What Good Is Web-based Help If Customers Can't Understand It?

by JoAnn Hackos, Center Director

Providing customer support documentation on the World Wide Web is indisputably efficient and cost-effective, but only if the online project is implemented in such a way that customers can access the information easily and understand it once they have access to it. Here is a story about XYZ Company's abysmal failure at a noble effort to cut customer support costs and enhance the value of its customer service.

A Customer Support Fable

Once upon a time, XYZ Company decided to reduce the volume of user support calls by adding a customer information Web site. The support engineers documented the problems that customers called about most frequently, along with their solutions to these problems. Next, someone compiled a list of the problems and solutions submitted by the various support engineers and added the Hypertext Markup Language (HTML) codes required for Web publishing.

The Webmaster attached keywords to the problems and solutions so that customers could search for the information they needed. The list was organized in reverse chronological order (most recent first), and each problem was assigned a meaningful name. The Webmaster attached keywords to the problems and solutions so that customers could search for the information they needed. The list was organized in reverse chronological order (most recent first), and each problem was assigned a meaningful name.

Everyone worked very hard to develop the information for the Web site. However, the support engineers who documented the problems and solutions all worked independently. Consequently, the problem-solution write-ups all contained different terminology and different keywords. Little about them was standardized. Some of the support engineers could write clear, well-organized descriptions and recommendations, but others had difficulty, either because English was not their primary language or because they weren't trained to write clearly and succinctly.

At last, the new Web site was announced to the customers, who greeted the announcement with considerable enthusiasm. Customers were anxious to find answers to their questions without having to wait three or four days (the standard at XYZ Company) for a response from the greatly overburdened support engineers.

The Plan Goes South

Alas, when customers started to use the Web site, their excitement turned to frustration. They couldn't navigate their way through the hundreds of problems and solutions. The document titles were often obscure, and the organization of the list in reverse chronological order made no sense to them. Worse yet, just when they thought they had found a problem-solution document that was relevant to their own current malfunction, they often discovered that they couldn't understand what it said.

Sometimes the information had gaps because the support engineers had overlooked a step or two in the solution process that was obvious to them but not obvious to the customer. Other times, the information was just plain incomprehensible, like those instruction manuals that come with bicycles and toys that have to be assembled or with electronic devices produced in non-English-speaking countries.

The company's high hopes for reducing customer support costs were rapidly plummeting to the disaster level. Although customers were accessing the Web site in droves, each "hit" seemed to generate at least three calls to...
Dear Friends:

Not only are we coming to the end of 1999 and of the Millennium, we are also at the end of the first full year of the Center for Information-Development Management. Last February, we introduced the CIDM concept to a select group of managers I had worked with and I knew would be intrigued enough to join. Since that inauguration date, nearly 30 senior managers have committed their organizations to a community of strategic-minded professionals. Many others have subscribed to this newsletter with hopes of getting a Center membership in their 2000 budget. One hundred ten people joined us at the first annual Best Practices conference and 230 people took part in the first Single Source Summit. We are building, I am confident, a strong community of individuals and organizations who are discovering an identity.

The Center has been active this year in a number of significant projects, including the Quality Metrics Benchmark Study, the Telecommunications Manufacturing Industry Benchmark Study, and the Ratios study.

Quality Metrics Benchmark Study

I have just completed the final reporting for the Quality Metrics Benchmark Study (QMBS). Four partners, including three Center members, received comprehensive recommendations for new metrics they might institute in their organizations. These partners participated in one-day site visits that included discussion groups with writing staff, managers, and task force members working on new initiatives, and often senior managers from other parts of the organizations. All the QMBS partners received a comprehensive project report that catalogued a wide variety of measurements and described best practices already in use by every partner. Members and others attending the Best Practices conference also heard my overview of ways in which we all might better measure the effectiveness of our information for customers and the efficiencies of our internal operations.

Telecommunications Manufacturing Industry Benchmark Study

The Telecommunications Manufacturing Industry Benchmark Study (TMIBS) is nearing completion, with the last of the site visits and phone conferences taking place in December. The partners in this study met for the first time at the Best Practices conference. After some initial nervousness about being in the same room with so many competitors, partners recognized that their common interests in providing excellent information to customers and developing effective operations far outweighed competitive issues.

Thirty-five divisions in five countries from among the largest and most influential companies in the telecommunications industry are partnering in this benchmark. They include Ericsson (Sweden), Nokia (Finland), Alcatel (France), Nortel Networks (Canada), Motorola (USA), Cisco Systems (USA), Lucent Technologies (USA), Newbridge (Canada), and PairGain (USA). The partners will meet again at a major benchmark conference in late February, 2000 in Irving, Texas. Anyone still wishing to join this study should call me immediately.

The TMIBS partners are also planning at least two new studies for 2000: a comprehensive customer study of the telecommunications industry and an industry-wide terminology task force. Both studies will be facilitated by Center management and associates.
Other Center Activities

Ten Center member departments participated in the Ratios Study, which looked at the patterns of interaction between individual technical communicators and the engineers, programmers, testing, marketing, quality assurance, customer support, and other groups with which they interact. The preliminary findings of this study were presented at the Best Practices conference, and the study results are reported in this issue.

Center members also participated in an online Study Group covering Geoffrey Moore’s work, Crossing the Chasm. The Study Group discussions led to the full-day workshop on the Chasm that we held at the Best Practices conference. Katherine Murphy provides you the results of the workshop in her Chasm article in this issue.

In addition to the TMI initiatives for 2000, we have also scheduled a major benchmark study on staffing. Members have told us that they are trying to increase employee satisfaction, create new job opportunities, find innovative incentives to retain valued individuals, and discover new ways to employ traditional skills such as developmental and copy editing. I hope that all of you will be interested in joining this partnership. Remember that the work of the Center is to support you. Please let me know about new and innovative ways that we can make your membership valuable.

By the way— we’re also thinking about hosting a corporate salary survey and a Help Desk for managers who want to ask critical questions of me and the other associates. I want to hear how you might benefit from these new activities.

We are also well into our planning for the New Managers’ Conference, tentatively scheduled for mid-June. Katherine Murphy is serving as program manager for the conference, which will provide a carefully orchestrated series of presentations and panels. The goal is to give new managers the skills and concepts they need to succeed.

Many of you also know that, beginning with the February issue, Katherine will assume responsibility as managing editor of this newsletter. I am looking forward to working with her in 2000.

Web-based Help
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the support center. The customers needed additional explanation of the Web site information.

