

### INTRODUCTION

#### COMPLEX ORGANIZATIONS NEED SIMPLICITY

Large and complex organizations represent a challenge to employees and customers. It can be difficult to find useful information from corporate Intranet and Internet sites rich with content. The challenge is to deliver highly relevant and reliable content. Traditional navigation simply isn't enough to deliver targeted content to individuals. Information needs to be categorized.

When companies take on taxonomy projects, they often look at it as a single, over-arching structure to describe the organization. Unfortunately, this often results in a complex taxonomy that is difficult to understand and manage. The more complex an organization, the more people need simplicity.

Employees, customers and business partners need access to specific information at specific times. In order to deliver that information effectively, the organization needs to be clearly defined at-a-glance. It needs to be intuitive. Websites that require no training are a very good investment.

#### ONE COMPANY, MANY PARTS

Large corporations are a grouping of many smaller separate and diverse organizations. Navigating those differences can be a challenge for employees, customers and business partners. Taxonomies need to tie organizations together.

One company with many divisions is still one company. This may be difficult to recognize, especially when a corporation is a result of several mergers. Human Resources, which is usually centralized, may be the only place where the organization acts as one company.

Outside of HR, however, it gets more complex. There may be many groups with overlapping functions. It is usually left to the employee or customer to figure out where he or she needs to click to find the right information. The reason is well known in corporate America. Different departments have grown and developed independently – each with their own data, standards, processes and vocabularies.

Employees will freely admit that these separate organizational and information silos exist. Many variations exist between the groups. As a result of these differences, work is duplicated across the company and information that employees need remains invisible behind departmental walls (electronic and physical).

Taxonomies represent an opportunity to create a visual and informational link between these diverse, divisional silos.

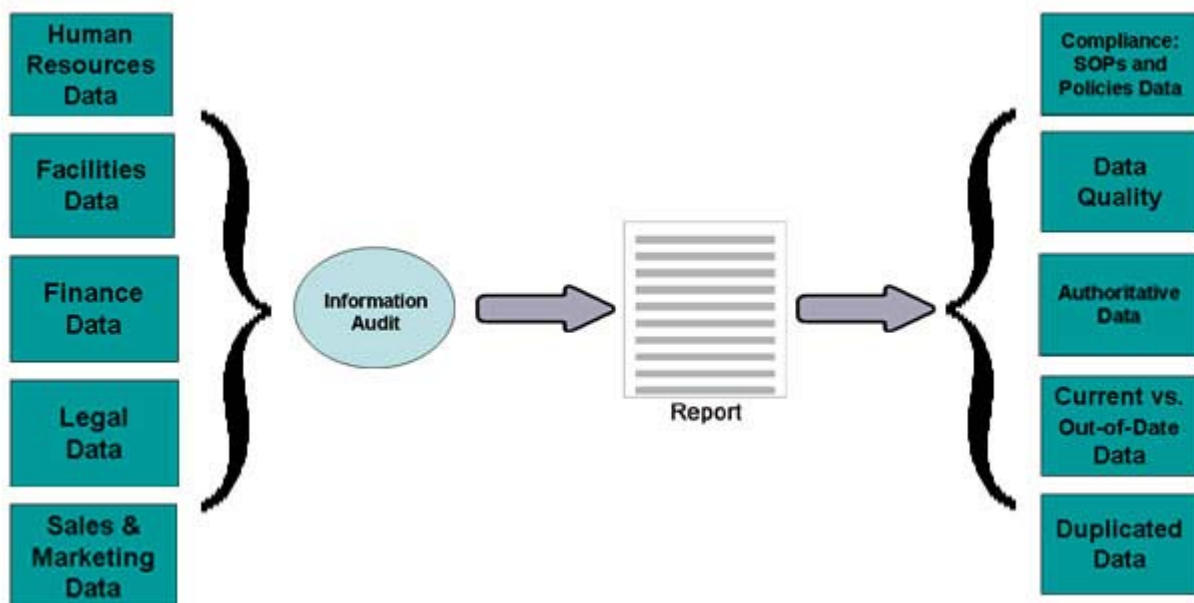
### ELIMINATE DUPLICATION

Once developed and implemented, the taxonomy can bring customers and employees to the right information the first time. Authoritative information needs to be the only content that the taxonomy references. Any other information would be excluded.

