Content Manager's Guide to Taxonomy

Contents

Taxonomy is a complex word for a simple concept: Organizing your content by topic, category, or audience. A well-planned taxonomy not only helps you organize your information but transforms how you communicate with your customers. It provides an immense return on investment through improved content discovery, online marketing, customer self-service, and commerce.

This white paper takes you through the key features and requirements of taxonomy, how to use it within a web content management system and some tools that help you manage it. We end with seven best practices you can put in place to ensure your taxonomy supports the needs of your customers.

Taxonomy Defined

In simplest terms a taxonomy is:

...a hierarchy of categories that define the topic and audiences for content types.

A taxonomy is not:

- A free form set of tags without hierarchy or unique identification
- A folksonomy – or – arbitrary set of tags applied by end users
- Information architecture defining the hierarchy of pages
- Meta data inline to a page, such as SEO settings, or keywords, or editorially managed related links

Taxonomy is created once and used throughout the website providing a common understanding and language for all content. It provides three key values:

- **Findability**: It's easier to locate the right content quickly, and enables automatically generated relationships between content.

- **Usability**: Your website interfaces are easier to understand and navigate when you use a common set of metadata. It's also easier for your content editors to tag content correctly when you supply the taxonomy they must use.

- **Simplicity**: A shared taxonomy supports clarity and easier comprehension, leading to an easy to navigate website, accessible content and a quicker way to create meaningful relationships between content.

Taxonomy is not a side project, and you should not design it after the fact. It's also not a one-time effort but requires constant evaluation and updating. Taxonomy is an information science you must manage in your content management system and business process.
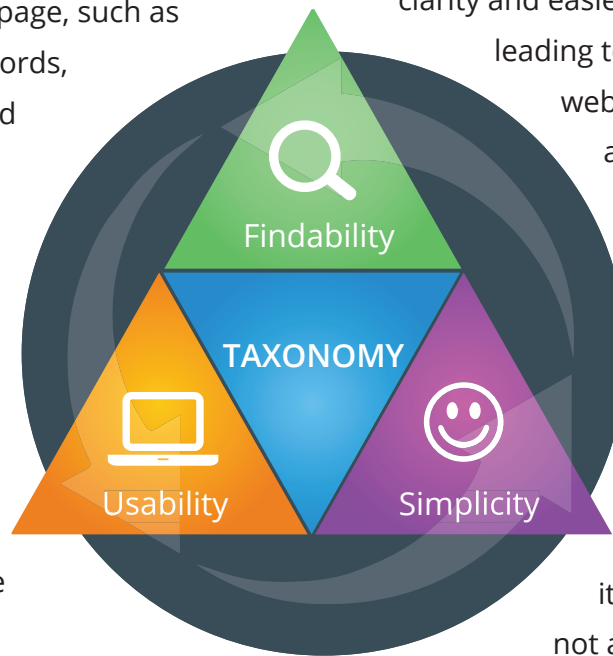
Why is a Taxonomy Important?

If you are involved in the creation of websites, digital marketing and other related areas in your company this will sound very familiar: *"We need to help our customers quickly and easily find the right information on our products and services at the right time before our competitors do."*

You can have the greatest products and services in your industry, but if potential buyers can't find the information needed to lead them to your website, and your website doesn't make it easy to find the right content, then it doesn't matter how good your products are.

To understand how taxonomy can improve your website experience, you only have to look to Amazon.com

Amazon organizes the products it sells into categories (Product Types) – Books, Movies, Electronics and so on. It then breaks each Product Type down into Topics. So for Books, you have topics such as Books, Kindle Books, Children's Books, Textbooks, and Magazines. In some cases, each Topic is then further divided into subtopics (e.g., Books breaks down into Mystery, Romance, Comedy, etc...). This is Amazon's taxonomy.

You need to organize your content in a way that makes it easy to find by your customers. While most websites do not use taxonomy to the same level as Amazon, any business or organization can enhance their website by applying a relevant taxonomy.

Taxonomy Needs a Champion

Many organizations encounter significant content management challenges due to taxonomy problems: a lack of taxonomy to organize content, out of sync taxonomies across different business units and systems, taxonomies that are too complex to manage and apply to content, and other challenges.

Lack of a clear content model and taxonomy causes challenges for entering content. Without a defined taxonomy, your content editors are using their own vocabularies, which can lead to inconsistent and overlapping tagging of content.

Content editors don't always understand the importance of metadata and can get easily frustrated when they create what they believe are good tags and categories, but fail to see their content appearing on the proper web pages or in search results.