Technical Communicators to the Rescue
Customer support groups are beginning to recognize the opportunity to provide electronically based customer support as a way to supplement telephone-based support. Management often views the development of an information-based Web site (either external or internal) as a panacea that will automatically reduce the high costs of support. But the fable illustrates a dismaying real situation for many organizations: If information is to be valuable, especially to nonspecialists, it must be well organized, designed for ease of use, and written so that the intended users get the information in a form that they can understand.

Fortunately, most product developers already have in place an organization capable of assisting the customer support groups in developing an effective and usable information base. The technical publications staff is often skilled in the following attributes:

- Grouping information in ways that users will find logical and understandable
- Developing and using standards formats so that similar information looks the same each time it appears
- Creating and implementing standard terminology
- Creating cross-references that enrich a hypertext-based presentation
- Developing synonyms and related concepts that make a keyword search system effective
- Writing instructions that are easy to read and understand

These skills can help a support organization develop an information base that customers
WHAT GOOD IS WEB-BASED HELP IF CUSTOMERS CAN’T UNDERSTAND IT?

Members—tell us what you’re doing to build relationships with other groups in your organization by posting it to our listserv:

bestpractices@infomanagementcenter.com

will find easy to use. As a result, they will be less likely to call the support center.

**The Intel Experience**

At Intel Corporation, technical communicators became partners with the customer support staff to increase the value of information distributed electronically to Intel’s customers. In an article for Intercom, the magazine of the Society for Technical Communication (STC), Jean Scholz, formerly of Intel, reported that the customer support group is very active in supporting customers via telephone, electronic bulletin boards, fax-on-demand documents, and, more recently, a Web site.

The support personnel and the technical communicators assigned to the team worked together each week to analyze the top issues that generate calls. The technical communicators wrote articles that described new problems and their solutions, updated information on existing problems and solutions, and published the information initially on the bulletin board and then on the Web. Scholz confirmed that technical communicators wrote 90 percent of the articles in the database.

Intel’s technical communicators study the frequency with which customers access the electronic information, comparing telephone call volume to electronic access. They also talk to customers to determine whether the electronic version of the information is accurate and useful.

Scholz noted in a presentation at a recent STC conference that the technical communicators’ involvement in delivering accurate and usable information for electronic access enabled Intel to reduce the volume of support calls by at least 85 percent. She also calculated that, if electronic delivery is typically one-tenth of the cost of traditional customer service phone calls and if a support call averages $20 and electronic delivery averages $2, then a company shifting support to electronic media could realize substantial savings. If 70 percent of the calls are handled electronically, a company with 100 calls per day would save $1,260 per day.

**How to Start a Partnership**

Many support organizations already have a cordial relationship with their company’s technical communication group. At these companies, communicators regularly consult with support personnel to better understand the problems that customers are reporting. At other companies, support personnel provide reports that document user problems or indicate areas that might be covered in future documentation.

For support groups that do not already have an established relationship with the technical communication organization, here are some ideas for beginning a dialogue and implementing a partnership.

♦ Contact the publications manager and request a meeting. Indicate your interest in a partnership and exchange ideas about how implementation might begin.

♦ At the planning meeting, make your needs clear, but be prepared to listen to the communicators’ perspective. They may have to find time in a busy schedule to work with you.

♦ Consider providing some funding to support a technical communicator. The technical communication group might have no extra capacity at the moment. However, we strongly advise that the group find some way to accommodate such a worthwhile new effort.

♦ Establish a good work process. Remember that at Intel, the support people and the technical communicators met weekly to determine which problems were the top call generators.

♦ Devise a method of assessing customer satisfaction with the process and the quality of the electronic information. Evaluate

“A strong working relationship between the customer support and technical communication groups will go a long way toward enhancing the effectiveness of both organizations.”
whether or not you are indeed decreasing costs and increasing effectiveness.

- Ensure that the information database is also useful for training and supporting your own support staff.
- Set up an evaluation schedule. Establishing a specific date to review the process and the project ensures that problems will be aired and successes celebrated.

Everyone Wins
A strong working relationship between the customer support and technical communication groups will go a long way toward enhancing the effectiveness of both organizations. Support personnel gain the technical communicators' expertise in written communication, organization of information, and hypertext and search structures. In many organizations, technical communicators work directly with or for the engineering department and are aware of the technical details of new products and product changes sooner than anyone in the support group. By partnering with a technical communication group, support personnel will have a conduit to the engineering organization.

The technical communication group also benefits from the relationship. Support personnel are close to the customer, aware of the customers' problems, and knowledgeable about the customers' expertise (or lack thereof). Technical communicators will become much more attuned to customers' needs by working closely with support personnel.

Technical communicators also will be able to monitor the value and completeness of the information that goes into the technical documentation. Often, the support staff knows of gaps, errors, and unclear information in the technical manuals, but they rarely have the time to communicate that information to the technical communicators. A partnership fosters communication because people are working closely together on a continuing basis.

The greatest benefits accrue to the customer who gets the information, solves problems, and gets systems up and running more quickly—all of which boost customer productivity. The company ultimately reaps rewards by earning the loyalty of increasingly supported and satisfied customers.

A version of this article originally appeared in the Help Desk Institute's LifeRaft (9:2), March–April, 1997.

Case Study: The Sybase Experience

Sybase is one organization that took seriously our recommendation to work closely with Customer Support. A few years ago, they set up a team they called the Scoop Writers. Working alongside the support staff, the Scoop Writers are responsible for identifying the most frequently asked questions, researching the solutions with the support staff, and publishing the solutions to the Web site. The Scoop Writers update the Web site weekly, while at the same time ensuring that the information is written consistently and remains accessible through a sound information architecture on the site.

As a result of their collaborative efforts, one of the senior writers reports that they had a 20.6 percent decrease in support calls even as they were experiencing an increase in the number of customers.

They haven't stopped with their weekly publishing solution either. The team has worked closely with support and engineering to develop a series called Tech Notes, based on major customer inquiries. So popular were Tech Notes that the information managers quickly identified more potential topics than they had people to write them. Tech Notes are published on the Web site as well.

Weekly scoop articles and Tech Notes still mean that customers have to take the initiative to think of and locate the topic they need. The team began researching ways to push information toward the users rather than require them to pull it from the Web site. They instituted a Sybase Technical News publication that has condensed versions of the most recent topics and other topics of potential interest to the users. Technical News is published monthly, keeping users informed of new information sources and new answers to their technical questions.

Technical support was the initial driver of these innovations, but the Scoop Writers and the technical publications department were not far behind. The collaborative team took the initiative to present information in new ways to their users and to respond assertively to unmet needs. Information-development managers need to remember that users don't really know what will help meet their information needs. It's up to us to discover the underlying problems and devise solutions. We cannot simply sit and wait for users to ask us for new information resources.

