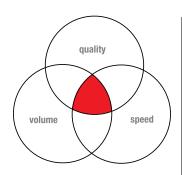


How to Survive (and Thrive) in the Content-Rich Workplace

AN XMetaL WHITE PAPER







conetent execeuetive (n.)

Chief officer or group that has managerial authority over the written subject matter necessary in the pursuit and operation of business*

* SEE ALSO:

in•for•ma•tion o•ver•load (n.)

- 1: An overwhelming feeling upon the receipt or collection of an indigestible or incomprehensible amount of information
- 2: The feeling of being faced with an amount of data that one has no hope of completely processing

Executives at some of the world's most content-rich organizations tell the story of how they satisfied the marketplace's insatiable thirst for information—and measured unexpected gains in the process.

An XML-powered workflow marks the end of slow, labor-intensive and error-prone content creation and publishing. This business paper uses real-life stories to illustrate how non-technical executives and managers in content-rich organizations have made the shift to XML-based content creation, releasing higher-quality information with less effort, more confidence and greater speed.

This business paper was compiled from a variety of case studies and interviews conducted with JustSystems customers and users of XMetaL®, a family of time- and field-tested applications that simplify and control the design, development, deployment and maintenance of XML content authoring solutions.

The Era of the Content Executive

Today's business environment has borne a new breed of corporate executive: the content owner. Across almost every line of business—from marketing and sales to product development, documentation, legal and finance—more and more managers, directors and team leaders are now tasked with publishing the key information critical to doing business. Thanks to heightened customer expectations set by the Internet, globalization and unrelenting competitive pressure, a complex and evergrowing mandate rests on the shoulders of this diverse group.

For most, it's not an enviable position. With limited resources and outdated methods, content executives struggle to keep up with the sheer volume of information that is required in the pursuit of protecting and growing market share. As demand intensifies, most are able to keep their heads above water, but only with a great deal of effort. And for many, staying afloat simply isn't enough. Instead of surviving in their mandate, they'd rather thrive in it—which means turning the process of content creation, traditionally a cost center for their organization, into an efficiency center.

Setting the Stage: The Content-Rich Organization

Content-rich organizations tend to have large, global workforces with widely distributed content authors and composition functions. They are often heavily regulated, and face significant consequences for noncompliance. Their global scope requires information to be distributed in multiple languages, versions, formats and channels, yet competitive pressure calls for the fastest possible time-to-market. Consider the variety of revenue-critical documents companies produce across all functions:

- Web Pages Catalogs
- Product Documentation Sales Collateral
- Product Development Plans Media & Analyst Releases
- Customer Communications Contracts & Proposals
- Financial Reports Patent Applications
- Technical Manuals Training Materials
- Service Agreements FAQs and Brochureware

Key documents like these impact a company's ability to make, manage and serve its customer base. But today, due to information overload, content teams must work very hard to meet the most elementary of time, budget and quality





"The people I report to want both rapidly-produced and high-quality technical content. Realistically, I can only safely offer them one or the other."

Simone B., head of technical documentation for a global aerospace technology manufacturer

standards. They operate to the absolute maximum of their abilities given resource constraints, and yearn to be more highly regarded for their ability to exceed—rather than barely meet—high expectations.

Today's Dilemma: Choose Either Volume, Speed or Quality

Overwhelmed by a growing workload, content executives today are forced to choose between providing volume, speed or quality. Some succeed at generating documents quickly, but at the expense of accuracy or regulatory compliance. Others take time to ensure a higher degree of quality, but in doing so impede time-to-market, giving the competition a significant head start.

For Simone B., the head of documentation for a global aerospace technology manufacturer, the complex nature of her company's products made content accuracy the foremost requirement. But meeting this requirement made the necessary sacrifices no easier for the company's leadership to accept. "My team has no illusions about what we represent in our company's go-to-market efforts," she says. "If we don't perform, we are a bottleneck."

In addition to producing thousands of pages of extremely technical information that ensures the safe operation of the company's aerospace systems, Simone's team is expected to help foster collaboration and knowledge transfer in product design, client training, project administration and analytic reporting — all key go-to-market activities.

"Despite our best efforts, our creation, editing and review process is just too slow—especially as the products our company manufactures become more advanced," she says. "The people I report to want both rapidly produced and high-quality technical content. Realistically, I can only safely offer them one or the other."

The source of this volume-speed-quality paradox, as described by many content executives, is their inability to scale up as demand grows. With outdated methods and systems for authoring, validating, publishing and maintaining content, teams face an uphill battle to meet just one of those three criteria.

