

Gilbane Beacon
Guidance on Content Strategies, Practices and Technologies

Structured Content in Practice

Peer Benchmarking Today's Applications

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A Framework for Defining Business Benefits

The Promise of Structured Content

The Gilbane Group and JustSystems are working together to crystallize the business benefits of structured content – documents that have been chunked into meaningful component parts and tagged in a systematic fashion. As industry analysts and software developers, our joint efforts are based on a simple assumption. We believe that tagging business documents by relevant components and managing the resulting chunks (sometimes termed content components) in a systematic manner will transform, and perhaps revolutionize, how companies use information to meet business objectives.

Structured content promises many business benefits for content intelligence and content reuse.

- If we chunk and store the information that is contained within business documents in a consistent manner, we can repurpose and render content into multiple formats, and produce content for various types of output and display devices.
- If we query content by predefined tags, we can enhance the precision and recall of our search results.
- If we tag documents by meaning and embed semantics into the granular components, we can improve our text analytics and add intelligence to our results.

But the devil is in the details – how we structure business documents in the first place and what we expect to achieve.

The ROI Blueprint for Structured Content

Structured documents are a means to an end. We need a way to link the results to the predefined components. To bridge this gap, JustSystems has developed, with support from Gilbane Group, the ROI Blueprint for Structured Content. Available in print and online, readers can access the interactive Flash application at http://na.justsystems.com/files/ROI_Blueprint.swf.

Simply put, the ROI Blueprint is a tool for analyzing the business value of structured content. We anticipate that content professionals, information architects, and systems designers will use this blueprint as a guide to examine how heretofore “unstructured” documents affect current activities and business processes.

ROI Blueprint For Structured Content	JUST. SYSTEMS				
	Contact Center	Maintenance & Repair	Service & Support		Legal/Regulatory
Research & Development	Sample Documents	Manuals, procedures, technical parts catalogs, knowledgebases, and specialty equipment that require maintenance and repair operations.	Structural content helps to reduce customer queries, collect, procedures, and other technical content directed at customers who are attempting to diagnose and repair product themselves.	Multilingual customer training and documentation, including on-line training modules and both formal and informal non-formal content.	Patents, policies, legal filings related to content operations and administrative, and IP documentation and the documentation.
Manufacturing					
Sales and Marketing					
Service & Support					
Corporate Administration					
Views					
► Show All					
In Practice					
Leadership					
Innovation					
How to use the ROI Blueprint					
Developed in conjunction with the Gilbane Group					
Legend					
Customer Query	Case Study	Wikipedia	Web Link	Scroll Back	Scroll Forward
Grow Revenue	Structured content helps companies to build customer loyalty and grow relationships through self-service applications for accounts, orders, and shipment status. Companies also leverage self-service content to improve customer experience and reduce support costs.	Companies increase operational efficiency through maintenance and repair operations supported with structured content. This includes driving revenue through dealer and reseller programs with custom content, and syndicating structured content through other channels.	Structured content helps to reduce customer queries and enhance the value of their relationship by providing self-service content and self-service applications that are accurate, consistent and high quality support information ready at hand. Some of the structured content developed for print can also be repurposed for mobile devices.	ANSI standards for structured content, such as SCORM and CMAA, help companies to drive operational revenue by reducing training costs and increasing productivity. Structured content can be used to create training materials, and targeted offers.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.
Reduce Costs	Structured content helps to reduce the cost of customer support by providing self-service content to reduce support costs. Structured content also helps to reduce support costs by providing self-service content to reduce support costs.	When developing structured content, companies can reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	With structured content, companies can reduce the cost of publishing, handling, and maintaining training materials.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.
Mitigate Risk	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.	Structured content helps to reduce the risk of non-compliance and associated fines and penalties. Some of the structured content developed for print can also be repurposed for mobile devices.

Five Enterprise Domains: R&D, Manufacturing, Sales & Marketing, Service & Support, Corporate Administration

Three Functional Areas in each, plus sample documents

Three Business Levers: revenue, cost, risk

Three Views: In Practice, Leadership, Innovation

Selling Points for structured content in each cell, plus resources

Refer to the User Guide on "How to Use the ROI Blueprint" for details

However you are involved in creating, managing, and delivering content within your organization, the ROI Blueprint will provide you with a useful framework for benchmarking current practice, assessing your options, understanding your opportunities, and developing your plans. Recognize the types of content that are most important to your own organization, analyze your own activities, and use the blueprint to identify key requirements that can improve your business operations.

Focusing on Business Results

Let's consider what's practical and in practice today – how companies can grow revenue, reduce costs, and mitigate risks by investing in structured content. It's important to focus on the power of process to achieve business results.