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Using Documentum Helps BMC Cut Production Time

David Shaw/Robin Reddick

The Technical Publications and Usability Organization at BMC faced increased demands in development, business, and customer requirements. On the development front, rapid growth brought the company from 150 to more than 300 products, from 2000 to 6000 employees, and from two major labs in Texas to eight major labs in two countries. On the business front, BMC began delivering solutions rather than products; as a result, engineers produced components rather than products. Products were heavily integrated in scalable and multi-platform configurations. At the same time, customers needed greater access to more consistent and usable information.

Together, these demands created pressures that would be best met through a single-sourcing strategy. However, with such rapid growth, such a large organization, and so much documentation already in release, the group broke the move to single sourcing into two phases: the development and adoption of a Document Management System (DMS) and the optimization of it to enable a Component Management System (CMS). Phase 1, DMS, is now fully functional and the early stages of Phase 2 are underway. We recently talked to Robin Reddick, Director of BMC’s Technical Publications and Usability Organization, and some of her team members to find out how they got the project off the ground, how they’re using it, the rewards they’ve seen so far, and how they’re embarking on the CMS frontier.

Getting Started

The group at BMC identified the need for DMS about five years ago. The growth described above was exponential, almost unstoppable. Product integration was well underway, and it became clear that soon information would begin to overlap. The group managed multiple versions of the same basic information.

Their first tool search convinced them that the manufacturers of DMS applications weren’t quite ready for the needs of a large software and technical writing organization. They put the project on the back burner and came back to it about two years ago. The second time around, the tools appeared much more advanced, and after an evaluation of the field, they selected Documentum.

BMC chose Documentum for two primary reasons: it has a strong document management engine, and the baseline functionality was exactly what they needed, yet it was open enough to allow them to customize it for their specific needs. Documentum consultants came onsite for about a year to customize the tool.

The first trial was completed seven months later when a small group of information developers successfully imported completed documents into the documentation database and began using the DMS for storage, electronic delivery, and printing.

Documentum version 3 allows the group to store documents as Works-in-progress, Renderings, and Releases. Metadata attributes attached to each file identify the document in the following ways: its product, the specific

For more information on Documentum: www.documentum.com
How It's Used Today
Documentum integrated smoothly into BMC’s information-development processes. FrameMaker remains the primary authoring tool. FrameMaker is not integrated into Documentum; instead, information developers create documents in FrameMaker, exit the program, launch Documentum, and import the FrameMaker document into the Documentum workspace.

Once inside Documentum’s workspace and after being assigned meta-data attributes, the original document is stored in the Oracle database underlying the Documentum DMS. When the document is ready for publishing, it is assigned a new meta-data tag indicating it is ready for Web delivery.

Currently, documents are delivered in three renditions: PostScript, PDF, and HTML. The primary mode of Web delivery is PDF, though both internal desire and external demand are driving a move toward increasing the volume of information available in HTML.

Documents can be checked in and out of the database for continual development and revision. When a document is imported from the database, a locked copy of it is stored in its place. This lock tells others that the document is currently being worked on and also leaves the most current version in the database and available for on-demand publishing. The group also implemented a new business rule requiring them to run database replications every 24 hours to ensure that everything that gets checked in is updated everywhere.

The Documentum DMS fosters workflow through a series of workflow templates you can drop into the workspace. Ad-hoc routers circulate an Acrobat PDF of a document for review. Acrobat’s annotation capabilities allow reviewers to include review comments as the PDF circulates.

The Technical Publications group can also connect to Information Exchange, BMC’s corporate data warehouse which is also an Oracle database. The connectivity allows the group to draw on information created by other groups such as marketing. But while they can search other databases, they can’t draw from them live. To allow writers to work with material in Information Exchange, queried documents are “dumped” into a temporary database that Documentum accesses every two hours.

Increased Efficiency Through Documentum
We already noted that updated documents are delivered to the Web every 24 hours. Prior to implementing Documentum, Web postings took two to three weeks.

Also, before Documentum, the group had a team of six or seven people who managed the Web site content. At their best, they were able to maintain roughly 5,000 pages of static documentation. With Documentum, this process is automated. The accuracy is much higher because the most recent version of a document is always delivered to the Web. Currently, Documentum controls access and delivery for over 20,000 pages.

Robin elaborates on the benefits:

Once something’s in the database, it’s available to the printer and the Web (PostScript, PDF, and HTML). We basically took all of these independent and disparate processes and eliminated them. We have one process now and that works for all of our distribution points and all of our media.

This streamlining of process increases the integrity of information going to the Web or the printer. Before DMS, if information needed to be updated in several places on the Web site, the group was never certain that the same document was displayed in all places—all links had to be checked manually. Moreover, they were never entirely sure that the printer and customer were receiving the same information. Needless rewriting was occurring throughout the publishing organization and, often, information developers were creating conflicting information about the same products.

While changes in head count and delivery cycles are easily calculated and provide indexes of the overall success of the Documentum project, it’s much more difficult to determine a return on investment. Documentum Project Manager Andy Grout explains: “It’s hard to quantify the value of current, fast, and correct information; yet, this is the greatest benefit to both us and our customers.”
Envisioning Component Management

Phase 2, the implementation of CMS, is essentially a continuation of the successes seen in Phase 1. Rather than moving toward CMS products like Chrystal and Hynet, BMC is sticking with Documentum but will begin saving information at a more granular level than the document level described in the DMS process above.

To begin Phase 2, Help authors are writing topics as independent files, viewing them as components, and building a library of them with multiple attributes. Essentially, they are taking what they coined the “CMS characteristics” of Documentum and the authoring capabilities of DreamWeaver and combining them to mimic formal CMS processes.

Once the processes are in place, Robin explains:

We'll step back, take an overall look at where the organization as a whole is, and say that everything we develop from this point forward will be managed as a component at the topic level.

She estimates that this stage is six to twelve months away. They expect to have it launched by April 2000 and fully operating by December 2000.

Tips for Other Groups Considering DMS and CMS

Robin stresses two primary areas for documentation managers to focus on as they embark on DMS and CMS technologies:

♦ Get the support of your writers for successful implementation.
♦ Understand the business needs and communicate them effectively to your upper management.

Regarding support from your department members, Robin asserts that “the most important thing to do is talk to your writers and make sure you get their support.”

Robin argues that managers must get their staffs to understand the value of the new technology because its success relies on their willingness to make it work. To get this buy-in, Robin included her writers throughout the project.

Immediately after the kick-off, she got volunteers to work with the Documentum consultants to ensure that they optimized the system for their work environment. She also asked her writers to identify the tasks on which they spent most of their time; it was they who brought up the fact that they spent nearly one-third of their time in production. Consequently, when they heard how the new system would automate this function, they were all ears.