To achieve this, a concerted effort needs to be applied to cataloging the corporate repositories. The more that is known about the repositories, the more successful a taxonomy project will be. Well-organized repositories deliver high quality results.

By cataloging functional areas of a corporation you move beyond departmental labels of their activities and define content by what people actually DO. Duplicated content (and effort) are exposed quickly. The challenge is to find which information can be considered “authoritative” and which cannot.

A typical repository cataloging process should look like this:



The various corporate repositories are cataloged to identify the authoritative data within each area and across the corporation. For example, the authoritative Affirmative Action SOP may reside within the Legal repository and not Human Resources – even though both repositories contain versions of that SOP.

The ultimate purpose of a taxonomy is to deliver accurate and authoritative content to the Web visitors. The challenge is to assure that the content repositories themselves are well organized and well maintained. If the taxonomy project is combined with Web or content governance, the duplicated or out-of-date information can be merged, deleted or archived. Web or content governance is another success factor for any taxonomy project.

If a disorganized repository CAN'T be cleaned, then any content areas that represents duplicated, out-of-date content or questionable content need to be omitted from the taxonomy project. Questionable content quality will have a negative effect on the taxonomy project itself. The effectiveness of the taxonomy will be perceived as marginal at best if the content returned is out-of-date or poorly labeled.

### AUDIT YOUR INFORMATION

Audits have become standard practice in many areas of corporate life. There are financial audits, technology audits and inventory audits. One area that has been left out of this process is information.

The information audit will create a map of where all the corporate information is stored, who owns it and what state it is in. This process creates a catalog of the corporate repositories. The catalog becomes a strategic map of the organization's content.

- The information audit can include content from both the corporate Web and shared drives.
- The process can identify information sitting in departmental drives that should be published to the corporate Intranet.
- The audit will expose holes in the corporate information. Often companies assume that they have information available that actually doesn't exist.
- The audit will surface multiple and differing versions of sensitive compliance documents such as SOPs (e.g., two different Stock Trading SOPs).

Considering that most corporations succeed or fail based on having the right information at the right time, it would seem an obvious step to take. Documents created in programs such as Microsoft Word or Adobe Acrobat usually go unnoticed. Their inherent value is not taken into considered.

### The numbers:

- A typical Standard Operating Procedure (SOP) costs \$7,000-10,000 to create
- \$185,000 is what it will cost when 1,500 employees spend just one hour looking for that SOP or any other document.
- According to *IDC*, "1,000 knowledge workers waste \$2.5M/yr due to inability to locate or retrieve information."
  - That is \$2.5 million per 1,000 knowledge workers, per year.

### THE MASTER TAXONOMY

Many Organizations Strive for the “Spine” or “Master” Taxonomy. Essentially, this is a single, high-level categorization of all the corporation’s parts. Categories in a typical “spine” taxonomy would be “Facilities”, “Finance”, “Human Resources”, “Legal”, “Marketing”, “Information Technology”, “Products/Services”, “Sales” and “Security”.

The goal is to create a single, high-level view of the corporation as a whole. This is based on the need to create a consolidated view of the organization to unify the various divisions and/or departments. At first glance, a single taxonomy makes sense. It is one corporation, so it would seem the obvious choice. Think again.

### WHO DOES WHAT

While a corporation is one organization at its highest level, it is also an amalgamation of many smaller functional groupings. The operative term is “Functional” NOT “Departmental”. True categories that describe a corporation’s parts need to be based on what people actually DO, not what people call themselves.

How departments name themselves can be deceiving. Departments tend to develop private languages that only they understand. Taxonomies need to get past these labels to reflect an organization’s true purpose. In the end, a taxonomy is created so that outsiders (customers or employees from other departments or divisions) can find what they are looking for. That requires the searcher to have an intuitive understanding of what information he or she is going to find behind a given category.

Taxonomies can identify content for site visitors who don’t know the intra departmental vocabulary. These people do not know a department’s content. If a customer or an employee needs to find information, the categories will help customers and employees discover information that they need.

