Feature Article
"Perspectives on Content Management Education: An Interview with Bob Boiko"

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Best Practice
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"Education is a critical component of a successful content management implementation. Education can be as simple as ongoing communication to participants or as organized as formal training sessions. This article identifies who needs to know what to ensure a successful content management implementation." ...

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Gaining Management Support
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When starting a content management project, you generally need support from key stakeholders within your organization. You will need to "educate" management about your project and your reasons behind your project, but to do so, you need to learn about their needs so you can present materials to them appropriately. ...

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"Although XML has been around for years, the use of XML is far from mainstream for most technical writers. There needs to be grounding in the use of XML that goes beyond the programming syntax that is widely available in most XML courses. This article describes one such course the author developed, that combines concepts that are needed by developers of technical content, along with practical exercises and easily understood analogies to give the next generation of technical writers the basis they need." ...

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Editorial

Perspectives on Education

This issue of *The Rockley Report* focuses on education and training, not just the education to help you learn about content management, but also, using education strategies to gain support for content management. Our feature article is an interview with Bob Boiko, author of the Content Management Bible and Associate Chair of the Masters of Science in Information Management (MSIM) program in the iSchool at the University of Washington. Bob shares his perspectives on content management education, including links to his materials at the University of Washington.

Other articles continue the focus on education:

- "Educate, Educate, Educate for Successful Content Management" describes who needs to know what at the various phases of your content management implementation.
- As XML grows in popularity, we're asked time and time again, "just how much XML do I have to know?" "XML: To Train or Not to Train" provides you with some guidelines.
- If you do decide to learn about XML, our guest author Bill Albing has created a course on XML for Duke University's Continuing Education Program. He describes his approach in "Teaching the New Art of Authoring in XML".
- Once you've decided you want to go ahead with content management, you usually need to get support from within your organization to do so. "Applying a Pedagogical Model to Educating Management" suggests using educational strategies to win your managers over!

And, as always, Scott Abel provides us with a look at goings on and valuable resources in the content management world, this time providing resources if content management education is on your training plan for the upcoming year.

We welcome your feedback. Please send comments, as well as suggestions for stories in future issues to kostur@rockley.com. Our Call for Submissions describes the kind of stories we're looking for and how you can submit articles for publication in future issues.

Feature Article

Perspectives on Content Management Education: An Interview with Bob Boiko

Bob Boiko
Metatorial Services, Inc.

Bob Boiko wrote the bible on content management, literally. His *Content Management Bible* was first published in 2001 and its popularity generated a 2nd edition, hot off the presses in November 2004. Apparently, people are keen to learn about content management and rely on the *Content Management Bible* as an authoritative source. Bob Boiko is certainly a good person to learn from; he is currently President of Metatorial Services, Inc. (www.metatorial.com) and Associate Chair of the Masters of Science in Information Management (MSIM) program in the iSchool at the University of Washington (www.ischool.washington.edu). Bob also helped found and is now serving as the first president of CM Professional (www.cmprofessionals.org), a content management community of practice. For this issue, we turned to Bob for his perspectives on content management education.

Q. What is your background?

I studied science (physics and oceanography) until graduate school, then in graduate school, I studied human communication.. Studying human communication helped me to balance the issues of science with people. This education prepared me to work in the modern age of computing. I moved to Seattle with the intention of continuing to study. I got an interim job as a technical writer to "tide me over" just as the industry was transitioning to online. I did not return to my studies at that time. I worked as a technical writer for 5-6 years in the traditional "paper" world, then I transitioned to electronic documentation. I then moved into consulting, and most recently I moved to academia. I have been teaching professionals and students for four years.

Q. What drew you to content management?

I had this big "aha" moment in the late 80's, nothing was online, and everything had to be online eventually. This drove me to determine what had to be done to put large amounts of information online successfully. Content management didn't exist at the time, but digital resources had to be organized and categorized for retrieval.

Q. Recently you have begun teaching at the University of Washington iSchool. What drew you to education from full-time consulting?

When I was in business I was running the business, developing new methodologies, and developing the vision for the company. I realized I was most interested in creating and purveying information. I ran the company like a professor, always looking for new and better ways to do things. I became known as the "academic". I made connections at the university and when Chase Bobko dissolved, people pointed out that I would make an excellent teacher/college professor. I've always wanted to do this, so here I am.

Q. Why do you think education is important?

Currently, content management has very loose boundaries and it needs to coalesce as an area. Education is half teaching *what is* and half *what should be*. When I started to teach I had to think very solidly about what this means, what are the parts and pieces, what is the essence, and what is the discipline. Education is the core of building a solid reproducible methodology. Without education, methodology becomes what people want it to be, not what it needs to be for the industry.

Feature Article

Q. What happens if we don't start educating people in the area of content management?

The discipline will meander and dissipate; the subject matter will be encompassed by another discipline. Education provides a solid agreed upon core of terminology and concepts.

Q. Can you describe your program?

It is a full year sequence in content management. It covers the core concepts of content management and what you need to do to successfully implement content management. It includes the logical core of the context of content management, the audiences, the content types, the authors, the sources, and the goals of the organization. It also includes the physical design of the content management system to meet the logical design that you have come up with.

Q. What are the areas where education/knowledge is critical to success in implementing content management?

The team members need to have a solid head for business; if they don't they will build something that doesn't have value to the business. They need the ability to bring together people from diverse areas. Content modeling is also very important. Content modeling includes the ability to understand information and its structure and how to bring structure to unstructured materials. Organizations also need infrastructure and technical skills (e.g., computing, database).

Q. Your program is pretty unique in the world. What do you suggest others, who are unable to participate in your program, do to get the education they require?

I believe that it is very important to provide education in this area and I am more than happy to share my materials. They can be found at:

http://www.ischool.washington.edu/boiko/Past-Classes/CM1_IntroToCMS_Fall_03/

http://www.ischool.washington.edu/boiko/CM2_LogicalDesign_Winter_04/

http://www.ischool.washington.edu/boiko/CM3_PhysicalDesign_Spring_04/

http://bibliophile.ischool.washington.edu/boiko-courses/default.asp?class=cm1fa04

Best Practices

Educate, educate, educate for successful content management

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Education is a critical component of a successful content management implementation. Education can be as simple as ongoing communication to participants or as organized as formal training sessions. This article identifies who needs to know what to ensure a successful content management implementation.

Education is a critical component of a successful content management implementation. You need to ensure that all the different "players" in your content management project receive education early in the project and throughout implementation. Educating your players will ensure that they understand why you are implementing content management, the benefits of content management, and how to manage their content more effectively using new processes and technology. Players who need to be educated throughout your project include:

- Management
- Authors
- Implementors
- Reviewers
- Translators

Management

Education begins very early in your project; even before it is a "real" project. Management is the first group that needs to be educated about content management. Educating management effectively ensures that your project gets approval and a "champion" who supports your project as it goes forward. Management needs to understand:

- What is content management?

  People often have very different ideas about what content management is. They may see it as a technology solution, a document management system, or simply as a way to manage web content. It is important that you clarify the focus of your content management strategy to ensure that management understands your desired direction, focus, and desired results.

- The benefits of content management

  Purchasing new technology, restructuring your content, and changing your processes can be costly, but the benefits can far outweigh the costs.

