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Shifting Toward Normalcy

Getting back to basics in a changing world

By **Andy Moore**, Editorial Director, KMWorld Specialty Publishing



Andy Moore
Editor

Andy Moore is an editor by profession and temperament, having held senior editorial and publishing positions for more than two decades. As a publication editor, Moore most recently was editor-in-chief and co-publisher of KMWorld (formerly ImagingWorld) Magazine. Moore now acts as a contract

editorial consultant and conference designer. As KMWorld's Specialty Publishing Editorial Director, Moore acts as chair for the current series of "Best Practices White Papers," overseeing editorial content, conducting market research and writing the opening essays for each of the white papers in the series.

I'm paraphrasing someone badly, but writing about knowledge is like dancing about architecture. It really can't be done to anybody's satisfaction. "Knowledge" is one of those indefinable conditions. Like pornography or art, I can't tell you what it is, but I know it when I see it.

And "knowledge management" is even further out of reach, since it tries to control, disseminate and manipulate a totally shapeless, placeless, mass-free, amorphous puff of smoke. Knowledge either is or it isn't, and there ain't nothin' you can do about it.

That's why there's been a shift in the way we approach "knowledge management." People tend to seek out that which they understand in concrete terms. Abstractions like "knowledge" need not apply. Nowadays, the focus slides from the slippery to the places where we can get traction. Places like "Customer Relationship Management..." now there's a parade I can get behind. And "Intellectual Property Management..." it's not very far from "I think, therefore I am" to "I think, therefore it's mine."

So it's no surprise that—with a few notable exceptions—the articles we publish in these *Best Practices White Papers* are trending away from the theoretical, and more toward the familiar territory of the three "Ts"—tools, technology and tech sheets. The market seems to be seeking comfort zones in which to interact with its technology vendors. The economy and subsequent technology spending patterns has contributed to this. A queasy uncertainty about the political climate has contributed to this. And, unfortunately, the simple fact that many of the initiatives that are underway are not ... quite ... satisfying ... has definitely contributed to this.

A study by the Gartner Group quoted elsewhere in this white paper states that with all the spending on IT and customer retention software solutions, there has yet to

be any significant positive effect. In fact, an IDC report states flatly that \$7.5 billion will be wasted by the Fortune 1000 this year.

Back To Basics

"The first thing you have to do to be effective with customers is to first be able to communicate with yourself," says Bob Kruger, CEO of Citrix Systems. "I think back to John Wooden (UCLA Bruins' coach, and the winningest basketball coach in NCAA history). He believed in 'learning the basics,' and his teams did this better than anyone else. Companies need to focus on their communications basics before they can effectively deliver the kind of information necessary to keep customers happy, and coming back time after time."

So is that knowledge management? "We have the technology and services that underpin knowledge management, and we have the software that facilitates knowledge management, so I guess you can say we're in that space," says Kruger, "but we look at it as improving the way companies do things so they can see a return on their investment."

Or, in other words, getting back to the comfort zone where ROI, cost-savings and metrics still mean something.

Controlling the Flow

Kirstie Chadwick is CEO of Digital Owl, a company that manages the licensing, personalization and delivery of premium content.

"People spend 25% of their time looking for stuff. They make important business decisions based upon that information and a lot of the time it goes completely unvalidated. You don't know where it came from, whether it's accurate or how old it is. It's easy to see the risk involved in failing to manage that content delivery," says Chadwick.

But doesn't all this strict management of content prevent the happy accidents, the serendipity, the *discovery* that leads so often to innovation? Can't you clamp the pipeline a little *too* hard?

"Well, there's 'wanna know' and then there's 'gotta know,'" explains Chadwick. "For instance, typically there's a stratification in the information you need. There's external stuff, such as stock reports that might be used, and internal stuff such as contract forms and details" that are more or less mandatory. Who knows what the ideal ratio of "wanna-to-gotta" is in any given situation?

The trick is to control the flow to a manageable, understandable amount. The risk in missing something is always a possibility—"There's no magic bullet," she admits—but the costs associated with NOT trying can be great.

So, what does it say about the current state of KM that these two, sharp solutions providers, one who encourages a high level of openness in the exchange and access of information and the other who advises a certain level of control, both consider themselves part of the underpinnings of knowledge management? Because they're both right.

