



Improving Customer Satisfaction With Agile Taxonomy Management

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Outline

- ▶ Why and What are Taxonomies
- ▶ Use Case of Taxonomies: Insider Intelligence
- ▶ Taxonomy Management in PoolParty

Taxonomies solve problems in finding information

- ▶ **Search engine deficiencies**
 - ▷ Search misses desirable content
 - ▷ Search retrieves inappropriate content
- ▶ **User issues**
 - ▷ Don't know how to construct good searches
 - ▷ Don't know what to search for and need suggestions
- ▶ **Content issues**
 - ▷ Inconsistent terminology across content



Taxonomies are

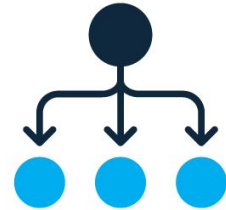
Controlled, structured set of concepts,
for a common shared vocabulary, to link content to audience/users

Concepts are

- ▶ Ideas or things that may have different names
- ▶ Not mere words
- ▶ Unambiguous for the *context* and the users

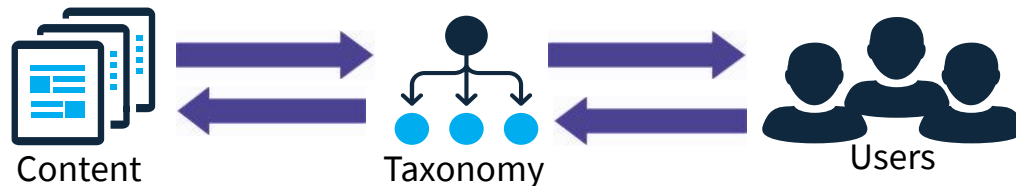
Structures are

- ▶ Multi-level hierarchies (broader-narrower relations)
- ▶ Facets: aspects, filters, refinements, attributes



Benefits of taxonomies

- ▶ Enabling findability of content based on the concepts it is *about*, not mere words found in text
- ▶ Improving search precision and recall
- ▶ Supporting consistent tagging, manual or automated, via synonyms and hierarchical context
- ▶ Supporting user discovery of content from linked broader, narrower, and/or related concepts
- ▶ Providing a guided hierarchy of topics when the user does not know what to search on



Why and What are Taxonomies

Taxonomy Features

- ▶ Concepts with preferred and alternative labels
- ▶ Hierarchical relationships bring all concepts into a set of hierarchies of multiple levels
- ▶ Notes, definitions, or other data on concepts provide more meaning and governance

The screenshot displays a taxonomy management interface. On the left, a hierarchical tree structure is shown under 'Jobs & Skills'. The tree includes categories like 'Employers (10)', 'Industries (8)', 'Job roles (5)', 'Locations (4)', 'Skills (3)', 'Business skills (4)', 'Languages (4)', 'Technical skills (4)', 'Operating systems (6)', 'Programming (11)', 'Technology domains (28)', and 'Tools (14)'. The 'Programming' category is highlighted in orange, and its sub-items (C, C++, CSS, HTML5, Java, Javascript, Perl, PHP, Ruby, SQL, XML) are listed below it. The right panel shows the detailed view for the 'Programming' concept. It includes a URL, action buttons (Add to Collection, Add to Blacklist, Add to ExactMatch, Delete Concept), and a 'Skills' section. The 'Details' tab is active, showing 'SKOS' and 'Business' context. The 'Broader Concepts' section lists 'Technical skills'. The 'Narrower Concepts' section lists various programming languages and technologies. The 'Preferred Label' section shows 'Programming'. The 'Alternative Labels' section shows 'Coding' and 'Scripting'. The 'Hidden Labels' section is empty. The 'Scope Notes' section contains a note: 'Skill of designing and writing computer programs, using a programming or scripting language'.

Why and What are Taxonomies

What a taxonomy is **not**:

- ▶ Not a classification scheme
- ▶ Not navigation/menu scheme

These are too rigid.

DEWEY DECIMAL CLASSIFICATION, 100 Major Divisions (11-2-2005) Carole Welch (A. Maceo Walker)

