Integrating, Merging and Mapping Controlled Vocabularies

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Integrating, Merging or Mapping

Integrating:

Combining separate controlled vocabularies (CVs) into a single, larger master controlled CV for combined use



Integrating, Merging or Mapping

Merging:

Combining two or more redundant vocabularies in same subject area into one

- Without any longer retaining them as distinct
- Legacy content is retrieved through added equivalence relationships



Integrating, Merging or Mapping

Mapping:

Enabling one CV to be used for another in same subject area

- Retain them both as continued distinct vocabularies.
- A CV continues to be used to retrieve its content as before plus additional content associated with the other.



Something representing something else

Integrating Vocabularies



- Combines related, but not redundant taxonomies
- Increases (multiplies) the number of preferred terms
- Involves importing an additional taxonomy/hierarchy/thesaurus into a taxonomy management system to be used with other taxonomies
- Concerned with issues of interoperability
- Taxonomist deals with integrating structures more than integrating individual terms.

Integrating – Situations

- An enterprise taxonomy is built via combining existing departmental taxonomies.
- An additional facet is added to an existing faceted taxonomy.
- A new product line is added, requiring a new product/topic hierarchy.
- An organization acquires/merges with another organization, and their CVs in different areas are integrated.
- An internally created CV is supplemented by a purchased/licensed CV in a complementary subject area to expand its scope.

Merging and Mapping Vocabularies

- Compares two closely redundant vocabularies side-byside, term-by-term
- First pass(es) automatic followed by taxonomist review of matches
- Taxonomy software may have the feature (Synaptica, Wordmap), or do your own scripting
- Taxonomist reviews, discerns distinction between equivalent, broader/narrower, related terms to approve matches
- Taxonomist deals with terms more than structure.

Merging – Which Direction?



Designate a dominant/primary CV into which to merge the other:

 If an organization acquires another, then the acquirer's CV is dominant.

Or choose:

- The larger CV
- The CV with greater breadth
- The CV with greater depth
- The more structured CV
- The "better" CV



Merging – Automated matching

Use a software tool to compare vocabularies, to obtain matches in succeeding passes:

Primary CV		Taxonomist Reviews							
Exact matches of:									
Preferred term	Preferred term								
Nonpreferred term	Preferred term								
Nonpreferred term	Preferred term	yes							
Nonpreferred term	Nonpreferred term	yes							
Inexact matches of:									
Preferred term	Preferred term	yes							

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Merging – Situations



- An enterprise taxonomy replaces multiple CVs of separate administrative departments
- An organization acquires or merges with another organization, and their redundant vocabularies are merged
- A folksonomy is incorporated into a CV
- An internally created CV is combined with a purchase/licensed CV

Mapping



- Between a retrieval/user-interface CV and a CV indexed to content
- Unmatched terms cannot be utilized.
- Narrower-to-broader matches are fine.
- Includes same kinds of matches as in CV merging, plus matches of words/phrases (of the retrieval taxonomy) within a term from the indexing CV



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1	Pro	gram	nmabl	e logic	control	lers		ok		Programmable controllers
2	Pro	gram	nmabl	e logic	device	S		ok		PLDs (Programmable logic devices)
3	Programming (Computers)			ok		Computer programming				
4	Pro	gres	sivisn	n (Unite	ed State	es poli	itics)	b		Progressive movement
5	Pro	hibite	ed bo	oks				ok		Banned books
6	Proj	iect r	netho	d in tea	aching			ok		Project method (Education)
7	Projectile points		ok		Projectile points (Archaeology)					
8	Projection		n		Projection (Drawing)					
9	Projection televisions		ok		Projection television sets					
10	Prolactin		n		Prolactin test					
11	Pro	Proletariat		ok		Working class				
12	Prolog (Computer program language)		ok		Prolog (Programming language)					
13	Pro	Promethazine hydrochloride		b		Promethazine				
14	Pro	Promoters (Entertainment)		b		Promoters				
15	Promotion (School)		ok		Student promotion					
16	Pronghorn antelope		ok		Pronghorns					
17	Propaganda, American		ok		American propaganda					

Indexing CV in column A, retrieval CV in column C, taxonomist notes in column B

ok is equivalent, b is broader so also ok for upward posting, and n is not acceptable.

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Mapping userentered search queries (column 2) to terms, in this case the term "Type of Vehicles."

If terms could be (narrower) examples of automobiles, put a "y" in the CV_Terms_Y column. Some terms are too broad and vague.

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		Candidate_		CESTRET
 Makes	GVX	CV_Tent 🔻	<mark> </mark>	And Andrews
Type of Vehicles	4 Wheel Drive	y y	Υ	
Type of Vehicles	Four Wheel Drive	y y	y Y	
Type of Vehicles	4×4	y Y		
Type of Vehicles	4 X 4	Ý		
Type of Vehicles	4x4s	y .		
Type of Vehicles	41/VD	у		
Type of Vehicles	All Wheel Drive	у	у	
Type of Vehicles	AWD	у		
Type of Vehicles	Classic	у		
Type of Vehicles	Vintage	у		
Type of Vehicles	Antique	у		
Type of Vehicles	Commercial Vehicles	у	У	
Type of Vehicles	Commercial Trucks	у	У	
Type of Vehicles	Commercial Vans	У	У	
Type of Vehicles	Fleets	У		
Type of Vehicles	Convertibles	у	У	
Type of Vehicles		У	У	
Type of Vehicles	Diesel	У		
Type of Vehicles	Domestic	У]

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Mapping - Situations



- Selected content with an enterprise CV is made available on a public web site with a different public-facing CV
- A content provider with a CV partners with a third-party information vendor with its own CV
- A provider of scientific/technical/medical content with a technical CV creates a simpler CV aimed at laypeople
- Search log query terms need to be integrated into the CV as additional nonpreferred terms.
- To support "federated search" that involves taxonomies

Questions/Contact

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More Info:

Heather Hedden, *The Accidental Taxonomist* forthcoming book from Information Today Inc., spring 2010