I think it underscores the interdependence of those two concepts: "knowledge" and "management." That a Niagara Falls of information without a way to filter it through our little brains is just as bad as no information at all.

And that, at the end of the day, the surest way to solve a problem is to give a person the time, the space, the latitude and the resources to figure it out. There's no better management strategy than that. ■

Andy Moore has often been a well-known presence in the emergence of new technologies, from independent telecommunications through networking and information management. Most recently, Moore has been pleased to witness first-hand the decade's most significant business and organizational revolution: the drive to leverage organizational knowledge assets (documents, records, information and object repositories) and the expertise and skill of the organizations' knowledge workers in order to create true learning organizations. He can be reached at andym@mint.net and welcomes feedback and conversation.

Using a Portal to Speed Information and Application Delivery

By Michael Richtberg, Director, Product Management, Portal Products, Citrix Systems, Inc.

Defining the Portal

In today's fast-paced global marketplace, the ability to give workers ready access to the applications and information they need for sound decision-making has become imperative for businesses striving to be productive, agile and profitable. It becomes even more important as mobile knowledge workers dominate key positions in organizations. These employees depend on immediate access to the shared knowledge of the

organization from distributed and remote locations.

say "yes," although out of 10 people, there would probably be 10 different answers!

Let's try to bring a definition of portal into perspective, and then look at how Citrix Systems, Inc. is bringing server-based applications together with personalized information.

Merrill Lynch defined the enterprise information portal (EIP) as "a single gateway to personalized information needed to make informed business decisions." This type of portal is usually internal-facing, and intended

"Most people, when asked whether they know what a portal is would say 'yes,' although out of 10 people, there would probably be 10 different answers!"

The popularity of Web-based computing, combined with the need to expedite information access, has spurred adoption of enterprise portals. The last few years have seen a great deal of swirl over the definition of a portal. Most people, when asked whether they know what a portal is would

to increase employee productivity by reducing the effort required to find and obtain crucial information. The business driver behind EIPs is that speeding the access to up-to-date, accurate, pertinent information will increase employee productivity.

In the short time since the crafting of that definition, portals have grown to encompass web sites, intranets, knowledge

management systems, document management systems and ERP applications, among others. Popular web sites such as Yahoo!, Excite and more specialized content sites have all referred to themselves as portals. IT departments seeking to provide centralized access to corporate information via a Web browser have referred to intranets as portals. And knowledge management and ERP software vendors have similarly called the web interfaces to their products portals (for example, mySAP.com).

The widely varied uses of the word have muddied its meaning, but for organizations seeking a solution for information overload and integrated access, it seems that Merrill Lynch said it best. Let's look again at that definition: *a single gateway to personalized information needed to make informed business decisions*—in detail.

◆ **A single gateway**—this implies that users can go to one location, typically accessed through a web browser, for all the content they require to do their jobs.

◆ **Personalized information**—content is presented in a manner that suits the individual's role within the organization and reflects personal preferences. Both the organization and the user can control which information is made available and how it is displayed.

◆ **Informed business decisions**—employees make decisions every day, but not all of them are informed. When pertinent data is hard to find, or takes too long to locate, it won't be available when a decision is weighed. Making the best decisions requires current, relevant information.

The Merrill Lynch definition addresses only the portal's ability to integrate and present information. Citrix believes that in their fullest manifestation, portals aggregate, personalize and serve both applications and information. In this model, portals can replace the desktop by providing a virtual workplace that exhibits the ease, convenience and ubiquity of browser-based access.

Making the Portal Productive

To provide maximum productivity, a portal must offer a full complement of information and application resources. Workers need fast, reliable access to business applications for planning, decision-making and execution. Typically, these applications represent a major investment—and often a competitive advantage—that the corporation wants to continue to use when moving to a Web-based system. From the standpoint of productivity, application access through the portal is needed so users are not forced to switch

back and forth between the browser and the desktop to do their work.

These business drivers make a compelling case for including existing and upcoming applications in a portal implementation, but few current applications were developed specifically for web-based delivery. Although it is possible to use existing applications by reengineering them for web publication using HTML, scripting, Java and other proprietary means, this approach is time-consuming and expensive, and may delay portal implementation.

