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tcworld

November 2015

Fundamentals vs. innovation

What do users really expect from our content?

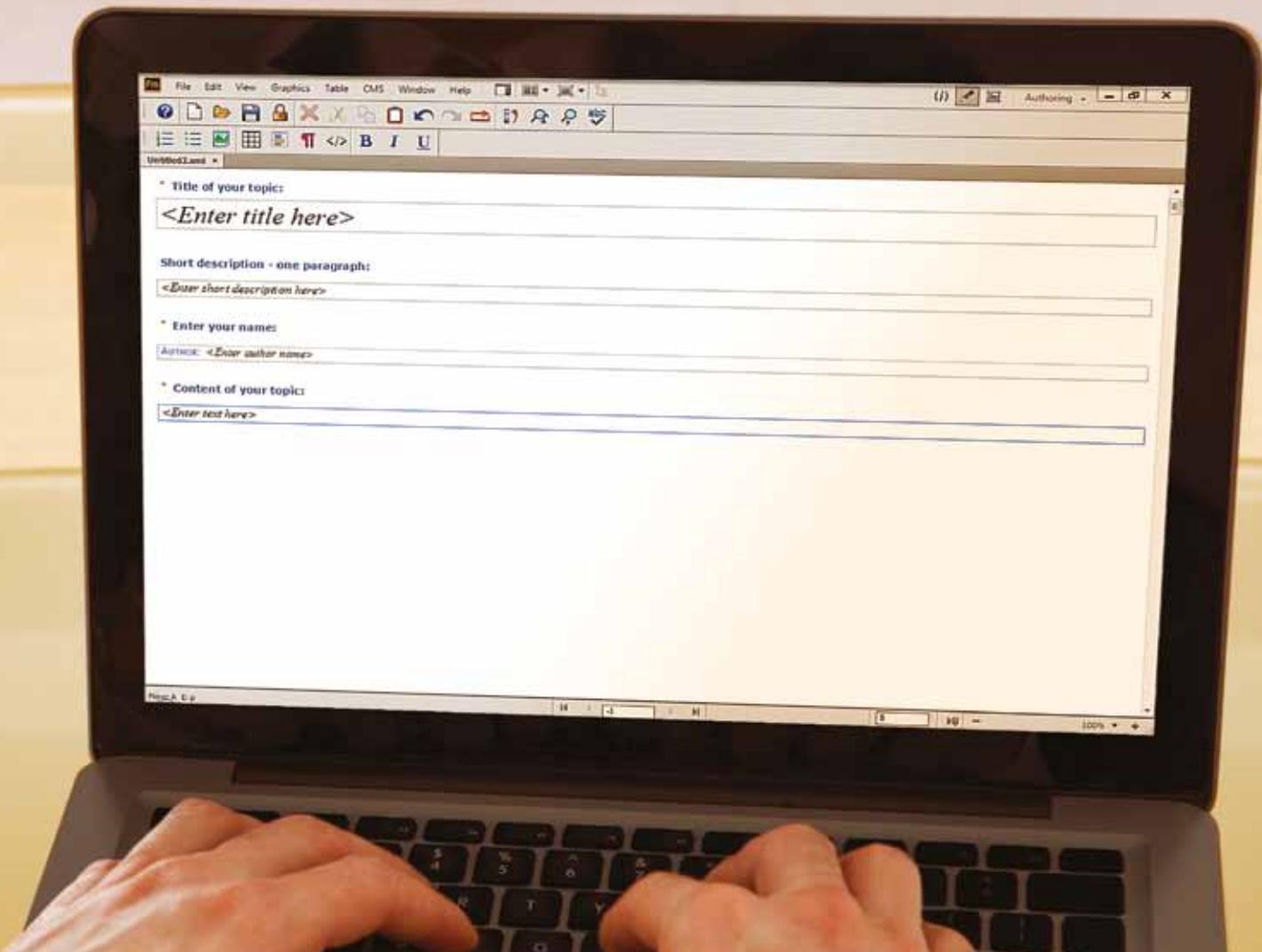


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From the editor

Are we ready for true innovation?

In their book *Creative Destruction*, authors Richard Foster and Sarah Kaplan illuminate the concept of incremental innovation with the ship industry of the 1880s. In those days, clipper ships were the FedEx of the time, transporting goods between the major ports of England and the United States. They had been perfected through centuries and majestically ruled the seas. However, towards the end of the 19th century, steam-powered ships had improved to the point where their capacity was no longer consumed by fuel storage, and they were becoming more cost-efficient than their sailing counterparts. The sailing industry fought the motorized competition by incrementally improving their ships. They added more masts for more sails, which increased the speed and cargo capacity of the ships. Their final masterpiece was the seven-masted schooner Thomas W.

Lawson, which sank in a storm off the Cornish peninsula in December 1907, killing all but two of her 18 crew members and causing the first major oil spill (the ship was loaded with 58,000 barrels of paraffin oil).

While the steamship's potential was yet to be fully exploited, the clipper ship industry had reached – and perhaps surpassed – its natural limit. “Incremental innovation,” the authors conclude, “does not result in either new markets or breakthrough products. It is, rather, symptomatic of the type of improvement that existing companies use to defend existing markets where continuity is valued above all else.”

So where do we stand when it comes to innovation? Are we incrementally improving our content or pioneering the path to better customer experiences and reinventing information as a business asset?

In this issue of our magazine, Microsoft's Keith Boyd reminds us that innovation always comes at the risk of losing the fundamental quality of our product, service or content. It has been standing for and urges us to make a clear choice (page 12). Also in this edition, industry expert Jang Graat advises technical writers and content creators to let go of the book paradigm and open the way to live, faster-than-agile documentation through XML (page 23). Innovative, intelligent information is also a major theme at this year's tcworld conference, with industry experts from around the globe shedding light on the paradigm shift from traditional technical documentation to real-time, intelligent information services. We hope you enjoy this issue of our magazine and wish you a rewarding and inspiring tcworld conference.

Corinna Melville

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Innovation vs. fundamentals

Without a doubt, customers these days expect products and content that provide both perfect fundamental qualities as well as novel sensational experiences. But can we have it both ways or do we have to make a clear choice?

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Faster than agile – live XML documents

Live XML content opens up a world of opportunities to technical writers and content strategists. But its proper adoption requires a paradigm shift.

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Technical communication: a wicked problem

In a world where new technologies such as Augmented Reality and the Internet of Things provide an ever-increasing number of use scenarios, technical writers struggle to provide the right information at the right time. Nemetics offers a solution.

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Gartner identifies the top strategic technology trends for 2016

Gartner, Inc. has highlighted the top ten technology trends that will be strategic for most organizations in 2016. The research firm defines a strategic technology trend as one with the potential for significant impact on the organization. These technologies impact the organization's long-term plans, programs and initiatives.

The top 10 strategic technology trends for 2016 are:

The device mesh

The device mesh refers to an expanding set of endpoints people use to access applications and information or interact with people, social communities, governments and businesses. The device mesh includes mobile devices, wearable,

consumer and home electronic devices, automotive devices and environmental devices – such as sensors – in the Internet of Things (IoT).

While devices are increasingly connected to back-end systems through various networks, they have often operated in isolation from one another. As the device mesh evolves, we expect connection models to expand and greater cooperative interaction between devices to emerge.

Ambient user experience

The device mesh creates the foundation for a new continuous and ambient user experience. Immersive environments delivering augmented and virtual reality hold significant potential but are only one aspect of the experience. The ambient user

experience preserves continuity across boundaries of device, time and space. The experience seamlessly flows across a shifting set of devices and interaction channels blending physical, virtual and electronic environments as the user moves from one place to another.

3D printing materials

Advances in 3D printing have already enabled 3D printing to use a wide range of materials, including advanced nickel alloys, carbon fiber, glass, conductive ink, electronics, pharmaceuticals and biological materials. These innovations are driving user demand, as the practical applications for 3D printers expand to more sectors. The growing range of 3D-printable materials will drive a compound annual growth rate of 64.1 percent for enterprise 3D-printer shipments through 2019. These advances will necessitate a rethinking of assembly line and supply chain processes to exploit 3D printing.

Information of everything

Everything in the digital mesh produces, uses and transmits information. This information goes beyond textual, audio and video information to include sensory and contextual information. Information of everything addresses this influx with strategies and technologies to link data from all these different data sources. Information has always existed everywhere but has often been isolated, incomplete, unavailable or unintelligible. Advances in semantic tools such as graph databases as well as other emerging data classification and information analysis techniques will bring meaning to the often chaotic deluge of information.

Advanced machine learning

In advanced machine learning, deep neural nets (DNNs) move beyond classic computing and information management to create systems that



Image: © mtreasure/istockphoto.com

can autonomously learn to perceive the world, on their own. The explosion of data sources and complexity of information makes manual classification and analysis unfeasible and uneconomic. DNNs automate these tasks and make it possible to address key challenges related to the information of everything trend. This area is evolving quickly, and organizations must assess how they can apply these technologies to gain competitive advantage.

Autonomous agents and things

Machine learning gives rise to a spectrum of smart machine implementations – including robots, autonomous vehicles, virtual personal assistants (VPAs) and smart advisors – that act in an autonomous (or at least semiautonomous) manner. While advances in physical smart machines such as robots get a great deal of attention, the software-based smart machines have a more near-term and broader impact. VPAs such as Google Now, Microsoft's Cortana and Apple's Siri are becoming smarter and are precursors to autonomous agents. The emerging notion of assistance feeds into the ambient user experience in which an autonomous agent becomes the main user interface. Instead of interacting with menus, forms and buttons on a smartphone, the user speaks to an app, which is really an intelligent agent.

Adaptive security architecture

The complexities of digital business and the algorithmic economy combined with an emerging "hacker industry" significantly increase the threat surface for an organization. Relying on perimeter defense and rule-based security is inadequate, especially as organizations exploit more cloud-based services and open APIs for customers and partners to integrate with their systems. IT leaders must focus on detecting and responding to threats, as well as more traditional blocking and other measures to prevent attacks. Application self-protection, as well as user and entity behavior analytics, will help fulfill the adaptive security architecture.

Advanced system architecture

The digital mesh and smart machines require intense computing architecture demands to make them viable for organizations. Providing this required boost are high-powered and ultraefficient neuromorphic architectures. Fueled by field-programmable gate arrays (FPGAs) as

an underlining technology for neuromorphic architectures, there are significant gains to this architecture, such as being able to run at speeds of greater than a teraflop with high-energy efficiency.

Mesh app and service architecture

Monolithic, linear application designs (e.g., the three-tier architecture) are giving way to a more loosely coupled integrative approach: the apps and services architecture. Enabled by software-defined application services, this new approach enables Web-scale performance, flexibility and agility. Microservice architecture is an emerging pattern for building distributed applications that support agile delivery and scalable deployment, both on-premises and in the cloud. Containers are emerging as a critical technology for enabling agile development and microservice architectures. Bringing mobile and IoT elements into the app and service architecture creates a comprehensive model to address back-end cloud scalability and front-end device mesh experiences. Application teams must create new modern architectures to deliver agile, flexible and dynamic cloud-based applications with agile, flexible and dynamic user experiences that span the digital mesh.

Internet of Things platforms

IoT platforms complement the mesh app and service architecture. The management, security, integration and other technologies and standards of the IoT platform are the base set of capabilities for building, managing and securing elements in the IoT. IoT platforms constitute the work IT does behind the scenes from an architectural and a technology standpoint to make the IoT a reality. The IoT is an integral part of the digital mesh and ambient user experience and the emerging and dynamic world of IoT platforms is what makes them possible.

