## Building and Managing a Taxonomy: How to Manage All of the Cooks in the Kitchen

MODERATOR: Susan Willner American Society of Nephrology

Washington, DC

SPEAKERS:

Helen Atkins American Chemical Society Washington, DC

## Scott Dineen

The Optical Society Washington, DC John Magee Gale, A Cengage Company Farmington Hills, Michigan

REPORTER: Kelly Newton Society for Neuroscience Washington, DC

Thoughtfully planned for and implemented taxonomies allow publishers to better sort, understand, and leverage content—which may span decades of back content and thousands of articles. However, creating or revising a subject-specific taxonomy involves several stakeholders with their own motivations and perspectives, and therefore requires coordination and a delicate balance of interests. The speakers in this session gave practical guidance on building and managing a taxonomy, defining the goals and scope of a project, evaluating success, and managing stakeholders.

John Magee started the session with the question, "Where do you start when you don't know what to do?" Though a project to create a taxonomy begins with a general desire for better content organization, the primary consideration needs to be how users interact with the taxonomy and what are the hoped-for benefits. Some examples noted by Magee are enhanced search, such as search filtering or related content, and organizing a catalog. Once the primary use case is established, publishers can consider details like the level of required or preferred granularity, language and syntax, how content will map to other taxonomies or external standards, and budget and time considerations. Though a significant factor in any project, Magee purposely noted budget and time last, advising publishers to start by focusing on the ideal user experience. Any trimming to meet budget or time constraints can then be designed around the identified goals and then optimized to reduce impact on the users. In order to achieve the best results throughout the

process of constructing and implementing a taxonomy, it is imperative for publishers to continue to ask how people will use the vocabulary

The Optical Society (OSA) covers a broad, multidisciplinary field with many different content intersections. Scott Dineen described the creation of a controlled optics and photonics thesaurus-including 2,400+ terms and over 5,000 synonyms—and the several use cases that grew out of it: replacing legacy codes, providing search and browse by topic, displaying similar articles, identifying reviewer candidates, and performing trend analysis and targeted marketing. The results of each of these applications were mixed: Displaying similar articles and identifying reviewer candidates were successful, but the others were less so. These successes shared a common bond in that they drew from the taxonomy without revealing it for user interaction. The most significant limitations were in the cases, such as trend analysis and targeted marketing opportunities that required high-level concepts combined with granular taxonomy terms. High-level concepts and understanding require organizational agreement, which is naturally sometimes difficult across a diverse organization, as well as regular revisions by subject matter experts.

Helen Atkins echoed Dineen's final points about the need for organizational agreement and provided an overview of stakeholder considerations. It is the job of the publishers to balance, mediate, and guide the different stakeholders toward consensus. She identified three general groups involved in developing a taxonomy: management, subject matter and taxonomy experts, and other internal stakeholders. Approval and commitment from management can be earned by presenting the advantages of the taxonomy to them, but Atkins warns against overpromising anything, as additional resources would be needed for all additional applications.

Taxonomy experts will advise on structure, process, and logic, and while it is useful for them to have basic familiarity with the topics covered, they should not be subject matter experts. Their distance from the details of the content itself enables them to see the big picture and not overemphasize certain subjects or topics, as subject matter experts are likely to do. However, a lack of subject matter experts will lead to what Atkins called "interesting misunderstandings," such as

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around the genetics-specific definition of "hedgehog" and the physics-specific definition of "charm." Balance between the two types of experts is vital.

Other internal stakeholders can include any other internal departments, including marketing and/or membership. For these groups, while it's useful to identify potential use cases that appeal more to their own priorities, it's important to stress the primary goal or planned application. Often, stakeholders further removed from the process of building a taxonomy believe all applications are possible once the structure is created. As Dineen identified in his case study, this is far from the case. Planning for multiple applications is essential. And as Magee discussed, the primary use cases must always remain at the forefront and not be "hijacked" by additional ideas.

During the question-and-answer session, an attendee asked if there is a difference between revising a taxonomy or building one from scratch. The speakers directed the focus back to identifying the goal; adding a new category or emerging field would require a revision with a subject matter expert, whereas bad structure is better dealt with by starting over fresh. The speakers also reiterated that in order to avoid a full-scale overhaul it is important to maintain the taxonomy by trimming useless or aged categories.

Another audience member asked about the implications of taxonomy, in conjunction with the evolution of search and how search can or should be innovated. The speakers noted that search has become simpler over the years, as users adapt to Google. Users are more likely to look at related content and relevance ratings, and to filter results, than they are to drill down through categories in an advanced search. With that behavior, search should leverage useful results directly to users in other ways: the taxonomy should run behind the scenes to drive a "more like this," relevancy rankings, and filters. By properly and thoughtfully implementing taxonomy—especially behind the scenes—users can have a more successful relationship with your content.