The challenges: How can interactive applications be web-enabled for inclusion in enterprise portals without requiring reengineering that can significantly delay and/or dilute ROI from the portal implementation?

And how can these applications be more efficiently managed, deployed and supported to realize the cost benefits of a portal?

The most compelling answer involves the use of server-based computing, a key enabling technology for portal implementations. Server-based computing centralizes applications on a server and deploys them to users who access them on a client device.

In the server-based computing model, application processing, administration, support and deployment are based entirely on a central server (often a "farm" of servers). Users see and work with the application interface, sending keystrokes and mouse movements over the network to the server, and receiving screen updates, files and other data. Because processing takes place on the server, any device becomes, in effect, a thin client. Only minimal data travels across the network, resulting in greatly improved application performance and security.

This architecture enables application access on virtually any device, including wireless and handheld communication devices and information appliances, run-

ning on a wide array of platforms. Device and platform flexibility help to fulfill the promise of Web computing as the ideal model for today's mobile workers, who can move seamlessly from one device to another and receive a consistent, personalized information set, including applications.

Fast Web-enablement of Applications Delivers Immediate ROI

Returning to the earlier question of how to adapt interactive applications for portal-based access, there is a way to quickly launch a portal—and quickly begin reaping the benefits—by Web-enabling existing Windows, UNIX and Java applications without rewrites. With this approach, applications are not converted to HTML or another language; rather, they are delivered in their original form with full functionality intact. In addition, the user interface remains the same, so there is no need for user retraining on the application. Organizations can also tailor the applications each user receives for additional security.

Citrix NFuse works with Citrix MetaFrame to deliver existing, interactive, server-based applications over the Web.

While MetaFrame provides server-side command and control of applications, NFuse instantly "webifies" those applications, helping to create a central, online virtual workplace that promotes user efficiency and leverages a company's investment in proprietary and off-the-shelf applications.

However, NFuse requires a Web "shell" in which to operate—such as a corporate intranet site—or a portal. NFuse enables users to access their MetaFrame applications without leaving the portal workspace. This powerful combination allows users to work with all the applications and information they need to do their jobs in the most efficient manner. The personalization capabilities of a portal also ensure that users have access to only the applications and content they are authorized to see.

One member of the Citrix family of portal products is XPS. The XPS portal platform accesses information from back-end systems, delivers it through a personalized interface and allows users to interact with the data—from anywhere at any time. The immediate availability of meaningful information, presented the way users need to see it, results in smarter and faster decision-making, and ultimately a more responsive and competitive organization.

XPS can adapt to an organization's existing business processes without forcing changes to the business model, and will continue to adapt over time as processes and partnerships evolve. The product's open, XML-based architecture allows for additional functionality to be snapped-in as needed. XPS's scalability ensures the portal will be able to accommodate a growing user/information base while providing secure and reliable access.

By integrating information from disparate back-end systems and automating business processes, XPS allows an organization to leverage its existing technology investments. It's a way for an organization to focus on its core competency while

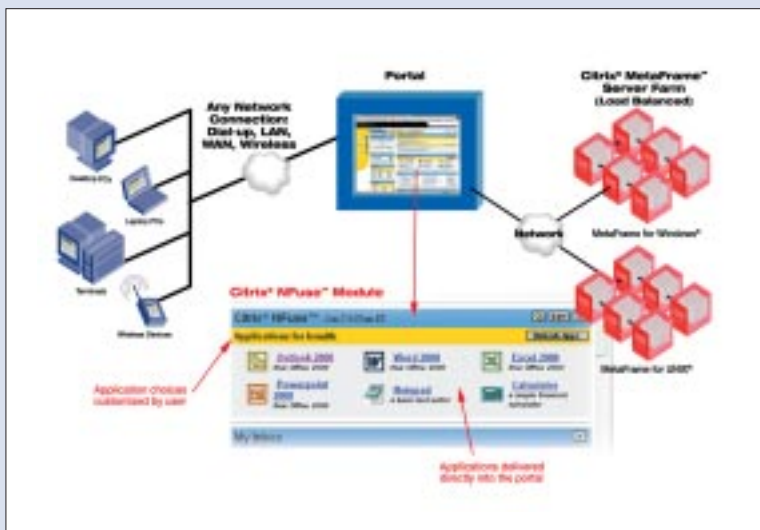
"Device and platform flexibility help fulfill the promise of Web computing as the ideal model for today's mobile workers."

