

APRIL 12, 2022

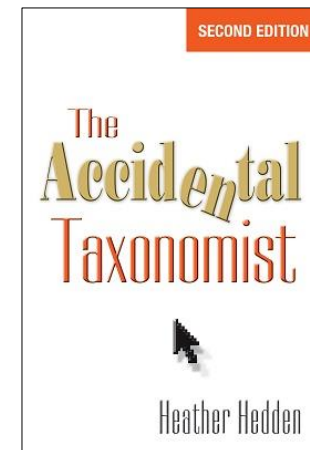
Understanding Attributes And Taxonomies

Heather Hedden demystifies attributes,
facets, and hierarchical taxonomies



About Heather Hedden

- Data and Knowledge Engineer, Semantic Web Company, vendor of PoolParty software (for taxonomy/ontology management)
- Instructor of online, virtual, and onsite taxonomy courses and workshops, Hedden Information Management
- Former taxonomy consultant; former staff taxonomist at Gale/Cengage Learning, Viziant, First Wind
- Author of *The Accidental Taxonomist* (2010, 2016, Information Today)



Links of Examples

Why taxonomy matters

- Without a taxonomy: <https://help.poolparty.biz/>

Types of taxonomies and uses

- Primarily faceted taxonomy: www.linkedin.com/jobs/search
- Primarily hierarchical www.ebay.com shop by category

Difference between facets and attributes

- Facets: <https://journals.plos.org/climate/> (select Browse)
- Attributes on products
https://www.ebay.com/b/Bass-Guitars/4713/bn_2313818#
and
www.etsy.com/c/jewelry/

- Recipes
 - Cooking methods (5)
 - Baking (0)
 - Grilling (0)
 - Not cooked (0)
 - Roasting (0)
 - Sauteeing (0)
 - Dishes (10)
 - Appetizers (3)
 - Breads and muffins (2)
 - Breakfast dishes (3)
 - Desserts (4)
 - Cakes (4)
 - Cheese cakes (0)
 - Chocolate cakes (0)
 - Fruit cakes (0)**
 - Layer cakes (0)
 - Cookies and bars (4)
 - Pies (3)
 - Toppings (1)
 - Egg dishes (2)
 - Meat & poultry (4)
 - Pasta, rice, potatoes (3)
 - Salads (4)
 - Seafood (3)
 - Soups and stews (2)
 - Ingredients (5)

Fruit cakes

[+ Add to Collection](#)
[⊘ Add to Blacklist](#)
[⊘ Add to ExactMatch](#)
[🗑 Delete Concept](#)

<https://elysium.poolparty.biz/Recipes/83>

Dish

[Details](#)
[Notes](#)
[Documents](#)
[Linked Data](#)
[Triples](#)
[Visualization](#)
[Quality Management](#)
[History](#)

SKOS Recipe-Scheme +

Broader Concepts

[Cakes](#)

Preferred Label

Fruit cakes en

Narrower Concepts

Alternative Labels

Christmas cake (dried fruit) en

Fruit cake

Fruitcake

Related Concepts

Top Concept of Concept Schemes

Hidden Labels

Scope Notes

Definitions

Facets (in purple) and hierarchies within them

Recipes

Cooking methods (5)

Baking (0)

Grilling (0)

