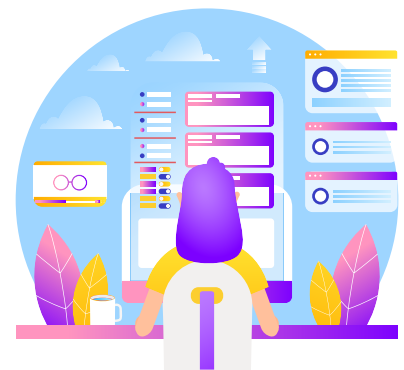**Straive™**
Connecting the dots

Improving user evperience and cross-domain search capapbilities

ross-Domain Search and Improved User Experience

Business Case: Improving Search Efficiency and User Experience through a Faceted Taxonomy

One of the world's largest technical professional organizationsought a solution to address the challenges faced by its search interface, thereby improving search efficiency and user experience.

The existing interface was linear, with a flat list of topics, making it challenging for users to find the most relevant documents for their research. Users needed to drill down multiple results to find relevant content, which resulted in a time-consuming and frustrating user experience. Additionally, the organization's content spanned multiple subjects, requiring cross-domain search capabilities to improve search efficiency and effectiveness.

The organization selected Straive to implement a new search interface, thereby enhancing search efficiency and reducing the number of results users must sort through, as well as to develop cross-domain search capabilities to facilitate user access to all relevant content.

The Challenge

Unstructured content spanning multiple subjects

Linear Entry through Topics, Sub-Topics and Committees

Users drill down many results to select the most relevant document

The client faced significant challenges with their existing search interface and taxonomy. The search interface was linear and required users to select multiple drop-down menus to search for content, resulting in a time-consuming and frustrating search process. Despite having a large corpus of content assets, including 12,000 standards and 100,000 research articles, the client did not have an integrated framework for information search and retrieval. As a result, users found it difficult to locate relevant content, resulting in a poor search experience.

The client attempted to improve their search experience by trying off-the-shelf taxonomies. However, the existing taxonomy was not comprehensive and did not cover all relevant topics, making it difficult for users to find what they needed. Additionally, with such a large number of assets, users struggled to discover related content or find new content that was relevant to their research.

The client required a solution that could address these challenges and provide a seamless and efficient search experience for their users. This required the development of a comprehensive taxonomy and search interface that allowed users to navigate through the content quickly and locate the relevant information they were searching for.

The Straive Solution

Straive conducted extensive research on the clients corpus content, user search logs, and other peer groups. Based on this research, Straive determined that the ideal way to improve the user experience was to develop a hierarchical and faceted taxonomy. Straive deployed a team of subject matter experts from the industry and academia to develop taxonomies for 18 material groups and four broad level facets or attributes of materials with a hierarchical structure.

To create the taxonomy and thesaurus, Straive utilized its deep knowledge of the industry standards for taxonomy building and indexing, adhering to ANSI/NISO standards (ANSI/NISO Z39.19-2005 (R2010) Guidelines) for building controlled vocabularies. Straive's team of certified taxonomy and indexing experts, combined with their ecosystem of subject matter experts from the industry and academia, ensured the taxonomy and thesaurus were both accurate and relevant.