"To provide maximum productivity, a portal must offer a full complement of information and application resources."

Citrix Benefits in Review

The Citrix suite includes server-based computing products, such as MetaFrame, that help organizations gain efficiency and improve productivity. Users gain tangible cost benefits by:

- ◆ **Reducing Total Cost of Ownership (TCO) through single-point management.** Citrix MetaFrame application server software centralizes application administration, support and deployment, enabling IT staff to implement rollouts and upgrades and conduct troubleshooting and training from the server farm rather than having to visit each desktop.
- ◆ **Speeding up ROI on new applications** Users can access new applications and upgrades as soon as they are installed on the server.
- ◆ **Permitting the most diverse set of client platforms to benefit from the portal.** Citrix Independent Computing Architecture (ICA) technology, which provides the architecture underlying the Citrix application serving environment, supports Windows, Macintosh, UNIX and web operating platforms. This allows users to continue using their current devices, or choose inexpensive thin devices.
- ◆ **Supporting application deployment via any connection, with minimal bandwidth demands.** The advent of wireless communication devices that incorporate Web browsers will undoubtedly generate user demand for mobile portal access. Citrix ICA enables application access over wireless networks as well as more traditional wired LANs and WANs with very low bandwidth requirements.



Citrix NFuse software enables instant personalized delivery of existing Windows, UNIX and Java applications to be integrated and published into a Web environment for access on any device running a standard browser.

increasing collaboration with vital partners, customers and suppliers.

These portals solutions also can be scaled for the large enterprise, or for smaller organizations or departments. There should be flexibility, full feature sets and functionality, and the ability to scale quickly as the organization grows.

In short, these Web-enablement technologies allow companies to immediately begin receiving both tangible and intangible returns on their portal implementation. Customers can:

- ◆ Continue to use the business applications they have already spent money to acquire/develop since critical business solutions can be deployed on the web;
- ◆ Instantly integrate and publish virtually any application into the portal interface while retaining full application interactivity and eliminating time-consuming, costly application rewrites;
- ◆ Avoid user re-training on existing applications because the user interface stays the same;
- ◆ Personalize the delivery of applications and content to individuals or groups based on login identity and/or organizational roles; and
- ◆ Provide a single point of access to information, enabling users to be more productive and contribute to overall corporate effectiveness ■

Citrix Systems, Inc. provides application serving software and services that extend the virtual workplace everywhere by providing secure, reliable access to applications and information, and a consistent user experience, on any device or network connection. Citrix solutions enable organizations of all types to deliver business applications to users with greater manageability, flexibility and cost-effectiveness. The company's products, including Citrix MetaFrame, Citrix NFuse, Citrix Independent Computing Architecture (ICA), and Citrix portal applications, have been adopted by more than 100,000 organizations, including 99 of the Fortune 100. Headquartered in Fort Lauderdale, FL, Citrix markets its solutions worldwide through value-added resellers, system integrators, consulting firms and OEM licensees. Citrix is traded on the Nasdaq Stock Market under the symbol CTXS and is part of the Standard & Poor's 500 Index.

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For more information, please visit the Citrix Web site at <http://www.citrix.com>.

Making Premium Information Resources Count

By Kirstie Chadwick, President and CEO, DigitalOwl

Information is the lifeblood of business. In addition to being critical for business survival, information constantly needs to flow to the right individual at the right time. Yet, many of today's knowledge workers experience information overload as they are bombarded with a variety of new information sources, both internal and external. This overload results in users spending a significant amount of time gathering and filtering information—time that should be spent analyzing and making critical decisions with the information.

According to an August 2001 report by Forrester, "the pursuit of external information ties up 14% of the typical knowledge worker's week; internal information is responsible for another 11%." This finding is consistent with other available market research, and indicates that management of external information sources is extremely important in any knowledge management initiative. The overall cost to an organization related to employees finding current, trusted external information is enormous in terms of time spent and resources used.

To date, knowledge management initiatives have focused on deploying internal content management, document management, collaboration and enterprise information portals. The overall vision is to harness the flow of internal information sources and efficiently deploy them to the desktop of individuals within an organization. However, seamless integration of premium external information and controlled distribution of highly confidential internal information has not been adequately addressed yet—and is becoming a top priority at many corporations.