Additional analysis can be found in the Gartner report "Top 10 Strategic Technology Trends for 2016: At a Glance."

www.gartner.com



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SDL'S CEO RESIGNS

SDL, provider of customer experience management solutions, has announced that its founder and Chief Executive Officer Mark Lancaster will be stepping down from the Board and his role as CEO of the company and leave the company in October 2015. The Board will shortly appoint an international search firm to identify suitable candidates for the position of Chief Executive Officer.

www.sdl.com

TAUS DQF INTEGRATED WITH SDL WORLDSERVER

TAUS has made available the SDL WorldServer Plug-In for its Dynamic Quality Framework (DQF). This plug-in lets users of WorldServer measure the productivity, efficiency and quality of their translation activities with the DQF tools and metrics, and track and benchmark the performance on the TAUS Quality Dashboard. With an open source license, users of DQF can join user groups to discuss best practices. The current release of DQF supports fully automatic measurement and tracking of productivity and efficiency.

www.taus.net

AMAZON ACQUIRES SAFABA

Amazon.com Inc. has acquired Safaba Translation Systems LLC, a Pittsburgh-based developer of automated text translation software. The company will immediately start to operate under its new name Amazon Machine Translation R&D Group.

www.safaba.com

APPLE ACQUIRES VOCAL IQ

Apple Inc. has purchased an artificial-intelligence startup, which is expected to help make iPhone users' interactions with the virtual assistant Siri more natural. The UK-based software developer Vocal IQ has been working on ways to improve computers' ability to understand human speech and to speak more naturally.

www.vocaliq.com

Less than a fifth of companies produce consistent, high-quality content

Content quality software developer Acrolinx has published the second part of its research series on content quality. Titled "Global Content Impact Index: Measuring How Consistent the World's Brands Are With Their Content," the report highlights how content quality can vary dramatically within individual brands and the effect it can have on customer experiences. This most recent research reflects analysis conducted in August 2015 on 170 leading brands from around the world.

To measure content consistency, Acrolinx used its content optimization platform to analyze the quality and clarity of content on 170 leading company websites, including their corporate communication, product content, support content, and blogs. By scoring each of those sections and measuring the variance between those scores, Acrolinx determined the consistency of each company's content.

The research revealed:

- Only 19 percent of companies have consistent, high-quality content.
- 27 percent of companies created consistent, low-quality content.

- 41 percent of companies had very inconsistent content.
- 13 percent of companies have a dangerous combination of highly inconsistent, low-quality content.

The potential implications of inconsistent content are serious. Not only can it create confusion and give customers the impression that they're interacting with lots of different people rather than a unified company, it can also result in brand erosion. Conversely, a recent study by McKinsey & Company found that a consistent customer experience will increase customer satisfaction, build trust, and boost loyalty.

"Consistency really matters at every touch point," noted Acrolinx' CEO Andrew Bredenkamp. "Whether it's engaging with a news item and coming into contact with your brand for the very first time, reading up on a product prior to a purchase, or engaging with support content post

sale, it's critical that all of that content helps support a consistent, high-quality experience."

The full report is available online.

www.acrolinx.com



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CSA launches maturity model for language service providers

Language service providers (LSPs) come in all shapes and sizes, yet no single element defines a successful company. Independent market research firm specializing in the language services industry, Common Sense Advisory, has developed a proprietary model designed to evaluate the maturity of language service providers. The model, named LSP Metrix™, describes six maturity stages and how LSPs can use it to perform self-assessments. The model, which is detailed in the report LSP Metrix, is built upon the following cascading series of assessment elements:

- 70 evaluation factors. These elements include observable measures such as the number of years in business, the organizational model of the sales function, and company differentiation.

- 19 assessment areas. CSA Research groups those 70 evaluation factors into 19 categories that are most easily assessed as a set. They include leadership, marketing, and technology.
- Five dimensions. The 19 areas in turn are narrowed down into five core groups that synthesize the factors and areas. These five dimensions, which include business model, business direction, business development, service delivery, and resources, provide the basis for determining a company's current maturity stage.

LSP Metrix is available as a part of CSA Research membership.

www.commonsenseadvisory.com

Lack of language skills among UK and US staff

Specialist translation and localization agency Conversis has released new research which reveals that many UK and US businesses are struggling to expand internationally because they can't find employees with the appropriate language skills and cultural awareness.

The study of UK-based business leaders, together with the survey of US-based Hiring Managers, shows that many are finding it hard to operate globally because they can't find new staff with foreign language skills. One in four companies surveyed in the UK, said they had lost business opportunities because of a lack of foreign language skills. In the US, one in six of all businesses said similar.

Moreover, in the UK, two in five say a lack of cultural understanding amongst new employees has created a barrier to growth.

Gary Muddyman, CEO of Conversis, says: "The findings in this research affirm the reality that we in the UK translation and localization industry have been aware of for quite some time. On the one hand, graduates are generally struggling to find employment, and on the other hand, UK companies seeking graduates with specific skills have to look abroad to staff their organizations."

The research suggests that British and American organizations could be losing business to overseas competitors because of a lack of foreign language skills and cultural awareness amongst their staff.

The complete report, 'The Importance of Global Talent within International Businesses' is available online.

www.conversis.com



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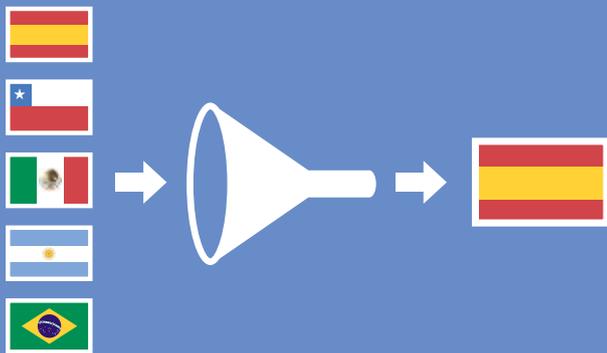
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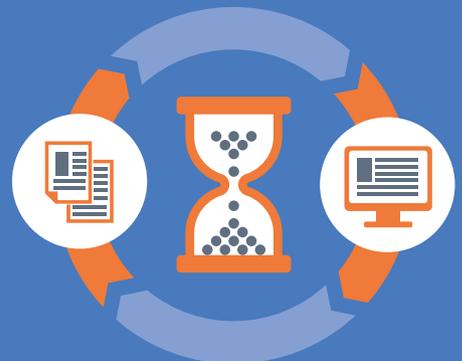
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If I had known then what I know now: words of advice to a new TC

By Leah Guren

In my technical communication courses, I always set up a forum in the online classroom in which students can introduce themselves. It is both charming and terrifying when I realize how young some of the participants are. I look at these fresh-faced young men and women at the very beginning of their career and I think, "I have shoes older than them."

Yes, it's true. I've been in the field 35 years and the time has flown by – perhaps because I like this profession very much and I have enjoyed a certain degree of success. And yet, I sometimes wish that I could go back in time and have a forceful heart-to-heart with my younger self. There are so many things that I had to learn the hard way, and so many mistakes I could have avoided. But since time travel is not possible, I can only share my insights (gleaned from painful inexperience and cheerful ignorance) with all of you starting your career:

1. **Take better notes.** Seriously. Write it down. Listen to the clients. Rather than sitting there and formulating another question, actually listen to what they say. Taking notes forces you to listen and process information, while talking less. You learn more about the project requirements and reduce the risk of forgetting details (not to mention the embarrassment if you have to go back to the client and ask something twice).
2. **Keep your resume and portfolio up to date.** I usually kept my resume updated, but I didn't always think about adding new content to my portfolio. Some clients had strict NDA (non-disclosure agreements) in place, so I was not able to use their real documentation. Had I "sanitized" a sample from the docs at the end of each project, I would have always had a robust assortment. This is much better than scrambling at the last minute to find something appropriate to show a prospective employer or client.
3. **Invest in soft skills.** In those critical first three years of your career, don't just focus on tools. Tools are necessary and yes, we get a certain buzz from mastering a tricky DTP or a new HAT. But don't neglect soft skills. Things like time

management, people skills, and even sales skills are incredibly useful. I cringe when I think about mistakes I made through poor interpersonal skills, or projects that quickly got out of hand because I didn't know how to estimate and track them.

4. **Learn beyond your current needs.** I'm a big believer in continuing education, and this is a career that truly demands it. But most of us focus on what we need right now, rather than studying what will help us in the future. I was teaching a topic on writing global-ready content, and one participant said, "We don't do any localization at my company." She seemed to be annoyed that she had to hear about something that wasn't immediately useful to her. Two months later, she wrote that she had changed jobs and suddenly, this was a hot topic. Studying something that interests you (for example, video editing and creating "How to" clips) is not a waste just because your current job does not let you use those skills. The fact that you learn increases your opportunities to move your career in that direction.
5. **Take time to be kind.** We are all facing deadlines and work pressures. It is easy to become very self-centered and focused entirely on our own little problems. That person who is asking for help may seem annoying, but you can be a mentor and a positive influence, even if you are only spending a few minutes. I was woefully impatient with coworkers when I was young; now, I have learned that we all learn from each other. Recently, I took 20 minutes to help someone on-site with one of my clients. He was an older gentleman who was trying to do something with PowerPoint. Only afterwards did I learn that he was one of the original founders of the company and, while no longer working there, still wielded significant clout. By being kind and helpful, I had made a valuable ally.
6. **Stay away from energy vampires.** The flip side of being kind and helpful is learning to distance yourself from people who can suck the life out of you and derail your career. You know who they are: the negative types who spend the

whole lunch hour bad-mouthing others or gossiping; the people who steal credit for your work; passive-aggressive coworkers who don't talk directly to you about a problem, but go and complain to your boss. We tend to be more trusting and naïve when we are young, and can be held back by hanging around negative people. A colleague once confessed that he had never learned FrameMaker because one of the senior engineers used to sneer about it. "He pretty much bullied me into not learning an important tool just because I thought he was cool and clever." I'm happy to report that my colleague has since taken courses and learned the basics.

7. **Exercise.** Let's face it – this is a very sedentary career. There are many well-documented health problems relating to sitting in front of a computer all day. Invest in your health and fitness. It is one of the best ways to keep up your energy and spirits.

Do you have another career tip for those just starting out? I'd love to hear from you.

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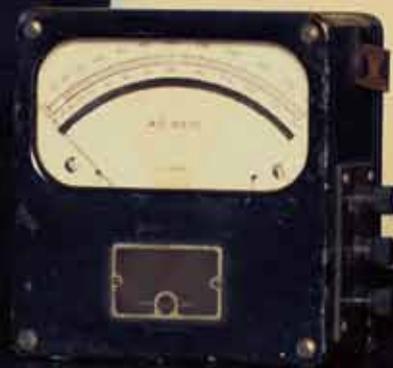
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Fundamentals vs. innovation

What do users really
expect from our content?



The (content) innovator's dilemma

Content professionals are under constant pressure to innovate, yet there's significant tension between innovation and nailing the fundamentals. Principal Director at Microsoft Keith Boyd describes those tensions by comparing Windows releases and their relative level of focus on fundamentals vs. innovation. His key observation after managing content teams at Microsoft for over 15 years: You can't have it both ways – you have to make a choice.

By Keith Boyd

The story of Windows: finding the right balance

I joined Microsoft 15 years ago as a Software Test Engineer supporting Internet Explorer 5.5. At the time, it was the best browser on the market – Netscape was in full decline, and it was years before the industry would regroup and begin competing actively again with Microsoft for browser supremacy. Windows 2000 was state-of-the-art in the enterprise, and while Windows

ME was the current offering for consumers, the majority steered clear, preferring the relative stability and familiarity of Windows 98. Windows 98 may not have been recognized for being *innovative*, but it was recognized at the time for being *fundamentally sound*. Much like Windows 2000.

2001 brought the world Windows XP, arguably the most loved version of Windows ever, and still powering millions of PCs worldwide. While introducing some innovative features (most notably the new “Aero” user interface), Windows XP became so beloved because it nailed the fundamentals and offered sufficient innovation to satisfy power users. Because XP utilized the more robust Windows NT kernel, it provided users a more resilient and reliable computing experience. It was a big step up from any of the Windows 9x family (95, 98, and ME).

Alas, riding the high of XP, the Windows team shot for the moon and missed with Windows Vista. Whereas XP was all about nailing the fundamentals of the computing experience, Windows Vista was

about pushing the boundaries of innovation. Sadly, Vista failed on both fronts, offering little in the way of genuine innovation and regressing the fundamentals of the computing experience. It was the worst of both worlds, and Microsoft's competitors took full advantage.