Peter J., head of customer service for a nationwide healthcare insurance provider, summed up his team's breaking point: "What we were doing simply wasn't sustainable," he says. "We knew we had to find a better way to increase our capacity, our scalability—and we knew this meant updating our process for content creation. But for a long time, we were too busy to consider newer, better ways of working."

Given the outdated methods that many organizations currently employ—ad hoc and labor-intensive content management with a reliance on paper-based reviewing—it's no surprise that content executives like Peter are overwhelmed.





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The Traditional Content Creation Process

With traditional techniques, publishing to different media, in varying formats and in multiple languages requires a significant amount of duplicated effort. Figure 1, below, shows a typical production process.

FIGURE 1: TRADITIONAL CONTENT CREATION = LINEAR REDUNDANCY OF WORK

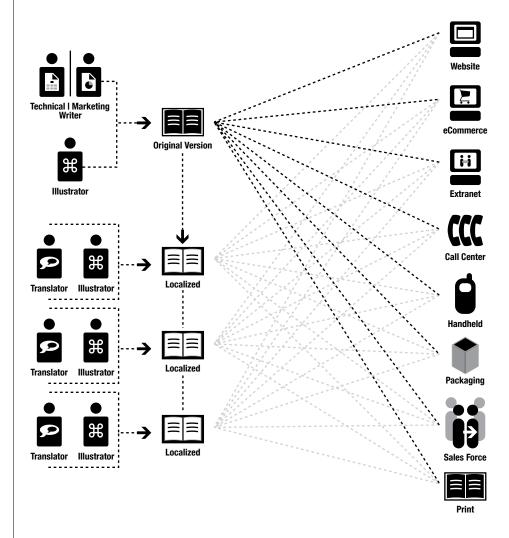


Figure 1: Traditional Content Creation = Linear Reduncancy of Work

In this outdated model, multiple versions, formats, publishing channels and languages require intensive, imprecise repetition of work. This diagram shows only one iteration of one item (a user manual or brochure).

First produced in one language (i.e. English), the original version must be published to many locations and formats. Compounding this already laborious process is the need to then produce multi-lingual versions, all of which must also be replicated across all formats and channels. Every line in the diagram at right represents a completely new, redundant creation or publication process. With every change, no matter how insignificant, the entire effort must be repeated again. Version control is extremely difficult, accuracy is tenuous and turnaround times delay go-to market execution.



... Many content executives aren't aware of the availability of proven solutions that may help them achieve the 'betterthan-surviving' goals that are so elusive when traditional workflows are employed. Organizations can easily repurpose content for different audiences or channels, but need only author or update it in one unified, controlled place.

The Missing Link: XML

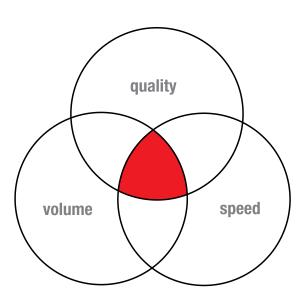
Most content executives see the discrepancy between the volume of information that needs to be published and available resources, time and budget. But despite having a role which may reside in or close to the IT field, many aren't aware of the availability of proven solutions that may help them achieve the 'better-than-surviving' goals that are so elusive when traditional workflows are employed.

Diane F., marketing executive for a global consumer products manufacturer, described her discovery of XML as the key to solving her efficiency issues. "We own the production and maintenance of a huge library of sales collateral an eight-language online catalog, and a brochure site for more than 300 related products," she says. "It's up to us to make sure that our customers make purchases that address their needs."

"My team takes pride in producing the sales content," she continues. "But most often, we had to compromise timeliness in favor of accuracy. We wanted to be more responsive, and provide even higher quality, but we were just too bogged down in clerical tasks."

At an industry event, Diane heard from peers who had transferred their content to systems powered by XML (eXtensible Markup Language), automating the process of creating, validating and publishing content.

"As I understand it, XML's virtues in content authoring, management and publishing are well-established: faster production, effective content re-use and improved quality," she says. "Yet it was a great revelation for me. I wasn't aware that the answer to our problems was so apparent and already proven to people in the IT industry."



XML: The 'Missing Link' for Efficient Content Creation

Reconciling the core requirements of volume, speed and quality requires content executives to find the missing link in their operational model: XML (eXtensible Markup Language).

XML is a technology standard and tool that turns core content into 'components' that can be easily created, updated and published across multiple channels automatically.

An XML-driven workflow marks the end of slow, labor-intensive and error-prone publishing. It allows content-rich organizations to release higher-quality information with less effort, more confidence and greater speed.





