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.

0	ANTINE AND			
		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