Without a taxonomy, there is no easy way to organize your content outside of your website's information architecture.

What if you wanted to show related products and content on a particular product page? You have to manually create and manage links to other pages, set up related items, and duplicate content to make it appear in multiple locations. This process creates extra upfront work and cost and then adds to the ongoing maintenance cost and effort for the website because editors need to update links in multiple locations whenever content changes.

Allowing content editors to use their vocabularies could mean you are not using categories and topics that your customers understand and use when they are browsing or searching for content.

These are the challenges companies face when they don't define a taxonomy. It causes problems placing content within web pages, as well as relating one content item to others. Content that doesn't contain a consistent set of metadata is harder to share across channels and devices.

In any organization, taxonomy needs a champion. An individual or group that commits to defining, managing, and applying a functional set of tags and categories to content and information to achieve better business results and customer success.

Developing a Taxonomy Model

Taxonomy is essentially a controlled vocabulary that applies a clear structure to how all the content across your website is defined. It controls how you describe your content assets through categories, topics and metadata, and their relationships to each other.

A taxonomy supports improved findability of content on your website and in search engines, and also improves your ability to personalize and customize your customer experience across all your channels.
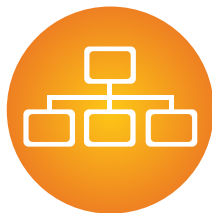
Types of Taxonomies

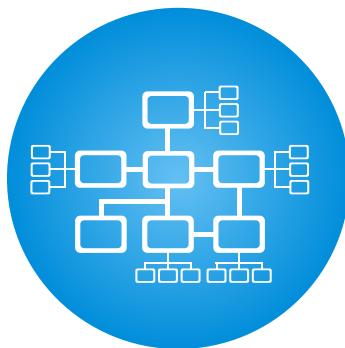You can structure taxonomy in a few ways, including:

- **Hierarchical**: Classify content in a parent-child like structural relationship through the definition of categories and topics. For example, the top level category Books would have the following Topics - Romance, Thriller, Biography, Teen, etc. You can further subcategorize the Topic Biography into Business, Technology, Spiritual, etc. With hierarchical taxonomies, it's important to go broad and shallow versus narrow and deep, or you risk making the taxonomy too complicated.
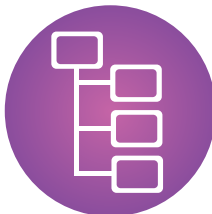
- **Thesauri**: Organize content using relationships, concepts, associations and other similar structures.

- **Flat**: A simple set of categories that are equal in importance to each other. A list of countries is a Flat taxonomy; an alphabetical listing of products is another.

- **Faceted**: Similar in basic structure to a Flat taxonomy, a faceted taxonomy starts with a list of categories and within each category describes a number of facets (or what many refer to as attributes). An example is a product - a television - and its associated attributes: brand, size, screen resolution, color, price, outputs, etc.

HIERARCHICAL

THESAURI

FLAT

FACETED

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Taxonomy and Metadata

You can enhance taxonomy through the use of attributes that describe your categories or topics – called metadata. Metadata - or information about information - further improves findability for both humans and machines.

There are three types of metadata you apply to categories and topics:

- **Administrative**: Typically machine generated, administrative metadata includes things such as date created, version, author, and date last modified. This is the how, when and who of content creation, how it can be used and who has access to it.

- **Descriptive**: Assigned during content creation (or modification), this type of metadata includes attributes such as category, audience, tags/keywords.

- **Structural**: Structural metadata defines what a piece of content is made of and typically includes attributes such as title, file type, subject, related documents, author, etc. You identify this type of metadata as part of system requirements.

Use metadata in a variety of ways including search and navigation (described above), as well as con-textual linking, syndication, and personalization. Taxonomy is primarily descriptive, but as part of the content model, it can also be structural.

Content Sources Used to Build Your Taxonomy

Standards exist that you can leverage in your taxonomy. There is the American National Standards Institute (ANSI) and the National Information Standards Organization to name two. Examples of metadata standards include RDF/RDFa, Dublin Core, and Schema.org. Also, there are several commer-cial and open vocabularies you can use to help develop your content model.

However, for most organizations, taxonomy is built from within the language and vocabularies relevant to their business and is unique. At its best, as part of a customer or web experience, the taxonomy reflects the terms and natural language customers use to think about the products and services you offer. A mistake many organizations make when defining a taxonomy is to look only at the technical language - or internal terms employees use to describe items, and not how customers think of them.

