article, “Conflict, Comfort, & Control: Secrets of Taxonomy Design” on page 45 to learn how to get user buy-in and willing participation in the project.)

User-oriented Methodology

RM professionals must learn to facilitate and guide user design to increase the likelihood of system acceptance and successful deployment. Figure 2 outlines an eight-step methodology that reflects a considerable change in emphasis.

Figure 2. User-oriented Methodology



Step 1: Establish the Project

(Change Management & Communication – Design Team)

The initial phase of a design process is to establish the project and develop communication and transition plans.

A project team typically consists of a coordinator, design analysts, support analysts, and users from each major sector of the organization. Because the impact of the classification, or taxonomy, design is far-reaching, obtaining senior management support and acceptance is crucial; therefore, it may be advisable to select a senior management member as the project champion.

A communication plan supports the design and deployment of the taxonomy by identifying how communication – in the form of newsletters, websites, help desks, and other communication tools – can help the team.

A transition plan identifies how change will be negotiated, and it focuses on user satisfaction, performance indicators, and how to monitor the taxonomy deployment.

Step 2: Collect Data

(Data Collection Business Unit Assessment – Design Team)

The next phase of the design process is data collection. Collect information on the business area in a variety of ways, including via the Internet, the intranet, and published reports. Consult business or phone directories to identify every business unit and their locations. Obtain or develop typical, as well as functional, organization charts and review job descriptions to determine what business units actually do. Also, collect floor plans as an aid to ensure that a shelf inventory process is complete.

In the first stage of this phase, conduct a shelf inventory by using a data collection form that has been tailored to the business unit and then reviewing all centralized filing areas or unique file systems. Collect information as to volumes, date ranges, and major subject or records series headings.

On the e-document side, conduct a file server inventory. This requires obtaining access to all servers, domains, and top-

level folders for each specific business unit and determining volumes and structure. Because electronic records are fast becoming 80 percent to 90 percent of business documentation, according to Connelly Consulting’s data, they have become more important than traditional inventories.

Several key end products will result from this phase. The first is a one-page document or diagram that is the framework – or a high-level outline – of the taxonomy design. Send this to senior management to instill confidence that the structure will encompass all business functions and to gain their preliminary acceptance.

The second stage of this phase is to develop a project charter or presentation that describes the taxonomy design project, its tasks, and timelines. Use this to convince management of the value of the project.

The third stage is to assemble either an electronic or hard-copy binder that contains everything related to the specific business units at which level design meetings will take place. Become familiar with the contents of these binders prior to design meetings.

Step 3: Involve Management at All Levels to Gain Project Acceptance (Project Acceptance – Management Team)

In many taxonomy projects, the senior management team is often apprised of the project, but it is also important to ensure that information filters down to line management, technical, and professional staff.

Make the next level of management aware of the project, its significance, and goals by holding line management team meetings. This is also an opportunity to request that management assign appropriate staff to the next stage of the project.

Involve managers from each business unit to identify all business processes – actual and planned. Identify key technical and professional staff (i.e., project leaders) and those who have been in the organization for a considerable time. Involving management in this way gives them a stake in the success of the

endeavor, as well as raises awareness and improves the quality and productivity of the design sessions.

Step 4: Involve Users (*Design & Education – User Team*)

Rather than provide users with an RM-based design or a *fait accompli*, build the taxonomy design with a user team. Make a presentation to a number of business units at the same time (e.g., four branches in the same division) to provide detailed information regarding the existing volume and structure findings for all documents and to describe the design method and the basic business rules that will provide a structure to the final product.

Schedule a smaller workshop with each business unit. These sessions allow managerial, technical, professional, and support staff to share what their business is about and how they would like to structure their document handling in support of specific business processes.

Business units may provide varying degrees of input. Some may merely determine records series lists; some may produce detailed narratives; and yet others will decide about secondary values, folder-naming conventions, and even metadata needs. Hold follow-up meetings to bring all designs to the same level, or standard, of taxonomy design, series descriptions, indexing, and metadata.

Step 5: Integrate Information into a Database (*Structural Integration – Design Team*)

Collect information generated during meetings on whiteboards, easel pads, or giant sticky notes and transcribe it for later use. Place this information, including ownership, series identification, descriptors, retentions, file-titling options, and a comprehensive index, into a large database or spreadsheet. This database will allow the team to find duplication and overlap.

