Proactive and Technology-Based Knowledge Retention and Transfer Efforts at the American Petroleum Institute

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Abstract:

Thankfully, oil spills of historical significance occur infrequently. However, this also creates few opportunities for the response community to gain experience operating in a large, complex response outside of exercises and drills. Lessons learned and personal experience are typically shared among peers and passed along to the next generation through trainings, workshops, conferences, and documentation. However, with fewer individuals entering the field, and an aging population of seasoned experts, many of which have retired, we are witnessing a challenge in not only knowledge transfer to the next generation, but knowledge retention within the collective spill response community. This challenge is an often-discussed theme at recent conferences and stakeholder meetings in recent years.

At the American Petroleum Institute (API), addressing the knowledge transfer and retention challenge has become a priority issue within the oil spill response portfolio. API is a national trade association representing all segments of the U.S. oil and natural gas industry. With strong industry convening capabilities and actively maintained relationships with regulators and academic institutions, API is well positioned to engage in meaningful initiatives to proactively retain and share knowledge among multiple stakeholder groups. API's role in maintaining capacity within the spill response community includes topic specific workshops, organizing multi-stakeholder engagements, and coordinating peer-to-peer learning opportunities. With recognition that organizations are working with limited resources to commit to employee travel and registration fees, API has moved build technology-based projects to develop robust web platforms and credible content to memorialize the experience and insights of highly respected experts and make the information easily accessible for end-users.

While this paper will discuss all of API's endeavors, it will focus on the project to create the new oil spill response video library, and the updates to our website to be able to host large amounts of easily searchable data to make it easily accessible to the public. The genesis for this project was based on the ExxonMobil "Oil Spill Response Knowledge Transfer Webinars". This is an ongoing series of digital presentations by highly seasoned and experienced international oil spill response experts. There have been more than twenty-five such webinars to date. Each webinar typically consists of a presentation roughly one hour long with and additional thirty minutes for questions and answers. These long format webinars are recorded, and the videos have been hosted a YouTube page managed by API. Video analytics were reported after several months and showed that while there is an interest in the content (a high number of views), viewers either could not find the specific information they were looking for or did not have the time or attention to commit to the full video (viewers exited the video in the first few minutes). To address the challenge of delivering specific content that is relevant to the user a process was developed to break down the webinars into short clips of five minutes or less to capture unique pieces of information in individual files. Next a dedicated team with spill response knowledge tagged every file with metadata based on an agreed upon lexicon. Each long format webinar produced forty to seventy individual files all tagged with metadata that could be used to sort and filter results for the user.

Acknowledging that this project would produce well over one thousand files, it was immediately recognized that a software solution would have to be implemented to create a friendly user experience. Working with the IT team and web developers at API, we were able to add a powerful data management focused search engine to the website. With the availability of this new software, we were not only able to publish a vast video library, but add a searchable bibliography of relevant content, and update the existing document library to be more robust to handle future growth.