The XML-Powered Content Creation Process

For content executives, the key point to remember about XML is fairly straightforward: organizations can easily repurpose content for different audiences or delivery channels, but need only author or update it in one unified, controlled place ('write once, use many'). By design, XML treats content separately from all the formatting and publishing rules that govern it. In a fraction of the time required to perform the most basic of updates with traditional methods, entire libraries of long, complex documents can be reformatted, published and distributed across a wide network without incurring additional cost, time or labor.

FIGURE 2: XML-BASED ENTERPRISE CONTENT MANAGEMENT ELIMINATES REDUNDANCY AND IMPROVES QUALITY

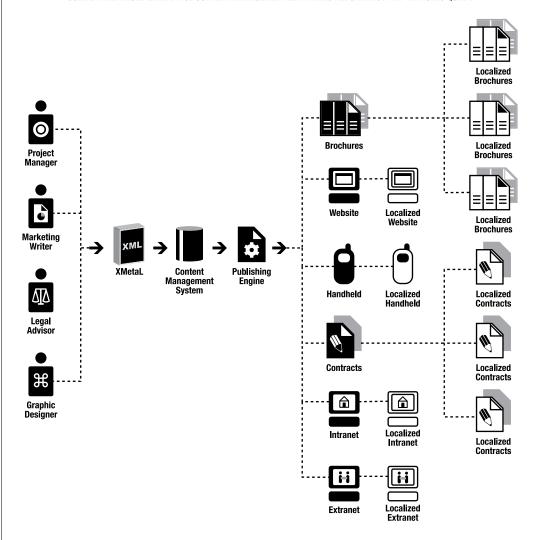


Figure 2: XML-Based Enterprise Content Management Eliminates Redundancy and Improves Quality

In this updated model, authors store content in XML components. This allows rapid production and configuration of new documents and publishing to multiple regions, channels and media, using guaranteed up-to-date information from a single XML source. A vast array of documents—from technical manuals to marketing collateral and packaging—is maintained and updated across multiple channels with minimal duplication of effort.



"My team of content authors doesn't need to know they are working in XML. It's all behind the scenes. All we know is that this system has given us an easier and more hands-free content creation process than what we were doing before."

Diane F., marketing executive for a global consumer products manufacturer

For example, consider Simone's aerospace company, which manufactures oil pumps for 32 different types of aircraft. If a service instruction is changed, the documentation for each aircraft must also be changed. With their XML-based content creation system, the new service procedure is created as a reusable component of information that will appear in the correct place within the documentation for all 32 aircraft, automatically. No one needs to rewrite it 32 times. No one needs to edit and approve it 32 times. No one needs to reformat it 32 times.

"Since XML can be published easily to multiple formats—print and online—no extra work is required to update the information in any media," explains Simone. "The information is always correct whether it appears in one location or thousands, because it is handled only once by the technical people and the pump engineers who are endorsed as domain experts."

As soon as marketing executive Diane learned what companies like Simone's had done with XML and content generation, she went back to her colleagues in IT and they began looking for a new system.

"When it was all said and done, our IT team described the implementation of our new XML system as a 'nonevent'," she says. "Given how much easier it's made our lives, it was a surprisingly straightforward project. We took our chosen application out of the box, installed it and set up a simple style sheet. My production team, which is made up of non-technical people, was productive after only 2-3 hours of training."

Since Diane's organization had a massive, pre-existing repository of content, her IT team's only significant effort in deploying the new system was the task of converting everything to an XML workflow.

"The conversion process was initially labor-intensive," she says. "But once we moved the document base into the XML format and started using the application, the improvements were immediate. My team of content authors doesn't need to know they are working in XML. It's all behind the scenes. All we know is that this system has given us an easier and more hands-free process than what we were doing before."

In some industries, the pressures driving the shift to XML go beyond a desire to reduce the cost and time required to produce content. Governments and regulatory organizations have stepped into the fray, legislating companies to deliver higher-quality, properly validated content—with serious consequences for non-compliance.

"The pace of our industry, the high volume of data and the legal ramifications of releasing inaccurate information leaves us absolutely no room for error or delay," says John S., a senior analyst in charge of financial reporting for a leading institutional sales & research firm.

John's team releases revenue-generating reports in a constant daily stream across multiple channels and delivery methods. As he explains, the outdated model his team used to employ made it difficult for his team to meet deadlines, and also exposed his company to significant risk.

"We used to rely primarily on human intervention to catch problems or inconsistencies, and it wasn't long before we exceeded the limit as to how much volume we could safely handle," he says. "The onus to keep the flow of information moving falls 100% on my team, and the financial and legal repercussions of mistakes can be tremendous. The XML system we have in place now mitigates those risks, because we're much less likely to make those mistakes in the first place."