Deployment of SME team
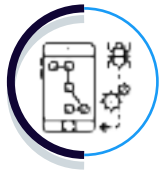
Usage of Technologies & Prototypes
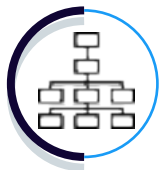
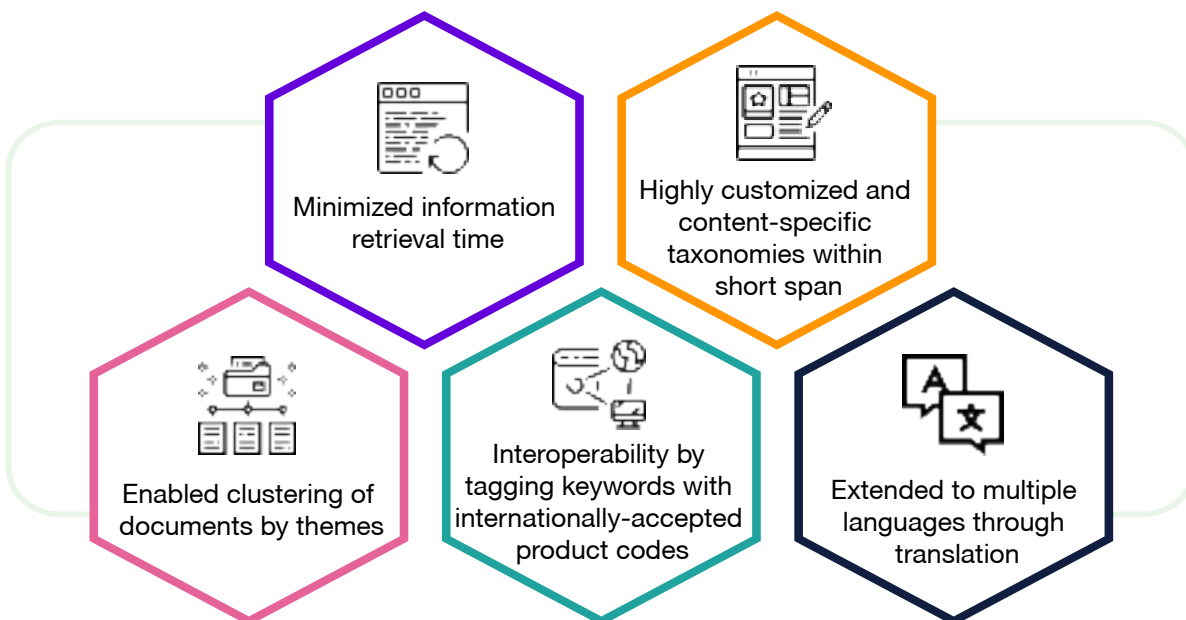Custom-built Hierarchical Faceted taxonomy

Extensive research on

▷ Corpus
▷ User search logs
▷ Other peer groups

Straive created a standalone Taxonomy first, which was then expanded into a Thesaurus. For the past 12 years, Straive has been performing semi-annual maintenance of the Taxonomy/Thesaurus and indexing 100,000 standards, journals, and 3PC documents. Straive leveraged its proprietary content enrichment platform to build a highly custom-built thesaurus and index the content.

Straive used a hybrid model of platform capabilities and subject matter expert validation to create the taxonomy and thesaurus. This approach ensured that the taxonomy and thesaurus were comprehensive and covered all relevant topics. Additionally, Straive's AI/NLP enabled solution allowed for the automatic extraction of domain-specific concepts from PDF/XML inputs and user search logs, further enhancing the accuracy and relevance of the taxonomy and thesaurus.

Impact for Client

Straive's solution proved to be highly effective in addressing the challenges faced by the client. The adoption of a consultative approach to suggest the appropriate knowledge model with a core taxonomy for each vertical domain and a taxonomy of facets for cross-domain search helped to create a comprehensive and user-friendly search interface. The demo interface created by Straive enabled users to navigate through the content with ease and find relevant information quickly and efficiently, with minimal effort.

Minimized information retrieval time

Highly customized and content-specific taxonomies within short span

Enabled clustering of documents by themes

Interoperability by tagging keywords with internationally-accepted product codes

Extended to multiple languages through translation

Additionally, Straive's unique methodology, which was customized to the Client's Digital Library, proved to be highly replicable and scalable. The team's ability to work with non-English content and propose an overarching thesaurus-centric framework that covered multiple subject domains, including chemistry and engineering, was highly commendable. The faceted approach with filters like Applications, Process, Properties & Measurements, and Testing Methods allowed for improved content discoverability and findability for the library's standards and research articles.

About Straive

Straive is the largest solutions provider to the research content industry. We work with leading players in the industry including commercial publishers, university presses, open access publishers and societies supporting journals, books, MRWs, and database products/platforms. Our full suite of solutions straddle from manuscript development, peer review management, publishing operations, discovery engine to delivery and customer engagement.

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