This step is not simply doing data entry. Hold joint discussion sessions with project analysts to revisit meeting results. Additional research may be necessary to provide narrative information about records series. Revisit websites, if needed, in light of discussions regarding business process. Additional options may arise and can be included in the draft taxonomy.

Step 6: Validate the Design (*Design Validation – User Team*)

To validate the design, go back to the users. The database or spreadsheet should allow for creation of owner-specific reports regarding primaries, narratives (descriptions), and indexes. Return these to business units with clear instructions for reviewing them, and seek clarification of the narratives and descriptions. Ask whether the terminology used is the same that staff use in their day-to-day office environment and whether the options for organization of sub-folders or activities are acceptable to staff.

Allow two weeks for the review and then follow up. If users suggest changes, review these suggestions and incorporate them into the design as much as possible. Often, short follow-up calls or meetings are necessary.

Taxonomy Validation Scenarios

Create a slide or card with all the first-level functional breakdowns, as well as one for each of the subsequent levels. Examples are shown below:

Level 1:

1.0 Human Resources

- 1.1. Employees
- 1.2. Benefits
- 1.3. Pensions
- 1.4. Compensation
- 1.5. Employment
- 1.6. Labor Relations
- 1.7. Organization Effectiveness
- 1.8. Payroll
- 1.9. Safety and Wellness
- 2.0. Training

Level 2:

1.5 Employment

- Communications Postings
- Procedures & Guidelines
- Programs & Events
- Reports & Statistics
- Resource Library
- Staffing Actions
- Staff Support (internal temp help)

Scenarios

- “I am a supervisor looking for an old job description for a warehouse worker, as I am considering creating a summer position and want to see examples.”
- “I need to see some past attendance records as an employee wants to question whether or not she still has some leave coming to her. She says she took only five days leave in 2005.”
- “I want to see how effective a supervisory course is before sending one of my staff on it. I would like to see if a post evaluation was done.”

For each of the scenarios developed, ask a representative group of users where they would look in the top-level folders or functions. If users have trouble identifying the location, it may indicate a design flaw. It may indicate that the terms or functions are not as intuitive as needed. Structural or name changes may be needed to ensure that users can successfully locate documents within the taxonomy.

Source: Step Two Designs (Australia)

Conflict, Comfort, & Control: Secrets of Taxonomy Design

The difficulty – and the art – of taxonomy design meetings are in bringing users to these three mental conditions. It is necessary to create in users

- Conflict
- A comfortable relationship with the facilitator
- A sense of control over their own destiny

Conflict

“Without conflict, there can be no change” – every change- or transition-management authority emphasizes this fundamental precept. “My records and documents are just fine,” says the typical user, “I can find everything I need. Why should I have to change my system?”

RM professionals know that changing the system is needed to

- Minimize risk
- Prepare for possible legal discovery
- Reduce storage through the application of retention schedules to a uniform taxonomy
- Title and identify records uniformly so that collaboration and projects can work more effectively

However, these things mean little to most users and do not provide reasons for them to want to change. It is important, then, to set up a conflict in their minds – a conflict between the present poor state and the vastly improved state of their records that will be produced by developing and implementing the taxonomy.

Users should be shown the sheer volume of what the organization is facing: the millions of documents that are steadily increasing, the poor server folder structures that are making it difficult to identify and retrieve documents, and the hundreds of personalized folders that obscure information from people in the organization who might benefit from access. RM professionals must create in the minds of the users that famous courtroom expression: “reasonable doubt” that the system is not as good as they think it is – and maybe, just maybe, they can improve it.

Whether in management presentations or design sessions, if RM professionals can evoke shock, concern, or even laughter at the state of document and records storage, they will have succeeded in establishing a conflict in the minds of the users. Once this conflict exists, users will be ready to accept the possibility of – or better yet, the need for – change.

Comfort

The next state of mind to be invoked is one of comfort. Even though users have now accepted the possibility of the need for change, they may not feel confident that RM staff should be the agent of that change. To make users comfortable with their leader-

ship, RM professionals must reach out to them.

During data collection, there is an opportunity to see the area’s business plans to understand the kinds of records they use every day, the terminology they use, and the nature of their organization. Take advantage of this amazing amount of research already compiled.

Expressing interest in users’ work and their problems increases their comfort level. RM professionals that possess even a rudimentary knowledge of users’ computer systems, acronyms, and business processes will be viewed as more a colleague than as someone from administration that is telling them what to do.