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Content Creation and the Customer Experience Connection

Content executives note many internal improvements with the transition to XML-based content creation. Lowered costs of production. Less work, greater output. Faster turnaround. Assured compliance. But as many have discovered, the customer-facing impact can be even more profound.

Steve H., an IT executive for one of the world's leading educational institutes, has seen first-hand how content can be at the heart of a good—or bad—customer experience.

"When our course documents are helpful, relevant and accurate, our customers make the right buying decisions, have more satisfying service interactions, and get more from their training experiences," he says. "It's easy to think of instances in which good, timely information has inspired some of our customers' loyalty and repeat business. But likewise, poor information from time to time has prompted others to feel indifferent, or to favor the competition."

The course documents in question number in the hundreds. Steve's colleagues in sales and marketing were overloaded with maintaining them, and the company's leadership tasked him to come up with a better system.

"In the past couple of years, our go-to-market plan expanded to include multiple channels and languages, and our offering has grown from 50 to more than 600 courses," he says.

"Content output had increased exponentially and our production teams could no longer keep up. Six hundred documents were being edited and maintained by hand, and there were inconsistencies, mistakes and unprofessional presentation."

"Marketing and sales staff were doing the best they could," he continues. "But quite frankly, we don't pay them to be administrators. We pay them to help us grow our market share and generate revenue. Even if we were satisfied with having them do so much grunt work, they were unable to deliver customer-facing content quickly enough, with dependable accuracy. For a company like ours, even 95% quality is not good enough to ensure the kind of experience we need to provide in order to stay ahead of the competition."

Like Steve, some content executives deploy XML-based systems with the customer experience in mind. Others, including Peter J., the head of customer service for a nationwide healthcare insurance provider that we heard from earlier, start out with more efficiency-related goals. For them, the new process often brings unexpected gains.

"When we started on this path, we were facing the typical challenge of figuring out how to consistently provide a good experience with limited staff and time," he says.

"We knew that content played a role in presenting this good experience, but I don't think we understood just how much."

"As soon as we started publishing in XML, our ability to make, serve and manage our book of business immediately improved. Dependable, accurate proposals are now produced ten times faster with fewer resources and with a more professional presentation. It's a huge weight off our team, and it's given us a competitive advantage that we didn't expect."





"...The amount of time and effort you'll spend trying to make conventional or outdated methods work is wasted. Once you make the transition to XML, your content system will take care of itself. It just works."

Steve H., IT executive for one of the world's leading educational institutes

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About JustSystems

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The Final Word

We asked IT leader Steve H. to tell us what he would say his non-XML-enabled peers in the ever-expanding role of content executive. "Our organization struggled along with conventional tools for a long time," he says. "After having implemented our XML-based system, I can say that the amount of time and effort you'll spend trying to make conventional or outdated methods work is wasted."

"There is a moderate learning curve," he explains. "The effort to convert to an XML workflow can be fairly significant depending on the kind of document library that already exists. But once you make the transition to XML, your content system will take care of itself. It just works."

What to Remember About XML-Based Content Creation

Improved Accuracy & Timeliness Mitigates Risk

XML content creation means that a single stable of information resides in one place, regardless of how many formats, channels or languages it is eventually published to. Changes and updates are made once to the central location, and are replicated across all formats and channels automatically. This frees up a significant amount of resources, and greatly improves content quality by increasing consistency, accuracy and speed of delivery.

Intelligent Automation Makes Content Creation Less Labor-Intensive

With XML, even dynamic, inter-dependant content libraries such as product catalogs can be easily updated and maintained. The central system automatically flags which changes have affected which documents, and replicates updates or revisions across the entire library. This dramatically reduces the amount of low-value, laborintensive clerical work required to validate and publish final documents.

Effortless Multi-Channel Publishing Leverages Content Cross-Enterprise

An XML-driven content system accommodates the need for Internet publishing with very little additional effort, and does not require any work within the source document. With the click of a button, companies can easily leverage content to create intranets, extranets, configuration tools for sales people, and of course, comprehensive customer-facing websites.

Improved Document Consistency & Presentation Maximizes Credibility

In addition to making updating and delivery easier, the central document method of XML applies consistent, professional standards to ensure final documents always look great. It's very easy to apply new styles or branding guidelines to existing or new documents, no matter how lengthy or complex.

Higher-Quality Customer Experience Earns Repeat Business

With an XML-based workflow, the computer does the clerical, administrative part of content creation. This lets limited resources focus limited time on creating the best possible content, and delivering it to customers more quickly.

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