Business Information Sources: A Key Concern for Corporations

The deluge of "free" business information on the Internet has created a new set of issues for information-intensive companies. According to Outsell, a research firm specializing in information use within corporate and knowledge environments, corporate end-users now utilize the Internet for their information needs 70% of the

time instead of using information sources that are licensed to the corporation.

According to the Outsell study, end-users are turning to the Internet for two main reasons: (1) difficulty in locating premium information sources within their portals or intranets; and (2) clumsy management of the interfaces (passwords, search tools, etc.) that are specific to each of these resources.

A critical business concern is that end-users verify information they find on the Internet only 18% of the time. This implies that they may be making business decisions based on information that is not necessarily reliable or valid. Also, information found on the Internet is, on average, at least three months old, and is often stale compared to premium information sources.

Premium information providers have valid, timely and reliable information, but are dependent on their corporate clients' intranets or portals for presenting their information interfaces effectively to knowledge workers.

For more than 20 years, premium information providers, such as Dialog, Lexis-Nexis and Factiva, have been invaluable sources of quality business information to corporate knowledge workers. Today, these information sources are an integral part of most knowledge management initiatives. However, from the perspective of the corporate market, the architecture of these vendors' platforms is beginning to cause significant pain with its limited ability for flexible licensing arrangements, such as global department, pay-per-use, time-based or per-user licensing. These information sources often require knowledge workers to use custom interfaces to find information, and are limited in their ability to control information outside of their closed platforms.

In recent years, a new generation of information "syndicators," such as Screaming Media, NewsEdge and Yellowbrix, have entered the market. These vendors provide sophisticated filtering of information and enable "real-time" population of intranets and portals with relevant news articles. However, even these vendors are limited in their ability to deliver premium business information, such as research reports, indus-



Kirstie Chadwick
President and CEO, DigitalOwl

Kirstie Chadwick, CEO and President of DigitalOwl, co-founded the company with Robin Phelps in 1999. Prior to DigitalOwl, Kirstie was co-founder and managing partner of Vantage360, a start-up consulting firm. In her more than 15 years of experience in the high-tech industry, she has been the Director of Strategic New Business Development at Mentor Graphics and the Director of Sales at Wind River

Systems and ISR Global Telecom. Kirstie was a software engineer for a total of seven years at Lockheed Martin and Sun Microsystems before moving into business development. Kirstie graduated Summa Cum Laude with a B.S. degree in Computer Science from the University of Central Florida.

try journals and financial data due to copy-right and control issues.

Information buyers in the corporate market realize that these external information dynamics could have a negative impact on critical business decisions. Corporate information users are hampered by the limitations of licensing and access interfaces available from premium information providers. Conversely, information providers are hindered by a dependency on the architecture of the clients' corporate portals or intranets for their information resources to be properly presented to users.

Requirements for Better Licensing Controls and Usage Reporting

To pay owed royalties to authors and publishers, external information providers require detailed data on how end-users use and share content within their peer groups. For external information providers, a recent successful case states that freelance authors are owed royalties for each use of their works in corporate environments and on Internet sites (*Tasini vs. The New York Times*). As a result, this need is becoming more critical than ever.

Today, most external information providers control end-user access with a password or IP-address. Managing passwords from many different information sources is a significant challenge for the information professional and other knowledge workers who do not want to have a list of logins and passwords to remember.

To complicate matters further, IP address control implies that the end-user needs to be inside the corporate firewall to access information. Many information providers address their inability to track usage across sites by requiring enterprises to purchase full site licenses for every facility. This causes significant frustration on the part of the corporations, which want to pay only for what is needed and used, with

Integrating, Managing and Tracking Disparate Information Resources

DigitalOwl's KinetiEdge™ can either be implemented as a standalone information management solution, or can be integrated with information portals, corporate intranets or other knowledge management initiatives.

KinetiEdge delivers personalized premium external information and confidential internal information proactively to end-users' desktops and PDA devices, while ensuring control of these sources at the desktop level.

KinetiEdge ties personalized content collections made up of a variety of sources to functional groups of users, departments, project teams, or other user group assignments.

