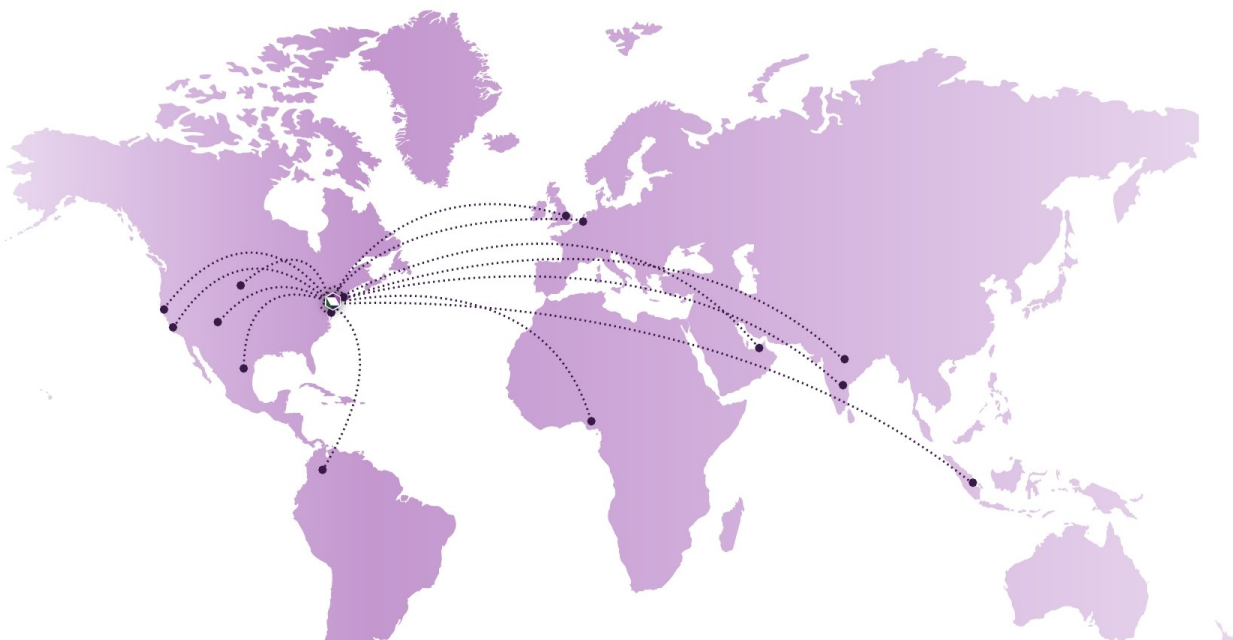




ENTERPRISE KNOWLEDGE

Global Knowledge & Information Management Services

Agile Taxonomy Maintenance





ENTERPRISE KNOWLEDGE

Agile Taxonomy Maintenance

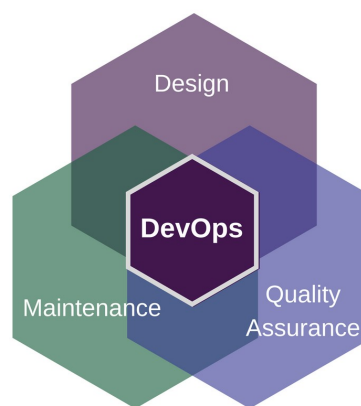
Taxonomy management typically follows a Library and Information Science paradigm. The taxonomist is a keeper of knowledge, who is responsible for updating and managing the “Source of Truth.” Each version of the taxonomy is published and subsequently distributed to separate systems to help perform specific functions. Such change control processes are effective for ensuring stability and quality, but they can be a costly use of time and resources. The costs are even more apparent when organizations analyze the opportunity costs associated with employing a slow process that may take months to implement. Compare this to agile IT teams who are significantly cutting the length of time it takes to deploy system changes. The fact is, taxonomists can reap many of the same benefits by adopting an agile approach: properly scaled releases, quicker delivery, better engagement with user communities, more relevant search results, and reduced overhead.

Many agile practices that support continuous delivery in software development, like DevOps, are emerging as an approach to taxonomy maintenance. DevOps emphasizes the collaboration and communication of both software developers and other information-technology (IT) professionals while automating the process of software delivery and infrastructure changes. With the alignment between taxonomy maintenance and systems, there are emerging possibilities for employing Continuous Delivery and DevOps strategies to greatly enhance the effectiveness of taxonomies throughout their lifecycle.

Benefits of DevOps for Taxonomies

Software companies that embrace the agile approach of Continuous Delivery readily respond to change as they significantly increase the speed of delivery of applications and services. The gains in efficiency and effectiveness are shown in all areas where development and operations are merged in an environment known as DevOps. DevOps methods promote continuous delivery by rapidly moving software development (to include features, configuration, changes, and bug fixes) into production. A DevOps environment is characterized by:

- Small cross-disciplinary teams;
- Short iterative releases throughout the entire software lifecycle; and
- Adaptability and resilience to change.



Taxonomy Management



ENTERPRISE KNOWLEDGE

Agile Taxonomy Maintenance

A natural outgrowth of this movement toward efficiency is its spread to many other areas of business and operations. Naturally, leaders in the field of information science are asking how they can streamline the maintenance of taxonomies in order to keep in step with continuously evolving information architecture.