  Educate management on the benefits and costs. With a clear understanding of costs and benefits, management can make an informed decision on your content management strategy.

- What content management involves

  Implementing content management requires a many-step process: analysis, design, prototyping, testing, and implementation. Sometimes management underestimates the scope of the task, so it's important that they understand all the steps in the process, including the benefits of implementing content management in a methodical way.

You will find that educating management is an ongoing process. Initially you will be required to educate a growing management group as your business case makes its way throughout all the levels of approval. As your project goes forward, you may be required to educate managers in other groups that may be affected by the content management strategy in the future. You also need to continue to communicate with management to ensure they have a good understanding of the process and the stage you are at.

For more information on educating management see "Applying a Pedagogical Model to Educating Management".

Authors

After management, authors are the next group that you need to educate. As with management, you need to educate groups of authors at multiple times in the process.

- Early on, to get author buy-in

  In the beginning you need to educate authors about the project, what the plan is, the reasons and benefits for moving to content management. Authors may be resistant to the change, particularly if they don't have a sufficient understanding

of what is changing and why. However, it is important that you don't overwhelm the authoring group with too much information in the beginning because the project may appear too daunting. Most authors will not be involved in the early phases of content analysis, design and implementation so while they need to understand the scope of the task ahead, primarily, they need to know what the future holds so it is not frightening or overwhelming.

Ensure that you listen to their concerns so they know their input is valued and being acted upon. If you involve people early on, really listen to what they have to say, then show them that you are addressing their requirements, they will be among your strongest supporters.

- During the design phase authors should form a core segment of your design team. They are responsible for building the information product models, element models, metadata, reuse strategies, and architectural models. They may also be responsible for designing the information retrieval for both authors and users. This team needs formalized training to assist them in:
  - Content analysis
  - Content modeling
  - Metadata design
  - Workflow design
  - Information architecture of the web (if designing the web site as well)

- During testing

  Authors are one of your primary users of the content management system. Accordingly, you should involve members of your authoring team in the proof-of-concept, prototype, and pilot testing. They need formalized training to prepare them to effectively test the design, processes and system. Provide training in:

  - Structured writing
  - Writing to models
  - Effective reuse
  - Use of the system

- At full implementation

  Once the system has been fully tested, it is time to train all the authors. They need the same formalized training required by the testers (structured writing, writing to models, effective reuse, use of the system), but they also need ongoing training and support to ensure effective adoption of the

system. Watch to see the problems authors experience when they start using the system on an ongoing basis and consider providing ongoing training sessions to assist them in using the models correctly, applying effective metadata, and reusing content effectively. It is frustrating to have new processes and a system to support them only to have authors creating and recreating content and storing it in much the same way they were before. Make sure you support the authors in a positive manner that helps them to gain competency in all aspects of content management.

For more information on educating authors see "Educating authors for content management".

Implementation team

The implementation team is usually responsible for implementing content models in the various tools, developing DTDs/schemas and creating stylesheets. In addition, they are responsible for installing and configuring the content management system and the authoring tools. This team may consist of internal resources or a combination of internal resources, consultants, and tools vendors. Provide education to the following groups:

- Internal resources (business group requiring content management)

  Sometimes members of the business group implementing a content management solution handle some of the implementation even though they usually have no experience in the technical aspects of CM. While they may have other technical expertise, they are not IT professionals and therefore, may need training in the following:

  - DTD/Schema creation
  - Stylesheet creation
  - System configuration and administration

- Internal resources (IT)

  On the other hand, if IT takes on the CM implementation, they usually need the same training as the business group. However, they also need training on the business requirements so they understand the reasons behind the CM solution and can ensure that the system meets the users' needs (e.g., authors, reviewers, publishers).

Best Practices

- Consultants

  Consultants are usually involved in determining business requirements and assisting you in the development of your content management information architecture. If they have not been involved in the gathering of these requirements, ensure they fully understand them.

- Vendors/system integrators

  Vendors/system integrators understand their tools very well but often, do not understand your business needs. They also need training on the business requirements to ensure the system meets the users' needs (e.g., authors, reviewers, publishers). Some vendors are very good at responding to these requirements, but others are not. Ensure they completely understand the requirements and work with them closely to ensure the requirements are met. Be prepared to discuss alternative ways of meeting these needs, because to optimize the technology it may be necessary to address the requirements in a different way than you originally envisioned. Your partnership with the vendors will only be successful if they completely understand your requirements and the business reasons behind them.

Reviewers

Reviewers need training to enable them to effectively review reusable content and use the system effectively. Provide training on:

- The benefits of reusable content

  Reviewers are subject matter experts and as such they understand their area of expertise but do not understand the concepts of reuse. They may be "tempted" to change content for subjective reasons, not objective reasons. They need to be taught the concepts of reuse and shown how reuse benefits the organization. When they see how reuse can reduce their workload, they are typically happy to adopt the new processes and technology.

- System usage

  Depending upon the type of content management system you use, reviewers may get content as a PDF (most common form of review) as they may have in the past, or they may be able to collaboratively review content online. If they can review

content online, they will need training on how to most effectively use the system.

Translators

In a content management environment, rather than translating documents, translators work with elements. Like the reviewers, they may receive the elements in files or they may interact directly with your content management system. Translators will need training in:

- Concepts and benefits of reuse

  More and more translators are becoming familiar with the concepts and benefits of reuse, but others are not. You need to ensure they have a clear understanding of your requirements, your reuse strategy, and your new translation processes. To be even more effective, get your translation agency/staff involved in the design phase so that they can have input in the process.

- File structures

  Translators will need to be aware of how you need the files back so that you can transparently integrate them with your system without any rework.

- System usage

  If your translators will be integrated directly with your content management system, they will need to understand how to access content from the system and return translated content.

Summary

Everyone involved in implementing your content management strategy and using your content management processes and technology needs to be educated throughout the process to ensure they have a clear understanding of direction, requirements, effectiveness, and usage. Make sure you provide education throughout the entire process to ensure successful implementation and adoption.

Information Architecture

Educating authors for content management

Ann Rockley
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Authors are the primary users of your content management system. It is imperative that you teach them how to use the system and how to effectively reuse content. This article identifies the areas where authors need to be educated and provides some guidelines for supporting authors in their tasks.

The article "Educate, educate, educate for successful content management" touches on the topic of educating authors during implementation of the content management system. This article expands on that topic. Authors are your primary users of the content management system; they author new content, search for and reuse existing content, store content, and route content throughout the content lifecycle using workflow. Content management, and in particular, content reuse, may be a paradigm shift for your authors and they will need your help to teach them how to perform their tasks. Much of your training material will depend on your information architecture.

The key areas of education are:

- Structured writing
- Collaborative authoring
- Reuse
- Metadata
- Overcoming resistance

Structured writing

Writing components consistently ensures that reusable content can in fact be reused, that their reuse is transparent, and that all content appears unified, whether it is a reusable component or not. While many authors have worked to guidelines or to templates in the past, it doesn't compare to the rigor that is required to write structured content that follows an information model. If you are using XML or forms driven models, the structure of the content is explicit, providing guidance to the author; however, if you are not using these you will need to explain the model requirements.

