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PART I: UNDERSTANDING METADATA AND WHAT IT MEANS FOR YOUR ORGANIZATION

The term metadata is everywhere. Search for the word in Google, and you will get close to 40 million hits.

Almost every records management professional has probably heard the buzz surrounding metadata. But unless you've actually been involved in developing a metadata-based information retrieval system, you may not have a full appreciation for what this term truly means. You may also find yourself facing the growing challenge of positioning a records management program in a business world that is shifting towards real-time electronic access and automated search capabilities. Fortunately, metadata can play a big role.

So to help you cut through all of the hype, this whitepaper explores what metadata is and what it means for your records management program. It will also look at the opportunities and challenges presented by metadata. **Part two** outlines an action plan for successfully implementing it in your organization.

1.0 Metadata Explained

When you boil metadata down to its most basic meaning, you quickly realize that you encounter it every day, even in your non-records management life. Literally "data about data," metadata refers to descriptive information that is assigned to specified information sources and later used to locate and retrieve those documents and files in an electronic records management system.

For example, anyone who has searched for a novel at a book store will have seen metadata in action. You enter the metadata value "King, Stephen" into the "Author" field in the store's electronic catalogue. Within seconds, the system locates the piece of metadata you inputted and also gives you a list of King's other books.

1.1 Metadata and Records Management

Even if you don't spend extended periods of time thinking and talking about metadata, chances are that it already occupies an active role in your organization's records management program. And while the exact application of metadata can vary widely from one scenario to the next, the basic principle remains the same in all cases—when a new record is created or saved to the system, descriptive information is attached to it.

The more records an organization holds, the more subdivisions are necessary to organize that information into manageably-sized groups. And with each additional level of subdivision, the greater the chance of employees disagreeing on how to use the information to support related, yet different, business processes.

Some information may be captured automatically, such as the user ID of the person creating and saving the record or the exact date and time of when the transaction occurred. Other metadata entry might require more human intervention, such as the identification of records classification categories, document types (e.g. report, presentation) or subject keywords. All of this information can be used later as possible search terms for finding a given record, much in the same way that you searched for Stephen King's novels at the bookstore.

Your organization's email system is also a good example of metadata at work. It automatically indexes and sorts messages by such metadata attributes as transmission date, sender, recipient and subject header.

2.0 Metadata vs. Folder Structures

File folders, pockets and other filing products were invented so that related records could be grouped together into manageable subgroups, allowing users to narrow their retrieval focus while at the same time keeping related items together. For larger files, efficient use is as simple as physically sub-dividing the file with divider cards or a series of file folders within a larger pocket.

This same logic also applies to electronic records. Virtually every computer allows users to organize electronic documents, emails and other items into folders and then break each folder into a large number of subfolders. However, clearly and consistently naming folders, sub-folders and sub-sub-folders is not enough to ensure an efficient retrieval process.

2.1 Folder hierarchies

The practical limitations of folder hierarchies become most apparent when applied to a large volume of content with multiple users. The more records an organization holds, the more subdivisions are necessary to organize that information into manageably-sized groups. And with each additional level of subdivision, the greater the chance of employees disagreeing on how to use the information to support related, yet different, business processes.

2.1.1 Real-world example: without metadata

Consider the very common example of accounts payable records. What information would be useful for purposes of distinguishing different records of this process? Certain key attributes quickly come to mind:

- Chronology, including fiscal year, month and transaction date
- Company identifiers, such as the name of vendors
- Overall type of expenditure, from capital purchasing to minor expenses such as sandwiches for a lunch meeting