To emphasize this point, Robin advises:

In short, include them from day one. Let them drive the requirements. Get them involved in QA testing of the applications you build. Let representatives from each group educate others in their groups. Keep them heavily involved. Let them lead the project as much as possible.

On the other side of the coin, implementation also relies heavily on support from above.

Robin didn’t have much difficulty convincing her managers because they too saw the need for database publishing. In BMC’s rapid growth phase, engineers were writing object-oriented code faster than the publications group could document it. Both Robin and her upper management saw the need for a similar development model in her group:

When you’re the critical path for getting your product out the door, you absolutely have to do this, or you can’t stay in business.

Robin warns that often it will take a crisis point for upper management to understand that you need to make a change. She advises other managers to identify the coming crisis before it happens and be ready to explain that you need to find a better way to manage your information, serve your customers, develop information more quickly, and improve the integrity of what you deliver.

As Robin says, “these concepts are all pretty easy to understand. It’s not a particularly difficult sale; you’ve just got to put the right business plan in place.”

We’ll follow the progress of Phase 2 and let you know how it turns out. Good luck to Robin and her group!
When are We Going to Stop Talking About Ratios?

JoAnn and Bill Hackos

"How many engineers or programmers are in the development organization? Then, we'll know how many technical writers we should hire. Our company hires one writer for every 25 engineers. Is that the right number? Somebody wrote a book about Microsoft that said they have one writer for every three programmers. Should we follow that? What about our competitors?"

"How much money is in the budget for developing the new Grand Widget software? We should figure on 10 percent of that budget for the documentation. Or maybe the right number is 15 percent? What does Microsoft do? The Old Widget software has been around for five years now. They're using a small staff of off-shore maintenance programmers to fix bugs and add features. Their budget is really low for this product now. Does that mean we should cut the documentation budget the same amount?"

You've all heard comments like these. Some of you have even made them. We've been hearing them for the past 20 years. Engineering management seems to want a magic ratio that they can use to allocate a budget for technical documentation. If we could just come up with the right ratio so that we could get the job done. In fact, we have conducted many studies of the numbers of engineers and programmers (product developers) versus the numbers of information developers several times over several years. The ratios have varied enormously from 3:1 to 33:1 among all those studies. Ratios that vary by a factor of 10 actually give us almost no information. In fact, the variation suggests that the ratios are arbitrary, simply a matter of chance and the peculiarities of budgeting in each company.

The 1999 Study Design

In the 1999 study, we decided to pursue a different study model than simply counting heads or dollars. We asked Center members to recruit all the information developers from a single project to respond to a questionnaire and keep interaction diaries. The questionnaire asked about:

- the type of project (hardware, software),
- the number of information developers on the project (employee and contractor),
- the number of product developers on the project,
- the geographic locations of the product developers and the information developers,
- the involvement of information developers in usability studies,
- the types of deliverables being created, and
- the level of satisfaction among the information developers with the information they get from the product developers.

In the diary, we asked the information developers to record over a two-week period the following information:

- the name of every person they interacted with on the project,
- the percentage of the information developer's time spent interacting with each person,
- the phase of the project in the information-development life cycle.

Ten Center members participated in the study, with a total of 30 information developers returning questionnaires and diaries.

Study Results

We found that, on average, 1 information developer interacted with an average of 7 product developers or other people during a project. Of the 30 information developers studied, we found this ratio to be as low as 1 and as high as 23. If we leave off the extremes on either side, we find that the number is between 3 and 10 with an average of 7. However, 73 percent of the responding information developers spent most of their consulting time..."
(50 percent or more) with only one or two product developers. The information developers interact only intermittently with the remaining product developers.

We found that most information and product developers spent all of their time on one project. A few were working on more than one project during the study period and, accordingly, dealt with product developers on the other projects as well.

We were especially interested in learning that there is little crossover between information and product developers when multiple product and information developers work on the same project. Each product developer has his or her own writer and generally does not interact with other writers on the same project. It was much less common for several writers to have interactions with an individual engineer but it did occur in a few of the companies we surveyed. In those instances, these multiple interactions occurred for most of the information developers on the project.

**Study Picture of the Product-Oriented Organization**

The emerging picture for the majority of the departments studied looks like this:

The initial picture suggests that the information developers, by aligning themselves with product developers, are organized according to the structure of the product-development activities. Individual product developers are typically assigned to a hardware or software feature or function and rarely work outside this narrow focus. Most product developers will readily admit that they don't have much perspective on the product as a whole. The information developers, gathering information from each developer on the project, learn separately and independently about the feature or function each developer is working on. This one-to-one relationship is fine if the information developers' role is to document the structure of the product. In this product-oriented case, the documentation tends to follow the organization of the product.

If, however, the information developers' role is to instruct the users on how best to use the product to achieve their goals, this alignment and organization of information developer to product developer may be ineffective and possibly detrimental.

**Study Picture of the Cross-Over Organization**

In the product-oriented case described above, an individual information developer "owns" a product developer and is the only person interacting with that developer. We found, however, at least two departments in which the alignment differed from the typical.

In these cross-over departments, multiple information developers on each project interact with the same product developers. Instead of one-to-one, these organizations have many-to-many. The implication of the cross-over case is that the organization of the documentation does not follow the organization of the product, as it is likely to do in the product-oriented case. In these cross-over cases, the documentation may be organized by the needs of the users, the trainers, customer support, or even field engineering, or in other ways designed by the information-development management or the information developers themselves.

The average number of developers a writer works with is seven.

Writers work most closely with one, two, or three developers.
Here’s an example of how the information being developed might differ depending on the organizational model followed.

**Product-oriented case**
If the information developers each work with their own product developers, we might find a user guide with these sections for a fictional software product:

- **Section 1** Entering data into the system (completing fields and forms) organized by each data-entry function in the system (generally screen related)
- **Section 2** Maintaining the database (searching, backing up, archiving, and so on)
- **Section 3** Generating reports (printing, organizing, and so on)

**User-goal-oriented case**
If the information developers work as a team with a team of product developers, and the information developers understand the users’ information needs, we might find a user guide for the data-entry clerk with these sections:

- **Section 1** Opening a new customer account (gathering information from the customers, printing a paper copy report of the customer information, searching through customer accounts to find information)
- **Section 2** Handling a customer event (searching through the customer accounts, retrieving customer information, preparing a custom set of reports, printing a paper copy of the customer’s report)

To create information that focuses on the context in which the user performs a task, the information developer may need to know what is being developed by a host of individuals within the development organization.

However, if we want our information developers to create information that supports users in reaching their goals, they need to produce completely different information. The fictional customer information above leads to a software manual that would help users know how to get started creating the appropriate information about their customer and how to create the information needed for the customer event. Notice that some of the information will be repeated in more than one context, a redundancy that users appreciate but developers often do not.