It is important to train the authors in the models so that the structured editor becomes an assisting tool rather than an enforcing tool. If you choose not to use a structured editor, you need to formalize the structure of your models in a detailed style guide and edu-

cate your authors in understanding and using the models.

There are many aspects of structured writing that need to be taught including:

- What is structure?
- Why structure content?
- How to write to models
- How mandatory elements should be written
- When to select optional components and how to write them

Best practices examples of content written to the models help authors to understand the models in context and style and model guidelines help authors to adopt structured writing.

Collaborative authoring

When authors work in isolation on content, they focus on the effectiveness of their content without an awareness of how their content may impact other documents if it is reused or how they are increasing costs through content differentiation. In a collaborative authoring environment authors work together to create a document set. When authors work together to create reusable content, they ensure that the content meets all the requirements for reuse. Teaching authors how to author collaboratively is more of a "soft" skill, as it requires learning interpersonal skills. Help authors to understand:

- the commonality in the work they do with the work that others do: it will help them to work towards a shared understanding of content
- conflict resolution skills, so that if there are differences of opinion they can work through the differences constructively

Information Architecture

Reuse

Content can be reused opportunistically (by choice) or systematically (automatic reuse). To reuse content effectively, authors need to understand:

- your content reuse strategy
- how systematic reuse works
- how to opportunistically reuse content
- when derivative content is acceptable and when it is not

Content reuse strategy

It is important to communicate your reuse strategy to authors to help them understand:

- where content should be reused
- how it should be reused (identically vs derivatively)
- goal of reusing content (e.g., improve quality, reduce costs, increase productivity)

How to reuse content systematically vs opportunistically

The concepts of systematic reuse are relatively easy to teach, all you need to show is how content is systematically reused. For example, content in a brochure for a particular product is automatically reused into training material for the same product, or generic content is created that is systematically reused for all geographic regions, but specific content is added through building blocks to differentiate the materials based on regional requirements. Authors only need to understand what happens and if they have an option to delete or modify systematically reused content.

However, teaching authors how to reuse content opportunistically includes:

- what content should be reused when
- how to determine if reusable content exists
  - searching
  - use of metadata to improve searching
  - navigating the repository
  - checking similar/related content
- how to clone content to reuse large groupings of content

When derivative reuse is acceptable

Reuse is most effective when content is reused identically. Derivative reuse creates another version of an element. Authors need to understand that creating a lot of derivative elements results in many of the problems the organization is trying to eliminate, including:

- increased cost of translation
- increased costs of content creation
- multiple versions of essentially the same content
- inability to effectively determine where content exists so that common changes can be made
- increased content to manage

However, authors also need to understand that sometimes reusing content identically results in:

- compromising the message
- compromising the quality of the information
- reducing the usability and readability of the content

Content which must be reused identically (e.g., legal information, safety information) can be locked, which makes it impossible to change unless you are the owner of the content or have equivalent content permissions. When content is not locked, authors need to be taught to that they should not create derivative content to:

- change the style unless style is important (e.g., marketing material vs support material)
- differentiate a product. Teach them the concept of "building blocks" which enables them to reuse the content identically and add another component to different the information.
- improve the writing. Every author is an editor; however, if content has been reviewed, edited and approved (which should be the case if content is available for reuse) then they should make recommendations for improvements, not make the changes themselves and create derivative content

Information Architecture

Metadata

Another big area of education is the application of metadata. Failing to add metadata, or adding metadata incorrectly, can result in content becoming "lost" in the repository. Adding metadata is like creating an index, authors rarely enjoy doing it. A good content management implementation should automate the addition of metadata as much as possible and minimize the amount of metadata that must be added manually, but there will always be some metadata that authors have to add. To educate authors in the use of metadata explain:

- what is metadata
- why use metadata
- how the metadata was arrived at
- what metadata is automated
- what metadata is manual
- how to determine the correct values for manually added metadata

Overcoming resistance

There are a few areas of resistance that you should design your education to overcome including:

- Separating format from content
- Loss of creativity
- Writing elements not "documents"
- Ownership of content

Education in these areas is more a matter of persuasion, rather than teaching them tasks or concepts.

Separating format from content

Most authors have "grown up" with WYSIWYG editors and have spent a lot of time acquiring skills in tools and formats (e.g., HTML, FrameMaker, Quark) as these skills have been highly valued. We are saying that the final presentation doesn't matter to the content, something many authors will argue differently. It is a very difficult concept to grasp and one of the changes that authors resist strongly. To help authors become comfortable with this concept:

- illustrate how content can be used in multiple "documents" and in multiple formats
- take them through your models to show how you have designed the content so that it is optimized for each media (e.g., use of building blocks)

- Review the stylesheets so that they understand how the content is "rendered" (displayed) in each media

Loss of creativity

Authors often feel that they will lose their creativity if they are forced to write structured content and write to models. Frequently, creativity is the work authors put into the layout rather than the content. You need to identify what they consider creativity and what value is being added to the content through that creativity.

For authors who enjoy the content creation process, point out that they can be more creative since they no longer have to worry about format and layout. Their creative efforts can be put into designing the most effective information products possible and ensuring that content is readable and usable.

For those most interested in the effectiveness of the content, point out that structured content and models frees them up to do what they do best—creating content—what some consider to be their "real" job.

For teams such as marketing or instructional design, where unique design and layout are integral to the effectiveness of information products, consider teaching them how to modify stylesheets (not structure) or teach them how they can pick from a series of format elements so they can specify to a certain extent the "look and feel" of the content by media.

Writing elements not "documents"

This issue is really not an issue, rather it is a misunderstanding. Authors write content in context, they almost never write individual elements of content, certainly not very small elements. For example, if they are creating a brochure they write the brochure using reusable elements where appropriate. The content is then "burst" apart into elements as it is stored in the content management system. Assure your authors that they will continue to write in context and show them how the system stores the elements.

Information Architecture

Ownership of content

Many authors are concerned about losing ownership of their content. Assure them that they will continue to own the content they originally author, but they may no longer be responsible for creating and "owning" entire information products "documents". An author still "owns" a particular element of information, in the sense that he/she is the creator of the content and should be the only person who changes that content; the author actually has joint ownership with everyone else responsible for creating the information set. Describe your new content structures and ownership, but assure them that they will continue to own the content they create. No-one can change it without permission.

Summary

Authors require a lot of education to enable them to effectively create and manage content in a very different way then they have before. Plan to educate authors in new content creation, reuse, and management and ensure you address their concerns or areas of resistance.

Tools and Technology

Teaching the New Art of Authoring in XML

Bill Albing
FarPoint Technologies, Inc.

Although XML has been around for years, the use of XML is far from mainstream for most technical writers. There needs to be grounding in the use of XML that goes beyond the programming syntax that is widely available in most XML courses. This article describes one such course the author developed, that combines concepts that are needed by developers of technical content, along with practical exercises and easily understood analogies to give the next generation of technical writers the basis they need.

Not just another fad

Although XML has been around for years, technical writers have only recently begun to develop content using XML. Their use of XML is moving beyond the simple tagging of content for output to multiple display formats; now technical writers are beginning to use XML to meaningfully label the various information types in their content. Labeling is a necessary step as delivery technologies change more rapidly and the amount of information to maintain grows. This use of XML will help us to reap the benefits of content management and reuse.