KinetiEdge allows corporations to monitor and control the desktop usage of the content within their organization. Some examples of content usage monitoring provided include:

- ◆ Circle-of-influence—who recommends information to whom
- ◆ Relevancy feedback from end-users via content item reviews
- ◆ Number of people using an item and what sections they are using
- ◆ Usage within functional groups of users or departments
- ◆ Frequency and length of time specific items are accessed



no dependencies on site locations. Once an end-user is logged in, it is difficult to prevent access to specific content items, as it is usually an "all-or-nothing" access methodology. Corporate clients are now asking their premium information providers for highly flexible licensing and access methods to their information. To maintain and expand the relationship and business with their corporate clients, information providers will need to address this requirement quickly.

Corporations also need detailed usage-tracking feedback in order to understand

what information sources are most useful to their knowledge workers. In addition to better management of external information sources, usage control and reporting is critical for highly confidential internal information such as legal documents, patent works, research and development initiatives and company merger data. These usage metrics are a key component to collaboration initiatives, as information pass-along and recommendation data is directly tied to determining which information resources are the most appropriate for making critical business decisions.

Addition of Highly Confidential Internal Information

Content management vendors have focused extensively on managing internal information such as e-mail, web site content and document repositories. Access control lists (ACLs) are traditionally used to control unauthorized access to specific information items. However, ACL mechanisms only prevent access at the server repository level, and cannot adequately track usage and access to the degree that external information sources require. In addition, ACLs are not sufficient for tracking the use of highly confidential information, such as data about a merger or acquisition, research and development efforts or patent work. This is because ACLs cannot control information once it arrives on a user's desktop or is passed along to other individuals.

Corporations need assurance that both internal and external information sources are seamlessly available as part of knowledge management initiatives, while providing content controls and tracking that are required for premium and highly confidential information sources.

An ideal knowledge management infrastructure should seamlessly combine standard internal information sources, news feeds, externally licensed premium business information and highly confidential business data into a single flow.

Corporations should be able to proactively present and deliver personalized, relevant information to end-users while minimizing the dependencies on access control list (ACL) mechanisms, IP addresses or password controls. Corporations need to leverage secure, desktop-based content management processes to present and deliver information needed by end-users, while ensuring controlled distribution within the organization. Adding this capability benefits both the corporation and the sources of these valuable information resources.

DigitalOwl enables corporations to securely integrate highly valuable and confidential information sources within larger corporate knowledge management and content collaboration initiatives.

The result is that knowledge workers and their communities of peers have personalized access to relevant sources of information, both external and internal, while ensuring the integrity and control of these information sources within users' spheres of influence as well as on their desktops and wireless devices. They will spend less time searching for premium information from disparate sources, and more time efficiently utilizing these premium information resources for their decision-making needs. ■

For more information, please visit the DigitalOwl web site at www.digitalowl.com

Capturing, Understanding and Leveraging Knowledge Capital in the Internet Age

By Rita Gupta, Market Segment Manager, Sun Microsystems

The growing ubiquity and sophistication of the Internet, together with an increasingly mobile workforce, has made effective knowledge management a critical component of any business strategy. To successfully manage and leverage knowledge and expertise across global boundaries, corporations need to implement knowledge management strategies that enable them to capture, manipulate, and deploy the information residing in their environments. Analyst research confirms industry recognition of this requirement: IDC estimates that the knowledge management software market will grow from \$1.4 billion in 1999 to \$5.4 billion in 2004.

The Growth of Explicit and Emergence of Tacit Knowledge

The Internet has ignited an explosion of explicit knowledge within enterprises, comprised of structured and unstructured data. Structured data is information found in databases and legacy systems; unstructured data is information found in text documents, e-mails, HTML pages and the like. Historically, corporations have invested in systems that leverage structured data within their enterprise databases, but have not made similar investments in their unstructured information assets. Consequently, knowledge located on disparate repositories such as file servers, web servers and application databases has remained untapped and underutilized.

A similar growth in tacit knowledge is occurring with the Internet providing knowledge workers access to a broader range of information and ideas that fuel their creativity and intellectual development. Tacit knowledge is not easy to capture or express; it is composed of intuition, ideas, unanalyzed experiences, skills and habits. Although valuable to corporations, tacit knowledge is often lost when knowledge workers leave the enterprise.

