Using a Taxonomy Management System to Achieve Distributed Governance for Taxonomy and Metadata in a Global Enterprise

Governance by Consensus Governance by Dissent

Dave Clarke
CEO Synaptica

"Taxonomy governance comprises the policies, procedures, and documentation for the ongoing management and use of taxonomy."

"...the existence of taxonomy is itself a form of governance."

Heather Hedden – Accidental Taxonomist
http://accidental-taxonomist.blogspot.co.uk/2013/12/taxonomy-governance.html

"Successful taxonomy governance establishes long-term ownership and responsibility for taxonomies, responds to feedback from taxonomy users and assures the sustainable evolution of taxonomies in response to changes in user and business needs."
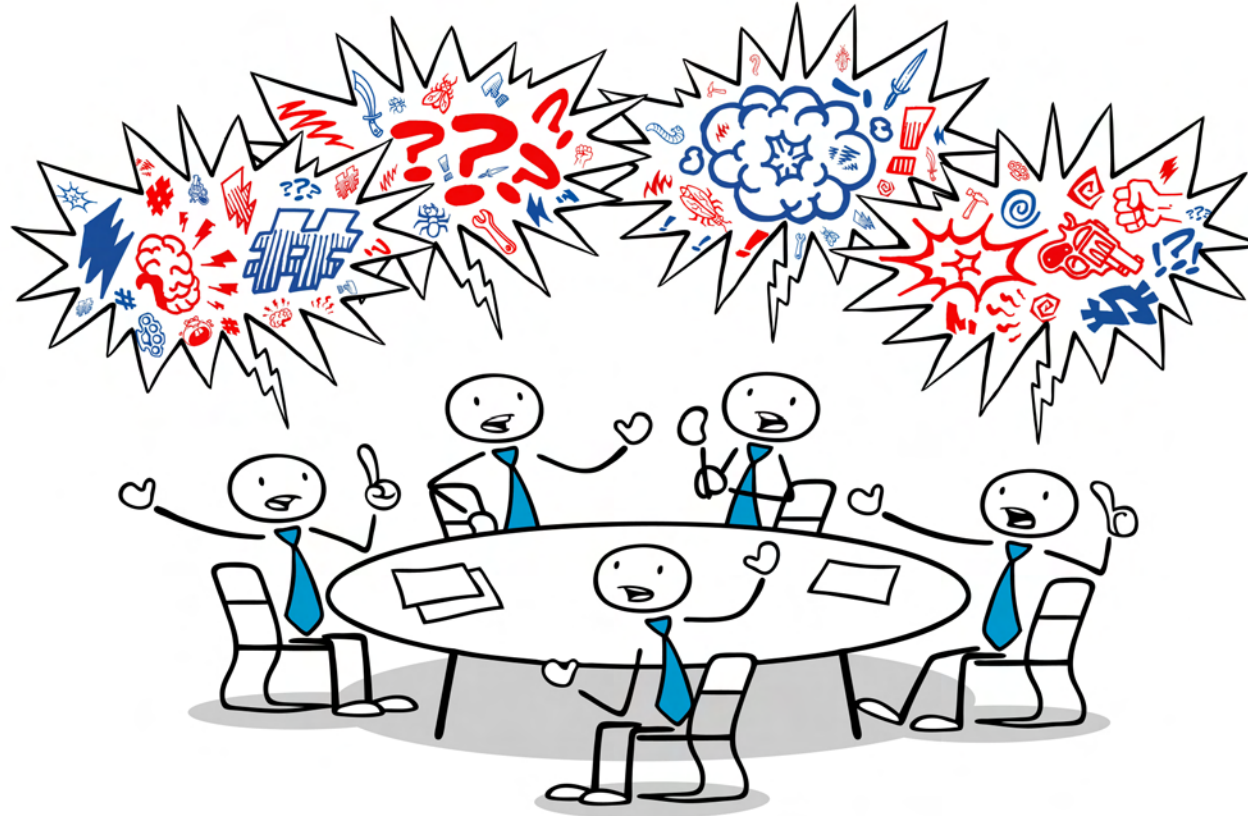
Paula Land – Strategic Content
http://strategiccontent.com/introduction-to-taxonomy-governance/

Governance.

