Taxonomies for Program Management

Consistency in a Constantly Changing World
Taxonomy development methodology

- **Fact Finding**
  - Review artifacts
  - Hold workshop
  - Interview stakeholders
  - Generate use cases

- **High-Level**

- **Detail**

- **Validation**

- **Governance**

- **Background research**
  - Industry standards and best practices
  - Competitor and peer practices
  - Organization policies and procedures

- **Qualitative inputs** – *ask stakeholders.*
  - One-on-one interviews
  - Focus groups
  - Surveys

- **Quantitative inputs** – *review analytics.*
  - Search query logs
  - Content use statistics
  - Application statistics
Identify stakeholder themes: Retail example

- A number of stakeholders noted that the company has not given the category a lot of attention.
- Stakeholders repeatedly underscored the need for clear and timely communication on upcoming changes to the taxonomy and attribution framework. This will help teams plan for remediation efforts and will highlight new selling opportunities.
- Our stakeholder interviews revealed that there is not currently a mature quality assurance process in place to ensure that metadata is both valid and accurate.
- A few stakeholders wondered how competitors handle taxonomy and attribution for the category.
- Stakeholders underscored the need to capture the right amount of detail for each item type and its associated attributes.
Identify use cases: Retail example

- Category suggestions in search dropdown.
- Better faceted filtering.
- In-Store mobile applications that direct customers to products and make purchase suggestions.
- Dynamically generate seasonal collections.
- Multichannel seasonal merchandising.
- Shopping lists.
- Product research.
Characteristics of Enterprise Taxonomy

- **Strategy** - Reflects overall program goals of organization.
- **Integration** - Framework for organizing, finding and presenting assets from disparate systems.
  - Capability to leverage available tools to pull related information from multiple applications to 1) manage the business, and 2) communicate with the customer
- **KPIs** - Provide common way to measure and report performance.

Objectives of enterprise taxonomy

- Compliance with regulations
- Measure and optimize performance
  - Conversion and lift
  - Findability and use
- Operations procedures support
Metadata ROI

- Assets are expensive to create so it’s critical that they can be found, so they can be used and re-used.
- Every re-use decreases the asset creation cost.

![Graph showing the decrease in asset cost with increased asset uses](image-url)
Metadata capital*

- Asset reuse is contingent on the creation and accessibility of complete and consistent metadata.
- Every re-use increases the asset value.

* “Metadata capital” is a term recently coined by Dr. Jane Greenberg, Director of the Metadata Research Center at the University of North Carolina at Chapel Hill.
Identify key performance indicators (KPI’s)

- Number of assets/products added/edited during the period.
- Number of assets used and re-used during the period.
- Revenue from assets/products during the period (conversion and lift)
- Number of assets with metadata (completeness)
- Number of metadata inconsistencies (consistency)
- Number of times each category has been used.
- Number of cross-references (cross-selling)
- Number of end user reviews, subscriptions to feeds, etc. (channel engagement)
- Number of new content/asset/product alerts generated.
- Number of end user subscriptions to feeds.
- Number of change requests handled (new categories, synonyms, notes, etc.)
- Number of information products/applications added (aggregation, search, filtering, personalization, multi-channel, etc.)
- Number of asset/product/service recommendations.
- End user satisfaction (survey)
Taxonomy development methodology

- Fact Finding
- High-Level
- Detail
- Validation
- Governance

Develop typology of
- use cases
- Develop high-level taxonomy proposal
- Test proposal by tagging some content
Enterprise taxonomy

- 8-12 facets.
- 2-3 levels deep.
- < 20 categories per level.
- 1500 total categories.
- Captures synonyms, abbreviations, acronyms, translations, and other, term variations as well as notes that explain how the term has been determined, and how the term should be used.
Enterprise taxonomy standardizes

- Product nomenclature usually in 3-levels
  - Category, sub-category, product
  - For complicated products - model, system, sub-system
- Resource function/purpose in the record retention context.
- Resource types
  - E.g., Darwin Information Typing Architecture (DITA)
    - Task Resources. Describe how to accomplish a task, listing a series of steps that users follow to produce an intended outcome.
    - Concept Resources - Definitions, rules, and guidelines.
    - Reference Resources - Detailed, factual material.
- Geographic locations generally, and facilities specifically.
- Business roles (employee, manager, partner, supplier, etc.) and/or audience/persona.
# Enterprise taxonomy standardizes core metadata