To create a manual with this information, our information developers not only would have to talk to many different developers working on diverse parts of the product, several of our information developers would have to talk to the same developers. In addition, they'd have to interact with people in the organization who could help them understand the users’ goals. But, most important of all, our information developers would need to learn about the users directly and thoroughly understand the context in which they plan to use the software product.

**Organizational Structure Matters**
What the CIDM ratios study demonstrates is that the organizational structure that governs the relationship between information and product developers is extremely significant. We need to look at structures carefully because they may define how well we support our users.

If our budgets and staffing are determined by the number of developers, we are likely to emphasize supporting the developers and creating product-oriented, system-focused information.

If we are focused on supporting users rather than developers, we must develop our own projections of the scope of our work, independent of the product-development activities. We must learn what users need to know and how best to provide them with information that supports their performance. In fact, we may have to spend more resources supporting users on products that may have small development budgets.

We need to remember that Form follows Function, not in terms of product functionality but in terms of user functions. The form our information takes must follow the needs of our users to be successful in their jobs. To do so, we must allow information developers to focus on the users rather than on the developers.
Arbortext's Epic is an XML-based single-sourcing tool. Arbortext's long history in SGML (since 1986) provides a robust XML-based single-source solution.

Using Epic, you can create materials for multiple media (HTML, WebHelp, Paper, CD-ROM, PDF, and custom Web access). Additionally, Epic enables you to create user profiles that identify elements of information by user. User profiles provide tremendous flexibility in your documentation configuration.

The key feature of Epic that provides single sourcing is the “user profile.” User profiles could be based on:

- types of users (for example, novice, system administrator)
- types of documents (for example, training, Web-based user documentation, Help)
- language
- any other designation you require for your organization

This feature enables the author to link any component/element/paragraph to a particular profile. Profiles are used during the production process to configure the materials you want to produce (strips out any irrelevant content and assembles a custom publication), or if published to the Web using Arbortext’s Web Publishing capability, to enable users to view/hide multiple versions (profiles) of information upon request.

**Epic Components and Functionality**

Epic was originally delivered as a large, bundled product. While this provided authors with a full spectrum of authoring options, it was sometimes more than a company required. Now the product has been unbundled to enable companies to select those modules that are appropriate. As a result, the basic product is more affordable for smaller corporations. A full, bundled set is still available for those corporations that require it. The module options are described in the context of the functionality they provide.

**Authoring**

Materials can be authored in XML or MS Word and converted to XML. Because Epic is based on XML, you need an XML editor to create materials.

**XML**

You could use any XML editor to create content for use with Epic. However, to take advantage of the capabilities of Epic, it is best to use Epic Editor to create your XML materials. Epic Editor provides:

- a robust XML editor based on Arbortext’s successful Adept SGML Editor. This editor emulates a standard Word interface with the addition of XML capabilities
- profiling (ability to mark content based on profiles)

If you have authors who don’t need the full functionality of the Epic Editor (profiles, for example), they can use Adept Editor or Adept Editor LE, which does not allow you to edit or create entities and has fewer import functions.

Epic requires the use of a Document Type Definition (DTD). You can use the DocBook Application optional module that uses Epic’s XML version of the DocBook DTD to define the structure of documents. Or, you can use your own DTD.

**MS Word**

MS Word files can be converted to XML for use in Epic. Conversion requires the use of the Word Interchange optional Epic module. This module enables you to “map” the structure of your Word files to an XML structure. Note that if your authors continue to work in Word rather than in the XML editor, you either have to reconvert the Word files as they are updated or export the revised files from Epic, update them in Word, and reconvert them. It is preferable to use Word only to import initial files and maintain your documents in Epic.
Publishing
You use Epic Publisher to publish documents in a variety of formats: paper, Web, and profile-based materials.

If you require CD-ROM publishing, you'll need the CD-ROM publishing optional module. The CD-ROM option allows you to index the materials and provide Web-based updates to the CD-ROM.

HTML support
Epic supports a variety of HTML outputs. You can produce a single HTML file, WebHelp, or customized HTML. The WebHelp and customized HTML output produces a three-frame output with an expandable/collapsible table of contents, index, and hypertext-linked cross-references. The customized HTML output allows you to produce information based on user profiles. You can either output the HTML for a specific user profile or a combinations of profiles. If you output profile combinations, the customized HTML provides a profile list for the user to select from. The profile list is a drop box listing each of the potential profiles. Selection of one or all of the profiles automatically hides or displays the appropriate information. This feature makes your output very flexible for a variety of users. Additionally, you can use user logons to automatically display appropriate information based on profiles.

The customized HTML output also enables feedback from the user to the author. This module allows users to select the feedback option and enter their comments. The feedback can be targeted to a page or to a specific paragraph. When authors look at the “document,” they can view the attached comments. If workflow is in place, any edits to content can be shown in the authoring and user versions of the information using “redlining.” Once the edits are approved, the redlining can be turned off.

Content Management
Epic alone does not provide content management capability. However, it does provide a connection to a document management system through the Repository Adapter optional module. With this module, you can store your information in the document or content management system of your choice. Epic currently integrates with Documentum, Chrystal Astoria, and Poet. Astoria and Poet are content-based systems capable of managing information elements at the paragraph level. Documentum manages files, not elements. Arbortext provides a utility known as Document Bursting that enables files from Epic to be “burst” apart into their elements for inclusion in the Documentum database. Components of information can then be managed separately for optimal reuse.

Reuse
It is not necessary to have a document/content management system to reuse information in Epic. You can use a file system-based approach for the storage and reuse of information. If you reuse a component of information and the original component is updated, the reused component of information is automatically updated. At this time, there is no option to be informed of a change or to choose whether or not you want to use the revised copy. When you reuse a component of information, you can choose to reuse it (pointer to the content) or copy it (sever the link to the original).

Translation
There are two versions of Epic: Standard and Global. The Global version provides UNICODE support. Notification of changes in the English can be established using a content-management system. Arbortext is involved in a number of customer-based initiatives such as simplified English and automated translation.

Support
There is a maintenance fee for the product but no additional fee for technical support. Support is provided in the form of telephone or email. Arbortext also provides a listserv, online Web seminars, and user-group conferences. Arbortext provides a broad range of training programs oriented to authoring and customization, as well as an introduction to structured authoring.