Specifically, business documents are simply the artifacts of business processes. Documents contain the essential information that is exchanged among participants in a process. It's the outcome that matters. For example, consider how a sales organization might improve its ability to respond to prospect requests (often submitted through RFPs) and win new business. The outcome is winning the business and satisfying the customer. Developing proposals in a structured fashion is the means to the end. Investing in structured content helps to improve the sales development process.

Thus to get started you have to begin at the finish line. It's essential to specify the outcomes, to recognize what your customers need, and to then work backwards to identify the component parts and to design the solution that meets your objective and outcome. It's also important to define your success criteria and how you can measure it.

Here are three examples for how the ROI Blueprint can guide your analysis.

The Grow Revenue Perspective

Our first example concerns sales activities within a sales and marketing organization. Specifically, let's focus on how such sample documents as "Proposals, RFP responses, sales collateral, contracts, and other documents created during the sales process" contribute to revenue growth. According to the relevant cell in the matrix,

Content reuse in presales and sales helps to improve win rate by allowing sales personnel to reuse a library of proven RFP responses and standard content components to assemble custom tailored proposals and correspondence.

A high technology manufacturing firm, a \$30 billion supplier of information storage and management products and services, had a sales yield problem.

- The company was losing work because proposals could not be produced and approved in a timely manner.
- The company's then current ad-hoc estimation approach resulted in cost and schedule overruns.
- The company produced inconsistent proposals, based on different formats and assumptions.

Structured content helped to automate the production of standard proposals and statements of work (SOWs) for field service proposals. Specifically, the sales group invested in a content management solution that focused on the end-to-end business processes. Rather than sales response teams using Microsoft Word to develop proposals in an ad hoc fashion, the sales team was able to produce standardized proposals in a systematic fashion.

- The language of the proposal was segmented into sections and defined as a set of XML components, using the DITA (Darwin Information Typing Architecture) standard. (The sections included introductory language, task and work item descriptions, legal boilerplate, etc.)
- The solution encoded standard estimates and pricing into work item descriptions. In addition to text, each item included metadata about estimating and pricing criteria.
- The solution provided an interface to answer questions about a specific project.
- A sales team could dynamically assemble the standardized proposal and SOW components to match a specific project's profile.

The result was a significant increase in service revenues and a notable reduction in cost overruns.

In this example, the firm was able to grow revenue because it invested the time and effort to redesign its sales development process, and to structure field sales documents into their component parts. DITA, an underlying XML standard for tagging content components, provided the mechanism for defining the content chunks. The result was a sales organization that functioned in a systematic fashion to respond to prospects RFPs, and to win new business that met customers' expectations.

The Reduce Cost Perspective

Our second example concerns the technical publications group within a research and development organization. Here we'll focus on such sample documents as "Manuals, datasheets, parts catalogs, safety and training content, and other core technical publications." Managing them in a structured fashion helps to substantially reduce costs. According to the relevant cell in the matrix,

Structured content is the perfect mechanism for content repurposing and reuse, as well as an ideal complement to automation of the translation process, leading to significant cost savings and higher product quality.

Consider the following situation for repurposing content components in a standardized fashion. The company in question was large, global equipment manufacturer with over 47,000 employees worldwide. The technical publications groups worked along side the development groups that were based both in the United States and in Germany. The documents were initially authored in both languages, and then needed to be translated into additional languages (such as French, Spanish, and Japanese) for target markets. To begin with, the technical publication groups relied on Microsoft Word and file systems to coordinate the globalization efforts.

- The technical publications groups spent much time manually coordinating changes among Word documents.
- Translation packages took days to construct and import, with high translation costs.
- Moreover, the company experienced low customer satisfaction due to inconsistencies and delays when publishing the documents in local languages.

The globalization of content was identified as a strategic business issue, one that was managed at a corporate level and spanned national business units. The technical publications groups decided to invest in a globalization solution for the entire enterprise. This solution:

- Transformed current Word-based product documentation into a set of reusable XML topics
- Consolidated text that was almost the same but had to be separately translated
- Used a rigorous workflow to control the process
- Used content metadata and linking to maintain topic localizations regardless of the source language
- Assemble the content for specific product and local language

The result was a 40 - 50 percent savings in authoring, reviewing, and translation costs.

What factors are driving the business benefits of structured content in this example? In Gilbane's study on *Multilingual Communications as a Business Imperative*, we report on the factors that companies use to measure the effectiveness of their multilingual content. The top three are customer satisfaction, improved brand awareness, and content quality (in terms of inaccurate translations). The role of structured content in helping multinational companies realize the savings described in the technical publications scenario above is repeated in several cells in the ROI Blueprint.