Shortly after the release of Vista, a new management team was brought in to take the reins and fix Windows' damaged reputation. Three years later, the much-beloved Windows 7 was released. Why was it so well received? Because it got back to basics. Everything just worked. Microsoft was on a path to repair the damage that had been done by Windows Vista, not by doing anything radical, but by focusing on the fundamentals. Unfortunately, the period of relative calm didn't last long. Apple released the first iPhone shortly after the release of Windows 7, sending Microsoft leaders and executives quickly back to the drawing board. They conceived of another moon shot – Windows 8. Much like Windows Vista before it, Windows 8 was a release that

focused on innovative new features and radical changes to the Windows user experience. The changes ended up being so radical that mainstream users couldn't adapt. Instead of stanching the bleeding, it accelerated the trend towards competitors' devices and services. Windows 8 was another black eye for Microsoft.

Nailing the fundamentals

As a content manager at Microsoft in the Windows division throughout this journey, I had a great vantage point on the wild gyrations between platform innovation and basic fundamentals. With benefit of hindsight, it's clear that releases like Windows XP and Windows 7, where the company made a conscious effort to focus on the basics, were successful – both in the marketplace, and in the court of public opinion. Releases that attempted to redefine the computing experience in new and novel ways like Windows Vista and

Windows 8 failed to excite consumers or enterprises or ignite a virtuous upgrade cycle like Windows XP and Windows 7. It's probably not a surprise that content strategy for each of these releases tended to skew toward the ambition of the release. With Windows XP and Windows 7, the focus was on nailing the fundamentals – excellent reference material, clear and concise technical overviews, and tutorials for key scenarios of interest to the audience. For Windows Vista and Windows 8, we had greater ambition. Windows Vista saw the content professionals at Microsoft pushing the boundaries – attempting new content types, new metadata taxonomies, comprehensive end-to-end samples, new media experiments, etc. Windows 8 was similar in the scope of its ambition – samples for every new Application Programming Interface (API), radical new content types, and heavier investments in video and other media. In both cases, much like the product team, we lost focus. The volume of content was high, as was our ambition for delighting customers, but the quality was necessarily lower. Quality was lower because we attempted these ambitious strategies without the benefit of sufficient additional contract resources or FTE staffing. The result was an unfocused content strategy that left our developer customers in a lurch, unable to realize the value promised them by these new releases of Windows. We could point to novel new experiences, but had a hard time defending the basics. Both releases suffered in the marketplace, and content strategy was partly to blame. Figure 1 graphically demonstrates the balance of effort in each release of Windows content. The ratings for percentage of effort are subjective – I can't find a way to actually quantify this. But they're based on my well-informed opinion as a leader and manager for each release. As you can see in the legend, the blue line represents the percentage

of effort expended in each release for creating novel or innovative content types and experiences. The yellow line represents the percentage of effort focused on nailing the basics. The gray line represents the current market share for each of the versions of Windows. While correlation does not necessarily imply causation, I do believe that great fundamental content experiences affect the rate of adoption of a platform or service. Note the inverse relationship between the focus on content innovation and market share. Coincidence?

Figure 2 presents another graphic that I use to help my teams understand these fundamental tensions: Unless you work in an environment where money grows on trees, you're likely to experience these dual constraints in your role as a content professional. Make no mistake that your executives will want to have it both ways – amazing fundamental quality and novel new experiences that catch your competition off guard and delight your customers. In my experience, these tensions are irreconcilable – you have to make a bet and live with the consequences. My advice is to consciously make a bet on either the top-left or bottom-right quadrant and live with the consequences. Defend your decision with your executive team, and if you decide to focus on fundamentals, use the lessons learned from all those releases of Windows to your advantage and to justify your decision.

Tips for nailing the fundamentals

A content strategy predicated on innovation may be the near-term envy of your competition, but it tends to be rather shallow when it comes to depth of material and may hinder long-term adoption. A content strategy based on solid fundamentals may disappoint your executives initially, but may also lead to longer-term

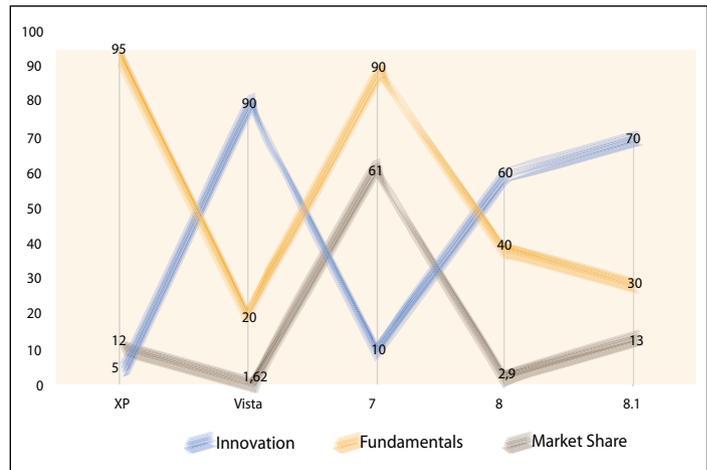


Figure 1: Innovation vs. fundamentals: balance of effort per release. Windows market share data courtesy of NETMARKETSHARE.

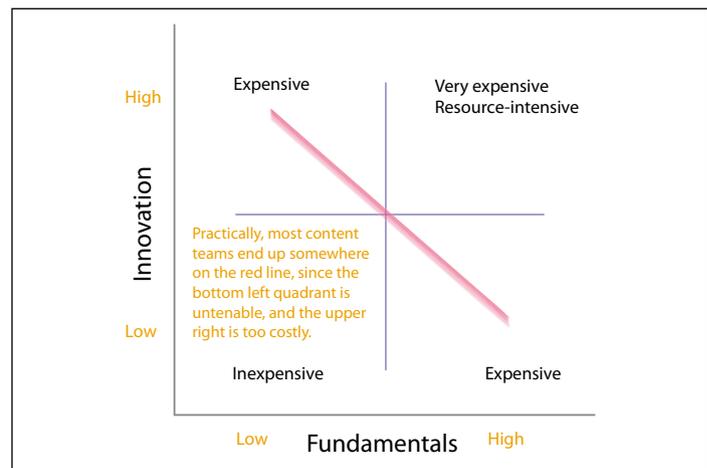


Figure 2: Fundamental quality or novel experiences? Make your decision and live with the consequences.

success and happier customers. Finding the right balance between these opposing constraints is difficult, and to this day in my career I've had a hard time finding the "sweet spot" between the two opposing concerns. But that doesn't mean you shouldn't try. Here are three tips you can use to make sure you're really focused on great fundamental experiences.

1. Know your customers, inside and out

The very best way to know that you're nailing the fundamentals is to know your customers. You need to have walked a mile in their shoes and

tested the product or service from their perspective. Gather as much data as you can about your target customers – how do you expect them to use the product? What are the boundary conditions? That is, what are the scenarios that are less common, but still core to the product or service? Enumerate the scenarios associated with your product or service, and then rate them in priority from 1 (highest) to 3 (lowest). Those scenarios that are ranked 1 are critical to customer success, those ranked 2 are important for customer adoption and satisfaction. Those ranked 3 are nice to have – get to them if you can, but

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recognize that they aren't necessary for a great fundamental experience. It's better to put the effort into really nailing the higher priority scenarios. Absolutely nail the scenarios ranked one, get to as many twos as you can, and leave the threes behind, at least for now. If it turns out a three actually should have been a one, you'll find out when you...

2. Validate your assumptions

You've gathered the data, and walked a mile in their shoes. Now what? Get out into the field and talk to customers. Validate your assumptions about their usage patterns, and test your assumptions about scenario prioritization. There is no better tool than meeting with customers face-to-face to discuss content strategy – it's amazing how those conversations can illuminate new ideas and challenge your assumptions around use cases. If you lack the ability to get in front of customers face-to-face, online polling and surveying can be used. Just make sure you include actual external customers. Validating your assumptions using internal customers can yield a content strategy biased toward your organization's business strategy, which is exactly what you're trying to avoid.

3. Less is more

One of the most valuable lessons I've learned in my career is that when it comes to content, less is almost always more. Intentionally produce fewer, higher-quality topics focused on the right core scenarios, instead of more lower-quality topics that cover the breadth of scenarios your product or service can support. If you've done your homework and validated your assumptions, your list of scenarios should illuminate what content is vital to customer success, and what content is nice to have. Once you've shipped your product or service, listen carefully to your customer feedback to identify where customers are struggling. Only then should you "fill

in the gaps" with additional content, to cover the critical customer scenarios you were unable to anticipate. Face it, most of your customers don't actually want to read your content, regardless of how good it is! Give them less to read, and they're going to be happier customers.

Choose your path

In my experience shipping content for multiple versions of Windows, I've learned that fighting the temptation to do something glitzy and eye-catching and, instead, focusing on nailing the basics, yielded the best possible outcome for my customers. Those releases where we focused on fundamentals like Windows XP and Windows 7 have always been hits. Innovation and novelty always left a sour taste in our customers' mouths. Which path should you choose? Just ask the engineers behind Windows 10. They went back to the basics, and the world responded exactly how I had anticipated – positively.

ABOUT THE AUTHOR

Keith Boyd

has over 15 years of experience as a content professional. He formerly managed the developer documentation team in the Cloud and Enterprise (C&E) division at Microsoft, and previously held the same role in Windows. He recently joined the Microsoft Learning team as a Business Development Director for the Microsoft Virtual Academy.



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Balancing standardization against the need for creativity

Structured authoring doesn't have to be the adversary of creative writing. Three case studies reveal how companies can balance standardization and creativity for optimal documentation.

By Alan Pringle

It is a common stereotype that structured authoring is rigid, unbending, and free of creativity. In my experience, the opposite is true. Creativity is necessary to develop structured

workflows, and – if developed with the specific requirements in mind – these workflows enable creative solutions. Business requirements often demand

flexibility in how content is developed and distributed.

Three short case studies based on Scriptorium Publishing's collaborations with clients illustrate how companies can balance creativity and standardization. The case studies are:

- Designers communicating layout specifications to programmers for automated outputs
- Flexible layouts for well-designed print publications
- Evaluating efforts to customize procedures

Designers communicating layout specifications to programmers for automated outputs

Desktop publishing (DTP) software offers template designers a visual interface for developing the formatting of print and PDF output. The interface shows what the page will look like: the page size, the font for each paragraph, the spacing between paragraphs, and so on.

This visual aspect of template development is missing in structured workflows that generate automated outputs. Instead, programmers use a text or XML editor to develop stylesheet code that defines formatting. So, how can stylesheet programmers and DTP template designers collaborate most efficiently to identify formatting specifications for automated output?

Extensible Stylesheet Language-Formatting Objects (XSL-FO) is a common solution for creating PDF output from XML content (see Figure 1). Coding in the XSL-FO stylesheets controls the formatting of the PDF output. The following sample code defines first-level headings:



```

<xsl:variable name="level-1-family">SansBold</xsl:variable>
<xsl:variable name="level-1-size">14pt</xsl:variable>
<xsl:variable name="level-1-line-height">15pt</xsl:variable>
<xsl:variable name="level-1-weight">normal</xsl:variable>
<xsl:variable name="level-1-style">normal</xsl:variable>
<xsl:variable name="level-1-indent">0pt</xsl:variable>
<xsl:variable name="level-1-color">#000000</xsl:variable>
<xsl:variable name="level-1-space-before">42pt</xsl:variable>
<xsl:variable name="level-1-space-after">4pt</xsl:variable>

```

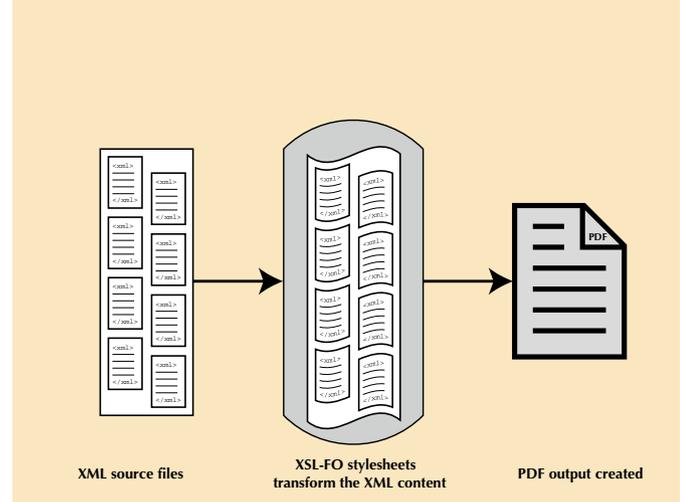


Figure 1: Typical XML-to-PDF process

In their early efforts to gather formatting information, Scriptorium's stylesheet programmers extracted specifications from the paragraph styles, table styles, and so on, in the existing DTP templates. The programmers also received a list of changes from the template designers. Often, the designers made requests such as:

- "Make the chapter heading a little bigger."
- "Change the heading color to the new corporate blue."

