Position Paper

Transforming Technical Documentation:

Introducing the Product Content Maturity Model

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Transforming Technical Documentation

Introduction

Companies today are experiencing a transformation in customer expectations that happens to coincide with increased internal pressure to streamline technical documentation processes, all while maintaining headcount and budget. Faced with the classic conundrum of doing more with less, many are turning to structured content to alleviate these pressures. When combined with the right technology to automate the management and publishing of this content, they are able to meet these changing customer needs. While many are aware of where they want to go, many don't know where to start or what the process looks like.

Several years ago, high tech companies realized their traditional documentation and publishing methodologies were not keeping pace with emerging delivery mediums, primarily the web. Then, with the explosion of mobile phones, it became increasingly obvious that a better solution was needed for content distribution than the existing book publishing methods. These leading-edge companies, often willing to invest in emerging technology before other businesses, determined that structured content was the key to transforming their technical documentation. By separating form (the structure and delivery of the content) from function (the purpose of the content), they were able to centralize and re-use product content across a wide array of deliverables while automating the publishing process. Still, most of the early solutions were developed completely in-house at great expense and even costlier maintenance. However, out of one such investment came the DITA XML standard from IBM which became an open standard managed by OASIS in 2005.

With the advent of DITA, many companies have now taken the plunge and structured legacy technical documentation into modular, stand alone topics. They are seeing the immediate benefits of reuse and lower translation costs. Many more companies are just beginning to investigate the possibilities of structured content and look to industry leaders for guidance. Everyone seems to want a better way to collaborate that empowers subject matter experts to edit content directly. Additionally, thought leaders are wondering how DITA might help them transform their entire business processes to engage customers more directly with personalized relevance that greatly enhances their experience with the product content.

Industry analysts have recognized this continuing journey requires a maturity model to describe and identify where organizations are and where they want to go.

Introducing the Product Content Maturity Model

SDL has provided tools and services around structured content for decades and we've been involved with DITA from its earliest stages. By working with companies that started the journey to transform technical documentation into product content, we've witnessed the various stages they've gone through in maturing their processes. We also see hints of future stages that many are actively working to achieve. We found that this journey falls roughly into five stages of increasing maturity. We'll explore each stage in its entirety, sharing best practices that define the stage and offering a set of guidelines to for advancing to the next stage.

AWARE · STRUCTURED · COLLABORATIVE · TRANSFORMATIVE · ENGAGING
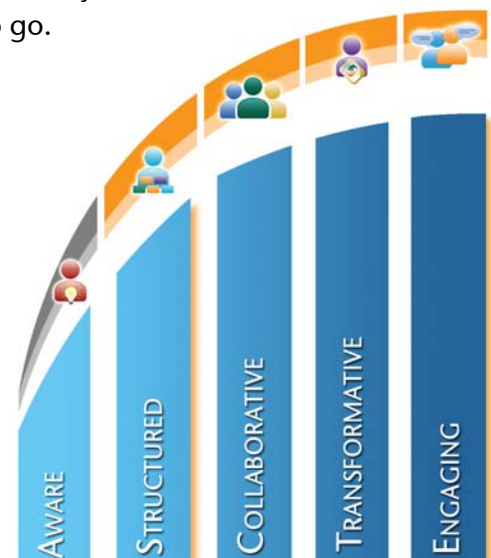
Phase 1: Aware

When companies realize the old book paradigm is no longer meeting customer needs or scaling with business growth, they rapidly arrive at the first stage of the product content maturity model: *Aware*.

The beginning of any significant change within an organization starts with awareness and shifting cultural values as a result of that awareness. That awareness often starts within the technical documentation team struggling to meet the demands being made of them. Perhaps customers are having a hard time finding the right information in existing documentation and customer support calls are escalating as a result. Or maybe these customers expect content available on their smart phones and tablet devices, pre-filtered to only show the content they're most interested in.

Many times the demand is simply a top down decree to cut operating budgets while expecting the deliverables be maintained or increased. However the organization arrives at the first stage, it invariably involves changing the old process to meet these new demands.

Best Practices

At the same time companies are becoming better educated, they can also begin to organize their unstructured content and try to standardize their approach to content creation.

This involves developing corporate style guides and consistent terminology that is applicable to all the content creation groups responsible for generating product content.