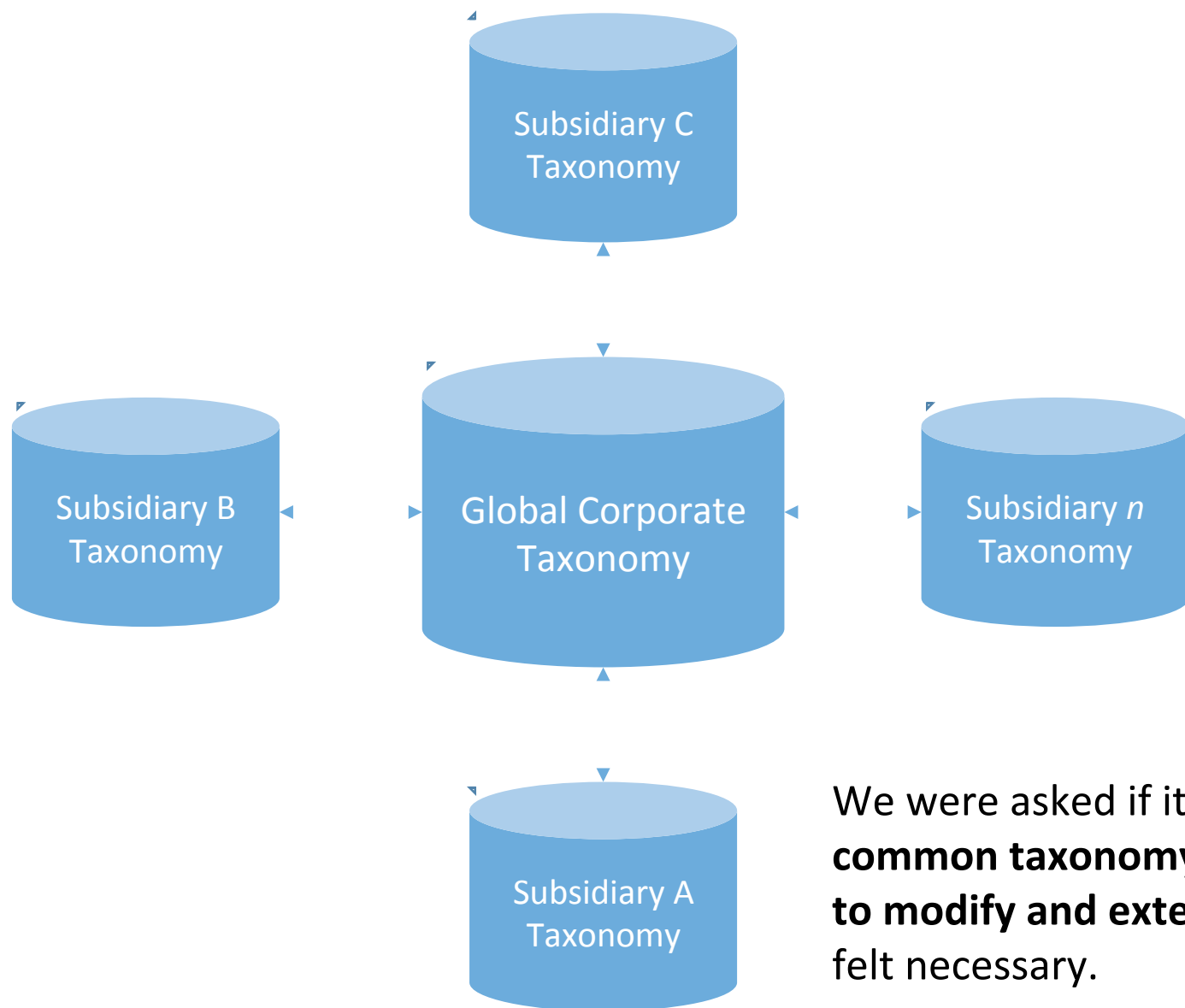**What happens when stakeholders fail to reach consensus?**

How taxonomy systems can simultaneously support harmonization and diversity

Global corporations recognize the business value of sharing knowledge assets and they strive for search and discovery solutions that can span all corporate entities.

Sometimes, however, their subsidiaries have steadfastly rejected attempts to create universal taxonomies. They may agree 90% of the time, but for the remaining 10% consensus cannot be achieved.