These requests were perfectly reasonable, but programmatic formatting requires specific numbers. How many points is "a little bigger"? What is the Pantone color code for the corporate blue?

To improve communication between template designers and stylesheet programmers, a Scriptorium stylesheet programmer developed a process that relies on...stylesheets!

First, the programmer added detailed code comments to the stylesheets. For example, for the page size settings, the comment reads:

```

Physical page dimensions. US Letter is
8.5 in x 11 in; A4 is 8.3 in x 11.7 in.
Dimensions that accommodate both paper
sizes are 8.3 in x 11.0 in.

```

He then developed another stylesheet-based process that extracts the code comments and creates a Microsoft Word file. The Word file explains each setting and includes the default value. The template designer reviews the settings, modifies the values as necessary, and returns the revised Word file to the programmer (see Figure 2).

Using the Word document to collect values greatly streamlines the development process. Programmers receive specific measurements they can add to the stylesheets. Also, the detailed code comments serve as a reference to those who later maintain the stylesheets.

Flexible layouts for well-designed print publications

Automated PDF formatting works well for technical communication. But what about highly-designed content for printed books? How can companies enable flexibility in print/PDF layouts generated from structured content?

Flexibility in PDF output was a requirement for a company's printed study guides. Production specialists, who designed layouts by adjusting the positioning of images, how text breaks across pages, and so on. The designers ensured that the visual flow of content helps readers comprehend the information. In its transition to structured authoring, the

company needed to preserve the high-quality layouts. Automated PDF formatting was not good enough because of the need for precise control over pagination, line breaks, and so on. Scriptorium programmers developed stylesheets that transform the source XML content into an InDesign-compatible XML file.

Here is a sample of the source XML content:

```

<p>When developing a test bed, it is
important to ensure that you cover
<b>all</b> basic cases for your re-
quirements.</p>

```

The transformed XML includes references to styles in the InDesign template, as shown in the following sample:

```

<ParagraphStyleRange AppliedParagraphStyle="ParagraphStyle/body">
  <CharacterStyleRange AppliedCharacterStyle="CharacterStyle/$ID/[No character style]">
    <Content>When developing a test bed, it is important to ensure that you cover </Content>
  </CharacterStyleRange>
  <CharacterStyleRange AppliedCharacterStyle="CharacterStyle/bold">
    <Content>all </Content>
  </CharacterStyleRange>
  <CharacterStyleRange AppliedCharacterStyle="CharacterStyle/$ID/[No character style]">
    <Content>basic cases for your requirements.</Content>
  </CharacterStyleRange>
</ParagraphStyleRange>

```

Variable name	Current value	Your value
Specify the basic page setup.		
Physical page dimensions. US Letter is 8.5 in x 11 in; A4 is 8.3 in x 11.7 in. Dimensions that accommodate both paper sizes are 8.3 in x 11.0 in.		
page-width	8.3in	
page-height	11in	
Default margin (allows you to specify single, common value). You can set the margins individually below.		
page-margins	1in	
Specific margin values. Change these if your page has different margins on different sides.		
page-margin-inside	\$page-margins	
page-margin-outside	0.5in	
page-margin-top	0.75in	
page-margin-bottom	0.75in	

Figure 2: Word file excerpt with page size information

When a production specialist places the XML file into the InDesign template, the correct paragraph and character styles, table designs, and other formatting are applied automatically. Production specialists adjust pagination and image placement in the InDesign content before creating a final PDF file sent for printing. With this new workflow, the publisher maintained the high-quality formatting but significantly reduced the time required for production.

Evaluating efforts to customize procedures

Balancing the standardization of structured content against creative requirements is not just about formatting. When companies choose an XML standard, such as DITA or DocBook, they must evaluate whether to use the default structure or modify it to better fit requirements. The discussion about such changes is a creative process itself. When should a company change default structures?

A company implemented DITA to improve the control over conditional content, support responsive designs for phones and tablets, and manage increasing localization requirements. Content was previously developed with desktop publishing software and distributed in print and PDF. Guides contained procedures with more than 100 steps, which included substeps and sub-substeps.

By default, the DITA standard does not permit sub-substeps in the task structure. The content creators requested the addition of a sub-substep element.

Scriptorium's information architects suggested evaluating the efforts required to either modify or maintain the default structure.

Modifying the default structure would entail the following work:

- Developing and testing the structure customization
- Implementing the change in authoring tools, the component content management system, and stylesheets for each type of output (PDF, HTML, Help systems, etc.)
- Distributing the customization to localization vendors and ensuring their tool chains support the change
- Training new writers familiar with the default structure on the customized structure

Preserving the default DITA structure for the procedures would require the following effort:

- Rethinking the structure of procedures so that they did not include sub-substeps
- Rewriting many procedures to follow the new methodology, which would break up lengthy procedures into smaller related procedures

The content creators were immediately resistant to the idea of rewriting content to match the default structure. They argued that the effort would be too significant due to the large number of procedures. The writers' bias against the new approach was likely increased by the perception that rewriting was an implicit admission that the current procedures were poorly structured.

The information architects acknowledged that rewriting the procedures would require great short-term effort. However, they believed that the overall benefits of maintaining the standard outweighed the rewriting effort. There would be no costs for implementing and maintaining structural changes for the company or for its localization vendors. New writers with DITA expertise would not need training on custom elements.

More importantly, adhering to the standard offered compelling long-term benefits. The information architects rewrote some procedural content in the default structure. The samples demonstrated how shorter procedures increased opportunities for content reuse, which would reduce writing time and improve consistency. Also, the information architects believed it was essential to consider users reading content on the small screens of phones and tablets. Phone and tablet owners would more easily comprehend shorter procedures.

Ultimately, the content creators and information architects were not able to agree on an approach. The structural changes were not implemented in the pilot project to stay within the project's budget. However, after the pilot was completed, the information development group hired its own full-time information architect and intended to reevaluate the customization with that resource in place. (Not every consulting engagement has a happy, tidy ending, unfortunately.)



Conclusion

Implementing structured authoring does not mean the end of creativity in how companies develop and distribute content. These case studies demonstrate that

- creative use of technology can streamline communication about design elements;
- it is possible to reap the benefits of structured source content while preserving flexibility in the formatting of output;
- considering structural changes is a creative, deliberative process that evaluates both short- and long-term costs. Stakeholder biases affect decisions and increase change resistance.

ABOUT THE AUTHOR

Alan Pringle is director of operations at Scriptorium Publishing. He helps clients solve problems



with the development and distribution of content. His responsibilities include content strategy analysis, automating production and localization tasks (often with XML-based workflows), and managing schedules and budgets for complex consulting projects.

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Soliciting customer feedback in today's global social world

Customer feedback enables smart business decisions.
For valuable feedback, ask specific questions and never lose sight of the bigger picture.



Image: © pichet_w/istockphoto.com

By Rebecca Ray

Localization managers often find it difficult to provide timely, high-quality feedback from international customers. Colleagues in product marketing question which localized versions to produce in the first place. Digital marketers seek

insights on what the competition is doing in local markets. Those responsible for translation want to verify linguistic quality. This article covers what feedback to solicit, who to gather it from, how to collect it, and what to do with it once you have it.

Choose specific topics when gathering local input

Before asking people in local markets what they think, develop a questionnaire to focus your

discussion. Improving the customer experience (CX) is central to most feedback initiatives, so feel free to ask about product design, end-of-life for a current service, and anything in between. Investigate how your products and services are presented to, sold to, delivered to, and supported for international customers. Research the local versions in which your offerings are available. Your role in the localization process defines your perspective on feedback:

- **Localization managers want to explore linguistic quality.** They want to know how to properly tier content types and language quality for specific audiences. They need insight as to when alternatives such as crowd-sourcing or post-edited machine translation could stretch their budgets.
- **Content creators seek data about how localized content is consumed.** Apps have just a few seconds to catch people’s attention in their “mobile moments” before they move to their next email, tweet, or video. Web content writers, technical documentation teams, and videographers look for all possible input as they create optimal content for each point of a customer’s journey with their company.
- **Marketing and sales people benchmark against local competitors.** When they enter a new market or strive to increase market share, marketers want to identify areas where rivals excel and where they need to improve.
- **Product managers want input on designing the next product or service offering.** They must balance meeting the requirements of current customers while moving forward at the right pace to win new audiences.

Look beyond current customers to add nuance to international feedback

Once you identify the issues and questions to research, it’s time to figure out who you should talk with in order to get the information you need. Collaborate with colleagues in marketing, sales, business development, user community management, customer support, and in-country subsidiaries to confirm your target profiles and the best avenues to reach them. Sales engineers in local markets and the people answering post-sales calls, emails, and chats are excellent sources for this type of information.

Sources for finding the right people to provide feedback	
Internal	External
Business development	Embassies and consulates
Customer support	Foreign students
Local subsidiaries	Freelancer networks
Marketing	Local partners
Sales	Professional associations
User community managers	Third-party suppliers

Table 1: Seek out internal and external sources for reaching the right customers.

Source: Common Source Advisory, Inc.

Avenues for gathering international customer feedback		
	Avenue	Sample activity
Electronic touches	Business networking sites such as Dajie, LinkedIn, Viadeo, and local equivalents	<ul style="list-style-type: none"> · Connect with individuals and companies as they purchase your product or service · Nurture group discussions · Post content and ask questions that are relevant for prospects and customers · Pull followers into your user communities
	Surveys	<ul style="list-style-type: none"> · Include one or two questions on corporate customer satisfaction (CSAT) or net promoter score (NPS) surveys
	Social networking sites such as LINE, Twitter, WeChat, and their local equivalents	<ul style="list-style-type: none"> · Connect with individuals and companies as they purchase your product or service · Post content and ask questions that are relevant for prospects and customers · Pull followers into your user communities
	Social analytics software	<ul style="list-style-type: none"> · Deploy a product from companies such as Adobe, SDL, Sentiment, or Webtrends
	User communities	<ul style="list-style-type: none"> · Ask questions related to product design, localized versions, local marketing campaigns, anything!
	Wikis	<ul style="list-style-type: none"> · Track the technical and support documents and languages used by your customers
Human touches	Customer support	<ul style="list-style-type: none"> · Review call logs and emails for local market feedback · Join live calls and chats with international customers
	Partners	<ul style="list-style-type: none"> · Reach out to companies that sell or support your products in local markets · Ask service partners such as LSPs or content creators if they have customers you can contact
	Local subsidiaries	<ul style="list-style-type: none"> · Talk with local marketing managers and sales engineers
	Physical locations	<ul style="list-style-type: none"> · Conferences, concerts, Internet cafes, malls, sports events

Table 2: Companies can use many avenues to solicit international customer feedback.

Source: Common Sense Advisory, Inc.