Across a large organization, it can be difficult, if not impossible, to identify authoritative information. It is common that more than one department or division will create content that duplicates other content elsewhere in the corporation. This makes it challenging to find the right document the first time. Which department has the document, the policy, the SOP or the manual that a customer or employee needs?

A side benefit of the “Spine” taxonomy is that it delivers a better understanding of each division’s content.

## TWO DISTINCT APPROACHES

There are two philosophies for developing the “Master” taxonomy for a large organization:

- One large taxonomy to cover the organization as a unit.
- Several smaller taxonomies to cover the organization as a sum of its parts.

Each approach has merit, and depending on the environment either can deliver value. It comes down to volume and diversity. Corporations with relatively small amounts of Web content could be served well by a single taxonomy.

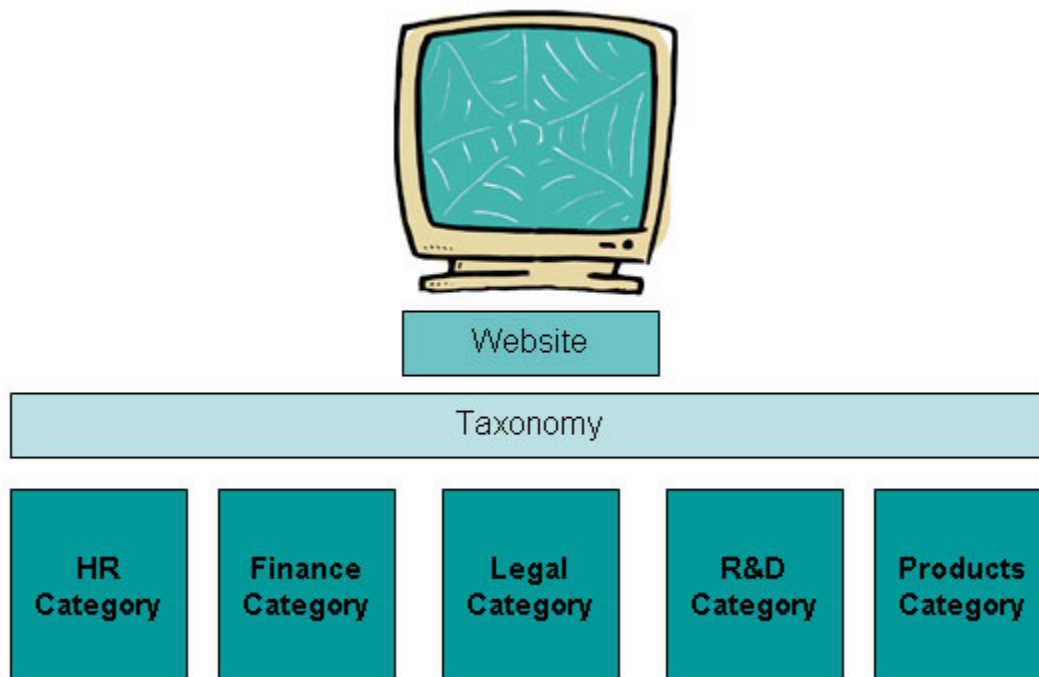
In most large corporations, however, there are large amounts of Web content and that content often has subtleties that require a more targeted approach. For example, in a technology company such as Dell, Avaya or Cisco, the word “terminate” can have many different meanings.

- In Research & Development, it would refer to circuit termination.
- In the Services and Support group, it would have a slightly different meaning.
- In Human Resources, it would refer to terminating an employee.

One enterprise taxonomy would not be able to handle these distinctions as well as individual taxonomies targeted to each functional area.

## ONE LARGE TAXONOMY

On paper, a single taxonomy is better. It represents a simple solution to a complex problem – to create a single entity that represents the organization as a whole. It sounds like the easiest solution to maintain.



In fact, it can be more difficult to manage a single enterprise taxonomy. Changes to one area of a global taxonomy can have impacts in other areas. In the example given above, the concept of the word “terminate” needs to be dealt with very carefully. If a searcher is looking for circuit termination documentation and gets back documentation on terminating employees, it is a waste of his or her time. Maintaining separate subject-based taxonomies will make dealing with discreet concepts much easier.

If the project has a limited scope and the volume of content to be captured is relatively small, then a single taxonomy is the right answer.