Subsidiary C
Taxonomy

Subsidiary B
Taxonomy

Global Corporate
Taxonomy

Subsidiary *n*
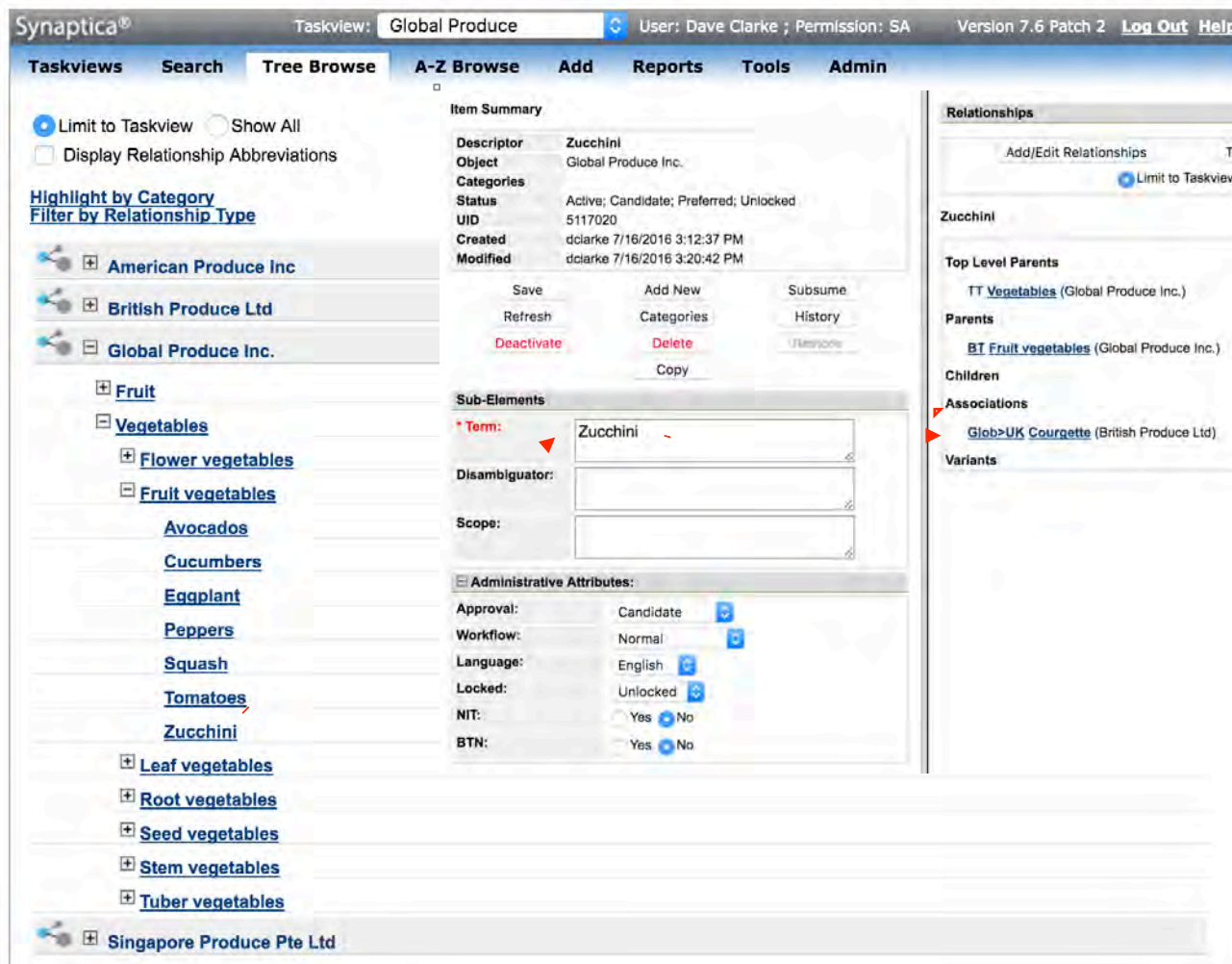Taxonomy

Subsidiary A
Taxonomy

Traditional knowledge organization systems and methodologies would call for each subsidiary to manage its own taxonomy independently, and for each of those taxonomies to be cross-walked to map equivalencies in order to support uniform retrieval across federated assets.

The costs to build, maintain and cross-walk hundreds of separate taxonomies were deemed, quite rightly, to be prohibitive.

We were asked if it was possible to maintain and **share a single common taxonomy**, but to also **allow subsidiaries the freedom to modify and extend** the common taxonomy in any way they felt necessary.