For example, if you are a medical device company, chances are the employees would use the term "pulmonary" to describe a treatment for the lungs, whereas a patient may use the term "breathing."

You need to bridge technical language with customer vernacular to create a taxonomy relevant for internal users, such as people working on a help or support desk, and customers who are accessing self-serve content and services online.

Look at these three things when you create a taxonomy for your organization:

- The core topics that relate to and describe the content. For a clothing retail store, this could be clothing and accessories by type of person (man, woman, child, baby); for a bookstore, it would be books by type of book (paper, audio), topic (romance, thriller, mystery) and so on.

- The type of audience or user persona who will access the content.

- The geographical regions where you deliver content or that relate to how you organize your company.

Once you have these things understood and documented, you can then look to external standards to further enhance your taxonomy.

Web Content Management & Taxonomy

A well-defined taxonomy is critical when you implement a web content management platform that will support all your digital channels (website, mobile, tablet, social). Properly defined categories, topics, and metadata offer several key benefits to web content management.

Search

Content is much easier to find in search results when you consistently and accurately tag your content. Visitors often search using keywords or phrases, and if you've modeled your content appropriately, the right content should surface when visitors search for information.

Taxonomy enables better filtering of content in searches, including faceted search. A well-defined taxonomy allows this company to refine their search experience to display only the most relevant content to their website's users. (image shown here)

Taxonomy improves search through features such as "did you mean," synonyms, and related searches. External search also relies on accurate content metadata, including key attributes such as title, description, and keywords.

Content Re-Use

The accurate definition and application of taxonomy supports content reuse, an important element of a proper content model. The ability to create content once and use it in many different places is essential in today's multi-channel world. Content is created and then used on websites, mobile sites and apps, kiosks, in print, and other delivery channels.

Through the use of taxonomy, you can also serve content easily to external business applications. If content is available to other applications via an API, you can simply GET content by category or topic.

Navigation

Your web pages are structured by your content types and information architecture, so you have a web page template for each content type. But you might also want to create different web page templates based on categories or topics within your taxonomy.

Personalization/Regionalization

There are different levels of personalization you can apply to your website. Basic personalization is applied based on things such as audience interests or geolocation information. For example, if a visitor looks at three different kinds of sneakers, you might want to personalize her experience by showing links to some blog posts related to running or walking. Or you might want to provide ads for a special sneaker sale.

If you are selling products that are only available in certain locations, you can personalize the shopping experience by only showing those products.

More advanced personalization comes in the form of recommendations of products or content based on visitor history or past purchases. And in cases where a visitor has subscribed to the website and provided more detailed information - such as birthdate, family, or interests, you can further customize what products and services, and related content you offer.