But the use of XML is far from mainstream for most technical writers, for reasons ranging from inertia to intimidation. Not wanting to be seen as proponents of yet another technological fad or becoming too intimate with publishing technology, many technical writers have kept their distance from XML. I have developed a class for Duke University's Continuing Education Program (for their Certification in Technical Communication) that I hope addresses some of these concerns and steers professionals in the right direction.

The intended audiences for the class include technical writers, content engineers, or anyone responsible for maintaining technical content or documentation. It is intended for professionals who have not yet discovered the value of working with XML, which I believe is crucial for professionals to stay employable as enterprises share more content online and move that content into databases.

Course framework

Let me start by saying that I'm not a professor or university instructor. So when I was asked to teach a course on XML for non-programmers at a local university, I thought it was an opportunity to convince others that XML is not just another fad. The task of designing a six to eight week class that meets once a week proved to be as challenging as any project I have done. But, once I came up with a suitable analogy, the course framework fell into place. The analogy that seems to best convey the structure and usefulness of XML for me is that of Tupperware™ containers. XML uses containers of various sizes (elements) and some fit inside others, while others do not. And you should always put the lid on (start and end tags), and label the containers with useful information (meaningful tag names and attributes). And, like Tupperware, there's a catalog of all the possible sizes and shapes (DTD) whether you use them all or not.

Course overview

The course begins with a brief introduction that promotes the use of XML (or structure), including the sheer amount of information, the extent of the (universal) enterprise, the limitations of stove-piped documentation (which is available only to one department and thus cannot be reused), the fact that audiences are around the world (and around the clock), and that maintenance is an issue as time goes by. For all of these, the solution is XML. Then I quickly show the ubiquity of XML in the enterprise and its pervasive use in data storage and electronic transactions. This includes database publishing, content management, syndication (RSS), enterprise information portals (EIP) and e-commerce.

The course then briefly reviews the basic syntax and workings of XML, but not focusing on that as much as on typing the information for reuse. I like to use an example of an industrial lawn mower manufacturer that has a certain number of models for which some of the documentation is the same for all models. In my example, the company is bought out and integrated

with a larger line of machines, and then expanded to include residential lawn mower models with common parts and procedures. So the necessity of modularizing the content and reusing it becomes apparent.

Four basic concepts

This leads into the four basic concepts covered in the course. The first, already mentioned, is modularization. By seeing how content can be segmented and modularized, the common content can be handled efficiently. The second concept is that of creating categories or names for content containers. Here again is the Tupperware analogy. By now the class is familiar with XML terminology, so I explain how to create XML elements, attributes and begin to shape a DTD. The third concept is that of adding attributes to allow filtering or sorting of the elements based on audience or delivery mechanisms. Finally, the concept of standardizing, i.e., creating parallel containers for similar types of products, follows the previous concepts. By articulating the need for certain containers, you can look at a new product and make sure that it has all the requisite containers filled with content before declaring a product fully documented.

Anyone who has put information in a database knows that you have to attach metadata to it so you can find it again; the metadata helps you to understand what you have. So while this aspect of XML is not familiar to most technical writers, there are those such as database analysts, web designers, e-commerce developers who take it easily in stride. So what I emphasize is the design of containers, figuring out the types of content, how to name the elements and put the content in the containers in the most meaningful way.

Student practice

The course is also a chance for students to discuss the challenges of authoring technical content in XML from a content developer's perspective. I attempt to convince students of the benefits of restructuring the way content is maintained by asking each to choose a real-world example that includes more than a few pages of content. The goal of the exercise is to "containerize" the content; students are asked to put content into containers so they can find it, sort or filter it depending on audience, and reuse it as required. Of course there is more to architecting the content for reuse than simply tagging it, but it is a good first step. So whether students create original text or use existing text, the exercise involves figuring out what the

containers should be, how they can be nested and ultimately how to work with content once it is in containers.

Additional perspectives

I also explain to the students that they can choose industry DTDs, so they need to be aware of the ones applicable to their industry. But there are not many public-domain DTDs for software product documentation. While there are some DTDs in the public domain (such as DocBook), I recommend looking beyond technical content as simply material to be formatted for hard-copy book publishing. Besides the sheer size of the DocBook DTD, its elements were designed with book publishing in mind, not topic generation. DITA is the best so far, as IBM moves it to the public domain. It is topic-based and is extendable, so you can create custom elements that inherit all the characteristics of the more general element.

But the course emphasizes creating your own element names so students learn something about the process of content management. Regardless of what tool or DTD students eventually use, they need to develop the ability to look at content and—with the audiences in mind—develop meaningful element names. In fact, understanding content and developing meaningful element names is probably the most valuable experience gained from this class.

Another aspect of XML authoring is that currently, the world of XML is divided into two camps: the data camp, and the document camp. But content does not reside completely in either of those camps. Just as technical writing is neither all engineering, nor all writing, XML authoring is neither solely of database transactions, nor all layout and presentation. XML is really a child—a mix—of both.

Summary

There needs to be an assortment of learning opportunities that go beyond XML syntax; one such practice is to use the Tupperware analogy and the modules concepts. This helps students understand the concepts of content management and the concepts of reuse. With the available tools and a few easily understood concepts, technical writers can quickly become productive with XML. You do not need a team of tools experts or programmers to make XML work. While the course briefly introduces the concepts of single-sourcing and content management, the skills I teach

are a predecessor to a course that could cover these topics more fully. It is my hope that with this beginning course, we can begin to develop a curriculum that meets the demand of the business environment but remains general enough to include discussions of larger conceptual issues surrounding content development.

For further reading, many of these concepts are fleshed out in articles on keycontent.org, an online clearinghouse for articles on technical communication and content engineering. You can also read more about the Certificate Program at Duke at http://www.learnmore.duke.edu/techcomm/tcclassdetail.asp?ClassID=8612.

People, processes, and change

XML: To train, or not to train

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XML continues to grow in use for content creation, which means that more and more content contributors are faced with authoring in XML. But how much XML do you need to know? And therefore, for managers, how much XML training do you need to provide to your content contributors?

XML is still the "go to" technology for complex content management (CM). It's also gaining popularity for simpler CM implementations. But it leaves open questions for managers who need to work out training, questions like:

- Who gets training?
- How much training?
- Generalized or specialized training?

So how much training in XML is necessary? There's a school of thought that training should focus on job tasks more than on technology. For example, in an article on effective training for employees, Todd Wilmore, a management consultant, suggests linking the talents needed for successful job performance to specific business outcomes. [1] So, how much training you require depends on the tasks your employees will perform. To determine what training you need, you can break XML implementation into two phases and consider the training required for each:

- Training required to author in an XML environment
- Training required to set up and maintain your XML environment.