To achieve these goals, we built special types of semantic relationships that allow subsidiaries to point to any term in the common taxonomy and dynamically replace it with their locally preferred term.

- In addition to relabelling terms, the subsidiaries needed a way to extend the taxonomies to cover their unique products, services and business processes.

- This additional terminology is stored in subsidiary-specific extension-vocabularies, which allow each subsidiary to attach narrower concepts or trees of concepts to any node in the common taxonomy.

A software tool called dynamic term substitution blends the global taxonomy with the subsidiary substitutions and extensions to create a localized view

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knowledge organization and discovery

Global Produce Inc.

Fruit
NT Summer fruits
NT Berries
NT Cherries
NT Grapes
NT Melons
NT Peaches
NT Pears
NT Tropical fruits
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NT Snow peas
NT Stem vegetables
NT Artichoke
NT Asparagus
NT Celery
NT Tuber vegetables
NT Potatoes
NT Sweet potatoes
NT Yams

British Extensions File

Aubergine (British Produce Ltd)
UK>Glob Eggplant (Global Produce Inc.)
Beetroot (British Produce Ltd)
UK>Glob Beets (Global Produce Inc.)
Coriander (British Produce Ltd)
UK>Glob Cilantro (Global Produce Inc.)
Courgette (British Produce Ltd)
UK>Glob Zucchini (Global Produce Inc.)
Endive (British Produce Ltd)
UK>Glob Chicory (Global Produce Inc.)
Leeks (British Produce Ltd)
BT Stem vegetables (Global Produce Inc.)
Mange tout (British Produce Ltd)
UK>Glob Snow peas (Global Produce Inc.)
Parsnips (British Produce Ltd)
BT Root vegetables (Global Produce Inc.)
Spring onion (British Produce Ltd)
UK>Glob Scallion (Global Produce Inc.)
Swede (British Produce Ltd)
UK>Glob Rutabaga (Global Produce Inc.)
Sweet corn (British Produce Ltd)
UK>Glob Corn (Global Produce Inc.)

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British Produce Ltd.

Fruit
NT1 Summer fruits
NT2 Berries
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Term Substitutions

Term Additions

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knowledge organization and discovery

Global Produce Inc.

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  - NT Celery
- NT Tuber vegetables
  - NT Potatoes
  - NT Sweet potatoes
  - NT Yams

Singapore Extensions File

Asian Pear (Singapore Produce Pte Ltd)
  BT Pears (Global Produce Inc.)
Dragon fruit (Singapore Produce Pte Ltd)
  BT Tropical fruits (Global Produce Inc.)
Durian (Singapore Produce Pte Ltd)
  BT Tropical fruits (Global Produce Inc.)
Longan (Singapore Produce Pte Ltd)
  BT Tropical fruits (Global Produce Inc.)
Rambutana (Singapore Produce Pte Ltd)
  BT Tropical fruits (Global Produce Inc.)

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Singapore Produce Pte. Ltd.

Fruit
- NT1 Summer fruits
  - NT2 Berries
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  - NT2 Peaches
  - NT2 Pears
    - NT3 Asian Pear
- NT1 Tropical fruits
  - NT2 Bananas
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  - NT2 Kiwi fruit
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Term Substitutions

Term Additions

synaptica® solutions
knowledge organization and discovery

American Extensions Vocabulary

Bok Choy (American Produce Inc)
 BT Leaf vegetables (Global Produce Inc.)
Guava (American Produce Inc)
 BT Tropical fruits (Global Produce Inc.)
Pumpkin (American Produce Inc)
 BT Seed vegetables (Global Produce Inc.)

British Extensions Vocabulary

Aubergine (British Produce Ltd)
 UK>Glob Eggplant (Global Produce Inc.)
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Singapore Extensions Vocabulary

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American Produce Inc.

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- The model encourages a workflow of **adopt first** and **adapt second**.

- It supports dissenting voices and **diversity in the way that knowledge assets can be described** and organized.

- At the same time, it supports knowledge sharing and **uniform enterprise wide search and discovery**.

- It achieves these goals **without the cost of** building, maintaining and mapping **redundant taxonomy structures** – that which is common may be shared and only exceptions and extensions incur extra effort.

Case Study Discussion Topics

- When is it right to build a universal taxonomy

- When should different user communities be allowed to curate their own terminology or hierarchical structures

- How can you support diversity without compromising universal search or incurring unnecessary costs