To cope with the rising tide of information, the IT industry has begun to develop solutions that help capture, analyze and leverage explicit as well as tacit knowledge. Because there is no single, silver-bullet solution that encompasses every knowledge management requirement, corporations require a best-of-class approach that integrates multiple solutions and is scalable, extensible, and available 24x7x365.

Sun's Knowledge Management Strategy

Sun's knowledge management strategy combines best-of-breed solutions along with an infrastructure comprised of servers, an operating system, middleware (such as web servers, directory servers and application servers) and technologies such as Java and XML.

Since knowledge flows from many sources both within and outside a company, an open system architecture is imperative for building an effective knowledge management infrastructure. An open system architecture is essential for two reasons:

Extensibility. Open platforms provide the widest selection of knowledge management solutions and the most seamless integration paths.

Scalability. Open platforms have become the environments of choice for Internets, intranets, and extranets because they are highly available and can scale horizontally and vertically to meet enterprise needs.

Financial Services: A Case Study

Leading organizations around the globe use Open Text and Sun solutions to help solve key business challenges. For example, a large European financial service organization runs Open Text's Livelink on the Sun platform to help enhance its Customer Relationship Management (CRM) solution.

To optimize its asset management and investment consultancy services, the organization wanted a software solution to support financial processes from a customer-centric

perspective. The combination of the Solaris platform and Livelink resulted in a faster information retrieval process, enabling the bank's financial consultants to more efficiently define the best investment strategy for individual investors. In addition, the compatibility of the Solaris platform and Livelink enabled this organization to implement its CRM solution in only 12 weeks.

Sun hardware is built from the ground up around open standards. It is also known for its extensibility and scalability as well as high reliability and performance. Sun's Solaris 8 operating environment forms the core of this infrastructure. Solaris 8 offers clustering and kernel-based multi-threading for scalability, and features such as dynamic re-configuration, hot patching and alternate pathing for availability.

Layered on top of that, Sun provides an array of industry-leading middleware applications through its iPlanet offerings. These include the industry leading iPlanet Directory Server, the iPlanet Web Server, and for easy development, deployment and management of large-scale knowledge management applications, the iPlanet Application Server.

Sun is also pioneering efforts in key technologies such as Java and XML that represent the backbone of knowledge management applications. Java technology provides a unified, open technology platform that scales from embedded device to desktop, set top and enterprise server. Scalability and productivity is critical for knowledge management applications which, like most enterprise-wide systems, must be built quickly and be deployable over a wide range of target platforms. The Java technology frameworks for enterprises include the Java 2 Platform, Enterprise Edition (J2EE), Micro Edition (J2ME), Enterprise JavaBeans architecture and JavaServer Pages framework.

XML (Extensible Markup Language) is a standardized, platform-neutral method for representing data that is transmitted between computers. The power of XML lies in its ability to separate content from format, thereby allowing content to be easily reused and republished to different media. Using XML, companies can more easily ensure the flow of information, making it easier for them to engage in collaboration and information exchanges. The whole XML effort was started by Jon Bosak of Sun Microsystems. Currently, Sun is integrating XML technologies into its core Java platform and developing technology to make it easier for developers to write web services components by marrying Java technology and XML.

Sun has established close relationships with leading knowledge management software vendors such as Autonomy, Documentum, Knowledge Management Software, Open Text and Smartlogik. Sun

also offers the iPlanet Portal Server and its associated products as a complete solution for managing knowledge assets.

Directory Publishing: A Case Study

Yell.com's mission is to place the world's Yellow Pages online to enable anyone, anywhere to search the Yellow Pages to find what they need quickly and effectively. Yell.com needed a search engine and server platform powerful enough to manage the massive traffic and data volumes generated, including the ability to:

- ◆ Cope with 100 million page impressions per month.
- ◆ Manage peaks of up to 100 simultaneous searches per second and a base load of 50 searches per second with no appreciable loss in the quality and speed of the service.
- ◆ Be 99.95% reliable.

Yell.com tested search engines and servers from top worldwide vendors using a main query index consisting of two million records. Results had to be ranked by the number of paid advertising features. Yell.com selected Smartlogik on Sun because this combination delivered consistently fast response times handling up to 20 queries per second within 550 milliseconds. Most importantly, the tests validated that Smartlogic scales on Sun while maintaining high performance levels.