All of these approaches to personalization leverage the taxonomy you define for your content.
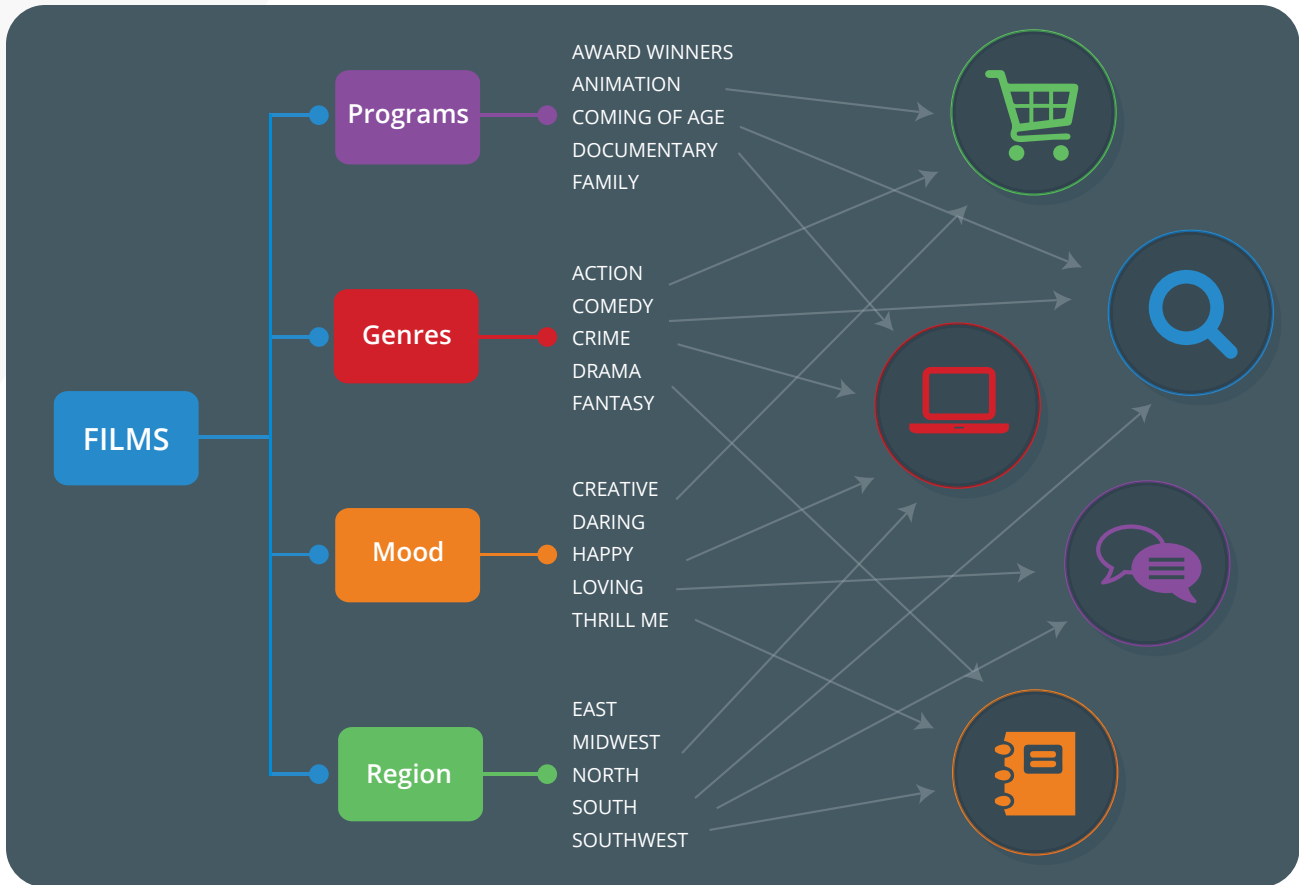
Other

Additional uses for taxonomy include things such as browsing by category or topics (as in the Amazon example) and indexes. The important thing to understand is that taxonomy enables you to provide different views of your content in a more contextual experience.

WCM Solutions That Leverage Taxonomy

We've looked at how specific features of a web content management platform use taxonomy, now let's look at a few examples of specific web content management solutions - or "venues" for your content - built around your taxonomy.

- **Website**: Your website will use most, if not all, of the features described above. Taxonomy ensures that your content editors have less work to do linking related content because the WCM system does it for them using the taxonomy.

- **Search Experience**: Faceted search, related search, and other similar features all greatly improve search, helping visitors find the information they are looking for more quickly.

- **Knowledge base**: Another example of how taxonomy can help employees or customers find information quickly, a knowledge base is often structured and navigated based on taxonomy.

- **Customer Support Portal**: Better self-service happens when customers can easily find the information they need by navigating topics or indexes or searching on terms they understand.

- **Ecommerce Website**: Ecommerce websites are great examples of how taxonomy can provide visitors quick access to the products/services they want.

Defining Taxonomy for Your Organization

There are some things you need to do to ensure your taxonomy is relevant and comprehensive, yet usable, whether you are just getting started with your taxonomy or updating an existing one.

Outline Your Use Cases

Document the different applications or channels where you expect to use your content. You might break this down into your website, your customer support portal, and other applications where you need to have a taxonomy defined. Within each area identified, outline the different use cases for content.

For your ecommerce site, you might have the following use cases:

- Finding products by categories such as books, authors, book topic, etc

- Offering related products on each product page

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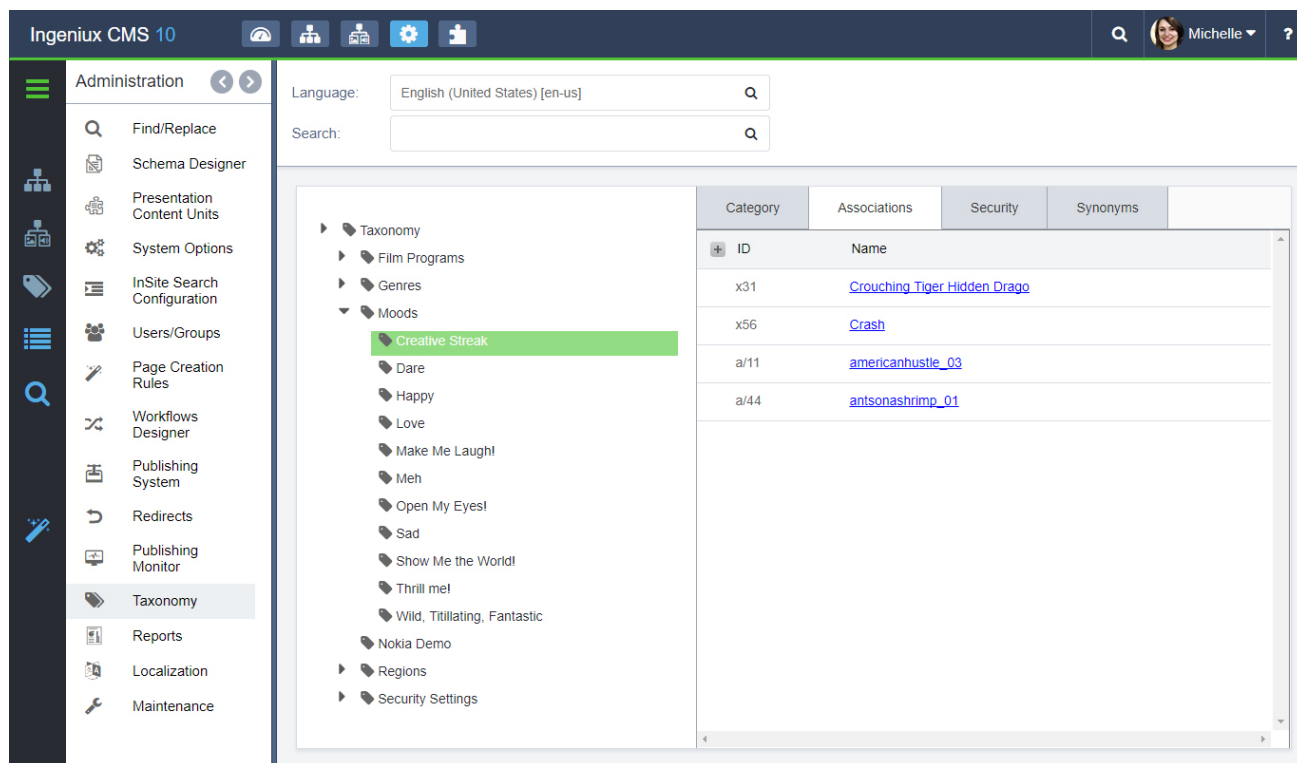
- Offering content related to using a product or how others have used the product (product reviews)
- Searching for books by topic or author

As you identify your use cases, you will also start to identify how you need to organize and classify your content to support the uses cases. You want to create a taxonomy that all the business units in your organization can use, one that supports all your applications.

Identify Audience(s) and Their Understanding of Content

It's a common mistake to create taxonomy based on the organization's view of the content. The problem is, how the marketing team or product team thinks in terms of categories and topics is not how a customer might think.

The goal of a taxonomy is to make it easier for your customers and visitors to find content, so you need to understand:

- Who the audience is for your content
- How they think of content and search for information (categories, topics, terms, keywords, etc.)

Your audience needs to be able to find information in a way that makes sense to them. So talk to your customers, run user experience testing, examine search logs for terms used, and examine keyword tools such as Google Keywords/Trends and similar tools. Look at how your competitors are organizing their content.

Identify Content Managers (Editors) and Their Requirements

Although you want your taxonomy defined for your audiences, you also need to understand the needs of your content managers, the employees who create and manage the content. A taxonomy that is too complex is going to be difficult to enforce. When you don't include content managers in the taxonomy definition, there can be resistance to support it going forward.

Involve content managers in the entire process of taxonomy definition and implementation. This ensures they understand how the taxonomy is applied, are properly trained to apply the taxonomy to the content, and can curate or create the content required.

Define, Review & Revise Your Taxonomy

Taxonomy creation starts with identifying relevant use cases – content and audiences and how they search for content. Once you have all this information, you can start laying out the categories, topics, and

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metadata for each type of content, creating the taxonomy. Remember not to make the taxonomy too complex or it won't be useful.

Also, understand that creating a taxonomy is not a one-time effort. Establish a solid foundation and then analyze and review it regularly to ensure new information is accommodated and changes to how audiences browse and search for information, and the keywords they use, are adjusted accordingly.