000 General Works 010 Bibliography 020 Library Science 030 General Encyclopedias 040 General Collected Essays 050 General Periodicals 060 General Societies 070 Newspapers, Journalism 080 Collected Works 090 Manuscripts & Rare Books	100 Philosophy 110 Metaphysics 120 Metaphysical Theories 130 Branches of Psychology 140 Philosophical Topics 150 General Psychology 160 Logic 170 Ethics 180 Ancient & Medieval Philosophy 190 Modern Philosophy	200 Religion 210 Natural Theology 220 Bible 230 Doctrinal Theology 240 Devotional & Practical 250 Pastoral Theology 260 Christian Church 270 Christian Church History 280 Christian Churches & Sects 290 Other Religions (including Mythology)	300 Social Sciences 310 Statistics 320 Political Science 330 Economics 340 Law 350 Public Administration 360 Social Welfare 370 Education 380 Public Services & Utilities 390 Customs & Folklore (including Fairy Tales & Legends)	400 Language 410 Comparative Linguistics 420 English & Anglo-Saxon (Dictionaries) 430 Germanic Languages 440 French, Provençal, Catalan 450 Italian, Rumanian 460 Spanish, Portuguese 470 Latin & Other Italic 480 Classical & Modern Greek 490 Other Languages	500 Pure Science 510 Mathematics 520 Astronomy 530 Physics 540 Chemistry & Allied Sciences	600 Literature 610 American Literature 620 English and Old English Literature 630 Germanic Literature 640 French, Provençal, Catalan Literature 650 Italian, Rumanian Literature 660 Spanish, Portuguese Literature 670 Latin & Other Italic Literature 680 Classical & Modern Greek Literature 690 Other Literatures	700 History and Geography 710 Geography, travels, description 720 Biography, Collective 730 Individual Biography 740 Ancient History 750 Europe (World Wars I and II) 760 Asia 770 Africa 780 North America 790 American or United States History
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Industries

Explore how the challenges of your industry can be solved with Semantics Technology.

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- Construction & Engineering
- E-Commerce & Retail
- Financial Services
- Government Organizations
- NGOs
- Media & Publishing
- Pharma & Healthcare

A taxonomy is more flexible and adaptable (or **agile**), representing the current content and the needs of the current users.

Background

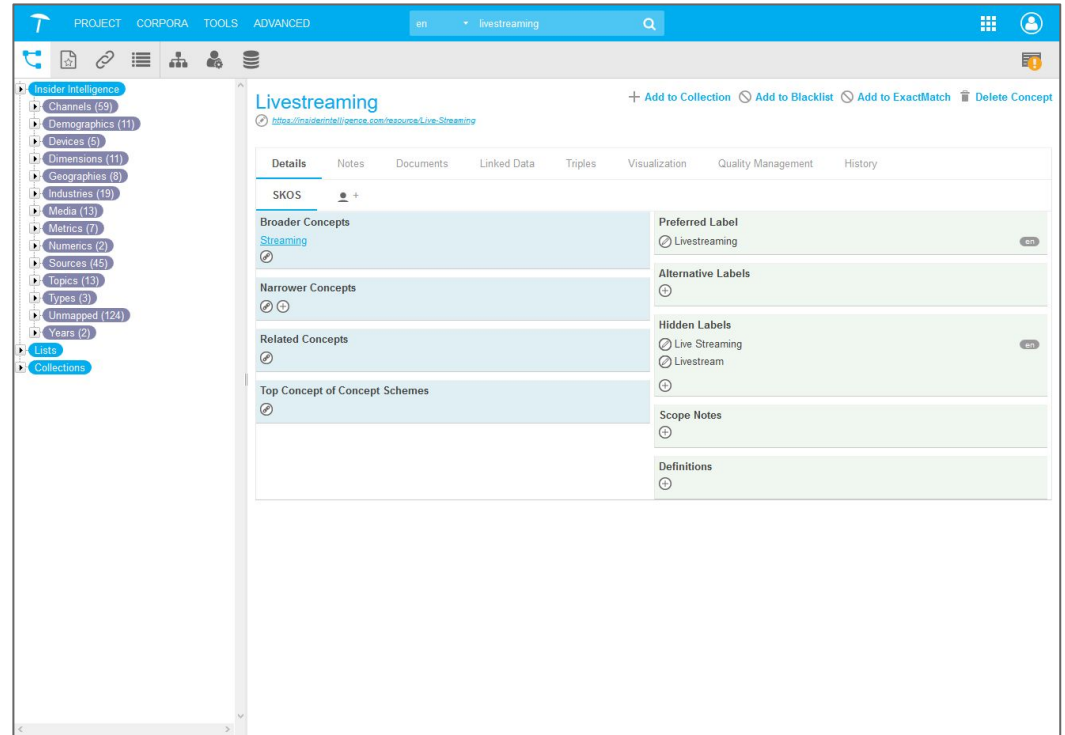
- ▶ Our value proposition
- ▶ Where/how we use taxonomies
- ▶ Past frameworks and pain points