### **MULTIPLE, SMALLER TAXONOMIES**

Large corporations are conglomerations of several different functional groups. Some are many different companies, merged into one. Each functional group represents different disciplines within the corporate world. Each discipline within a corporation, such as Human Resources, Legal and Finance, has a specific, standardized vocabulary. Some of these vocabularies are standardized within an industry, such as telecommunications or the pharmaceutical field.

Multiple, smaller taxonomies will allow you to implement industry- or discipline-specific vocabularies more easily. Each of the taxonomies would have a unique vocabulary specific to the area it represents.

This concept is illustrated above by the word “terminate”. It can have different meanings within different disciplines. This means that each of these functional areas could potentially have its own thesaurus. In order to assure that each area delivers results within context, each taxonomy needs to be capable of focusing on specific repository combinations or portions of repositories to isolate relevant content. Individual, functional area-specific taxonomies have both capabilities – to maintain an independent, area-specific thesaurus and to isolate and reference only relevant content repositories.

## User Experience

A key reason why companies will gravitate toward a single taxonomy is for the user experience. When a site visitor views the corporate taxonomy, it makes sense to present a single, unified taxonomy. The categories will be easier to understand if they are all part of the same unit.

DOCUMENTS FOUND IN THESE CATEGORIES	
<b>Corporate and Product Information</b>	
<a href="#">Corporate</a> (1,460)	<a href="#">Products</a> (1,300)
<a href="#">Resource Type</a> (738)	<a href="#">Tasks</a> (344)
<a href="#">Services</a> (95)	<a href="#">Solutions</a> (92)
<a href="#">Investor-Relations</a> (82)	<a href="#">Pillars</a> (11)
<a href="#">WOW Topics</a> (11)	
<a href="#">Promotions &amp; Programs</a> (4)	
<a href="#">Home</a> (82)	
<a href="#">Included Content</a> (95)	
<a href="#">FAQs</a> (92)	
<a href="#">Training</a> (344)	

In the example above, the categories listed as part of this “top level” taxonomy are actually a listing of separate smaller taxonomies. At the highest level, individual, area-specific taxonomies appear to be categories of a larger, single taxonomy within the user interface.

This point becomes a stumbling block to many taxonomy projects. By focusing on the user experience, rather than the functionality of the taxonomy, the project becomes more complex. This approach will diminish the overall value of the taxonomy. How the taxonomy will function is what is most important. Presenting that taxonomy to site visitors is secondary. The key task is delivering content accurately and effectively.

Several smaller taxonomies, if implemented properly, will create the illusion of a single, larger taxonomy. Each time a Web visitor clicks on one of the top level categories, he or she is actually entering one of the smaller, separate taxonomies. For example, when that Web visitor clicks on the Human Resources category, he or she has entered the Human Resources taxonomy.

A well-defined user interface will allow employees or customers to drill down into the sub-categories of a particular taxonomy, and provide navigational breadcrumbs to move back to the top level easily.

### DOCUMENTS FOUND IN [root](#)>[Products](#)>[Categories](#)

<b>Corporate and Product Information</b>	
<a href="#">Converged Infrastructure</a> (1)	<a href="#">Intelligent System &amp; Network Management</a> (1)
<a href="#">Communication Services</a> (1)	<a href="#">Conferencing &amp; Collaboration</a> (1)
<a href="#">Interaction Suite</a> (1)	<a href="#">Telephony Applications</a> (1)
<a href="#">Unified Communication Applications</a> (1)	<a href="#">Products For Small &amp; Medium Businesses</a> (1)
<a href="#">Unified Access</a> (1)	