Don’t stop there. Cast your net externally. Share what you’re trying to find out with local partners such as distributors and sales agents, language service providers, third-party content creators,

freelancer networks, and multimedia production houses. Some may allow you to contact their clients. Professional associations for marketing, international business, and product marketing



Intuitive, web-based XML editor

can be good sources. Your country's embassies and consulates can put you in touch with expat community members. They can easily bridge the cultural gap to enlighten you on what does and doesn't work in their market.

If you're trying to reach younger, future consumers, don't ignore foreign students attending university in your country. Graduate students, especially, should be able to articulate the expectations of the different strata within their societies. Apply what you learn to keep product roadmaps on track or to calibrate the appropriate level of quality for specific types of content.

Identify multiple vehicles to reach your target audiences

In today's multi-channel world, turbocharged by social media, there are many sources for collecting useful feedback throughout a customer's engagement with your product and organization. Most important is that you recognize where your prospects and customers are likely to gather, whether online or offline. They can find you, so you should be able to find them.

Route actionable feedback along the right track

Depending on the results of customer input, your team may be able to handle all comments related to linguistic quality. However, take care to drill down so that you understand which feedback may relate to missing features or functionality, or the overall design of a product or marketing program. Review how your company presents and processes this type of feedback, and who can act on it.

Discuss next steps with your executive sponsor. If you don't have a sponsor, find someone in operations or finance who can guide you to the right person. Without upper management support, you risk local market feedback being ignored as your company rushes to meet other priorities.

What you find may surprise you – it's not always about linguistic quality

In our research and consulting engagements, CSA Research has observed many translation

and localization managers getting caught in the linguistic quality rut when trying to solicit high-quality customer feedback. What does that mean? Consider the infotainment system in your all-electric car. It may be perfectly documented and translated. However, if it's still too complicated to use or counter-intuitive as compared to your Android or Xiaomi, the car manufacturer will have wasted the investment in translation – regardless of how good the linguistic quality is. Take care not to focus exclusively on linguistic issues to the point of failing to recognize what you should be localizing (for example, video instead of written content) or how to deliver it (machine rather than human translation). Look at the bigger picture. You may find that customers are telling you to localize less for them, but to go deeper in what you do deliver. Or, perhaps they're looking for a bilingual version of certain types of content to have access to the original. Whatever their preferences, make sure that you don't miss the overall message as you review answers to individual questions.

ABOUT THE AUTHOR

Rebecca Ray

is a senior analyst at independent market research firm Common Sense Advisory. In her work at CSA Research, Rebecca's primary focus is enterprise globalization, social media, multilingual SEO, and global product development. A former Rotarian Scholar and Silicon Valley veteran, Rebecca co-authored a book for global high-tech companies on doing business in the United States. Based in Turkey, she has lived and worked in Asia, Europe, the Middle East, and Latin America. Rebecca is fluent in English, French, and Spanish, and proficient in Portuguese and Turkish.



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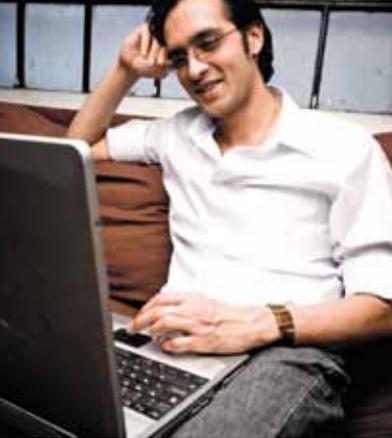
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Faster than agile – live XML documents

Live XML content offers a vast number of opportunities for technical writers. However, its proper adoption requires a paradigm shift.



By Jang F.M. Graat

The Content Era is here

Who needs a table of contents or an index if we have Google? And, who needs Google if the info can be requested by an app and processed into shapes, graphs and colors that users learn to recognize much faster than their reading skills would ever allow?

We live in an era where content may be requested anywhere, anytime. Consumers of our content keep raising their demands – not for more content, but for more localized, more personalized and more technologically advanced content. We went from printed manuals to PDFs and from PDFs to web pages, and then to responsive HTML5 and embedded Help functionality. The consumers have changed, too. More target groups than ever may be accessing your content for a wider variety of reasons. Some of these groups are not even human. Recently, non-human users of the Internet have outnumbered human users. And all of these consumers request small snippets of information, but faster, much, much faster.

What is the problem?

We used to have one manual that explained everything about the product: it came in the box and started with congratulations on buying such a wonderful product, followed by installation instructions, etc. Nobody ever read such manuals cover to cover (except the occasional reviewer). Since those long-gone days, manuals have become shorter, as they were partly replaced by Help files, web-based Help systems and instruction videos.

Once the path to the Web was found, users started demanding more personalized info, and the documentation department started using personas to develop multiple sets of documentation for the same product, each catering to a specific target user group. With every new persona, the number of publications for the same product increased. Still, this was not a big problem, as publication was only done once every year and everything was placed on a website rather than being printed, bound and put into a box.

All seemed well in the world of web-based technical documentation. But in the past decade, most product development, especially in software, has become a non-stop evolutionary process. Small changes are being implemented on a weekly or even daily basis, and parts of the documentation are quickly outdated. All of a sudden, the tech docs department has to produce a growing number of publications on much shorter notice than ever before.

Copypat behavior

Many technical documentation teams are simply following their product development counterparts in adopting agile methodologies. Where they used to have months or even years to do a thorough rewrite of the entire product manual, they are now issuing small updates every couple of weeks. Instead of working towards a complete overhaul of the previous version of the manual, the authors are tinkering here and there, only changing what is required due to changes in the product or customer complaints.

There is nothing wrong with this approach to documentation: Changing only what needs to change is a sound strategy to bring down the pressure and gradually improve the product. But what happens next is complete republication of the materials, in the same way that a software company has to rebuild their entire product even if only one line of code was debugged. Many companies have installed an automated (re)publication process that runs overnight. This is where the documentation team forgets to think outside the book, and thereby loses out on opportunities that would indeed make it faster than their agile counterparts.

What is not a problem?

For software development, it makes perfect sense to rebuild the entire product after even the smallest change. Software might crash when there is even the slightest inconsistency in the code (that is why these inconsistencies are usually referred to as bugs, not elephants). But information does not crash, at least not in the way a hardware or software product does. Even if one page contains a typo, an error or a broken link, all the other pages still “work” the way they are supposed to. And since the Web does not have page numbering, inserting pages does not require a rebuild of all subsequent pages and cross-references.

The real reason for companies to rebuild their entire documentation with every change is that these companies still live in the book paradigm of the past. When the manual was printed and packed into the box with the product, there was no other choice: even with one small change you had to reprint the entire manual. But with the web-based content of today, single pages can be replaced without ever touching any of the others.

The problem is not the outdated materials. It is the outdated book paradigm, in which the unit of publication is the entire documentation set. Changing that process offers a wealth of opportunities that allows the technical documentation department to overtake the agile teams in product development and become the fastest team in the house.

Thinking outside the book

The only solution that really makes a difference is letting go of the oh-so-familiar book paradigm and going live. Not by making the automated publication cycle go even faster, with hourly builds instead of weekly or daily ones. Neither am I proposing to publish each individual page whenever it gets changed. Instead, I store each piece of content directly on the server, in the XML format that your editing software can handle. Publishing (in the sense that it has nowadays, meaning transforming the content into a format that a web browser can handle) is deferred to the moment when the content is needed.

There is no technological reason to change your XML content into HTML5 or other formats before passing it to a browser on the user's device. Today's web servers have sufficient technology and power to carry out the transformation to the required formats on the fly at the moment a piece of information is requested. Publish on demand. One page at a time, or rather – one piece of content at a time, as the “user” might be an app that only requires one small part from your documentation set.

Once this seemingly small mental step is taken, the opportunities become overwhelming. In this article, I am only scratching the surface, as there is so much more that can be done with live XML content.

Adaptive vs. responsive design

Since the inclusion of media queries in CSS and the subsequent development of libraries like Bootstrap, the world of the Web has gone re-

sponsive. The motto of responsive web design is “mobile first”. But do media queries really achieve this goal? What they can do is make certain content invisible, or replace a high-resolution image with a low-resolution one. But all content still needs to be transferred to your smartphone, just to be hidden from view. Counter to common belief, I have plenty of real-life proof that the Internet is not simply available and fast wherever I go. Unlimited bandwidth is a fairy tale.

With the “live XML documents” approach, publication of the content is carried out when a lot of knowledge is available about the user who is requesting the information. Device type, screen size, browser type etc. – all of this information is part of the request that any browser sends to a web server when loading a page. Even more information can be added via forms, login procedures and/or cookies.

With all that information available, transformation to personalized content becomes an easy task. Using the same XML content, the process may create a fully responsive HTML5 page for a desktop computer or a trimmed-down HTML page with low-resolution images for a smartphone. Depending on screen size, geographical location, authorization, etc., the process can transform the requested content to a certain type of media. If the requesting device has a screen reader, indicating a blind user, all images may be skipped and replaced with speakable text. Everything becomes more efficient and more personalized at the same time.

Live editing and reviewing

Having the XML content available on the server opens up more opportunities than just creating adaptive design, especially in a world where all browsers support HTML5, and HTML5 allows in-browser content editing. Using another standard technology called AJAX, the browser can send the changed data back to the server, where it is integrated with the original XML to create a changed version. With this technology, correcting a typo in content that is published on a live XML document website can even be corrected on a smartphone.

As the content is and remains XML, live editing can be controlled much better than would be possible in a Wiki. Attribute values can be used to define who is authorized to make changes to

each particular part of the content. Using the rich semantics of XML, it is easy to give an editor access to the running text, while allowing an engineer to make changes to a table of data. Of course the integration process can be adapted to different needs as well. Instead of changing the XML source directly, the changes can be passed into a database and offered to the author as tracked changes. All that is required on the reviewer's device is a modern browser and the URL of the page to be reviewed.

One source fits all

As indicated above, we are seeing more types of users accessing the same website for information. Many companies are still maintaining two almost completely separate sites: one for the end users and one for their own service staff. This separation involves lots of logistical problems, as content needs to be prepared and maintained in two different sets. Very often, the internal documentation is a chaotic collection of Word documents, drawings, emailed notes etc. -- not a well-structured website that is easy to navigate and pleasant to look at on all kinds of devices. With the live XML document approach, there is no longer a need for full separation of the information that is handed out to the two main groups of users (end users and internal staff). Instead, a small piece of authorization code on the external website suffices to make the on-demand publication process yield different sets of information from the same XML source. Content that is marked as "internal only" will only be pushed out when the person requesting the page has been authorized as internal staff.

A relatively new development in this content era is the request for information by non-human consumers. The Internet of Things is often explained by a fridge that warns you that your milk is too old or automatically orders new milk from the shop. In reality, the Internet of Things is much more subtle and ubiquitous than this. Most of the time, you will not even notice all the non-human users of the Internet. You merely notice that some things in modern life have become a lot easier than they used to be. Many of these non-human users of the Internet search for information, too. And with the ability to browse comes the reversed ability of a live XML document site to serve these non-human agents in a way that is optimized for them. It does not require rocket science to have a device

send an XQuery string to retrieve a piece of data from the same XML content that describes a product to a human user.

Automatic localization

As a final example of options that become available in a live XML document approach, it is quite easy to have a transformation automatically localize certain pieces of content, such as temperatures, dimensions and even spelling. If the author has marked up the content with semantics that define the measurement units, the on-demand publication of the content can convert any measurement to another unit, defined by the locale of the user who requests the page. If this type of automatic localization had been in place six years ago, the Mars Climate Orbiter might not have burnt up in the Martian atmosphere. That 125 million dollar disaster was due to a forgotten measurement conversion.

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Structured authoring enables effective content reuse

Content reuse is not just a longstanding goal in technical writing, but an operational necessity. However, the focus on methodology rather than structure can hinder effective reuse.