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
<th>Dublin Core</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>The name given to the resource.</td>
<td>dc.title</td>
</tr>
<tr>
<td>Description</td>
<td>Description of the resource.</td>
<td>dc.description</td>
</tr>
<tr>
<td>Creator</td>
<td>The entity primarily responsible for making the resource.</td>
<td>dc.creator</td>
</tr>
<tr>
<td>Owner</td>
<td>The organizational entity that is responsible for the lifecycle of the resource.</td>
<td></td>
</tr>
<tr>
<td>Approver</td>
<td>The entity that is responsible for approving the publication of a resource.</td>
<td></td>
</tr>
<tr>
<td>Status</td>
<td>A flag indicating whether a resource has been approved for publication or not.</td>
<td></td>
</tr>
<tr>
<td>Access Rights</td>
<td>The entitlements required for access to a resource.</td>
<td>dc.rights</td>
</tr>
<tr>
<td>Retention Schedule</td>
<td>The retention schedule that applies to the resource.</td>
<td></td>
</tr>
<tr>
<td>Dates</td>
<td>The dates associated with a resource lifecycle event.</td>
<td>dc.date</td>
</tr>
</tbody>
</table>
Identify and manage key resource lifecycle events/transactions

<table>
<thead>
<tr>
<th>Event</th>
<th>Metadata</th>
<th>Actor</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creation</td>
<td>Date Created</td>
<td>Author</td>
<td>Date content originally created.</td>
<td>Today</td>
</tr>
<tr>
<td>Approval</td>
<td>Date Approved</td>
<td>Approver</td>
<td>Date content approved</td>
<td>Not approved</td>
</tr>
<tr>
<td>Publication</td>
<td>Date Published</td>
<td>System</td>
<td>Date content was published.</td>
<td>Today</td>
</tr>
<tr>
<td>Expiration</td>
<td>Date of Expiration</td>
<td>Author</td>
<td>Date when content is to be deleted.</td>
<td>+365 days</td>
</tr>
<tr>
<td>Review</td>
<td>Date of Next review</td>
<td>System</td>
<td>Date content must next be reviewed.</td>
<td>+365 days</td>
</tr>
<tr>
<td>Modification</td>
<td>Date Modified</td>
<td>Author or Approver</td>
<td>Date content was last modified.</td>
<td>Today</td>
</tr>
<tr>
<td>Deletion</td>
<td>Date Deleted</td>
<td>Author, Approver, NPI Team</td>
<td>Date content was deleted.</td>
<td>+365 days</td>
</tr>
</tbody>
</table>
Three pillars of enterprise taxonomy governance

- Each pillar has four elements.
- Fully mature Governance Models implement all elements.
Case study: Bank for International Settlements categorization strategy

- A knowledge management categorization strategy establishing metrics for evaluating existing vocabularies based on use, homogeneity, completeness, style, languages, and granularity; identifying new vocabulary needs; and built out an initial taxonomy for a prototype.

- The new strategy facilitated easy grouping of typical series of documents associated with routine processes, projects and events.

<table>
<thead>
<tr>
<th>Types of Docs</th>
<th>Events</th>
<th>Frequency</th>
<th>Groups &amp; BIS Units</th>
<th>Products &amp; Projects</th>
<th>Activities</th>
<th>Topics</th>
</tr>
</thead>
<tbody>
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Return to Relevant Experience
Case study: SNC Lavalin Info-Zone intranet metadata and taxonomy framework

- Info-Zone intranet taxonomy framework and governance structure implemented in SharePoint.
- Info-Zone intranet search results have improved, browsing for content is more often successful and existing content is being re-used (instead of being re-created and re-published).
Case study: Global health and beauty products company

- Consistent, standard language to enable data sharing including: rules for SKUs, business processes related to product data, product data definitions, single owner for data elements, roles and responsibilities related to product data, and product data integration points and relationships.

- Faceted SKU taxonomy instead of a single, monolithic taxonomy tree provides more flexible design where every item is described with a combination of facets. The focus on universal facets applied to all products, or to all products within a large grouping such as a product line is providing the basis for MDM entity resolution.
QUESTIONS?

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Today’s organizational landscape characterized by virtual offices, shorter tenure, global markets, and rapidly changing technology makes effective information management a key performance objective. Common information management practices are needed for creating and storing resources so that they can be easily found and shared later. These practices range from simple file and folder naming conventions, to more robust metadata schemas and tagging vocabularies. These taxonomies need to be readily understandable to employees without much if any training—they must be “natural” and “universal”. Some organizations are framing their information management practices as an integral part of overall goals and objectives planning. In these organizations, taxonomies reflect the overall program goals of the organization. For example, every resource is related to one or more key business activities or tasks; and key differentiators, such as methodologies, are identified. In some organizations, creating, tagging, finding and presenting information assets is a natural part of everyone’s daily routine, as natural as searching for a website or shopping for products in an online store. Finally, a taxonomy-based information ecosystem provides common and easy ways to measure and report on organizational performance as analytics and visualizations. While taxonomies are typically built to solve an information management problem such as browsing for content on a website, this presentation discusses how taxonomies are being used to 1) reflect the overall program goals of an organization; 2) be the framework for organizing, finding and presenting assets from disparate systems; and 3) provide a common way to measure and report on organizational performance. Examples will be provided from organizations that are using taxonomies to meet today’s program management challenges.