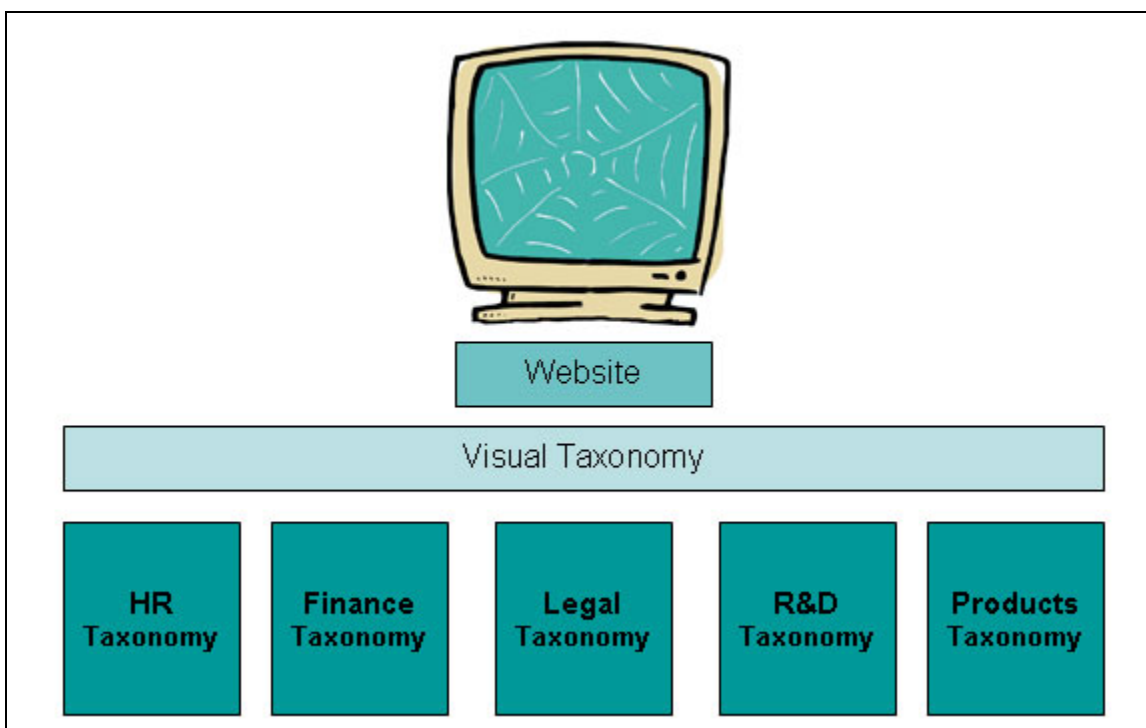
### TAXONOMIES NEED FORM AND FUNCTION

- A well-defined taxonomy on paper has form only.
- A well-defined taxonomy that organizes bodies of content has form AND function.

What needs to be understood is that each taxonomy has two parts:

- The visual taxonomy (what the Website visitor sees).  
How a taxonomy is presented to a site visitor, whether it be an employee, customer or business partner, is purely the role of the visual taxonomy.
- The functional taxonomy (how a taxonomy works).  
In the end, the taxonomy needs to relate to specific, relevant content and then deliver that content to the Website visitor.

A presentation taxonomy and a functional taxonomy are two different entities.



The visual and functional taxonomies need to be defined separately. Together, the two taxonomies are a unit.