Training required to author in an XML environment

Let's start in reverse order, assuming the DTDs and authoring environment are set up—and are set up correctly! Ideally, authors should not need any training in the nuts and bolts of XML. Why? Because in a production-worthy XML authoring environment, authors do not need to see the XML code at all. The XML should be hidden. It is, after all, just the data-format for the content. Let's think about this in relation to other authoring environments. Do you need to know RTF to use MS Word? MIF (Maker Interchange Format) to use FrameMaker? Postscript to print to a Postscript printer? No. However, authors will still

need a certain degree of XML training, because a shift to XML represents a paradigm shift that initially, many authors have trouble dealing with. In an article on XML in the publishing industry, Bruce Kulik and Dan Nigloschy of Media Entities, Inc. suggest why authors may have found the shift to XML problematic:

> For the most part, XML authoring tools were seen as difficult to use and author unfriendly. They imposed a rigid structure to which the authors were forced to conform during the process of content creation. This was in direct opposition to the way in which creative authors approached their work. [2]

This is where the training needs for authors lie. Authors need to understand structure. They need to understand structured authoring—including what it is and how to do it, as well as its benefits and limitations. They need to understand the structure they will be following, and how to follow that structure (and the contained content) in the tool you are using. They also need to understand the concepts of reusable content in relation to their writing. They need to understand their information models, which show the structure of information products, including which elements take reusable content. Therefore, you need to focus authors' training on understanding the information models they will write to.

For more information on educating authors see "Educating authors for content management"

Training required to set up and maintain the XML environment

With most XML implementations, it is the set up and preparation that demand the most technical knowledge and accordingly, a move to XML requires specialized training for those who will be setting up and

maintaining the system. Generally, there are two roles required to set up and maintain an XML environment:

- DTD/schema designers
- stylesheet designers

DTD/schema designers

At the beginning of your project, you must develop information models for your content. For XML, the model must be codified in a DTD or schema for use in your authoring tool. The authoring tool reads the DTD, compares the structure in the authored document to the DTD and validates the structure. You will need someone who knows how to create a DTD based on the information model, or who can modify existing DTDs to provide production-worthy DTDs for your authors. You could use a consultant or the consulting services of a tools vendor to create the DTD or schema for you. But, just like content, DTDs have a life cycle. They will change over time as new needs are identified. So, even if you have a vendor or consultant create your original DTDs for you, you must have a DTD expert available for the inevitable changes.

The individual you designate as your DTD expert will require special training. The basic concepts of creating DTDs are not difficult to pick up. Still, there are techniques and approaches to coding that will make DTDs more efficient from both an authoring and a maintenance perspective.

Stylesheet designers

Another technical aspect of setting up and maintaining the XML environment is designing stylesheets. XML separates format from content, which is one of the characteristics of XML that makes it as flexible as it is. However, once your content is authored, it still needs formatting. To create formatted output, you process your source XML documents with stylesheets. There are basically three types of stylesheets: display, transformation, and formatting.

Display stylesheets provide a formatted display—in the authoring tool—to the author. (An authoring interface where XML tagging is exposed to the authors is not necessarily an effective interface for authors to write in. The tags can be distracting, or even intimidating.) A display stylesheet provides formatting instructions to the authoring tool, so the text can be rendered on screen with specific formatting characteristics. For example, you can do a number of

things to provide authors with visual cues about structure without them having to see the tags; you can use fonts and font sizes to differentiate between levels of headings, and you can use formatted lists, numbered lists, indents and extra line spacing.

However, this formatting must be defined in the display stylesheet. The format of the stylesheet will depend on the authoring tool you use. Some use XSL as the stylesheet language. Others use proprietary language. For effective implementation, you must either ensure that the users have sufficient knowledge to modify their display stylesheets, or you must have an "expert" in the authoring software create the stylesheets for all to use. Having an effective display format is critical in helping authors deal with the paradigm shift, so having someone who can create and manipulate display stylesheets is critical.

Raw XML: not what the author should see:

```
<Title>XML: To train, or not to train</Title>¶
<Author>¶
<Name>Steve Manning</Name>¶
</Author>¶
<Abstract>¶
<Para>XML continues to grow in use for content creation,
which means that more and more content contributors are
faced with authoring in XML. But how much XML do you
need to know? And therefore, for managers, how much
XML training do you need to provide to your content
contributors?</Para>¶
</Abstract>¶
<Body>¶
<Introduction>¶
<Para>XML is still the "go to" technology for complex│
content management (CM). It's also gaining popularity for
simpler CM implementations.  But it leaves open questions
for managers who need to work out training, questions
like:</Para>¶
```

Formatted content in the XML authoring tool:

XML: To train, or not to train

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Transformation stylesheets, on the other hand, do not affect the authoring display, but transform your XML markup to another markup language, like HTML or WML (Wireless Markup Language). Transformation stylesheets use XSL (eXtensible Stylesheet Language) as the stylesheet language and in its basic form, XSL is pretty easy to learn. However, it has some pretty powerful capabilities for manipulating the content to meet output needs. You will need at least one individual on or available to your team who can become the transformation expert.

The third type of stylesheet—a formatting stylesheet—converts your XML markup to formatted output, like PDF. Like transformation stylesheets, they make use of XSL, but all parts of it. XSL-FO, not used by the other types of stylesheets, uses concepts from CSS (Cascading Style Sheets) and provides more procedural formatting directives for paper-based output. You will definitely need someone with the skills required to create and, more importantly, maintain your print stylesheets.

The technology you use and the outputs you deliver will determine the level of complexity of your stylesheets. However, it's an area where you should not scrimp on training. Whoever will create and/or maintain your stylesheets will need solid knowledge in the stylesheet technologies to be effective.

Summary

From the perspective of XML technology, the training that your department will need must focus on the setup and maintenance of the XML structures, that is, the skills to create and maintain DTDs and stylesheets. For authors, implement your authoring system so they don't need to see XML and then focus your training on structured authoring and the information models that they will be writing to.

References

[1] http://www2.richmond.com/dining/output.cfm?ID=1842 Employees need effective training

[2] http://www.idealliance.org/papers/dx_xml03/papers/03-06-03/03-06-03.html XML Centric Publishing

Gaining management support

Applying a Pedagogical Model to Educating Management

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When starting a content management project, you generally need support from key stakeholders within your organization. You will need to "educate" management about your project and your reasons behind your project, but to do so, you need to learn about their needs so you can present materials to them appropriately. This article suggests applying a pedagogical model to educating management. This approach may help you to gain support for your project initially, and keep managers informed throughout the project's various phases.

The topic of educating management brings back "fond" and vivid memories. I recall being a eager young technical writer, looking to implement a usability initiative whereby we would define usability criteria for each of our audiences, allowing us to incorporate usability into the document development cycle. (I was passionate about this initiative because besides being an eager young technical writer, I worked in a department where we were not allowed to talk to users and were evaluated on how many pages we produced.) My zealousness, however, was my downfall. My colleague and partner in "crime" and I outlined the project and presented it to our manager over lunch, our treat! We talked about the need to accommodate users' needs, about lost productivity faced by users looking for information or looking to make sense out of information, we talked about users being the reason documentation existed. We even talked about the dollars required for the project and how spending the money now would make us more productive down the road. We were brilliant. Not being a technical writer herself, our manager wasn't really buying it and in fact, looked quite bewildered, so I explained (rambled on, really), "I'd just really like to tell you more about what we do so that you can understand the function of our group and what we need to do our jobs effectively. Blah blah blah." And, then we used the "E" word. "You know, we'd just like you to be more educated about what we do." She stood up, tapped her finger furiously on the table and stated quite emphatically, "I will NOT be educated." That year, I faced the worst performance review of my life ... and I never did meet the users I was writing for.