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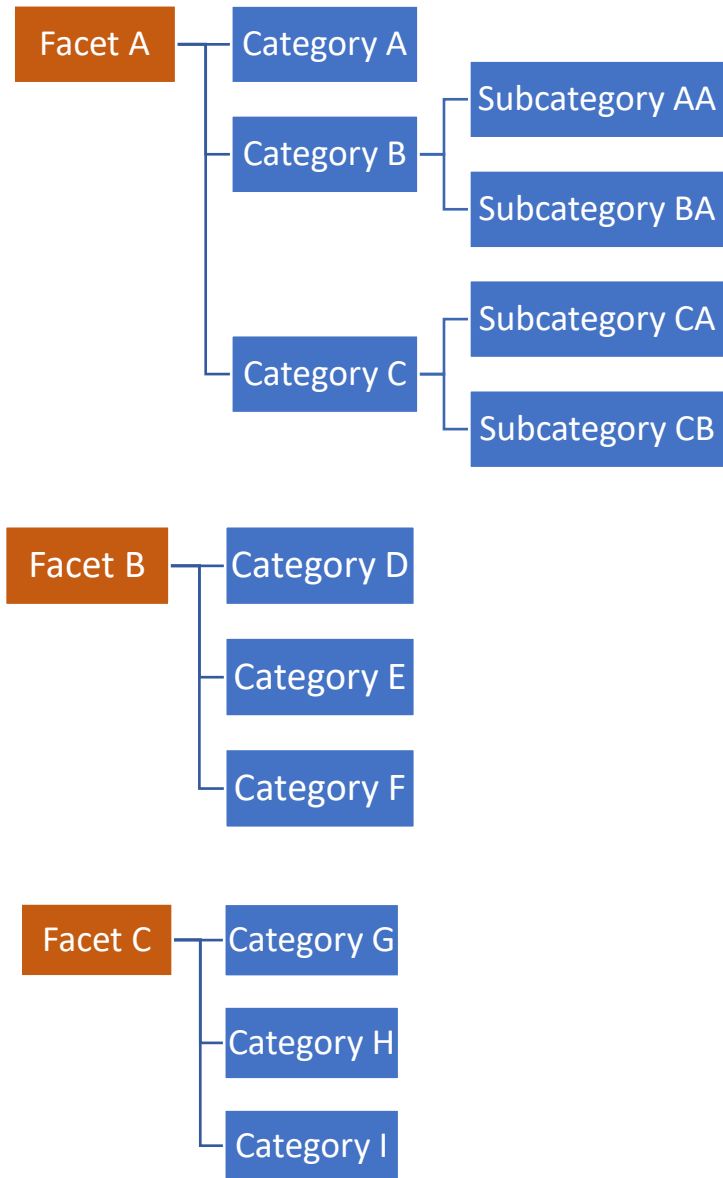
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Dish

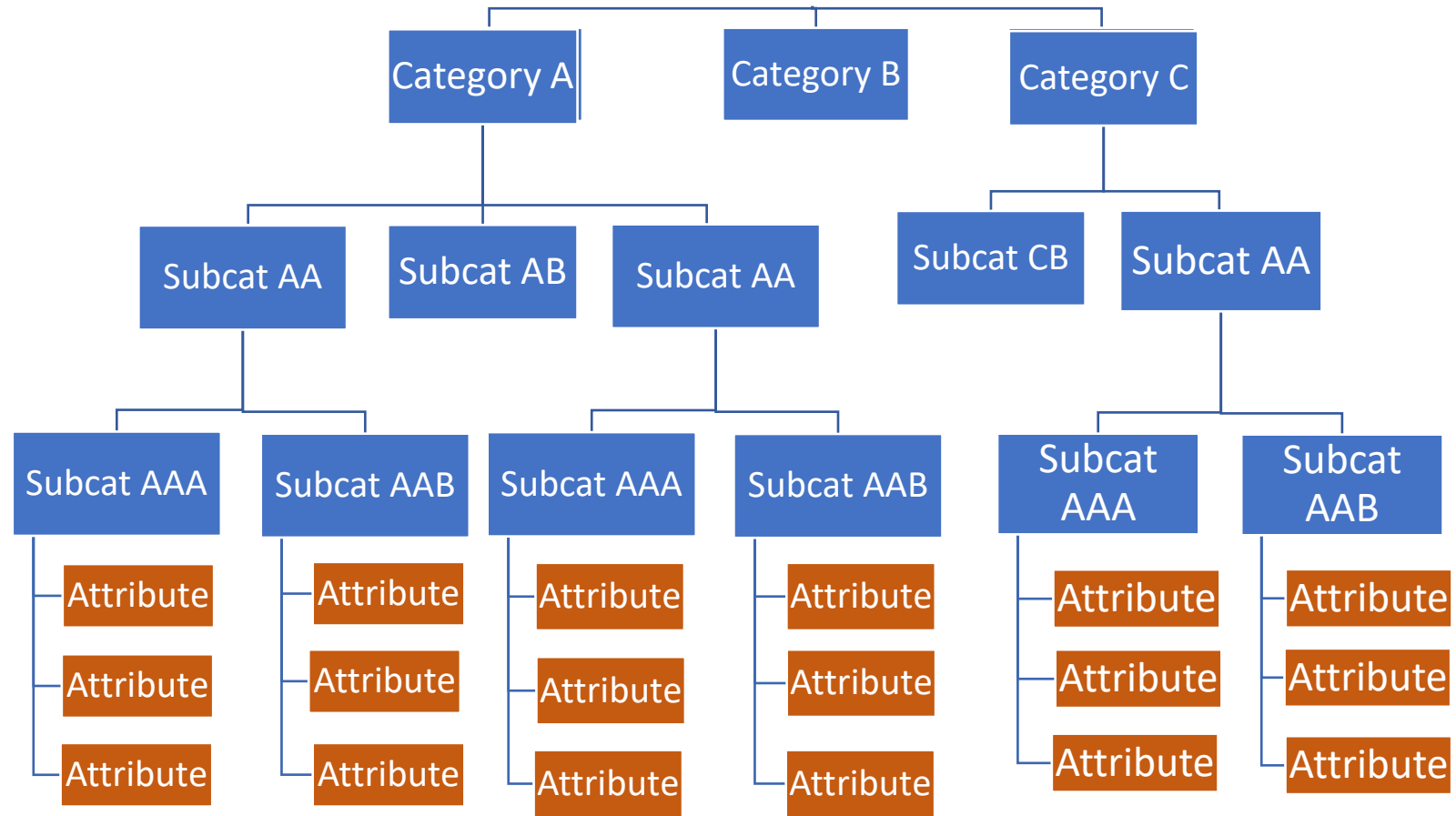
Details	Notes	Documents	Linked Data	Triples	Visualization	Quality Management	History
SKOS Recipe-Scheme +							
For occasion ⓘ				Calories ⓘ Literal			
ⓧ Winter holidays				ⓧ 150-200 xsd:string			
ⓧ				+			
Goes with ⓘ				Preparation time ⓘ Literal			
ⓧ Chocolate cakes				ⓧ 2 hours 15 minutes xsd:string			
ⓧ Whipped cream							
ⓧ							
Has main ingredient ⓘ				Served ⓘ Literal			
ⓧ				ⓧ Room temperature xsd:string			
+							
Prepared By ⓘ							
ⓧ Baking							
ⓧ							