Summary
Arbortext’s Epic provides an XML-based single-sourcing solution that is well worth investigating.
CALL TO ACTION

The Chasm Life Cycle and the Implications for Information Developers

Katherine Brennan Murphy

We devoted the last day of the Best Practices conference to Geoffrey Moore’s Crossing the Chasm and how we might apply this product-marketing model to information development. JoAnn Hackos gave us an overview of the Technology Adoption Life Cycle (TALC). Then Diane Davis of Synopsys reviewed her efforts to introduce the Chasm model to her organization. Wayne Hodgins rounded out the morning session by discussing the Chasm model’s impact on business processes at Autodesk. In the afternoon, participants divided into Life Cycle teams and brainstormed the implications of the model on content, staff and productivity, and organization. The accompanying table shows the results of the brainstorm sessions.

The workshop’s purpose—energize Center members and conference attendees to find ways to apply the Chasm model to your organizations. Here is the Call for Action:

- Reuse the materials presented at the conference to train your staff on the Chasm model. Identify how the model can help you decide on documentation trade-offs.
- Meet with your peers in Marketing to discuss the Chasm model. Is Marketing already applying the model? If so, ask to be included in Chasm discussions. If not, explain how the Chasm model is already helping you set goals for information development. Ask Marketing to help you identify where your customers and products might be along the TALC.
- Help us gain from your experiences to expand and refine the Chasm model for information development.
- Periodically, we will collect your information and publish an updated table in Best Practices and on the Web site. Make the commitment to include the Chasm in your planning for the new year.

<table>
<thead>
<tr>
<th>Buyer Characteristics</th>
<th>Content Implications</th>
<th>Staff/Productivity Implications</th>
<th>Organizational Implications</th>
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</thead>
<tbody>
<tr>
<td><strong>Innovators</strong></td>
<td></td>
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<td></td>
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<tr>
<td>Technology enthusiasts—“nerds,” “techies,” “propeller heads”</td>
<td>Bare bones</td>
<td>Understand customer needs</td>
<td>ID must be aligned with product positioning and marketing</td>
</tr>
<tr>
<td>Eager to learn on their own</td>
<td>Highly technical</td>
<td>Like working with engineers</td>
<td>Must provide clear picture of target customer and overall, long-term product and corporate strategy</td>
</tr>
<tr>
<td>Want access to others like them</td>
<td>Focused on single, known users</td>
<td>Can stop at “good enough”</td>
<td>Need to focus on technology transfer</td>
</tr>
<tr>
<td>Forgiving of flaws, including horrible documentation and no training</td>
<td>Developer to developer</td>
<td>Bare bones staff with senior writer/editor skills</td>
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<tr>
<td>M oney for only one copy</td>
<td>No need for standards—“cowboy docs”</td>
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<tr>
<td><strong>Early Adopters</strong></td>
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<tr>
<td>Technology visionaries who can see the potential of new technologies to solve their business problems even if the discontinuous innovation disrupts their workplace and productivity</td>
<td>Focus on the technology rather than the tasks</td>
<td>Learn to prioritize topics</td>
<td>Proactive partnering with Marketing and R&amp;D to deal with rapid change</td>
</tr>
<tr>
<td>Searching for significant breakthroughs</td>
<td>Documents must be accurate but can have content/style/format flaws</td>
<td>Need excellent project management and optimization skills</td>
<td>ID must sell the need for information</td>
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<tr>
<td>Demanding and hard to please</td>
<td>Technical white papers provide the context and stress the benefits of the technology</td>
<td>Good enough is good enough</td>
<td>Pursue partnering up and across the organization</td>
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<tr>
<td>Will fund basic R&amp;D but want the end product to be a perfect fit for them</td>
<td>Develop user profiles</td>
<td>Localization may be required</td>
<td>Marketing must set and communicate expectations and strategy</td>
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<tr>
<td></td>
<td>Develop a demo to show how the product impacts the customer</td>
<td>0 kay to provide many versions; post new ones on the Web to keep up with product development</td>
<td>ID must sell others on incremental releases (appeal to business sense)</td>
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<tr>
<td></td>
<td></td>
<td>Anticipate lots of changes</td>
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<tr>
<td>Pragmatists</td>
<td>Content Implications</td>
<td>Staff/Productivity Implications</td>
<td>Organizational Implications</td>
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<td>-------------------------------------------------</td>
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<tr>
<td>• Interested in incremental, measurable, predictable progress</td>
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<tr>
<td>• Cautious about risk taking</td>
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<tr>
<td>• Do not trust visionaries</td>
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<tr>
<td>• Need full services, including information and training, to reduce risk</td>
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<tr>
<td>• Want you to know their business needs</td>
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<tr>
<td>• Unwilling to fund “special solutions”</td>
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<tr>
<td>• Where possible, use standard business terms (especially in the index)</td>
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<tr>
<td>• Provide transition/context to move users from current usage/practice to new</td>
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<tr>
<td>• Begin to develop hand-holding strategies, such as wizards</td>
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<tr>
<td>• Reduce technical content; provide essential, usable detail on tasks, on-the-job applications</td>
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<tr>
<td>• If possible, use single sourcing to customize examples by niche</td>
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<tr>
<td>• Provide CBT (self-paced training)</td>
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<tr>
<td>• Give users confirmation when they do things right</td>
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<tr>
<td>• Provide efficient error recovery</td>
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<tr>
<td>• Staff must be able to use the product well</td>
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<tr>
<td>• Need to see all user feedback</td>
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<tr>
<td>• Get involved early in product development; negotiate increased/continuous access to domain experts</td>
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<tr>
<td>• Avoid writers who are technology innovators at heart</td>
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<tr>
<td>• Use staff trained in audience contact/usability testing</td>
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<tr>
<td>• Fund higher staffing levels to move from technical to goal- and task-oriented documentation</td>
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<tr>
<td>• Add quality control/review steps to prevent user distrust</td>
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<tr>
<td>• Documentation and training must work together</td>
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<tr>
<td>• Collect success stories/case studies from trainers and field engineers to develop niche examples</td>
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<tr>
<td>• Connect to your support center to see worldwide feedback</td>
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<tr>
<td>• Increase the budget for documentation and training even when the R&amp;D budget is being reduced</td>
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<tr>
<td>• Marketing must make product/positioning information available to present unified messages to customers</td>
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<tr>
<td>• Get input from usability testing and customer studies to improve the documentation</td>
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<table>
<thead>
<tr>
<th>Conservatives</th>
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<tbody>
<tr>
<td>• Prefer tradition to discontinuous innovation</td>
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<tr>
<td>• Like pre-assembled packages that are easy to learn and use</td>
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<tr>
<td>• See themselves as “not really technical”</td>
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<tr>
<td>• Reference others in their industry</td>
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<tr>
<td>• Want the lowest cost with the most standard features</td>
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<tr>
<td>• Write exclusively from a user perspective; decrease technical and conceptual information</td>
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<tr>
<td>• Make document/product as intuitive and automated as possible</td>
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<tr>
<td>• Move farther into customized documentation</td>
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<tr>
<td>• Focus documentation to reduce productivity hits</td>
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<tr>
<td>• If possible, completely integrate “documentation” into the product; no training required</td>
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<tr>
<td>• Provide paper documentation; avoid introducing new media along with new technology</td>
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<tr>
<td>• Be able to think like the customer; integrate real user tasks; redo reusability with new user population</td>
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<tr>
<td>• Don’t overemphasize product flaws; give better advice on using the product effectively and efficiently</td>
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<tr>
<td>• Require good interpersonal communication skills</td>
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<tr>
<td>• Find staff who accept incremental changes</td>
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<tr>
<td>• Use staff that is business focused; understand the history of the company and the product</td>
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<tr>
<td>• See the product from a new perspective</td>
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<tr>
<td>• Provide a complete, beautiful solution for the customer that is as low cost as possible; perhaps a slim subset document with the most important tasks by industry</td>
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<tr>
<td>• Funding often a problem because “why spend money on existing product?” Therefore, need to create business-based cost justifications</td>
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<tr>
<td>• Partner with customer support to get data about FAQs and costs</td>
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<tr>
<td>• Lead other groups toward standardization/process redesign to reduce costs, increase niche customization, and improve time to market</td>
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<tr>
<td>• Partner with R&amp;D over incremental product changes to focus on usability impact items</td>
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<tr>
<td>• Partner with manufacturing to reduce costs associated with information products</td>
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<tr>
<td>• If you are moving sales to resellers, understand their inventory needs</td>
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Fostering Peak Performance