Educating management is critical, and tricky. You definitely don't want to give management the impression that you are "superior" simply because you have a brilliant idea. Bottom line is that you have an idea for something and you want them to back it. You want (or, more accurately, need) their support and if

they don't understand why your project is important or what it will help you (and the organization) to achieve, you have to help them—gently—come to that understanding. This article describes strategies for educating management to gain support for a content management project, focusing on following a pedagogical approach to understand their needs, and provide "learning materials" to them in a way that best suits their needs.

Adopting a pedagogical model

Instructional strategies are based on understanding learners' needs and providing them with the information to support those needs. In this case, you need to think about management as the "learners"; following a sound pedagogical model may be the best way to go about "educating" management. Effective instructional design includes three components: prepare, do, and reflect. To develop a pedagogical model that supports these components, you need to:

- Define needs, both yours and your "learners"
- Determine a learning architecture appropriate for your materials and your users
- Define and incorporate interactivity into the learning plan (how will you interact with the key stakeholders? at what stages will you plan activities? how will you know that learning has taken place?)
- Design learning activities (decide what they need to know, how best to present it to them)
- Create a "course structure" that guides key stakeholders through your information in a manner best suited to their needs and the type of information they are "learning"

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Define "learners" and their needs

Implementing a CM project (or any project for that matter) requires support from within your organization, but from whom? One of your first steps in putting together a project plan (or a learning plan, keeping the pedagogical approach in mind) is to identify who your key stakeholders (learners) are and what their needs—or interest—in relation to your project are. When starting a CM project, you generally do so because there's some sort of "pain" in your organization that you need to fix. In our book *Managing Enterprise Content: A Unified Content Strategy*, we recommend that you start in areas with the most "pain"—where processes, tools, and technology are failing or inadequate, and where your organization is seeing the most negative results and hearing about them from customers or management. We recommend that you identify the dangers and challenges facing your organization, the opportunities you can realize if change occurs, and the strengths within your organization that you can build on to realize opportunities. Once you know where the pain is and what the challenges are, you can identify who is affected by the pain, who can benefit from change, and who has the strengths to help you move forward with your project. This list forms your key stakeholders.

What do your learners need to know?

Before approaching your key stakeholders, you should analyze their needs to learn how best to approach them. Much of this is "interpersonal stuff" that is often not considered when putting together a CM project plan. However, it's important to understand people if you want to gain their support and hence, "educate" them. Key questions to help you understand them include:

- What financial or emotional interest do they have in the outcome of your project and what motivates them most of all? How will CM benefit them from a financial perspective or from an "easing" their workload perspective? Don't overlook the emotional aspect; in a world where we're all driven by the "bottom line" it's important to remember that there are other reasons for CM, like assisting authors, or making content more accessible to users. People who have a emotional interest in your project often become your most ardent supporters.
- What information will they need from you and how do they prefer to get information? Some peo-

ple prefer email, some prefer phone calls, some prefer full project briefs. You need to figure out what your stakeholders' needs are and communicate with them accordingly. (See Learning architectures, below) Also, what kinds of interactions are required as you exchange information?
- What is their current opinion of the work that you and your department do? If they don't know about the work you do, or if they don't understand its value, you may have to do some selling/educating about your work before trying to get their buy in for your CM project. Again, if you need to educate at this level, think of your key stakeholders as learners so you can target your message to them in the way that best suits their needs.

A very good way of answering these questions is to talk to your key stakeholders (potential learners) directly. Answers to these questions will tell you such things as:

- Who you need to target the learning to
- What their specific needs are (for both the project and to support your investment in the project)
- What materials will address their specific needs
- What kinds of learning activities (interventions) you should plan to support their needs and gain approval for your project. And, as in any learning project, you also need a way of measuring when your activities have been successful.

Define learning architectures

Learning architecture refers to the way in which instruction is designed. The learning architecture describes the overall approach to your strategy and is based on both your users' needs and the materials you have to present to them. The four learning architectures are: receptive, behavioral, guided discovery, exploratory. Depending on what materials you feel you need to provide to stakeholders, you select a learning an architecture that best suits your materials.

Receptive

In a receptive architecture, learners absorb knowledge and skills from listening to a lecture, watching a video, or reading text; there is no externally prompted interaction. Information is presented in text sequences, examples, analogies, visuals, etc. Receptive learning can cause cognitive overload if other strategies aren't incorporated with it. It's good for

Gaining management support

building up a good source of information, but—especially for novice learners—it must be balanced with other approaches to ensure the information is absorbed into LTM (long term memory). Adopting a receptive learning architecture for introducing your content management needs and strategy may be more useful at the beginning of your project. Learning activities supported by a receptive learning architecture include short presentations, prepared materials you distribute, and demonstrations.

Behavioral

The behavioral architecture assumes that learning occurs by a gradual building of skills and information, strengthened by interactions imbedded into the instruction. Learners are provided with small chunks of instruction (basic to complex), followed by an interactive session after each chunk. This approach is widely used in computer-based learning. It manages cognitive load and encourages encoding of information into LTM through frequent interactions. It works very well for teaching procedural information. However, it's sometimes tiring for learners with more experience.

Using a behavioral architecture may be useful once you've introduced your content management idea to management (through a receptive architecture) and want them to explore—through hands-on experience—the need for it. For example, you may want to set up an activity in which they compare different instances of similar content across a set of documents. The activity could include showing them five different versions of a product description and having them examine them for similarities or differences. Often, management isn't aware of these kinds of inconsistencies, so by having them look at different versions, you are involving them in the process of determining why content management is required. Such an exercise could take place following a short presentation, with you leading them through it.

Guided discovery

Guided discovery emphasizes the building of knowledge through case-based learning. Guided discovery is a more "constructivist" approach to learning; the instructional materials provide learners with the resources and experiences required to construct new knowledge. The emphasis is on construction instead of acquisition (which is the basis of the behavioral architecture). Learners are provided with a realistic

problem or scenario, and access an array of resources to solve the problem.

Like the behavioral architecture, guided discovery is useful when combined with a receptive architecture, only with guided discovery, you're sending people out to make discoveries on their own. Keep in mind that you don't want to waste their time and any discovery must be brief and relevant to your cause. During a presentation, for example, or as part of a project update, you might ask managers to go out and find all the descriptions of Product X on your web site, then report back how long it took and how many they found.

Exploratory

Exploratory learning accommodates higher learner control. The assumption is that learners will access the information that best suits their needs. Depending on the amount of information to explore, overload can result, but keeping topics brief and adding frequent, optional practice/illustrations, can help to manage the cognitive load. Adopting an exploratory architecture may be useful for participants who work remotely, can't participate in meetings or activities, or who—and this is especially truly of some senior managers—prefer to set their own schedules, eschewing meetings in favor of reviewing materials on their own. However, if they are reviewing materials on their own, it's critical you do design materials so "learning" occurs. Just providing access to materials is not sufficient. You need to find a way to "track their progress" through the materials.