Image: © 马亚平/123rf.com

By Debarshi Gupta Biswas and Samiksha Chaudhuri

With the unprecedented proliferation of content publishing channels, businesses have realized the criticality of delivering engaging content over various devices, media and platforms. Two elements enable technical writers to create content once and publish it myriad times for multiple formats:

- **Content reuse:** You develop a piece of content, store it in your central source control, and leverage it for more than one work product belonging to the same output medium. One example is maintaining one copy of your definition of terms within your source control, and including it across the printed versions of your Getting Started Guide and User's Guide.
- **Single sourcing:** You develop a piece of content and use it for various media. An example is leveraging the same set of field information

for your printed User's Guide as well as for your Online Help for on-screen viewing.

Employing the power of content reuse and single sourcing to its fullest potential can yield the following well-established benefits:

- Eliminating redundancy and duplication of content
- Enhancing accuracy by avoiding updating the same sections more than once
- Leveraging available content for new documentation
- Enabling the localization of content for varied audiences

This article explores how content reuse and single sourcing can sustainably enable technical writers to deliver meaningful results with minimal effort.

Creating reusable content

In order to develop custom content that can be viewed on various channels, enterprises have regarded content reuse and single sourcing as the "Holy Grail of documentation". The reuse of content is particularly relevant in a world where budgets are tight, resources are limited, time-scales are stringent, and quality is non-negotiable.

The Aberdeen Group's *Benchmarking Content Reuse in Technical Communication* study (March 2010) established how leading performers have been able to publish 31 to 99 percent more content per contributing author in contrast to their competitors. Additional research revealed that while the number of an organization's products increased by 14 percent over one year, the number of technical writers decreased by 6 percent on average. This forces technical communicators to find innovative ways to produce quality content within stringent timescales but with fewer resources.

Presumably, the more content an enterprise is able to reuse, the higher the potential of repurposing existing material. "Reuse is a longstanding goal within technical publications," David Houlihan, Senior Research Associate for Aberdeen's Product Innovation and Engineering, explains. "[B]ut the challenging business climate [...] has transformed reuse into an operational necessity." The study also found that the amount of reused content plays a minor role in the overall organizational benefits when compared to how readily the content can be reused. While the top enterprises achieved significantly greater performance than their peers, it was not by means of leveraging more content. On average, organizations were able to construct about 45 percent of a new document from content that was previously created. This number does not change significantly, irrespective of the performance of an organization. Instead, the best-in-class enterprises develop content in a way that makes it easy to reuse, and this in turn compounds the productivity of their technical communicators.



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Context and structure are paramount

Evidently, it is a very common practice to reuse content in the name of efficiency. However, reusing content in an unmanaged way can result in errors and have a negative impact on quality. Leveraging managed reuse techniques can deliver key benefits such as:

- Enhancing the consistency and accuracy of information within and across publications
- Decreasing costs and effort for maintenance because content is updated once and reused many times
- Reducing localization costs because only new content needs to be translated

However, things can go off the rails when technical communicators treat documentation as a set of discrete modules that can be assembled indiscriminately and matched to create varied kinds of deliverables. Context is cardinal in technical communication. Reusing modules without context and structure will result in documentation that readers find challenging to use. It is essential to establish a solid structure at the outset, and then determine where content can be reused within that structure.

Single sourcing can offer optimal results when...

- documentation is required for adoption of several products that are part of the same suite and share features or functionalities;
- the same content must be published in various formats, such as PDF and Online Help;
- procedural content is required for regional offices, and each set of regional content is characterized by local variations.

Content reuse and XML

Consider a scenario where half a dozen role-based user guides need to be developed in Microsoft Word for an application. There are approximately 100 field descriptions and 50 screenshots that can be reused. In addition, half a dozen Online Help files need to be developed using Adobe RoboHelp. To address the

blend of on-screen and off-screen references, the scenario calls for a significant effort in content development. If technical communicators are not leveraging the power of content reuse and single sourcing, this effort will entail the arduous task of manually copying and pasting content within and across the deliverables in question. This is not only time-consuming but exposes the documentation to the risk of inaccuracy and inconsistency within and across the deliverables. Further challenges include:

- A set of common field descriptions is rendered inaccurate during an SME review. Therefore, the same description needs to be updated across a multitude of channels.
- A set of 20 screens has been updated with the addition of two new fields. Each of these screens is accessible to varied user groups with minor differences in the way they transact with the screens. The content for these screens will need to be updated within and across the deliverables.
- As a consequence of the above, the screenshots for the above 20 screens will also need to be changed and incorporated within the half a dozen user guides.

The above scenario calls for a blend of content reuse and single sourcing. An XML-based authoring tool can help define the reusable components once, which can then be reused whenever the need arises. When a deliverable is published, the reusable component is replaced with the actual content associated with the component. Because of its ability to separate content from presentation, XML supports an intrinsic "write once, read many times" mechanism that makes it easy to reuse information across multiple documents or deliverables or foster customization of information for a specific output format. Using a special notation, called a "markup", to identify the structure and type of information contained in a document or deliverable enables technical communicators to focus on the content rather than the presentation. Delivering structured information in a generic format independ-



ent of how the information is used assumes great importance in XML. In short, XML provides a software-independent documentation environment that facilitates reuse of information where a singular set of content can satisfy the requirements of a multitude of audiences or formats. Extending the concept further, DITA offers an XML document type definition (DTD) that embodies:

- **Topic orientation** in the sense that technical communicators can entirely focus on the content without dipping into the various formats in which the content might be read

- **Information typing** using structures and tag-driven semantics that remain valid irrespective of how the information reaches the consumers

- **Specialization** of information types depending on who the consumers are

XML or structured authoring?

XML can be falsely deemed the key solution. Technical writers feel that by moving their enterprise content

to XML, they will instantly have the ability to reuse and seamlessly deliver content across channels. What XML does indeed provide is the ability to tag or label content at a granular level. However, it is important to remember that what is labeled and how it is labeled is crucial. For effective reuse, it is essential that the labeling is accurate and contains the correct set of information. Thus, in most cases, while technical communicators choose XML to carry out reuse, this generic view dilutes the need to ensure that labeling is correct. In other words, the emphasis should be on embracing structured authoring rather than leveraging XML. All the choices technical communicators make with regard to technology or methodology in the form of XML, DITA, DocBook, or others are driven by the type and granularity of structured authoring adopted during their projects. XML is only one way to implement structured authoring.

Summary

To develop custom content targeted for varied output formats and audiences, enterprises have traditionally focused on content reuse and single sourcing in an industry characterized by tight budgets, resource constraints, stringent timescales, and non-negotiable quality. Fostering reuse without accounting for the context and structure results in unusable documentation, from the consumers' perspective. By way of XML markup, technical communicators are able to identify the structure and type of information contained within a document, regardless of how the respective information is used across various output formats. It is important that the industry prioritizes the use of structured authoring over leveraging XML, as the former drives how content is labeled within a document to ensure the right level of reuse. XML is one of the ways to implement structured authoring.

References

- www.marketwired.com/press-release/Proven-Content-Reuse-Strategies-for-Authoring-Efficiency-Identified-1167002.htm
- <http://xml.coverpages.org/DITA-ReuseByReference.pdf>
- <http://everypageispageone.com/2014/01/27/xml-is-not-the-answer/>
- http://thecontentwrangler.com/2008/10/27/content_reuse_is_it_harmful/

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* *Fluid* is approved as a noun only, unlike *liquid*, which is approved as a noun and as an adjective.



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The past, the present and the future of DITA

As the DITA standard celebrates its 10th anniversary this year, we reflect on its existence over the last decade and note how much has changed in the way we think about structured technical documentation. DITA continues to evolve with the DITA 1.3 specification expected to officially release by the end of 2015 and Lightweight DITA pointing to other ways the standard can be used.

Image: © barsik/istockphoto.com



By Keith Schengili-Roberts

The birth of DITA

IBM developed Darwin Information Typing Architecture (DITA) in the early 2000s when it needed to upgrade its proprietary, SGML-based Information Structure Identification Language (ISIL) and resolve its issues with producing standardized content.

During this process, XML was introduced, providing a new, more concise way to formulate data formats. The World Wide Web also came into its own at this time, which forced technical writers to rethink the prevailing book model in favor of a (web) page-based model. This was further refined into a more granular and typed topic-based model. As a result, DITA began to grow and IBM released the idea freely to the OASIS standards body.

Many things have happened since the initial release of DITA 1.0 in June 2005. As of 2015, the authoring and publishing software tools industry

has grown to meet the challenges of working with DITA-based content.

While DITA first took hold in the software sector, the concept of content reuse and all of its attendant advantages – content consistency, increased writing efficiency, and lower localization costs, to name just a few – are factors that have led to its rapid spread among many other industries. Though the use of DITA is not universal, the idea of structured content has become part of the general zeitgeist of technical documentation.

DITA takes root

Outside of IBM, there were about a half-dozen companies that could be considered DITA early adopters. These companies included Adobe (software), AMD (then ATI), BlackBerry (then known as Research in Motion) and Nokia (both telecom manufacturers), along with Siemens Healthcare (medical devices) and Kone (machinery). Most of these companies were considered “high-tech” with software divisions that could provide version control software to be used as primitive Content Management Systems for holding DITA topics. Feedback from these early adopters went into new features that were incorporated into DITA 1.1, released in May 2007. This version expanded the simple idea of maps that provide minimal structure and metadata and are primarily useful for online outputs, to that of bookmaps, which provide extensive book-specific metadata along with organizational elements such as chapters, appendices, parts, tables of content and so forth. It also introduced DITAVAL, used for conditional processing based on assigned attribute values, which allows, for example, generating a different manual for specific audiences or for the details of various operating systems.

Momentum for DITA continued to build, primarily within the high-tech sectors. By 2008, these included software firms like Algorithmics, BMC as well as Business Objects and Sybase (both acquired by SAP), among others. Later that year, this list began to diversify, with firms emerging from other sectors: semiconductor firms such as Freescale and Qimonda were now using DITA, along with FamilySearch, Kongsberg Marine and salesforce.com. By 2009, a number of consulting firms catering to firms wanting to move to DITA appeared, such as Innovatia and Scriptorium, joining the ranks of long-established structured authoring consultancies like Comtech in the United States or Mekon in Europe.

More tool vendors began to appear on the scene, such as Syncro Soft with their oXygen XML editor supporting DITA with version 9.0 by late 2007. Version 8 of Adobe’s FrameMaker, also released in 2007, included full DITA support.

During this time period, other companies such as Antenna House, IXIASOFT, Schema, and XMetal became early supporters of the standard by developing DITA tools and solutions that would give end users more options for using DITA within their organizations.

The translation firm SDL started significant involvements in DITA during this period, first investing in Trisoft in early 2008, followed by Idiom soon after, and acquiring XyEnterprise a year later. Just five years after its release, these tool vendors knew that DITA had become a significant force in the technical writing community.

The DITA 1.2 sea-change

Five years after the initial version of DITA was released, the DITA 1.2 specification came out in December 2010. The development of DITA 1.2 within OASIS was somewhat chaotic, with a number of incomplete proposals approved, with the dependencies of elements within some sections not being recognized until the final stages, and with much of the weight of the process falling to only a few OASIS Technical Committee members to review. The number of DITA tags available for use ballooned significantly, adding to the perceived complexity of the specification. One commentator summed up the new standard in one word: “messy”.

While the process that led to the DITA 1.2 specification may have been less than perfect, a number of significant new features came with it, including:

- The ability to classify content via Subject Scheme;
- Link indirection using keyrefs and keys;
- Constraints to limit the number of tags available;
- Optional, more generalized (“general task”) task topic type in addition to the existing “strict” topic type;
- Better handling of glossaries and terminology management;
- Learning and Training specialization;
- A number of additional tags for refining divisions of content, new ways to refer to maps and topics, and more.