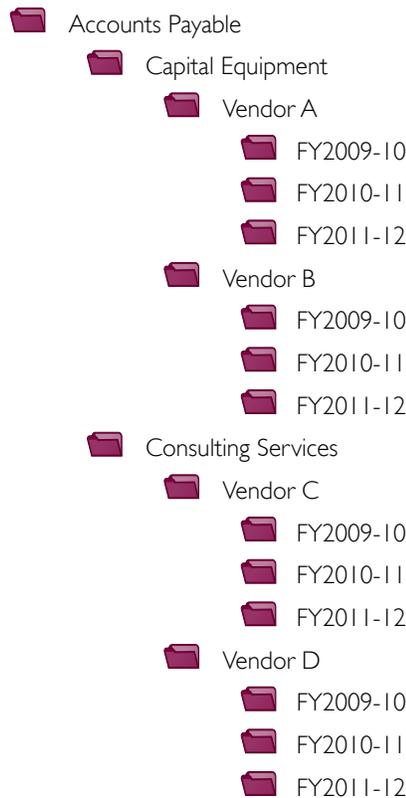
Compromises are possible in folder structure design, but eventually someone will have to navigate across different folders pulling out information that is relevant to their processes.

While any folder structure should avoid unnecessary subdivisions and strive for simplicity, the sheer volume of some organizations' record content may require multiple folders and subfolders. So how do you turn the basic filing elements described above into electronic folders and subfolders?

From the perspective of accounting professionals, a typical folder structure might look like this:



However, this exact structure may not be ideal for everyone. Consider the example of a financial analyst whose job it to track different types of expenditures and assess the cost effectiveness of vendors across a three-year period. The analyst may find it more useful to group information as follows:



One common practice is to create folders, sites or other electronic containers at the “file level,” such as an annual file for accounting records or a case file for activities such as contracting, litigation or client services.

In a folder environment, you simply cannot have it both ways. Compromises are possible in folder structure design, but eventually someone will have to navigate across different folders pulling out information that is relevant to their processes. This can result in staff copying content and grouping it together elsewhere, increasing overall record volume and introducing various financial and compliance risks.

But with a metadata-based retrieval system, an organization is not limited to a single top-down logic. By attaching retrieval information to records rather than forcing each record into a single folder, metadata provides users the option of sorting and categorizing records in a way that works for them.

2.1.2: Real-world example: with metadata

Let's return to the example of the accounts payable records. In creating and saving records, users can identify the fiscal year, expenditure type and vendor name for each item. Users can then search by one or more of these fields as they see appropriate, and sort their results in a way that is meaningful to them. A tax accountant, for instance, can pull up all of the monthly transactions for Fiscal Year 2010-11, but a procurement analyst can pull up records of capital expenditures made to Vendor X or Vendor Y across any given period. Records are not “in” folders, so they can be organized in whichever order makes the most sense at the time they are retrieved.

Does this mean that an effective records and information management program shouldn't use folders and sub-folders at all? Not necessarily. For most business functions, there will always be a higher level logic by which records can be grouped with less of the subjectivity associated with more granular data attributes. In other words, we will always have “files,” whether they are centred on an ongoing process (e.g. accounts payable) or a given client or event (“case files”).

2.2 Electronic records and file-level metadata

In responding to this reality, many electronic records management solutions directly incorporate folders as part of the metadata collection process. One common practice is to create folders, sites or other electronic containers at the “file level,” such as an annual file for accounting records or a case file for activities such as contracting, litigation or client services.

File-level metadata is entered for each container when it is created and updated as needed over time. When an individual record is saved to that container, it inherits the metadata already associated with the container. Users can also enter additional metadata specific to the individual document, thereby allowing them to sort and identify different content. Many systems apply this concept to the creation of “virtual files.” In other words, the electronic files are a pre-constructed set of metadata which is collectively attached to a record when it is associated with that file.

Full text searching by itself makes no provision for the business functions and other important context in which a record is created or received, ignoring much of the fundamental thinking that underlies any successful records management program.

3.0 Metadata vs. Full Text Searching

Full text searching is a popular and undeniably useful feature of many electronic records management solutions. Users can enter one or more words into the search interface, and the system retrieves all records that contain the string of characters anywhere in their content.

These capabilities are widely appealing. Not only do they reduce the effort required to identify and enter more structured metadata, but by virtually reading the body of each record, they are also more comprehensive in the results that they produce. Little wonder, then, that full text search capabilities are sometimes used as an argument against more manual metadata entry processes.