Define and incorporate interactivity

Once you've determine what materials you need to support your cause and adopted a learning architecture best suited to them and to your users, you need to find a way to incorporate interactivity. Interactivity is sustained, two-way communication among two or more people within a learning context. Interactivity occurs from the learner's perspective and does not occur until a loop from and back to the learner has been completed. Interaction is essential to learning and to the overall success and effectiveness of any instructional environment. When "educating" managers about your content management idea, interactivity goes beyond taking them for lunch and talking about your project. You need the kind of interaction that tells you learning has taken place.

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There are two types of interactivity: social and content. Both types contribute to the learning experience. Effective content interaction is incorporated through complex activities that engage learners in the instruction, such as guided analyses. Ways to incorporate social interactivity include online conferences, chat (private or group), newsgroups, listservs, email, and collaborative exercises.

Design learning activities

Learning activities are used to exercise learners' thought processes and analytical techniques. They allow learners to do such things as consider, analyze, question, research, reflect, annotate, evaluate, organize, discuss, decide, test, apply, link, solve, and synthesize. Learning activities should be incorporated into each "topic" that you need to present to management, allowing them to assimilate what they've read/seen in the presentation sequences and to ask questions about it. Learning activities can include such things as:

- calculating costs of producing redundant content
- figuring out which element of redundant content is correct
- following a fictitious user through a case study as he/she tries to find content on your web site
- conducting a content "scavenger hunt" throughout the organization or a web site

However, because this isn't a typical learning situation, feedback should not be graded, and must be positive. Also, because most managers have limited time to engage in such activities, they must remain relevant to your case. You might even want to consider guiding managers through activities by leading an online seminar or meeting.

Create a course structure

There is rarely implementation of a single learning architecture and as you are putting together your "learning plan", you need to accommodate various levels, various users, and different types of information. Typically, a pedagogical model follows a course structure something like this:

- Introductory material, including scope, objectives, resources required, prerequisites (which in this case could be references to past projects, other initiatives), time commitment required

- Topics (presentations, reading material), repeated and enhanced with graphics as required
- Learning activity, incorporated into presentations
- Summary (of each topic/phase, at the end of that topic/phase)
- Evaluate; assess understanding

Summary

Planning a CM project—specifically during the beginning stages during which you need to gain approval for your project—is similar to developing learning materials. Learning materials should always be targeted towards your specific learners, support their learning styles, accommodate the type of materials you are "teaching", and provide the necessary level of interaction to help learners understand the materials. Likewise, project materials need to targeted towards your audience in very similar ways. Definitely think of "educating" the people whose support you need, but go about it the right way. A pedagogical approach will guide you through learning about them, so you can help them learn about what you and your project.

In the news

Education: Courses available for you!!

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If you're looking to learn about effectively managing content, look no further. In this issue of The Rockley Report, we highlight several educational resources you may find valuable in your quest for content management knowledge. We've created a short list of college and university classes and programs, trade association offerings, and a summary of our own Content Management Workshop Series for your review. We've included some useful links to other online resources that may assist you in finding educational opportunities.

College and University Content Management Classes and Programs

University of Washington - TC 435 Content Management

Course covers the principles and practices of building, managing and using content management systems in the technical communication workplace. Examines both the intricacies of collaborative workflow technologies and the organizational contexts that surround them.

To learn more, visit: http://www.uwtc.washington.edu/programs/ugradcourses.htm.

University of Washington iSchool – Content Management Certificate Program

The Content Management Certificate Program provides the skills to help fill the growing need for well-informed information professionals who develop content management strategies and solutions to achieve business goals. Program includes three courses:

- **Content Management Methodologies** - Introduces the subject and techniques of content management, including (1) a process view of content management (i.e., collection, management and publishing), (2) a functional view of content management (i.e., audiences, organizational goals, staffing, workflow, publications and content components), and (3) key concepts (i.e., data, information, knowledge and content). Emphasis is given to content management as a project, including initiating a project, gathering requirements, performing logical design, choosing software, implementing the system and deploying it.
- **Content Management Design** - Develops the knowledge and skills in the logical design of content management systems, including the analysis of audiences, content, publications, access, workflow and staffing. Emphasis is on the synthesis of all of these analyses into a coherent and complete design for a particular content management system.
- **Content Management Implementation** - Develops knowledge and skills in the physical design of content management systems, including authoring tools, XML and relational repository design, and publication template systems. Emphasis is on understanding how leading content management systems perform the tasks necessary to collect, manage and publish content.

To learn more, visit: http://ex tension.washington.edu/ext/certificates/ctm/ctm_gen.asp.

Texas Tech University - English 5387 Publication Management

Course teaches students how they can create value for their organizations by helping to make decisions about the appropriate platform for documentation, by creating single-source solutions, by collecting and disseminating knowledge, and by organizing communication projects in order to complete the job on time and on budget. The class also explores effective strategies for managing content.

To learn more, visit: http://www.faculty.english.ttu.edu/carter/5387/.

In the news

Illinois Institute of Technology – COM 541 Indexing & Retrieval

Course covers the principles, practices and tools for indexing print and electronic documents, along with methods and tools for storing, maintaining and accessing information for communication roles in corporate, institutional and government settings. Emphasis is given to web-based strategies, techniques and tools. Specific areas of study include document and content management systems, metadata, relational databases, browsers / search engines, and XML.

To learn more, visit: http://www.iit.edu/~com535/ir/ir_home.html.

Rensselaer Polytechnic Institute - Advanced Content Development

Course explores the interplay between content and structure in the construction and management of online spaces, including how to create and maintain information structures for dynamic content and how to deliver customized content to individuals and groups.

To learn more, visit: http://www.rsvp.rpi.edu/academics/course_catalog/comm/acd.shtml.

Trade Association Content Management Programs

Enterprise Content Management (ECM) Certificate Program

The Association for Information and Image Management (AIIM) offers an intensive, web-based training program, "Fundamentals of Enterprise Content Management," a certificate program designed specifically for professionals who are in the first few years of their enterprise content management careers.

Level One: ECM Practitioner Certificate program includes ten, 60-90 minute web-based courses; each followed by a online assessment covering the course content. Participants may enroll in individual courses or the entire program. Upon completion of all ten courses and successfully passing each assessment, participants earn the AIIM ECM Practitioner Certificate.

Level Two: The Building Blocks presents advanced concepts in focused, topic-specific tracks including: ECM Technologies, Applications, Verticals, and Sales Techniques. Each track consists of five or six 60-minute Web-based modules and are led by the same Subject Matter Expert (SME). Upon completion of all modules in a given track and successfully passing a final exam, participants earn the AIIM ECM Specialist Certificate.

To learn more, visit: http://www.aiim.org/article-aiim.asp?ID=25953

Rockley Group Content Management Programs

Content Management Workshop Certificate Series

The Rockley Group Content Management Workshop Series is designed to provide you with a comprehensive understanding of the concepts and techniques required to develop and implement effective content management. Each workshop runs for two days. Take all four workshops and receive a certificate in content management.

The series includes:

- Content Management Jumpstart
- Information Architecture for Content Management
- Content Modeling and Structured Writing
- Content Management Implementation Strategies

Content Management JumpStart

Content Management JumpStart introduces the concepts, strategies, guidelines, processes, and technological options required for a successful content management implementation. This workshop helps content managers and authors understand how to meet the increasing demands of creating, managing, and distributing content through a content management strategy. It covers the value of content management, how to analyze your content lifecycle, how to develop an ROI. It introduces you to the information architecture of content management, and provides guidelines for selecting tools and technology. It also covers the changing roles and processes that content management brings about, and provides strategies for managing that change.