In order for a taxonomy to stay relevant and adaptable to change, it is critical to engage stakeholders and subject matter experts through each iteration of its maintenance. However, it is often difficult to enlist the valuable time of experts. In a DevOps environment this challenge is addressed by promoting short term involvement on ad-hoc teams that come together in a few brief meetings to suggest, design, and validate new concepts and terms. A large active pool of participants in DevOps will yield the added benefit of ownership among a broad base of stakeholders and SMEs without incurring significant overhead.

An Agile Approach to Maintaining Taxonomies

Traditional approaches to maintaining a taxonomy using a governance plan are becoming outdated. Taxonomies are a key element of software information architecture. Like other areas of system architecture, taxonomies are barely noticed when they serve their purpose, but any lapse in quality compromises the integrity of the system and causes users to grow frustrated or lose confidence. Therefore,

taxonomies must be maintained with robust and frequent quality control monitoring. To do so in the current dynamically changing environment, taxonomists must embrace new ways to optimize the design/development/release cycles for taxonomies to keep up with software's rapid movement into production for feature releases, configuration, changes and bug fixes.

A best practice for taxonomy maintenance is to employ simple guidelines for a build-measure-learn iterative process for governance. A Taxonomy DevOps team is a small ad hoc group of subject matter experts with expertise relevant to the business use case for the taxonomy terms in question. It is also a best practice to employ the use of tools that provide a common easy-to-use space for the team to make changes and test them prior to deployment. Lastly, the review cycle should be truncated to meet the expectation of frequent releases. In all cases stakeholders and technical members come together in the DevOps environment to assist with the rapid deployments.

5 Principles of Continuous Delivery for Taxonomy

Instead of prescribing procedures, taxonomy maintenance in a DevOps environment should apply the *5 Principles of Continuous Delivery*¹ in order for it to meet its goals.

1. Everyone is Responsible

A taxonomy must be like the lexicon it captures: adaptable to change and reflective of the business. Stakeholders and



ENTERPRISE KNOWLEDGE

Agile Taxonomy Maintenance

Subject Matter Experts must be empowered to suggest, edit, and validate a subset of the concepts that are represented in the taxonomy. In instances where taxonomies serve the purpose of unifying an enterprise, these stakeholders and SMEs need to work across lines of business to make decisions about changes. Whether the collaborative effort is coached using an agile framework or facilitated by the taxonomist, SMEs and stakeholders must understand their role as owners who can directly influence the taxonomy at all stages of DevOps.

2. Build in Quality

Identify system quirks and build in a mechanism for addressing problems as soon as taxonomy changes are applied. Build simple rules into the system to identify improper syntax, spelling errors, or duplicate terms, to name a few of the pesky problems that generally plague taxonomies in production. Use a staging environment with workflows so that SMEs can use a common space to collaborate, review, and validate changes before they are deployed.

3. Work in Small Batches

Avoid the risks associated with adhering to a rigid cadence. Make changes as they organically occur or, if necessary, schedule short intervals for changes to be made. This approach is less likely to cause major disruption for the end-users, easing the change management challenge. By deploying changes in small batches, incrementally, end-users

will grow accustomed to a dynamic taxonomy that is updated and in step with business changes.

4. Computers Perform Repetitive Tasks, People Solve Problems

Implementing changes is a much easier task than it's been in the past. The key to greatly reducing the administrative tasks associated with the taxonomy publishing process, as well as the duplication of effort that often comes with importing them into separate systems, is to leverage technology that uses linked open data² to reference the terms and concepts represented in the taxonomy. Today's standard Web technologies significantly cut the time spent performing data entry and quality control. Additionally, these technologies can be used to dynamically incorporate changes without having to go through the much riskier re-indexing process.

5. Relentlessly Pursue Continuous Improvement

Because a taxonomy is never really complete, the review of the terms and concepts must be an ongoing process: not to be ignored but instead made easy and quick.

In Summary

Current and accurate taxonomies make information more findable. Making information more findable increases the time available for people to spend on innovation and meeting other



ENTERPRISE KNOWLEDGE

Agile Taxonomy Maintenance

mission focused goals. When it comes to Continuous Delivery, the benefits truly outweigh the costs.

If you would like help implementing taxonomies, knowledge management systems, or agile processes, contact Enterprise Knowledge. Our taxonomy, knowledge management and agile experts are available to help you find the solutions to meet your goals.

¹ Humble, J. (n.d.). Continuous Delivery. Retrieved September 29, 2016, from <https://continuousdelivery.com/principles/> All content licensed under the Creative Commons Attribution-Share Alike 3.0 United States License (CC BY-SA 3.0 US)

² Schandl, T., & Blumauer, A. (2014, June 9). PoolParty: SKOS Thesaurus Management Utilizing Linked Data. Retrieved September 29, 2016, from https://www.researchgate.net/publication/220853892_PoolParty_SKOS_Thesaurus_Management_Utilizing_Linked_Data

Enterprise Knowledge (EK) is a services firm that integrates Knowledge Management, Information Management, Information Technology, and Agile Approaches to deliver comprehensive solutions. Our mission is to form true partnerships with our clients, listening and collaborating to create tailored, practical, and results-oriented solutions that enable them to thrive and adapt to changing needs.

Our core services include strategy, design, and development of Knowledge and Information Management systems, with proven approaches for Taxonomy Design, Project Strategy and Road Mapping, Brand and Content Strategy, Change Management and Communication, and Agile Transformation and Facilitation. At the heart of these services, we always focus on working alongside our clients to understand their needs, ensuring we can provide practical and achievable solutions on an iterative, ongoing basis.

info@enterprise-knowledge.com | 571-403-1109 | @EKConsulting