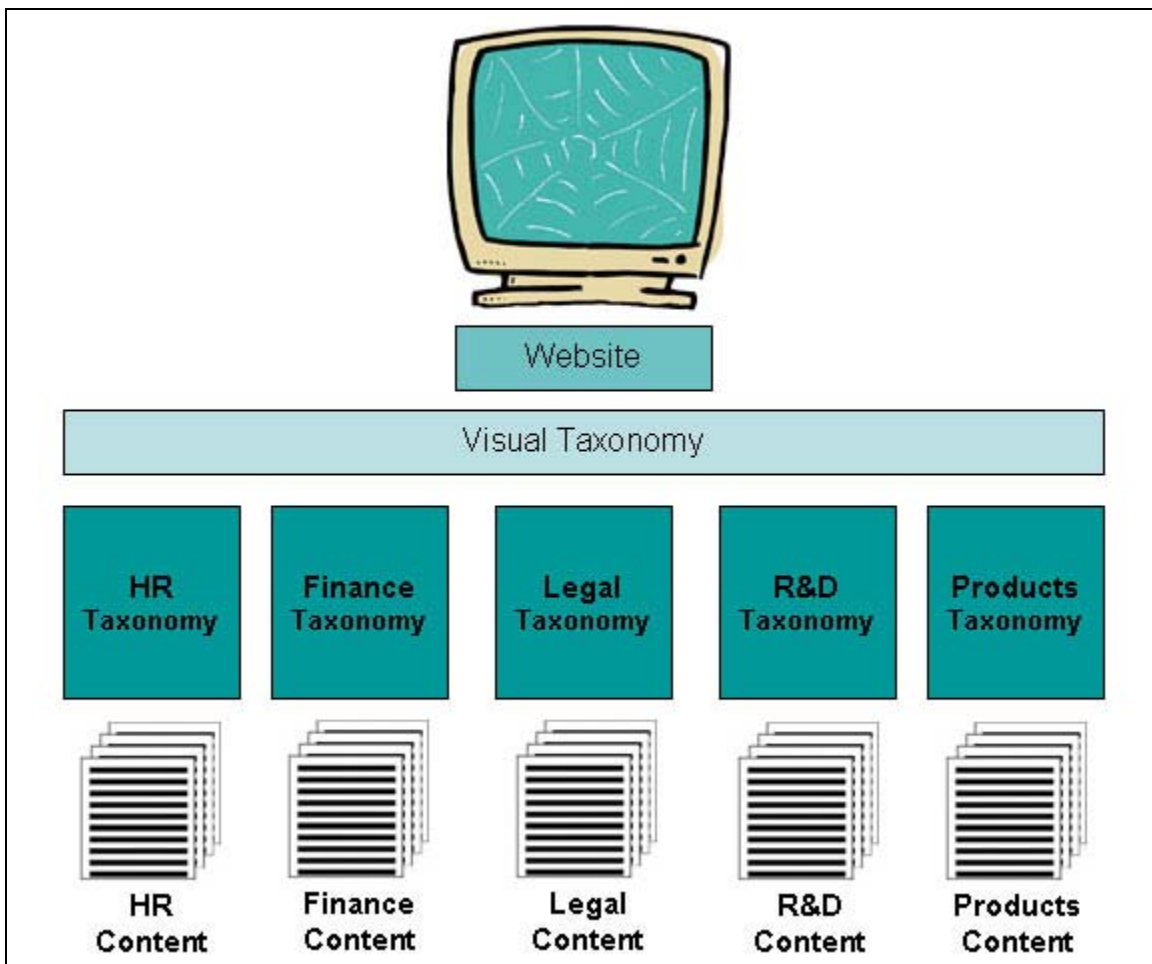
- The functional taxonomy defines the relationship to the content
- The visual taxonomy defines the experience for the Web visitor.
- Functional Taxonomies Support the Presentation
- Presentation taxonomies sit on top of functional taxonomies.



## GOOD TAXONOMIES DELIVER RELEVANT CONTENT

To deliver relevant content, taxonomies need to be drawn from that content. Taxonomies have distinct functional properties that are driven by the content they represent.

In the earlier example of the Information Audit, intelligence is gathered about the content to be included within a taxonomy project. This information audit process creates reports that act as guidelines to define the new taxonomy. It will highlight what content actually exists, where that content is and whether it is up-to-date.



## Taxonomies Focus Content

Functional taxonomies need to be highly specific. Each functional taxonomy isolates a grouping of relevant content. In the example above, one functional taxonomy describes each major functional area's content repository.

### Meaningful Taxonomies Are Based on Existing Evidence

For a taxonomy to deliver content effectively, that taxonomy must be derived from the organization's content itself. Each category within the taxonomy is a reflection of the type of content available in the company's content repository. Only categories that have content to support them should be included. Using the burden of evidence assures that only categories with content exist and that only relevant content will be returned within each category.

The evidence-based taxonomy works in both directions. Keeping content out of a category is just as important as what content is included in a category. For content to be included in a category, it needs to meet evidentiary guidelines. Categories with loosely defined evidence guidelines deliver diluted results. Irrelevant content can bleed into the categories and lower the value of the taxonomy as a whole. This is an area where taxonomy projects can fail.