3.1 The challenges with full text searching

The practical challenges of full text searching alone become apparent when it is applied to larger systems with broader, more expansive ranges of content.

The main issue with full text searching is that unless a user is looking for a very specific string of text, such as an identification number or the exact name of a company, its results can be extremely imprecise, producing dozens or hundreds of useless hits. In other words, full text searching by itself makes no provision for the business functions and other important context in which a record is created or received, ignoring much of the fundamental thinking that underlies any successful records management program.

It's important to note that this doesn't mean that full text searching is useless or unhelpful. It can, and should, be a critical tool for records retrieval, whether it for day-to-day businesses requirements or in more serious situations such as legal discoveries. However, it works best when combined with the more structured collection of indexing metadata such as business function classification, subject keyword or other identified information retrieval elements.

4.0 Making Metadata Happen

Metadata has the potential to revolutionize how you organize, search and retrieve information inside your organization. Metadata can also assist in the application of records management best practices. But incorporating metadata into your RM program requires careful planning.

In Part II of "How Metadata Works with Records Management," we examine the ways in which metadata supports an organization's RM program. We also detail how to develop an effective action plan for incorporating it, including developing a corporate policy, making functional classification work, and incorporating metadata into records retention workflows.

Depending on the nature of your retention schedule and the degree of workflow integration available in your system, functional classification can help you effectively apply retention and disposition requirements to your records.

PART II: BUILDING AN ACTION PLAN

For most RM professionals, the broad concept of metadata is easy enough to understand: it is information about information. To put it even more simply, when a new record is created or saved to the system, descriptive information is attached to that record.

But as much as metadata already plays a role in your organization's records management program, you may not spend much time thinking about how to apply it most effectively to improve the search and retrieval of information.

In part one of "How Metadata Works with Records Management," we explained what metadata is and how it applies to records management in terms of folder structures and full text searching. In this white paper, we will detail how metadata can assist in the application of records management best practices, and outline an action plan for meeting these issues head-on.

1.0 Beyond Retrieval: Metadata and Records Management Controls

Records management has always played an integral role in helping organizations manage costs and minimize organizational risk through best practices such as records retention scheduling and access management. And as physical records tracking and the retrieval and distribution of electronic records all become increasingly automated, organizations also need to look for opportunities to capture and apply record metadata in a way that supports core RM practices.

Some basic examples of metadata elements that can assist in the application of records management best practices include:

Functional records classification or other category identifiers

Depending on the nature of your retention schedule and the degree of workflow integration available in your system, functional classification can help you effectively apply retention and disposition requirements to your records.

Retention dates

Retention events signify the official start of a retention period and are another effective metadata tool. Some common types of retention events include the end of the fiscal year, completion of a project, termination of a contract or decommissioning of an important organizational element.

By indexing files and individual records to their appropriate sensitivity and security levels, an effective metadata capture program can help you identify the appropriate safeguards and role-based access rights needed to protect your information to mitigate risk and meet compliance requirements.

Disposition dates

Disposition date refers to the exact date on which normal records retention requirements lapse for a given record. Many electronic records management solutions will automatically calculate the date starting with the retention event and ending with the disposition date once the appropriate number of years have lapsed, as specified in an organization's records retention schedule.

Final disposition

The metadata "final disposition" helps you to archive the appropriate documents and files once they have reached their disposition date. Although the term "records disposition" is sometimes used interchangeably with the term "destruction," not all organizational records are destroyed once legal and/or operational retention periods expire. If your organization archives documents and files that have reached their disposition date, your electronic RM solution should indicate whether a record is destroyed or transferred to the archival program once its retention period has lapsed.

Information sensitivity and security level

By indexing files and individual records to their appropriate sensitivity and security levels, an effective metadata capture program can help you identify the appropriate safeguards and role-based access rights needed to protect your information to mitigate risk and meet compliance requirements.

Many government and commercial organizations have already developed detailed guidelines for categorizing the sensitivity and security requirements of confidential records. Some common categories include personal privacy, threats to safety, intellectual property rights and competitive advantage.