The screenshot shows the Insider Intelligence website interface. At the top, there is a search bar with the text "Hi Jamie, search for marketing, finance, tech, & healthcare info" and a "Search" button. To the right of the search bar is a "Log in" button. Below the search bar is a navigation menu with categories: "Advertising & Marketing", "Financial Services", "Health", "More Industries", and "Forecasts". The main content area features a large bar chart with red and black bars, and a headline: "Introducing Financial Services from Insider Intelligence". Below the headline is a sub-headline: "Financial Services joins our Advertising, Tech, and Health coverage in applying the rigorous and renowned methodology of eMarketer to the prescriptive analysis of Business Insider Intelligence." There are two buttons: "Learn More" and "Plans & Pricing →". Below the chart is a "Daily News" section with five article cards. The first card is titled "TV's weird 2020: Viewership plummeted, but time spent increased". The second card is titled "(More) digital trends for 2021: Subscriptions will grow in importance". The third card is titled "Going Virtual: Best practices for rewriting the playbook on event marketing". The fourth card is titled "Facebook keeps delivering, a study on the ad boycott, and the key to Instagram success". The fifth card is titled "Bezos steps CEO on high: The Trade of click and".

Insider Intelligence Use Case #1

Single source for
taxonomy data

- ▶ Versioning
- ▶ Intuitive UI
- ▶ Eliminate
information silos



Insider Intelligence Use Case #2

Real-time search taxonomy changes

- ▶ Avoid search drift
- ▶ Ownership
- ▶ Cost-savings

The screenshot displays the Insider Intelligence search interface. At the top, the search bar contains the term 'coronavirus'. Below the search bar, there are navigation tabs for 'Advertising & Marketing', 'Financial Services', 'Health', 'More Industries', 'Forecasts', and 'Build'. The search results are displayed in a list format, with filters for 'All', 'Analysis', and 'Charts'. The results are sorted by 'Relevance | Date' and show 3615 results. The first result is a report titled '2020's Biggest US Forecasting Shocks: A Year of Recalculations Brought About by COVID-19', dated NOV 17, 2020. The second result is a report titled 'Mobile Advertising Outlook 2021: 10 Predictions for a (Hopefully) Post-Pandemic Year', dated DEC 16, 2020. The third result is a report titled 'Global Instagram Users 2020: The Pandemic Propels Worldwide User Base to 1.00 Billion for the First Time', dated DEC 8, 2020. The fourth result is a report titled 'US Hispanics in a Time of Pandemic: What's True and What's Not in Finances, Acculturation, and Digital Usage', dated DEC 23, 2020. The fifth result is a report titled 'Global Instagram Users 2020: The Pandemic Propels Worldwide User Base to 1.00 Billion for the First Time', dated DEC 8, 2020. On the left side of the interface, there are filters for 'Geography' (Asia-Pacific (510), Europe (607), Latin America (326), Middle East & Africa (39), North America (2161), Worldwide (559)), 'Content Type' (Chart (2123), Article (1120), Report (200), Audio (110), Video (62)), and 'Topic' (Ad Spending (324), Advertising (276), Marketing (758), Media (754)).

Projects in research

- ▶ Taxonomy service
 - ▷ SEO relevance
 - ▷ Cost savings
- ▶ Knowledge management
 - ▷ Auto-tagging
 - ▷ Predictive concept analysis

Why use a taxonomy management system?

- ▶ Easy-to-user editing user interface
- ▶ Support for taxonomy/controlled vocabulary standards (SKOS, ANSI/NISO)
- ▶ Quality control and settings
- ▶ Importing and exporting in multiple formats
- ▶ Multi-user management
- ▶ Approval workflow
- ▶ History and rollback
- ▶ Managing multiple projects and linking projects
- ▶ Integrations into other systems
- ▶ Added features: text mining for enrichment and auto-tagging, auto-classification, semantic search, graph data management, etc.

SWC is developer / vendor of
PoolParty Semantic Suite

Most complete and secure
**Semantic Middleware /
Semantic AI platform** on
the Global Market

W3C standards compliant



ISO 27001:2013
certified

First release in 2009

Current version **8.0**

On-premises or
cloud-based



Over **150** clients
world-wide



Semantic AI:

Fusion of Graphs,
NLP, and Machine
Learning



Named as Visionary
in **Gartner's Magic
Quadrant** for Metadata
Management Systems
2019 and 2020



KMWorld listed
PoolParty as
**Trend-Setting
Product** 2015 - 2020
and in the **AI 50** list of
companies in 2020

The screenshot displays the PoolParty web interface. On the left, a navigation menu shows a taxonomy tree with categories like 'Jobs & Skills', 'Employers', 'Industries', 'Job roles', 'Locations', 'Skills', and 'Languages'. The 'Jobs & Skills' category is selected. The main content area shows the 'HR Jobs & Skills' concept page, which includes a 'Metadata & Statistics' tab and various configuration options such as 'Languages', 'Workflow', 'Quality Setting', 'User Groups', 'URI Generation', and 'Repository Type'. A large 'DEMO' watermark is centered over the right side of the interface.



Q & A

Contact



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