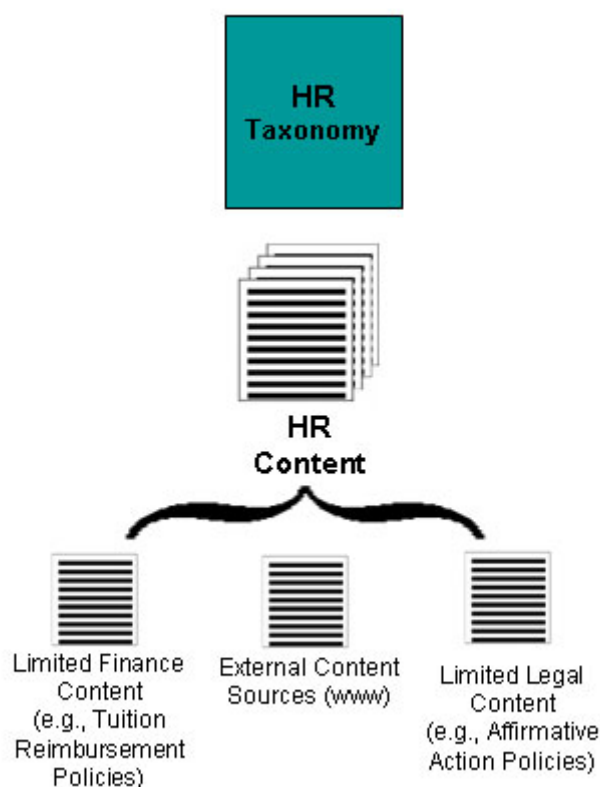
The evidence-based model will help to define the corporation's content repository more clearly. It will show that each functional area may have content in various locations. For example, Human Resources content is commonly drawn from various functional groups throughout the organization.

### LARGE ORGANIZATIONS NEED FLEXIBILITY

By taking a functional view of repositories, the various department repositories become less important. Content from multiple departments could be included within a category. For example, Human Resources information covers many functional areas.

- Affirmative Action policies are written and owned by Legal.
- Tuition Reimbursement policies come from Finance.

To employees, however, all of this content belongs to Human Resources. Who the owner of a particular document is does not matter to an employee – he or she just wants to find it.



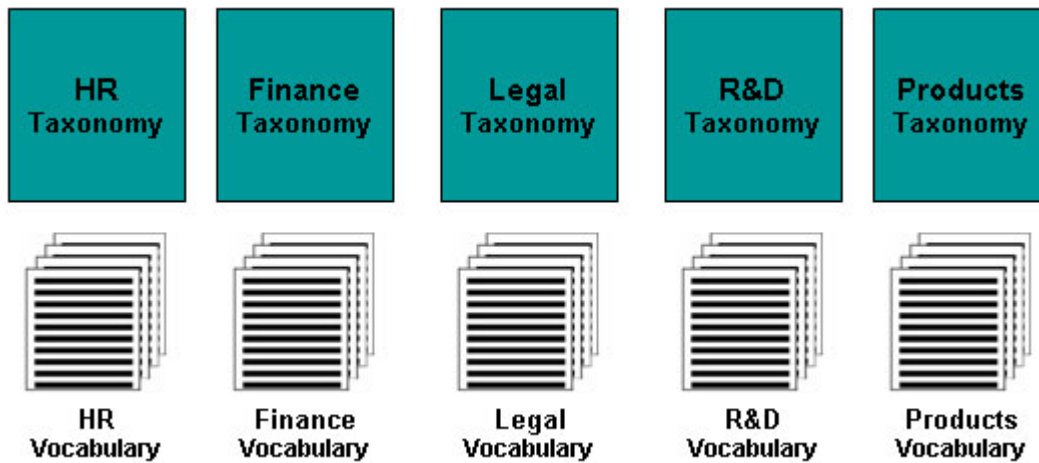
Taxonomies need to be capable of delivering clarity. Content may be distributed across the enterprise in different repositories owned by different functional groups. A taxonomy can bring that information together into a single grouping. Where the content resides is irrelevant to its subject.

By developing a complete map of the organization's content repositories, taxonomy solutions can be much more flexible in how they return information to searchers. Content owners (those responsible for the content's quality and accuracy) can continue to publish their information to their home repositories (e.g., Legal content owners would publish to the Legal repository).

### LARGE ORGANIZATIONS NEED CLARITY

In order to assure clarity within a particular taxonomy, the content it relates to needs to be highly focused. Each term that relates to the repository needs to be specific to that subject matter. In the earlier example of the word “terminate”, different repositories will attach different meanings to the same word.

In order to achieve this type of specificity, individual taxonomies will need individual vocabularies.