Arguably the most significant feature within the DITA 1.2 specification was the indirect linking via keys. Keys allowed content creators to assign a

“name” to a reference. Now, instead of referring to a specific object (topic, image, map, etc.) by its filename, a content creator could refer to the assigned name, or key, instead. This indirect way of referring to content was not only a convenient feature for writers, but also significantly enhanced the portability of content, as it was easier to update a single key reference to an object than changing all the URIs if the object was moved or renamed. The feature also enabled more sophisticated conditional processing, further promoting content reuse. But it took significant time for features such as this to gain a significant traction. This was due in part to the specification’s greater focus on software tool developers, making it harder for DITA content creators to fully understand what many of the new features were intended to do. It also took a while for many software tools to become fully DITA 1.2 compliant. By late 2013, roughly a third of all DITA XML editors listed on DITAWriter.com were not fully DITA 1.2 compliant. While lack of full tool support likely hindered the wider adoption of features specific to DITA 1.2, most of the information architects and content creators who worked with DITA for five years are aware of its benefits.

What to expect with DITA 1.3

Considering the problems that plagued the development and launch of the DITA 1.2 specification, the OASIS DITA Technical Committee took steps to make the process of creating the DITA 1.3 specification easier. Additions to the developing specification now went through a three-stage process. Approval of an initial proposal was the first step, followed by approval of the overall design of the idea, with the hurdles set higher than for DITA 1.2. If an idea passed the second stage, it went through a final edit round and was added to the draft specification. The goal of this revamped process was to ensure full oversight of all possible dependencies between one idea and another. The members of the DITA Technical Committee also cleaned up the wording of DITA 1.2 material incorporated in the updated DITA 1.3 specification, with a clear focus on consistency, style and terminology, and, in some cases, re-writing existing sections for greater clarity. The new specification is supplied in three separate versions, designed to make it easier for software vendors and users to focus on portions of the standard for their specific needs. As of the time of

writing (late-September 2015) DITA 1.3 is in final draft stage and is expected to officially launch by the end of this year.

DITA 1.3 offers many new features. Some of the more significant ones include:

- Branch filtering: DITaval conditions can now be associated with particular nodes within a map (previously this could only be done within a root map);
- Built-in support for content-sensitive Help: allows content creators to set attributes for specific callback IDs and their context along with positional information;
- Support for any conceivable output type or device which can be specifically targeted using @deliveryTarget;
- Grouping blocks of content for reuse: the new block-level <div> element can be used to create arbitrary groupings of content, which can then be referenced for reuse;
- XML Mention domain: a new set of elements to describe types of XML markup, including tags, attributes, namespaces and more;
- Key scopes: different key values can now be “scoped” to specific nodes within a map. Cross-deliverable linking will now be possible, opening up the possibilities for creating multiple standalone publications with overlapping keys from within a single, omnibus publication, or a “mail merge” type of output, creating cross-references to content contained within a peer map and more;
- MathML and SVG are now natively supported: adding MathML-based equations and Scalable Vector Graphics (SVG) images – both separate XML standards – is now integrated with DITA 1.3;
- Release management: provides the means to create release note content in maps and topics;
- Turning of tables (and cells): it is now possible to rotate tables and the content of individual cells within a table;
- New troubleshooting topic type: designed to aid readers who are looking to solve problems they are likely to encounter under certain circumstances that content creators can anticipate.

These features, along with a number of other additions, represent a significant update to the existing specification, greatly extending DITA's potential. There are signs that tool vendors might be quicker on the uptake with DITA 1.3

than they were with DITA 1.2: Syncro Soft's oXygen XML editor includes aspects of DITA 1.3 piecemeal since January 2015, and JustSystem's XMetaL editor already claims DITA 1.3 compliance. DITA 1.3 has been five long years in the making, but it has been worth the wait.

The near future of DITA

So what can we expect of DITA in the future? One thing we can be sure of is that there will be no DITA 1.4. All of the DITA 1.x versions have been backwards compatible with one another, ensuring that content created using DITA 1.0 can still be used and operated with the same behavior within a subsequent DITA specification framework. Kristen James Eberlein, chair of the OASIS DITA Technical Committee, has publicly stated that DITA 1.3 will be the final DITA 1.x release, and that the subsequent release, DITA 2.0, will not be backwards compatible. It is too early for specifics regarding DITA 2.0, but it has been hinted that the focus will be on the base DITA architecture rather than on specialized vocabulary -- in other words, reworking the fundamentals of how it works, rather than adding new tags and attributes.

OASIS is also working on an interesting offshoot of mainstream DITA known as “Lightweight DITA” (LwDITA). The goal is to strip DITA down to its fundamentals, providing a down-sized version for those who do not need all of the features of the full DITA 1.3 specification. For example, at the moment a standard paragraph in DITA can include up to 60 specific tags, allowing content creators to add everything from blocks of code, notes, hazard statements, syntax diagrams, menu cascades, UI controls, etc. Lightweight DITA would bring that number down to nine, supporting a more restricted but straightforward set of tags (e.g. standard inline formatting elements, link addition, image and phrase insertion).

Lightweight DITA is not designed to replace the full specification, but instead allows DITA to be

adopted by a broader range of applications, both within and outside of the traditional technical content community. A good example of this is the recent implementation of Lightweight DITA using Markdown – a simplified language used for producing HTML – instead of XML tags, which helps non-content creators to contribute DITA content in a simplified, forms-based way. Another focus of Lightweight DITA is to expand its use outside of technical communication (e.g. new topic types specifically for marketing departments).

Over the past ten years DITA has grown significantly in popularity. It has evolved and become a very flexible tool helping technical communicators to make their processes more efficient. Thus it seems very likely that DITA will be around for another ten years and beyond.

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Further Reading

- What Can We Expect with DITA 1.3?
www.ixiasoft.com/en/news-and-events/blog/2015/what-can-we-expect-dita-13/
- History of DITA
<http://dita.xml.org/book/export/html/1047>
- Lightweight DITA
<http://dita.xml.org/blog/lightweight-dita>

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By Ray Gallon



Our world – the one we live in every day as well as the world of technical communication – is getting ever more complex at ever faster rates of change. Our job, of course, is to make sense of it all: to help people live their lives better inside of this accelerating complexity. How to do this when information can change in the time it takes to verify it? How to do this when so much of what individual people need to do is dependent on so many delicate variables about which we know little or nothing?

This is what complexity scientists call a “wicked problem”. Leaving aside, for the moment, our sense of amazement about a world where complexity needs its own scientific discipline, wicked problems are defined as problems that are difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. In addition, complex interdependencies make it so that the effort to solve one aspect of a wicked problem may reveal or create other problems. Does this sound like your life?

It’s certainly a situation faced by many of us and by many managers and corporate executives, as they try to make sense of the world and plan the future of their organizations.

A use case

Let’s look at three game-changing technologies that are now growing exponentially: The Internet of Things (IoT), Augmented Reality (AR), and Human Bionics. These technologies are both exciting and scary on their own, for their possible applications. But what happens when these three technologies start interacting?

Here is an example of such a scenario: I have special contact lenses that correct my vision, but also include Augmented Reality, 3D projection, and an Internet connection. In the morning, when I install them, I can see information about my environment that is communicated (via IoT protocols) from my house: The filter in my heating system needs cleaning; the milk in the refrigerator is about to expire; my electricity consumption is unusually high this month... I can also see today’s appointments, represented in front of me in virtual space. I can move an appointment from one day to another by grabbing and pinching with

my fingers in thin air, where the virtual calendar appears. The calendar software automatically changes the invitation to the other participants, and asks them to verify their attendance at the new day and time.

I go out to my car, and see that I need to change the oil this week. I drive to my office, and my contact lenses identify where I’ll find a free parking place in the garage. I don’t have to stop at the entrance, as the RFID chip implanted in my arm has transmitted my identity to the garage entrance control device, and the gate opens automatically for me.

All of the technology described in this scenario either exists today or is well developed and will be reality in less than five years. As technical communicators, we want to be able to help users learn about these technologies, and use them successfully (meaning efficiently, and also in a non-harmful manner). How can we do that when we don’t know our users’ context, what technologies they will have interacting, and when those interactions constitute sensitive initial conditions that strongly affect how they will be used?

The trick is to deliver just enough information to users when and where they need it, when we have no knowledge or control of their context.

And that is surely a wicked problem!

A Nematic approach to wicked TC problems

The usual way that we approach problems is to “solve” them – then they go away, right?

But wicked problems have no “solution”. A wicked problem is chaotic, in the scientific sense of the term, in that initial conditions are so sensitive we cannot accurately predict outcomes. But chaotic systems always tend to resolve themselves by the emergence of some kind of order. Not all such emergences are positive or useful, however. Our job is to interact with the wicked problem in such a way as to favor desirable, positive, useful emergences as often as possible. The problem won’t go away, but we can continually select the most valuable ways to operate with it.

A technique for doing this, called “Nematics”, has been developed by Dibyendu De, a process

engineer in Kolkata, India, working in collaboration with an international group of researchers. We can easily adapt this technique to the needs of technical communication, to help us with our particular brand of wicked problem.

Nemetics comes from the idea of "NEME," both an acronym and a play on words, evolving from Richard Dawkins' idea of "meme": Meme is defined as "an idea, behavior, or style that spreads from person to person within a culture" (Dawkins, 1989). The idea is that a meme is a replicator in the cultural and cognitive context, equivalent to the gene in biology. The NEME is a replicator in the context of Complex Adaptive Space (CAS) – the space in which most of us spend most of our waking hours.

NEME is also an acronym, and stands for a sequence that helps us identify the emergences we want to favor (De, 2014):

- **N**otice (or not)
- **E**ngage (or not)
- **M**ull (or not)
- **E**xchange (or not)

The sum total of exchanges in this sequence constitutes a NEME. It is an iterative process, and the accumulation of iterated NEME's forms more complex communicative structures.

Notice that each activity in the sequence includes the option to reject the activity. Rejection is a conscious process, a selection that we make, following the dictum of R. Buckminster Fuller:

Every time man makes a new experiment he always learns more. He cannot learn less... By the elimination of a false premise, his basic capital wealth... is dis-embarrassed of further preoccupation with considerations of how to employ a worthless time-consuming hypothesis.
(Fuller, 1983)

The theory behind Nemetics goes much deeper, but let's apply this sequence directly to how we do technical communication.

Notice phase

The Notice phase is the equivalent of our discovery phase. We need to ask ourselves (and our clients, internal or external) important questions, for example:

- What is the real work the user needs to do?
- What is the real work the user needs to do NOW?
- How will the user find the guidance we're providing?

- Which design will best serve to deliver the content to the user at the right place and time?
- How do we keep the content out of the way when the user doesn't need it?
- What must we give the user so that he can solve problems independently, extrapolate to other tasks, get out of difficulty?

Notice emergences from other situations:

- What succeeded the last time we did something like this? Why?
- What failed? Why?
- What never got used? Why?
- What don't we know?

Engage phase

To engage, in technical communication, means to understand the users' world and to act on that understanding. Go out and do user research – and meet the users face to face. Ask them questions about what you discovered in the notice phase.

- Understand the user's overall process – not just what he does when interacting with your product:
 - How often is he interrupted?
 - What does he do when interrupted?
 - How long are these interruptions? >>

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translating new ideas.

- Can he easily pick up again?
- What are the other regular tasks the user does that relate to use of this product?
- Create user stories that include it all

While engaging, continue to notice the different contexts for using your product *in situ*, and how users may have very spotty knowledge about different parts of it – being very advanced about some things, but with "black holes" about some other basic or intermediate use cases. You will mull about these in the next phase.

Mull phase

This is the hardest part for those of us raised in Western cultures. We tend to want to act right away. But if we want to be effective and efficient, we really must take the time to mull, to reflect, to consider, and to model:

- What have we learned from our research (notice and engage phases)?
- How can we tie it all together in a way that makes sense?
- How can we apply what we've learned to other domains in this product, or in other products?
- Do different use contexts require different information? If so, how to differentiate the information?
- What is the most effective way to deliver our content, based on these reflections?
- How can we fill users' "black holes" without telling them what they already know, when we don't know what they are in advance?
- What is the most effective and efficient way to produce our content to meet the needs we have discovered?
- What are our criteria for evaluation/success?
- Based on those criteria, how can we improve on what we've already done?

Mulling is a team effort, and should include as wide a group of stakeholders as possible – including developers, product managers, and customers, for example.