By passion and use, these are the users’ documents and records. They know what they are used for and how best to organize them. RM professionals should simply elicit this information, as well as suggest and explore alternatives that will help users determine the best way to name and organize their information.

Control

A final state of mind is the feeling of being in control. This is the hardest state of mind to achieve in a design session but one of the most rewarding. As user-focused design meetings take place, the taxonomy slowly takes form, and the business unit staff will begin to increase its level of involvement.

Users will begin to recommend title changes to use terms with which they are familiar. Users will begin to offer suggestions for structural change and refine functions and activities. They will even begin to discuss among themselves how work is actually done. And, in almost every design meeting, there will finally be a move from passive to active involvement.

Business unit users will suddenly not only understand the process that the RM professional is facilitating, but also that he or she is best suited to complete and expand the taxonomy design. They see opportunities to work more efficiently by modifying the way they document their activities. They see the benefits of grouping their documents to support their day-to-day efforts. In extreme cases, users may actually begin to direct the discussion and elicit more information from their colleagues than the RM professional ever could. In such cases, it is often more effective to relinquish control and monitor the design process so that taxonomy standards are met.

When he or she reaches the climactic moment, the RM professional will find that the users believe that they have regained control over their information. In many cases, users express gratitude that someone finally took the time to help them work through designing a better recordkeeping system. The only downside may be that many users became anxious to begin changing their system.

Secrets of Design

Conflict, comfort, and control, then, are the three user-based secrets to successful design. Creating these states of mind can mean the difference between a taxonomy that no one wants anything to do with and one that users are eager to test and refine.

One simple method of validation is to create scenarios of document storage and retrieval and see if staff can decide where in the taxonomy the documents would be found. (See “Taxonomy Validation Scenarios” sidebar on page 44.)

Step 7: Modify the Format for Consistency
(Format – Design Team)

The next group of tasks is to modify the taxonomy format so it is consistent. This is the forte of RM professionals. Numbering systems may be needed (e.g., block numeric, duplex numeric, or alphanumeric). If numbering is not used, refine alpha systems of titling so functions and activities are grouped consistently. Indexing or formal systems of titling may need to be developed. Consider naming conventions for e-documents and e-folders. Remember that these may not exactly match the taxonomy and its use in a hardcopy environment. If an ECM is neither present nor planned, ensure that all metadata elements are considered and, where possible, are used within naming conventions.

Step 8: Deploy the Taxonomy
(Deployment – User Team)

The final involvement of users comes with the taxonomy deployment. Users who have been involved in the design process have a vested interest in the taxonomy’s success. RM professionals can rely on these people to assist in rolling out the taxonomy and refining its levels. They will be the liaison with each business unit. Remember, too, that in the absence of ECM tools, a variant of middle-digit filing may be needed to allow case files or project files to be effectively deployed.

Users can assist with this if they understand the original, basic functional design. For example, in an organization that develops computer applications, there may be a Function – Development of Applications – that may be divided further into documentation, incident management, maintenance, processes, projects, security, and training and orientation. However, to make it successful, RM professionals may need to preface each of the activities with the name of the application so all the information is in one place for teams working on the application, as below:

Folder Structure for Project or Case Files

X:\26600_Applications\MERCURY\
X:\26600_Applications\MERCURY\Documentation & Procedures
X:\26600_Applications\MERCURY\Incidents
X:\26600_Applications\MERCURY\Maintenance
X:\26600_Applications\MERCURY\Processes
X:\26600_Applications\MERCURY\Projects
X:\26600_Applications\MERCURY\Security
X:\26600_Applications\MERCURY\Training & Orientation

NOT prefacing the application, as below, could cause confusion.

Folder Structure – Strictly Functional

X:\26600_Applications
X:\26600_Applications\Documentation & Procedures\MARS
X:\26600_Applications\Documentation & Procedures\MERCURY
X:\26600_Applications\Documentation & Procedures\VENUS
X:\26600_Applications\Incidents\MARS
X:\26600_Applications\Incidents\MERCURY
X:\26600_Applications\Incidents\VENUS
Etc.

The Main Ingredient

Gaining user buy-in and participation from the project’s inception through deployment will result in business units that are ready and willing to manage their own records. So, the answer to the question about what makes a taxonomy design great is quite simple – “user involvement.”

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