2.0 A Records Management Action Plan for Metadata

Depending on technical, organizational and other factors, the process of integrating metadata into an effective records management program can be complex and ongoing. Regardless of the specific challenge you encounter along the way, it all boils down into two basic questions:

- How can you use metadata to more effectively organize, access and manage your organization's records?
- How do you make sure you retain and protect the metadata necessary to organize, access and manage records for the duration of their life cycle?

These questions are far reaching, but both are informed by a simple principle—in order to effectively manage records, an organization must also effectively manage the corresponding metadata. Any records management program which neglects to address metadata directly is at serious risk of being incomplete, if not irrelevant.

So to ensure that your RM program doesn't fall into this trap, the following Action Plan outlines basic steps that an organization can follow to directly address the records retention and other requirements associated with record metadata.

Most electronic records management software includes integrated workflows for application of records retention and disposition rules. Users can also add the appropriate retention metadata into the system while automating retention schedules.

2.1: Develop a corporate policy

A clear and practical policy is the backbone of any effective records management program. It should provide a concrete mandate for the implementation and enforcement of basic records management requirements, such as:

- Identifying documents, data and other information that provides an official record of business activities
- Implementing official records retention, disposal and archival requirements
- Managing records repositories such as shared centralized physical filing areas and enterprise records management systems
- Applying information safeguards to protect the security, integrity and reliability of records

When defining the scope of the policy and the definition of an official record, you'll need to explicitly address the need to organize, access and manage any metadata necessary to ensure the retrieval, retention and legally-compliant disposal records.

2.2: Make functional classification work in the metadata world

Provided that your records classification, taxonomy or other retrieval tools effectively categorize your information based on business functions and other critical factors, incorporating metadata can take existing systems to the next level. Often, this means addressing the network of categories and subcategories more systematically.

For example, a traditional records classification system may pose a series of categories based on overall business function (e.g. Financial Management) and more specific business activities that support that function (e.g. Accounts Payable, Accounts Receivable, Tax Filing).

Converting this system to a more metadata-ready format would include:

- Translating the categories and subcategories into fields and values
- Creating a drop down of values based on function
- Adding more detailed information for retrieval requirements

Once that has been completed, you can start thinking about incorporating metadata into automated workflows.

2.3: Incorporate metadata into records retention workflows

Most electronic records management software includes integrated workflows for application of records retention and disposition rules. Users can also add the appropriate retention metadata into the system while automating retention schedules.



At its simplest, this is a four part process that includes:

- Identifying and documenting the procedural steps necessary to make retention and disposition rules a reality
- Working directly with developers and implementers to incorporate those rules into the system
- Training users on metadata entry and other system tasks
- Auditing retention metadata and other critical success factors over time

2.4: Don't forget to include information management governance and control

Along with integrating metadata into your records retention and disposition systems, you'll also need to take information management governance and control into account. To start, consult stakeholders from information security, legal services and risk management to find out what requirements and risks need to be addressed. You can then use your research to create RM processes that capture and apply metadata in a direct and practical way to meet these needs.

3.0 Embracing the revolution

Metadata will be an important and necessary part of how businesses create, use and retain recorded information in an increasingly electronic RM reality.

Any records management program which focuses solely on record content at the expense of metadata is telling half the story at best, and any RM professional that wants to grow and improve their program must address metadata directly.

By recognizing the simple connection between records and metadata and then applying the basic steps presented in this article, you will find yourself thriving rather than merely surviving in the metadata revolution.

Talk to TAB

At TAB, we understand the role the metadata can play in your overall RM program. Our experts can work with you to develop a plan that meets the unique needs of your organization. We offer consulting services to help you establish metadata standards, create and implement a comprehensive system and train staff on how to successfully use metadata to improve your records management program.

Our solutions include TAB FusionRMS, a single, easy-to-use system that enables you to seamlessly incorporate metadata into RM practices. By taking a holistic approach to all records formats, TAB FusionRMS lets you maintain, sort, retrieve and manage your important business information efficiently and accurately. To find out more about TAB FusionRMS, [visit our website](#) or [contact a rep for more information](#).