Attributes associated with a concept in the hierarchy

Facets in a taxonomy



Attributes in a taxonomy



Facets vs. Attributes

Facets

- A top structure of a taxonomy hierarchy, a way to organize a taxonomy by term type
- Contain controlled vocabulary terms
- May contain hierarchies within
- Suitable for documents, web pages, digital assets
- Tends to be content-driven
- A default front-end implementation in many CMSs, SharePoint, etc.
- UI filters contain all facets + more metadata
- Content is “tagged” with terms from facets; tagging can be manual or automated (based on NLP or ML auto-categorization), with possibly some derived metadata

Attributes

- A supplemental controlled vocabulary to a hierarchical taxonomy
- Mostly controlled vocabulary, but could also have yes/no, numbers, or descriptions
- Do not contain hierarchies within
- Suitable for data about specific things: products, courses, contracts, digital assets
- Tends to be data-driven
- Plugin implementation with PIM and ecommerce software, otherwise custom developed
- UI filters may contain only a subset of attributes
- Content or records are assigned attributes based on metadata, often entered manually in an upstream application

Summary

Facets

- Sets of taxonomy terms, providing the user the option to select from multiple taxonomy terms of different types to construct or limit/filter their search

Attributes

- Custom properties or characteristics pertaining to a specific term or category in a taxonomy, providing the user the option to select from multiple to filter.

Filters/Refinements

- A collection of taxonomy facets or attributes and relevant non-taxonomy metadata and automatically generated data, which the user can select from to refine results.
- Includes all taxonomy facets but not necessarily all attributes

Resources

- “Attributes in Taxonomies” blog post, November 27, 2021
<https://accidental-taxonomist.blogspot.com/2021/11/attributes-in-taxonomies.html>
- “HR Recommender” Interactive demo of a Recommender system based on a taxonomy/ontology of skills and job roles
<https://hr-recommender.poolparty.biz>
- Taxonomy/thesaurus standards: ANSI/NISO Z39.19-2005 (2010) *Guidelines for Construction, Format, and Management of Monolingual Controlled Vocabularies*. Bethesda, MD: NISO Press.
www.niso.org/publications/ansiniso-z3919-2005-r2010
- Taxonomy Boot Camp Conference
November 7-8, 2022, Washington DC
www.taxonomybootcamp.com/2022

Questions/Contact

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