Exchange phase

The exchange phase is the action phase. You exchange plans with your team, and put them into action. You develop, you test and retest and you iterate. If you are working in a lean development environment, you are probably familiar with this.

Add value by obtaining user feedback. Encourage users to interact with each other.

- Retest:
 - What do users actually use?
 - What do they not use at all?
 - What parts of the product itself or our information about it cause them the most problems?
- Give users a place to interact with you and with each other:
 - What do they say to each other?
 - What do power users share with beginners or intermediate users?
 - How do they work around problems they encounter – can it be generalized or is it limited to one specific customer, one specific situation?

Users know your product in a more intimate way than you do. What they know is valuable capital for you as well as for product managers and developers. Document what you learn, and enter it in the notice phase of the next iteration.

How is this different from what we already do?

Basically, it isn't. It does codify, however, a sequence of activities that include what traditionally are considered different disciplines: technical communication, user experience, content strategy, business analysis. It does not codify who should do all these things. They are part of a team effort, and everyone must be aware of everyone else's contributions – no one person is able to master all of it.

What is not overtly stated, but is equally important in this context, is the need to remain open – to maintain what Buddhists call the "beginner's mind". It doesn't mean that we should forget all that we know, but that we should put it all aside and not judge while we are noticing, engaging, or mulling.

It also means we should be prepared to accept that "everything we know is wrong", because one day that will be true, simply because the rate of change is constantly accelerating. The more we notice, the more we engage with what we notice, mull it over, and exchange our conclusions with others, the less surprised we will be by the unexpected, and the easier our search for valuable emergences will be.

References

- Churchman, C. West (December 1967). "Wicked Problems". *Management Science* 14 (4). doi:10.1287/mnsc.14.4.B14
- Dawkins, Richard (1989). *The Selfish Gene* (2nd ed., new ed.), Oxford: Oxford University Press, ISBN 0-19-217773-7
- De, Dibyendu (2014). *Winning Anywhere - The Power of "See": The N-E-M-E Way*, Partridge Publishing India, ISBN 978-1482818413
- Fuller, R. Buckminster (1963). *Operating Manual for Spaceship Earth*, Carbondale: Southern Illinois University Press, ISBN 978-0809303571

Further Reading

- Dibyendu De's blog, RGB Waves: <http://rgbwaves.com>
- The blog of the International Nematics Institute: www.nematicsinstitute.com
- What the Heck is Nematics, Anyway? On Medium.com: <https://medium.com/nematics-is/what-the-heck-is-nematics-anyway-65ccff2da68d>

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tekomp Europe Roadshow: A new focus on intelligent information



Image 1: tekomp Denmark delegate Per Harbo Sørensen opens the Roadshow in Copenhagen



Image 2: Dr. Michael Fritz presents in Zurich



Image 3: Interactive session in Copenhagen



Image 4: Presentation of results in Linz



Image 5: Coffee break in Bologna

**tekomp
europe
roadshow 2015**
SEPTEMBER 15 - 29



By Kiriaki Kampouridou

From September 15 to 29, TC experts gathered to present and discuss industry trends and developments in five European countries. The tekomp Europe Roadshow, now in its third year, provides a platform where technical communicators can share expertise and spread information. The conference offered participants a unique opportunity to expand their knowledge and exchange ideas regarding TC standards and processes. Intelligent information was the main topic of this year's conference.

It's all about intelligent information

The main topic was selected to reflect tekomp's latest focus, which is laid out in the framework of the "Intelligent Information Initiative – in³". In his opening presentation, tekomp's CEO Michael Fritz explained that the dynamic provision of user information based on use cases is the future of technical communication: individualized information at the right time in the right place, in

the medium of choice. Challenges in information creation will involve structured authoring, component content management, metadata, intelligent provision, use cases and user experience.

Many international TC experts presented on topics such as DITA, the Internet of Things, component content management systems (CCMS), and terminology and localization.

Networking opportunities

During the interactive sessions, participants were encouraged to discuss in small groups topics such as content management, project management in international teams, or mobile documentation and the Internet of Things.

At the end of the day, participants presented their results from these interactive sessions.

In their feedback, participants rated the opportunity to discuss current and future topics in technical communication with their peers as very positive. The coffee breaks also offered an excellent setting for networking and exchanging thoughts with fellow TC professionals.

For tekomp Europe, it was a wonderful opportunity to touch base with the evolving TC communities in these countries.

<http://conferences.tekomp.de/tekomp-europe-roadshow-2015>

Words of Relief – Ebola Crisis Learning Review

By Marleen Laschet

From February 2014 to February 2015, West Africa was stricken by Ebola. The three most affected countries were Sierra Leone, Guinea and Liberia.

The crisis faced serious communication challenges. Over 90 languages are spoken in the area and over 50 percent of the adult population is illiterate. Information materials provided by aid agencies were largely in written form and mainly in English, yet in Sierra Leone, only 13 percent of women speak English. Additionally, there are

few professional translators for the West African languages and there was limited Internet connectivity.

Localized information can save lives

When trying to control an epidemic, the availability of material in languages that people understand can reassure communities, increase trust in aid workers and effectively promote

behavior change. Information in the wrong language can lead to mistrust as well as serious misconceptions on how to treat the disease and how it is contracted. In Sierra Leone, 42 percent of the respondents to a UNICEF survey in August 2014 – months after the epidemic began – believed salt-water baths were an effective cure.

To help improve communications with non-English-speaking communities, Translators without Borders (TWB) took its Words of Relief crisis

relief project, which was being tested in Kenya, to West Africa. Words of Relief is an innovative approach to address language barriers during crises. “Spider Networks”, or Rapid Response Teams, of crisis translators are virtual teams trained to rapidly respond to language needs. The Spider Network allows the organization to recruit translators, train them as community translators, and respond quickly.

A bad translation can potentially be more harmful than no translation, so a quality verification process was implemented. TWB used its vast network and social media to recruit half a dozen translators for the Ebola-affected countries. They underwent an online training, focusing on translation for Ebola. Translations provided by new recruits were reviewed for quality assurance. This also helped address the issues associated with the multiple dialects of the languages.

TWB worked with partners to collect, translate and help disseminate Ebola-related materials. 106 items were translated into 30 languages, a total of over 80,000 words.

TWB focused on translating well-established messages: Simple informative posters suggesting ways to prevent the spread of Ebola, messages focusing on behavior to adopt when someone is sick or has been in contact with a sick person, advice on burials, where to get information, and the video “Ebola: A Poem for the Living”.



The next step was to make translated materials widely available to aid agencies through various humanitarian networks.

Although the project was in many ways a success, TWB met some obstacles that were difficult to overcome. Even during this kind of crisis, the organization had to advocate for translation, as translation is often not a priority for relief agencies and governments. Getting content for translation from aid organizations proved to be more difficult than anticipated. The contact person often did not have access to the material or could not make decisions on which material was to be translated. Additionally, responders often work in very intense and difficult environments where the Internet is a luxury, making communication quite challenging.

Future support for aid organizations

Based on experiences during the Ebola crisis, TWB recommends some changes in humanitarian response. Translation needs to become part of the communication strategy of aid organizations. TWB has produced an advocacy video (www.youtube.com/watch?v=nWfVmRGcUFE&feature=youtu.be) to create greater awareness about the importance of translations and to explain how TWB can help humanitarian organizations achieve their communication goals.

It is crucial for TWB to adopt new work methods, to establish structures that allow communication with communities in local languages, and to quickly reformat translated documents.

In order to improve collaboration with relief organizations, TWB is developing a repository of key messages in local languages that can quickly be translated during a crisis, as well as an API, the Translators without Borders' Words of Relief Digital Exchange (WoRDE), to provide an easy-to-use workspace for aid agencies to send direct translation requests to Rapid Response Teams. Teams are most effective when they include diaspora as well as community translators from the affected area who can act as local representatives, attending coordination meetings among aid organizations.

To meet the information needs of illiterate people, TWB is including audio and video in the Words of Relief repository of information. TWB will also consider developing text-to-speech technology and incorporating it into the organization's translation tools. This will allow aid workers to provide written messages in audio form.

Overall, the TWB Ebola Words of Relief project raised greater awareness for translations during humanitarian responses, yet more work remains to be done to advocate the use of local languages in humanitarian responses.



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To see a complete list of GALA member companies, please visit www.gala-global.org.

The Globalization and Localization Association (GALA) is the world's leading trade association for the language industry. As a non-profit membership organization, we support our member companies and the language sector by creating communities, championing standards, sharing knowledge, and advancing technology.

events

tcworld 2015 / 2016

More than 4000 participants and visitors are expected at this year's **tcworld and tekomp conference and Trade Fair** – making this event the largest gathering in the field of technical communication and information development around the world. The extensive conference program features 60 presentations, eleven workshops, seven tutorials, and one podium discussion in English as well as almost 200 sessions in German.

tcworld conference 2015

- 📅 November 10-12, 2015
- 📍 Stuttgart, Germany
- 🌐 <http://conferences.tekom.de/tcworld15/tcworld15>

SDL Knowledge Delivery Summit 2015

- 📅 November 16-17, 2015
- 📍 San Mateo, CA, USA
- 🌐 www.sdl.com/event/knowledge-center/knowledge-delivery-summit-2015

Expolingua

- 📅 November 20-21, 2015
- 📍 Berlin, Germany
- 🌐 www.expolingua.com

Gilbane 2015

- 📅 December 1-3, 2015
- 📍 Boston, MA, USA
- 🌐 <http://gilbaneconference.com/2015>

The Gilbane Conference helps marketers, IT, and business managers integrate content strategies and computing technologies to produce superior customer experiences for all stakeholders. This year's conference will focus on how to integrate content, data, and software to support a superior multichannel digital customer experience.

IEEE Globecom

- 📅 December 6-10, 2015
- 📍 San Diego, CA, USA
- 🌐 <http://globecom2015.ieee-globecom.org>

Elia Together 2016

- 📅 February 11-12, 2016
- 📍 Barcelona, Spain
- 🌐 <http://elia-together.org>

Outsourcing World Summit 2016

- 📅 February 15-17, 2016
- 📍 Lake Buena Vista, FL, USA
- 🌐 www.iaop.org/summit

tcworld India 2016

- 📅 February 25-26, 2016
- 📍 Bangalore, India
- 🌐 <http://conferences.tekom.de/tcworld-india-2016>



tcworld India provides an international learning platform for Indian technical communicators and language professionals. The event is jointly organized by the Technical Writers of Inida (TWIN) and tekomp. See page 34 for details.

Intelligent Content Conference

- 📅 March 7-9, 2016
- 📍 Las Vegas, NV, USA
- 🌐 www.intelligentcontentconference.com

The Intelligent Content Conference (ICC) was founded by Ann Rockley, President of The Rockley Group and co-produced by Scott Abel, The Content Wrangler. In 2014 Content Marketing Institute acquired ICC. Its goal is to help content-heavy organizations find better ways to create, manage and deliver content.

GALA 2016

- 📅 March 21-23, 2016
- 📍 New York, NY, USA
- 🌐 www.gala-global.org/conference

MadWorld 2016

- 📅 April 10-12, 2016
- 📍 San Diego, CA, USA
- 🌐 www.madcapsoftware.com/events/madworld

tekomp Spring Conference

- (German sessions only)
- 📅 April 14-15, 2016
 - 📍 Berlin, Germany
 - 🌐 <http://tagungen.tekom.de>

LocWorld Dublin

- 📅 June 8-10, 2016
- 📍 Dublin, Ireland
- 🌐 <http://locworld.com>

Content Marketing World

- 📅 September 6-9, 2016
- 📍 Cleveland, OH, USA
- 🌐 <http://contentmarketinginstitute.com/events>

TAUS Annual Conference

- 📅 October 24-25, 2016
- 📍 Portland, OR, USA
- 🌐 <https://events.taus.net>

tcworld conference 2016

- 📅 November 8-10, 2016
- 📍 Stuttgart, Germany
- 🌐 <http://conferences.tekom.de>



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