In the above example:

- Each functional taxonomy has its own controlled vocabulary.
- Each vocabulary is managed separately.
- Each vocabulary relates to a specific subject area.

### CONCLUSIONS

A taxonomy's purpose is to accurately deliver content to site visitors – the right content at the right time. In order to achieve this, you need to have a complete understanding of the content landscape, how that content will be found and how your customers will look for it. You need to know the answers before Website visitors ask the questions.

### LARGE ORGANIZATIONS NEED CLARITY, FLEXIBILITY AND SIMPLICITY

Simplicity is a priority for a large organization. Taxonomy projects need to look at the content from a functional point of view rather than an organizational one. Corporations re-organize often, which results in changing departmental names and the shifting of duties from one area to another. What remains constant, however, are the basic functions within the corporation itself. Only the names change.

A taxonomy that attempts to reflect the organizational structure of a company will be very difficult to maintain. Each re-organization or shuffling of duties will require that the taxonomy be updated to reflect today's realities. This model is much more complex than it needs to be. Define the major functions in the organization – they will remain constant.

Departmental names are reflections of the internal language of that organization. If a Web visitor does not understand the purpose of a particular department he or she will miss content that they are looking for. Functional names that utilize common terms to describe each area of an organization will be easier for employees or customers to understand. Organizational functions must drive the category labels.

You need to have a clear understanding of where all of the content resides to deliver content for each of these multiple functional taxonomies. Some HR content may reside within Legal or within Finance. You need to have a map that defines content by function. Functional definitions of content will deliver clarity and flexibility to the Web visitor.

### CONTENT ORGANIZATION & MAINTENANCE

A key success factor in any taxonomy project is to document the content to be searched. That activity will invariably expose content areas that are poorly organized, duplicated or out-of-date. Once identified, the content can be reorganized, archived or deleted.

Whether or not this happens depends on whether the taxonomy project can be linked to strong content/Web governance. Good governance enables the establishment of effective content management processes. Lack of governance leads to gradual disorganization of content and out-of-date information. This will diminish the overall value of any taxonomy project as well as the repository overall.

Beyond reorganization, content publishing processes need to be analyzed and documented. In The publishing processes that feed those repositories need to be clearly defined and effective to

maintain a well organized repository. Who owns what content and where that content is to be published needs to be well defined.

The more organized the content, the better. Well organized content is more likely to stay current. Out-of-date and disorganized content will drive lower-quality results, no matter how good the taxonomy is. When content becomes more difficult to find because of poor organization or maintenance, it loses its value. In the end, information that you can't find has no value whatsoever. Information that you CAN find increases in value every time it is used. According to Baruch Lev, Philip Bardes Professor of Accounting and Finance at the Stern School of Business, New York University:

“Knowledge assets generally enjoy increasing returns because knowledge is cumulative -- the more intensive the use of knowledge, the larger the benefits (e.g., second-generation drugs or software programs are cheaper to develop and yield larger benefits because of the research done on the first generation).”

From *KNOWLEDGE AND SHAREHOLDER VALUE*, January, 2000

### EXISTING STANDARDS DRIVE TAXONOMY STRUCTURE

Industry standards will drive the structure. Standardized terms within the pharmaceutical industry or within financial organizations will define the terms used within the taxonomy. Common terms need to be used as often as possible. This is especially true of customer-facing content.

Common, standardized terms will assure that both internal and external site visitors will recognize that they have found the content that they are looking for.

This use of common vs. internal or proprietary terms will break down by taxonomy. That is, the visual taxonomy that is part of the user interface must use common, standardized terms. If however, the content that is to be delivered by the taxonomy uses internal, proprietary terms, then the functional taxonomy can utilize those terms found in the content. This functional taxonomy supports the user experience to assure that the right content is delivered to each visual category at the right time.

Enterprise taxonomy projects are complex. They address the entire organization from the top down. The volume and variety of content can be staggering. One value proposition for this type of project is that you can create a consistent, consolidated view of a diverse enterprise.

For the Web site visitor, the taxonomy needs to be simple. An easy to use interface on top of the highly technical functional taxonomy will be a key success factor. In the end, it is your employees or your customers looking for this information. You need to speak their language in order for them to find value