Next Steps

At this stage, companies should investigate their options. Doing nothing is often considered while learning more, but in reality this is just a delay tactic and will not move the organization toward delivering a better customer experience. Custom one-off solutions could be considered, but these involve significant investment with very little guarantee of success.

Companies should educate themselves about industry standards for content creation and available technology solutions.

AWARE

Phase 2: Structured

Now that the company has become aware of the problems inherent in unstructured, linear content, the solution becomes obvious: structured, modular content. DITA is the obvious choice for most product companies because it allows the content to be broken down into more re-usable pieces that can be shared, rearranged, and conditioned to deliver a much broader range of deliverables in any number of formats.

However, embracing structure is not without its own challenges. Content creators must learn a very different way of creating content that involves new tools and technology. Additionally, the explosion of individual topics quickly becomes too cumbersome for most writing groups to manage manually on a file system.

Finally, a significant leap like this is often met with some internal resistance. Change is always disruptive, but if you demonstrate the value that structure brings, and how the organization can dramatically improve customer experience, acceptance is more likely. With acceptance, technical communication teams can expand usage of structured content to include subject matter experts and eventually other departments throughout the company.

STRUCTURED

Best Practices

Content creation teams should investigate new roles that emerge when creating structured content such as information architects and shared content editors.

Solid processes should be developed for the creation and maintenance of shared content. Re-use is one of the quickest and most powerful advantages of DITA but it must be managed effectively for maximum efficiency. If content is shared across teams, regular communication should be implemented to maintain a standard creative approach.

Next Steps

At this stage, the company will have invested in some amount of technology to facilitate the initial migration from unstructured content to DITA XML.

Typically this involves desktop authoring tools specialized for XML, automated publishing tools, and a component content management system. Once the organization becomes familiar with DITA, managing publications becomes easier and new combinations of deliverables can be created.

Additionally, older processes for maintaining and enriching content can be reevaluated for process improvements. Component content management systems take care of versioning, but structured content often frightens team members responsible for review and casual content contribution.

Phase 3: Collaborative

Once existing technical documentation has moved to DITA, the next step is to involve all contributors in the content creation process. In the past, collaboration involved face to face meetings where printed documents would be marked up manually. Communication was very efficient but content updates were slow and time consuming.

With the IT revolution, businesses became more globally distributed and teams no longer worked in the same location. Collaboration suffered as a result and meetings moved to long phone calls, chaotic email chains, and content review was managed haphazardly with little to no version control.

However the review process was easy for casual content contributors and subject matter experts. Better tools are available today to enable global communication, but managing the collaborative process is still cumbersome. By moving to DITA, content creators benefit from re-use and easier localization, but often remain stuck in older review processes with PDF files or copy and paste into Word or email. Unfortunately this process is time consuming, manually intensive and error prone.

However, subject matter experts are familiar with simple editing interfaces and don't have the time or proficiency to learn advanced technical writing tools just to contribute their thoughts and comments about the product content. It's crucial that the company deploy easy to use content creation and review tools for these subject matter experts while simultaneously providing easy preview mechanisms of the content in all of the variations it might be published.

COLLABORATIVE

Best Practices

Team members should continue to meet using existing communication tools, but strive to implement comments, edits, and content contributions within tools that maintain structure. This enables consistent re-use and drives efficiency by eliminating repeated content entry.

Centralized terminology and style guides should be well integrated with the creation process, regardless of who is creating the content, ensuring a consistent voice. Allow subject matter experts to not only review content, but to contribute new content in a writing environment that is friendly to them, easily accessible, but that maintains the structure.

Next Steps

Focus writers on conditioning content for greater re-use. Standardize the categories your content should be organized around. Additionally, technical toolsmiths who are frequently responsible for maintaining home grown publishing solutions can now spend more time on newly emerging media, such as social networks and mobile channels to prepare for increased customer engagement.

Phase 4: Transformative

With all content creators, subject matter experts, and casual contributors involved in a now-standard process, the company begins to leverage structured product content throughout the organization.

With the realization that all customer-facing content impacts brand and the customer experience, organizational divisions become less relevant when creating new content. A cultural value emerges around sharing and collaboration as siloed approaches are frowned upon.