Why are some people excellent performers while others are not? It may have less to do with the individual players than with the environment itself.

In “Six Ways to Foster Peak Performance” (Performance Improvement, 38:9, 1999), Christine Sevilla and Timothy Wells identify six initiatives to ensure that your staff has the necessary tools to perform their jobs to the best of their ability:

1. The Individual Knowledge Portfolio is a skills inventory that managers can refer to when building project teams. Staff should be encouraged to keep and post a knowledge portfolio on the company Intranet that lists the projects they have worked on, number of staff mentored, and the type of work they like the most. Over time, each portfolio should grow, improve, and add value to the company and the individual.

2. Mentoring and Apprenticeship Relationships are important in developing less experienced staff. The experts ideally receive rewards for their skill set while the “rookies” gain valuable information they need to perform their jobs. Managers will have to set clear expectations of an expert’s productivity during the mentoring process, and the expert should not be penalized.

3. Electronic Conferencing Systems can increase the quality of information shared by using everyone’s time more efficiently. Many formal business meetings can be unproductive. Instead, managers can pose questions or decisions to the appropriate parties via email. This way, participants can respond on an as-needed basis.

4. Set up an Organizational Knowledge Repository on your Intranet. It should contain information regarding each staff member’s job. For instance, a training knowledge repository could contain sets of educational materials with exercises, references, and assessments. To be successful, the main contributors to the repository must be the people actually doing the work. Managers should encourage staff contribution as well as learning from the repository itself.

5. A Community of Practice that centers around discussions of new ideas and duplication of effort can enhance overall productivity and enrich the work experience. Many times, important information is only shared when it is forced, leading to isolated skill sets and possible duplication of work. An informal community allows people to share, and build on, knowledge and work experiences.

6. Establishing Reward and Recognition inspires creative work. It is important to reward those who develop and implement new ideas that reduce costs or bring in financial gains. Also, mentors who have contributed to the successful learning of others should be recognized. There are many ways to reward employees—ask them. They will surely provide you with many ideas!

More than likely, there is a huge reservoir of talent in your organization—people who are willing to jump through hoops to get their jobs done. There is no reason to settle for mediocre performance when you have the ability to foster a positive environment and tap into your staff’s talents by giving them the best tools to do their jobs in creative and interesting ways.

Banishing the Glass Ceiling

While women have infiltrated management positions more and more over the past 20 years, they make up only a small number of top-level positions. Unfortunately, many companies are unconcerned with this issue and risk losing valuable opportunities.

In “HRD Initiatives Contributing to Women’s Career Progress” (Performance Improvement, 38:9, 1999), Kimberly McDonald and Linda Hite argue that women and men receive different developmental experiences during their careers. On average,
women tend to hold positions and take on assignments that are less visible, involve less risk, and have a lower level of responsibility. The dilemma is that if women aren’t given the same challenges as men, they may find themselves less qualified for the next job level.

Training opportunities may also influence a woman’s career advancement. Since men customarily have a larger scope of work experience, they are often provided more training or more in-depth training than women. Having dependents at home also reduces a woman’s work experience while increasing men’s.

Developing mentor relationships is another important activity for those who want to further their careers. Female mentors are much more rare than male mentors.

Another developmental activity that further’s career growth is overseas experience. Women are often overlooked for these assignments for a variety of reasons: women may not pursue them because they feel they have less chance to get them; traditionally, middle or top-level managers get these assignments; it is assumed that women will not be treated kindly in other cultures.

There are four initiatives to maximize the potential of women’s career progress: training, career development, mentoring, and succession planning.

Training rosters can be examined to determine if women are underrepresented in certain types of training programs and redesigned to offer training at times and locations that are convenient to many.

Career development merges personal interests with company goals to fulfill the needs of both. Since preparation for top-level positions necessitates proper experience, human resource departments can encourage women to seek out visible and upward growth early in their careers.

A formal mentoring program should be incorporated, and women should be provided access to influential mentors. Companies are beginning to incorporate programs such as this to balance out the equation.

Succession planning provides women with another opportunity for career development. This process identifies potential candidates for advancement over the long term and begins to groom those individuals early in their careers.

Women represent half the workforce. Companies that have programs to promote the professional development of women will be better prepared to meet the challenges ahead.

In Print Resources:
ispi.org
Webtechniques.com
Cedarville College

David Shaw

Cedarville College ought to have an alumni club at Research Triangle Park in North Carolina; IBM has been a big supporter of their internship programs and has recruited many of Cedarville's Technical and Professional Communication graduates. You'll find Cedarville's Technical and Professional Communication alumni scattered throughout the East and Midwest. Cedarville, itself, is in Cedarville, Ohio, midway between Columbus and Cincinnati.

Since its inception, the program has matriculated more than 200 students. There are currently 32 declared majors with about 15 graduating each year. Cedarville offers a BA in Technical and Professional Communication—there are no opportunities to minor in Technical and Professional Communication. Technical and Professional Communication majors, however, are encouraged to choose from the following minors: multimedia, graphic design, or creative writing.