Coordinating the production of technical publications for a global market is not an easy matter. Tools and techniques that work well for a small group, producing publications in a single language, cannot easily scale to meet the needs of a globalized marketplace. Scalable requires automation; automation requires process. To adopt a globalization process, a best practice is to begin with structured content.

The Mitigate Cost Perspective

Our third example concerns the maintenance and repair activities within the service and support organization. Specifically, we'll focus on how managing such sample documents as "Manuals, procedures, illustrated parts catalogs, technical tips, knowledge bases, and generally any content that supports maintenance and repair operations" in a systematic fashion can substantially mitigate within an enterprise. According to the relevant cell in the matrix,

Structured content helps to mitigate the risk of noncompliance and potentially catastrophic equipment failures caused by inaccurate, out-of-date, or poorly targeted maintenance documentation. Consistent maintenance and repair information helps to reduce risk, increase safety, increase compliance, and safeguard people, business, and brand.

Here's a familiar example taken from the aircraft industry that can readily apply to many other equipment manufacturing situations. The in-flight documentation used in aircraft cockpits have remained a paper-based publications. Before take-off, pilots lugged briefcases of flight documentation into their aircraft. There were two problems.

- Paper-based delivery of flight operations policies and procedures were difficult to keep up to date.
- Out-of-date documentation increased safety risk.

Structured content together with electronic delivery provided a way to substantially reduce the risks. An electronic flight bag (EFB) application ensured the electronic delivery of critical policies and procedures in the cockpit. The development of a content application required the transformation of content from page-oriented documents into discrete and meaningful content components. The application:

- Transformed the current flight operations books from a page-oriented structured editor into a set of DITA XML topics.
- Tagged both topics and specific content for applicability to specific aircraft types and equipment variations.
- Developed a process to dynamically assemble tailored policies and procedures to fit each aircraft's profile.
- Dynamically delivered appropriate material electronically in the cockpit, based on a pilot's query.

The end result was structured content, delivered on a memory stick, that pilots inserted into an EFB device within the cockpit. They had access to the relevant and up-to-date flight operations procedures, and thus reduced their risk of not having the necessary information available to operate their aircraft.

In short, this example shows how we can break the book paradigm – and move from information contained in documents and pages to information dynamically assembled to meet business needs. Electronic publishing is no longer simply producing electronic artifacts of physical items – such as the electronic pages of printed documents. Rather it is important to go back to the basics and determine how and why content components are going to be used in the first place. A little structure is going to get us a long way by reducing operational risks of delivering inaccurate or outdated information.

Structured Content and the Power of Process

In short, these three examples illustrate how you can specify your outcomes, determine what your customers need, and structure the design and presentation of business documents to meet them. The ROI Blueprint provides a framework for defining and understanding the power of process – the connections among tasks and activities. We've highlighted the business processes associated with globalization and translation management, standardized proposal development, and electronic flight bags. Business processes should generate important (and valuable) content artifacts.

Specifically, your company employees and/or partners create and manage particular types of business documents for a purpose. They are involved in tasks and activities that are designed to grow revenues, reduce costs, or mitigate risk. We believe that it is imperative to ask two simple questions about the management of these important (and perhaps valuable) documents – why and how.

Of course the answers depend on the content types and the business contexts. Uncovering the answers will help you focus on the power of process to improve business performance. The ROI Blueprint provides forty-five perspectives, as a way of modeling plausible outcomes and business scenarios.

The ROI Blueprint in Action

We invite you to consider your own examples. You can use the blueprint to drive your benchmarking initiatives and compare your outcomes to those of your competitors or other best-in-class reference groups, in terms of costs, time, and quality. Benchmarking can help you identify the low-hanging fruit – initiatives where modest investments yield substantial results.

Thus the ROI Blueprint is a framework for generating project requirements – identifying where, and how, structured content will help you grow revenues, reduce costs, and mitigate risks.

- Look at the various cells in the matrix that we define as “in practice.”
- Sketch out how using structured content can help you build the case for process transformation.
- Begin with the customer outcomes and work into the organization.

Structured content applications in practice today are strong evidence that companies can benefit by investing in structured content and the business applications that these investments entail. In this commentary, we have identified three examples of structured content in practice. Going forward, we suspect that you will be able to identify other areas where structured content will provide the needed transformations to critical business processes, applicable to your own operations.

It's important to identify costs and benefits – certainly we do not want to minimize the up front costs or the problems of successfully managing substantial organizational changes. But we must point out that adopting structured content is now viable for a broad class of enterprise applications, Structured content is a strategic investment for doing business in the digital age, and is thus essential for competing effectively in the global economy.