- *Engineering can create product specifications within DITA using simple editors, providing a already-structured starting point for documentation and drastically reducing the time needed by tech writers.*

- *Marketing can focus on the look and feel of a product datasheet, while relying on the technical documentation team to create its content.*

- *Support can add additional task-oriented documentation to the product content repository as new knowledge base needs arise from customers.*

- *Training and Learning can create a foundation for in-depth training by transforming existing help documentation, and when finished, provide this enriched content back to the product content repository for additional re-use among other departments.*

All of these use cases for product content creation become possible at the transformation phase, and as a result, vastly increase content re-use within an organization. This increase impacts both consistency and efficiency in a positive way.

The focus now revolves around the content and how it can help the customer, rather than who's creating it.

TRANSFORMATIVE

Best Practices

Allow ad-hoc content creation teams to form as needed, so long as standard processes are followed and content structure is maintained.

Continue investing in processes and infrastructure that enable content re-use and sharing across the entire organization.

Develop customer profiles by working with all departments responsible for product content.

Next Steps

Focus editors and information architects on applying customer profiles to all product content, ensuring that deliverables are more targeted.

Phase 5: Engaging
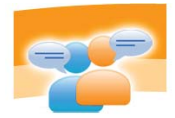
The final phase is yet to be achieved by most companies today, even if they've invested in structured content and DITA for many years. However, by transforming technical documentation into intelligent product content, the company is well positioned to engage customers more directly and appropriately.

Product content has evolved over the years, and with the web, has begun reaching greater numbers of customers than ever before. Content, more than products, often has the power to establish and maintain customer relationships. Your marketing and support organizations may already have customer engagement programs in place, but these efforts are likely limited to their department and won't be embraced by other departments until a company goes through the transformative phase of product content maturity. These groups already understand that customer engagement is a continuous process.

Organizations at this stage have already learned that engagement requires two-way interaction between them and the customer. This process is now extended to what has traditionally been considered 'back-office' employees, such as technical writers. For the first time, any content creator can interact directly with any content consumer.

Now, the company moves beyond publishing product content only once, to a more continuous flow of creation, review, publication, and updates based on direct customer feedback. Additionally, while specific deliverables may continue to be maintained, increasingly the company will allow the customer to dictate the content they wish to consume, in the format they want to consume it.

No longer trapped by the confines of a book or PDF, technical documentation teams can serve customer needs with greater quality and value. All content creation teams can leverage each other's efforts for maximum efficiency. The organization overall becomes more nimble, adaptive, and receptive to customer needs.

Engaging

Best Practices

By re-using a large amount of product content across the company, more time can be spent on customer profiles that color the content appropriately for specific audiences. This personalized approach to product content helps the customer find the right answers and improves their experience with the company.

Content creators can engage directly with customers through feedback loops and direct conversations. Marketing can also leverage content utility analytics to determine which topics are most valuable to customers and target their campaigns accordingly.

Support should track customer search history to detect potential problems before they escalate to their call centers.

Conclusion

In conclusion, the engaging product content vision allows a company to dynamically deliver product content on demand, created and filtered for customer profiles. It can be maintained with incremental updates without sacrificing standard version control. Branding and terminology is maintained, regardless of who creates the content and re-use is possible at every creation point, ensuring consistency. A social interaction between the community of content consumers and authors is facilitated and the crowd can even engage in contributing their own content. Analytics are captured and reported within the company to continually improve product content utility for the customer.

The product content maturity model defines the series of steps your organization can take in transforming your technical documentation into engaging product content. Many companies have started the journey already. And while this journey can require significant time and effort with increasing maturity along the way, each stage offers measurable benefits to the organization that is working with structured content, and provides a common framework for collaboration and best practices across multiple departments and disciplines. We believe the end result provides the greatest opportunity for superior customer engagement by allowing a company to interact more fully and appropriately with their customers.

SDL believes this maturity model captures this vision of fully engaged product content and provides a roadmap for how to achieve it. We develop our tools and services with this model in mind and believe that this model will have relevancy within your company as well.

For more information about the the transformation of technical documentation into intelligent product content, read "The Death of Technical Documentation As We Know It (or 9 Strategic Reasons to Move to Live Product Content)" which is available for download at *www.sdl.com/en/xml/resources/position-papers/*.

For additional resources related to live product content, including recorded webinars, industry research and case studies, visit http://www.sdl.com/en/xml/resources.