While the numbers continue to grow, Technical Communication degree programs are still somewhat rare—even at major universities. However, with a small student population of about 2700 students, Cedarville established its program back in 1985.

All graduates take a common core of 15 courses including elements of writing, editing, design, and style for print, online, and instructional delivery. Because the program is based in the Language and Literature Department, students also complete additional requirements in composition and literature.

To better enable students to continue their formal education while home for the summer or away on a summer internship, the department offered its first distance learning course in Technical and Professional Communication last summer. Program Director Sandi Harner hopes to deliver a Technical Editing course for distance learning next summer.

Because Cedarville has no intention of becoming an online university, these courses are reserved for regularly enrolled students.

The program has not gone without recognition. In 1992, and again in 1999, STC awarded Cedarville the Student Chapter Achievement Award. Harner attributes much of the program's success to its commitment to practice:

Although theory-based, leading-edge technologies and proven industry methodologies make up the core of the program, since its inception, the program has always been about doing as well as learning. For this reason, the course projects focus on application in real-life situations. We look for hands-on projects, many of which are client-based. This gives graduates experience that extends beyond the classroom.

The commitment to practice is evidenced by Cedarville's internship programs. To gain full industry experience, students are strongly encouraged to participate in the paid internship program during the summer between their junior and senior years. IBM, again, takes on many interns, as do MYCOM Enterprises (where Harner did her own STC-sponsored faculty internship) and CARS Information Systems.

The Technical and Professional Communication Program also participates in the College's CareerLink Day each fall. This year about 10 of the 35 companies recruiting from Business and Communication programs were also seeking Technical Communication graduates—clearly, any new graduate who wants a job in the industry will find one here. Participants in this year's CareerLink Day included MYCOM Enterprises, 3COM, Technically Write, and several publishers. Most brought job offers ranging from $35-40,000.
Heather Zollinger

When JoAnn Hackos asked attendees of the recent Single Source Summit to informally locate their single-sourcing experience within Geoffrey Moore’s Technology Adoption Lifecycle, the vast majority identified themselves as pragmatists and conservatives. The audience makeup showed us that while many in our industry recognize the benefits of single sourcing, they are waiting to see others’ successes before they adopt a single-sourcing approach of their own.

Fortunately, there was a full line-up of speakers and exhibitors to help the more than 200 managers, department heads, and writers in attendance sift through the tools, practices, and strategies of single sourcing.

The feedback from attendees was excellent. One attendee told us “I can’t wait to get started!” Another wrote to us “Wonderful! So glad you have collected all this expertise together. Extremely valuable.” More than 90 percent of those in attendance indicated that the conference met or exceeded their expectations.

Several people you’ve come to know through their involvement in the Center presented at the conference.

JoAnn Hackos opened the conference with a presentation outlining the coming opportunities for single sourcing. JoAnn focused on the potential that single sourcing represents: increased cost effectiveness in information development; decreased time to market; increased consistency of information; decreased cost of translation and localization; and increased accessibility, timeliness, and customization of information for end users.

Selecting the right tool for single sourcing can be a harrowing experience. Center Associate Ann Rockley outlined strategies for tool searches and evaluations. She described the differences between tools that enable single sourcing from both content- and document-management perspectives. We discovered that many of you are already using standard Help tools to do some conservative single sourcing. Among the tools we heard about are WexTech’s Doc-to-Help, ForeFront’s ForeHelp, Quadralay’s WebWorks 2000, and BlueSky Software’s RoboHelp, which are lower-priced tools that facilitate content reuse. As with any other tool search, Ann argued, all the available tools may be useful, but you need to evaluate them against your own needs to determine which is best for your organization.

Judy Glick-Smith, another Center Associate, spoke on using a systems development approach to implement database publishing. She cautioned against simply purchasing a software product with the assumption that installation will automatically result in efficient and successful database publishing; rather, she instructed on how to implement database publishing using a rigorous system development life cycle (SDLC) methodology. Read Judy’s feature article in our October issue for a more complete description of her presentation.

No single-source methodology will work without structured writing and the use of templates. Center Associate Ginny Redish described how to structure documents to max-
For more information on single sourcing:
visit singlesourcing.com
or call SingleSource Associates:
JoAnn Hackos
303/232-0210,
Ann Rockley
905/415-7752.

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Improve reuse. Her session focused on the importance of structured writing, as well as on ways to go about planning and designing a useful structure. Ginny illustrated how, through efficiency associated with effective structuring, writers and trainers are free to focus their creative energies on information content and users’ needs.

Perhaps one of the most powerful justifications to single source is return on investment (ROI). Center Member Ben Martin of J.D. Edwards, along with Bill Hackos of Comtech Services and Adam Jones of SimulTrans, introduced a discussion on calculating ROI from single sourcing and achieving cost savings associated with single sourcing translated materials. Ben estimates that his translation and publication group at J.D. Edwards saw as much as a 270 percent ROI within the first year. Read more about single sourcing at J.D. Edwards in the October issue of Best Practices.

Steve Manning of the Rockley Group and SingleSource Associates and Lynda Sereno of Netmosphere focused on some of the more practical—and often overlooked—aspects of single sourcing. Steve provided keen insight into how we can identify what content is suitable for reuse and how to map it for delivery across multiple media. Lynda looked at these mapping issues in greater detail by showing us how information such as color, font, and tables, will be read in different media such as HTML and Help.

WinWriters’ Joe Welinske discussed the need to move away from the structure-only view of single sourcing and toward a “structure-function” viewpoint; he suggested that some well-funded departments with no other single-sourcing need except for print and online Help may choose to create completely unique information for the two media.

No single-sourcing conference could be complete today without an XML discussion. OmniMark’s Mark Baker and HelpCraft’s Scott Boggs brought their XML expertise to the fore in a discussion of how XML fosters information reuse, the production of virtual documents, and data interchangeability. Scott provided an overview discussion of the current and future states of XML while Mark discussed some of the practical tips for using it. He warned us that we should think about what we’re going to do with information as we develop it. We should be tagging information for multiple reuse from the beginning.

Several vendor/sponsors were available to discuss and demonstrate their products. Companies included Adobe, WexTech, Chrystal, ForeFront, Arbortext, Quadralay, BlueSky Software, SimulTrans, and Hynet Technologies. For more information, see our review of Hynet Directive 2.0 in our February issue, of Chrystal’s Canterbury in our April issue, and of Arbortext’s Epic 3.0 in this issue.

Ideally, the Summit and the knowledge delivered by the presenters and vendors have helped all of the pragmatists understand the benefits of single sourcing. We’re still early enough into the process to join the last of the early adopters!

We’ll be covering more of these issues and tools in upcoming newsletters.