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Taxonomy Tools

There are a number of tools you can use to help you plan and design your taxonomy. Here are five tools to consider:

1 ### Mind Mapping Software

This software helps you outline your content categories, topics, and metadata. An alternative to special mind mapping software is to use PowerPoint or Keynote.

2 ### Spreadsheets

A spreadsheet is perfectly fine to outline and manage your taxonomy.

3 ### Google Analytics

Analyze traffic patterns on your website to see relationships between content.

4 ### Card Sorting Tools

Use these tools to perform user-experience testing of your taxonomy.

5 ### Thesaurus or Ontology Management Software

These types of tools are used for very complex taxonomy definition and management.

In addition to external tools, your web content management system should have taxonomy building capabilities. These include modules for creating and managing taxonomy or taxonomy builders.

Some WCM systems only provide limited taxonomy management, so it's important to understand your requirements for taxonomy management and if your WCM can meet them.

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Taxonomy Key Features and Requirements

Taxonomy is an essential element of your web content management platform. But every Web CMS offers different levels of capabilities. Here we define some key features and requirements of taxonomy management that your Web CMS should support.

Visual Taxonomy Builder

You need a tool within your CMS to help you build your taxonomy. A visual taxonomy builder is the best approach, so you can easily create and modify your taxonomy without having to understand or write code.

Mass Association

It's rare that you will map content on a one-to-one basis. It's more likely that you will want to map multiple items to a category or topics at once. The ability to drag-and-drop multiple items to a category or topic make the process much easier and quicker.

Similes

In some cases, you will want to associate multiple like terms with one category ID to reduce the size of the taxonomy.

Localization

The ability to apply different terms with the same meaning to categories, topics and metadata is important when looking at how different locales define and search for content.

Taxonomy API, Taxonomy Security, and Taxonomy Import & Sync

A taxonomy API enables remote applications to obtain categories needed to get the required content from the Web CMS. Taxonomy security is essential because not everyone should have the ability to set permissions for specific users or groups to manage taxonomy. If you already have some form of a taxonomy built, or have used an external tool to build it, you need the ability to import that taxonomy into your CMS. The ability to sync the taxonomy allows you to manage it in one location and sync it everywhere.

Search Index Integration

Integrating your taxonomy into your search engine is important. It enables you to enhance search by filtering results by categories or facets based on metadata.

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6 Best Practices for Implementing Taxonomy

There is no right way to create and manage your taxonomy, but there are some best practices that will guide you on the right path. Here we offer you six:

Know Your Audience(s)

The taxonomy you create is to help your audience find the information they need. If you don't understand who you are selling your products and services to, then you cant' create a taxonomy that meets their specific needs.

Unify Taxonomy Across Your Organization

Build and share your taxonomy across all your business units to ensure a common understanding. Your customer doesn't look at each business unit as separate, they look at your company as a whole and expect everyone to speak the same language.

Focus on Reduction

The most useful taxonomies are those that are broad and shallow, not narrow and deep. You need to find a balance between being authoritative and complete, and being accessible.

Ensure Functional Alignment

The taxonomy you design should be based on content that is needed to drive functionality. Make sure your taxonomy supports search, website navigation, personalization and other customer experiences, as well as integration with other business applications.

Allow for Extensibility

Your taxonomy will change over time. New products and services will be added requiring new categories and topics; new metadata will support personalization and new approaches to search. Plan to regularly examine your existing structure and modify it as needed.

Implement Your Taxonomy in Stages

If you have a fairly extensive taxonomy, or you want to build for future changes, consider implementing the taxonomy in stages. You don't want to have categories or topics on your website with no content in them. Deploy elements of the taxonomy when you have content to support them.

About Ingeniux

Ingeniux is the leading provider of web content management and digital experience software. We enable organizations to orchestrate the entire customer experience from acquisition through to sales to support and service, across any device, application, or website.

We build content management software with an unparalleled focus on the content itself. The Ingeniux CMS is designed to manage and deliver modern websites, customer support portals, online communities, and other customer touchpoints.

We believe in intelligent "structured" content. We design our software to enable content reuse, enable true mobile and multi-channel content delivery, and insightful content discovery. Our unique content-as-a-service capabilities deliver content into web and mobile applications, and other key channels.

Ingeniux software is available as a fully managed software service or an on-premise application. Ingeniux delivers unparalleled service and support to customers worldwide.

To learn more, visit us at http://www.ingeniux.com.

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