In the news

Information Architecture for Content Management

Information Architecture for Content Management introduces you to concepts required to develop the information architecture for your content management strategy. Information architecture is a key component of a successful content management strategy. It is the backbone of your strategy and formalizes the structure of your content, helping you to determine rules for identifying, managing, retrieving, and delivering your content. In this workshop you will learn how to design your information architecture to support the user experience. It covers the concepts of content modeling, metadata, content management business rules, repository structure, and workflow.

Content Modeling and Structured Writing

Content Modeling and Structured Writing teaches you how to create content models and the content supported by those models. Content models define how information products are structured to support reuse and consistency, they identify where information products will share reusable content, and indicate what metadata applies to each element. Structured writing provides the standards for how to structure and write each element identified in your models. In this workshop, you will learn techniques for creating XML-ready content models that support content reuse in a structured authoring environment and how to create writing guidelines to support these models. Existing content models such as DocBook, DITA, SPL, and PIMS will also be reviewed.

Content Management Implementation Strategies

Implementing an effective unified content strategy is a balance between what is desired and what is possible from both an authoring and a technical perspective. An optimum implementation strategy is based on your analysis of your content, the potential for reuse, and the end user content requirements, as well as on your understanding of the technical capabilities/implementation of the content management system. Content Management Implementation Strategies provides you with an understanding of the factors affecting implementation, enabling you to make the right decisions about implementing your unified content strategy and your content management system. Note that it is not intended to be a technical "how-to"

session; rather, it focuses on helping you to understand implementation issues.

Additional information is available from the Rockley Group Content Management Workshop Series web page at http://www.rockley.com/workshops.htm.

Contributors

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Scott Abel is a freelance technical writing specialist and content management strategist whose strengths lie in helping organizations improve the way they author, maintain, publish and archive their information assets.

Bill Albing

Presently senior technical writer at FarPoint Technologies, Bill Albing has a more than a dozen years of experience in technical documentation and information development. He began his career designing microwave devices and programming test equipment before he discovered a talent for communicating technical information. While his specialty is highly technical information, he has lately helped Internet startups with single-source solutions for online help and printable documentation notably using XML. Bill has served as president of the STC Carolina Chapter for two consecutive terms in the mid 1990s.

He has participated in the IEEE committee to re-draft the IEEE Standard 1063 for Software User Documentation and has recently stepped off the IEEE Professional Communication Society Administrative Committee to allow for more time in his new role as editor-in-chief of KeyContent.org. Bill has a BA with a major in physics and a BS in Electrical Engineering.

Bob Boiko

Bob Boiko is currently President of Metatorial Services, Inc. (www.metatorial.com) and Associate Chair of the Masters of Science in Information Management (MSIM) program in the iSchool at the University of Washington (www.ischool.washington.edu). Bob also helped found and is now serving as the first president of CM Professional (www.cmprofessionals.org), a content management community of practice. Bob is the author of the *Content Management Bible,* first published in 2001 and its popularity generated a 2nd edition, hot off the presses in November 2004.

Pamela Kostur

Pamela Kostur is a Principal with The Rockley Group, specializing in information analysis, information modeling, and structured writing to support a unified content strategy. Pamela has over 18 years experience developing information solutions. During that time Pamela has completed many projects and presented papers at numerous conferences on topics including iterative usability, miscommunication, structured writing, editorial "magic", building and managing intranets, creating usable online documentation, unified strategies for web-based learning, information modeling and analysis. Pamela is a co-author of *Managing Enterprise Content: A Unified Content Strategy* with Ann Rockley and Steve Manning.

Steve Manning

Steve Manning is a Principal with The Rockley Group and has over 16 years experience in the documentation field. He is a skilled developer of online documentation (WinHelp, HTML Help, Web sites, XML, and Lotus Notes) and has created single source production methodologies using key online tools. Steve has extensive experience in project management and has managed a number of multiple media, single source projects. Steve teaches "Enterprise Content Management" at the University of Toronto, and is a frequent speaker at conferences (ASIS, AUGI, STC, ACM SIGDOC, DIA) on the subject of XML and Content Management. Steve is a co-author of *Managing Enterprise Content: A Unified Content Strategy* with Ann Rockley and Pamela Kostur.

Ann Rockley

Ann Rockley is President of The Rockley Group, established to assist organizations in adopting content management, unified content strategies, and information architecture for content management. Ann has been instrumental in establishing the field in online documentation, single sourcing (content reuse), enterprise content management, and information architecture of content management. She is a frequent contributor to trade and industry publications and a featured speaker at numerous conferences in North America and Europe. Ann is the author of Managing Enterprise Content: A Unified Content Strategy with TRG Senior Consultants Pamela Kostur and Steve Manning.

Call for Submissions

The Rockley Report publishes original material related to content management, including its goals, its implementation, the technology required to support it, and its affect on organizations. If you're interested in submitting to *The Rockley Report*, we'd like to hear from you. Please send us your ideas for articles in the following categories:

- Best Practices — Articles in this category describe content management in the "ideal" world and suggest how to put those ideals into practice in the "real" world. Best practices focuses strategies, activities, or approaches that have been shown through research and evaluation to be effective.
- Information Architecture — Articles in this category explore the relationship between information architecture and content management, including topics such as building a blueprint for a content management strategy and content modeling.
- Tools and Technology — Articles in this category investigate the technology required to support content management.
- People, Processes, and Change — Articles in this category discuss management issues related to content management, such as changing roles and writing in a content management environment.
- Gaining Management Support — Articles in this category provide strategies for helping management understand the benefits of content management, focusing on topics such as building a business case for content management and calculating ROI.
- Case Studies — Case studies explore how companies are implementing content management and focus on what they did and why, their benefits, and their lessons learned.

If you have an story you'd like to submit, please write a 250–word description of your topic, the category you think it best fits, then send it, along with a 100–word bio, to Pamela Kostur at kostur@rockley.com.

Next Issue

Confused about DTDs vs. DITA vs. Docbook? Don't worry...in the next issue of *The Rockley Report* we'll be deconstructing the standards, providing you with information on what they mean, and when to use them.

The next issue will be available to subscribers in late March.

We're also looking ahead to next year when after we deconstruct the standards, subsequent issues will focus on:

- Using content management strategies for Localization/Globalization
- Metadata
- Creating dynamic, personalized content
- Building a business case for all phases of your content management project, including usability

We'd love to hear from you. If you're interested in contributing an article on some aspect of content management to *The Rockley Report*, please contact kostur@rockley.com. We'll send you our authoring guidelines and get you started.

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We'd love to hear from you. What do you think of the *Rockley Report*? What would you like to see in the future?

If you have any questions, comments or suggestions, please feel free to let us know. The easiest way to reach us is via email. Our Editor, Pamela Kostur, can be reached at kostur@rockley.com.

Visit our corporate website at www.rockley.com, or the website for our book, *Managing Enterprise Content: A Unified Content Strategy* at www.managingenterprisecontent.com.

We hope you enjoyed this issue, and hope to hear from you soon.