Knowledge Management Framework

To help enterprises explore knowledge management, the Sun Educational Services group (SES) developed the knowledge management framework. This framework reinforces the concept that successful knowledge management initiatives must address specific business issues and answer the basic question, "Who needs to know what and how will they acquire it?" The knowledge management framework contains four elements: business drivers behind the need ("why"), content ("what"), people ("who"), and the approach ("how").

"Why?" Knowledge management can be very expensive and time consuming; therefore, these solutions have to align with an organization's overall goals and objectives.

"What?" Content needs to be identified, captured and categorized for easy reuse and adaptation.

"Who?" Knowledge management must identify and develop expertise within the organization.

"How?" Technology has been an innovating force in emerging approaches to knowledge management: "repositories," "communities of practice," and "continuous learning."

Repositories focus on creating a library of explicit, well-documented knowledge

using document/content management tools to index, track revisions and channel workflow.

Communities of practice emphasize connecting rather than collecting, dialogue not just monologue, and tapping into dynamic, tacit knowledge rather than static, explicit knowledge.

Continuous learning enables individuals to acquire knowledge. Learning Management Systems enable continuous learning by providing assessments, training, eLearning and expert interactions.

Putting the knowledge management framework to work in its own organization, SES conducted an extensive, internal "knowledge audit" to see how information flowed within the worldwide organization.

Surveys were conducted and three major recommendations were made: 1) improve communications training, 2) target website content to worldwide audiences, and 3) ensure "vision" is understood and applied worldwide. A year after making improvements, the survey was re-conducted. Results: a 25% improvement over the prior year's survey results

Internally At Sun

Sun regularly coordinates meetings between Sun and customer executives, providing invaluable customer insight. These meetings require extensive coordination in planning, preparing and disseminating information across geographies and divisions.

To address these needs, Sun implemented communities of practice using software from Intraspect. Members in these communities rely on shared documents, threaded discussions, expert directories and information links to collaborate and develop meeting content across diverse geographical and divisional groups. Sun also developed a multimedia tool to disseminate webcasts of customer interviews and written transcripts on a secure website to allow users to see and hear customers express their thoughts and sentiments.

Since implementing these communities and multimedia tools, Sun has significantly reduced e-mail traffic and the number of e-mailed documents, freeing up valuable e-mail server space. More importantly, Sun is now able to convey information in a more effective, powerful manner to users, while shortening the learning curve for new members.

Knowledge Engineering

Sun is also focusing on knowledge engineering. Sun's Global Knowledge Engineering group (GKE) provides scalable business frameworks and technical platforms for delivering reusable, timely knowledge worldwide. In alignment with Sun's Product Life Cycle management process, GKE has developed the PKLC

(Product Knowledge Life Cycle) program to establish common languages for managing the capture and maintenance of knowledge assets over the product lifecycle. This program consists of creating reusable models that integrate technology, processes and knowledge workers to ensure that customer needs are met. One such model, piloting at the end of this year, focuses on improving communication and collaboration between services and product engineering groups to deliver product feedback to the product groups as quickly as possible. *(Keep an eye out for future articles on this initiative.)*

Sun's Sales Organization

Sun's Global Sales Organization (GSO) wanted to shorten the learning curve of new salespeople so they could devote more time to generating sales. New salespeople were bombarded with information, spending 20% to 40% of their time looking for information such as prices, configurations, product information, etc.

To speed time to information, GSO implemented the MySales Portal solution to allow the capture, identification, accessibility, distribution and categorization of information efficiently and effectively. To help sales find the right information at the right place at the right time, the MySales Portal uses software from various vendors including:

- ◆ Documentum—document management
- ◆ Interwoven—content management
- ◆ Intraspect—communities of practice
- ◆ Autonomy—search
- ◆ Semio—taxonomy generation
- ◆ iPlanet LDAP Directory Server—expert identification
- ◆ iPlanet Application Server

GSO measured its impact and discovered that in the first year alone, they saved \$12 million in items such as paper savings and lower website administration costs. More importantly, GSO calculated that the investment payback translates into recapturing only 5% of the time spent on finding information: a system will pay for itself if a first year sales rep saves 20 to 40 minutes per week using the new system. Bottom line—substantial return on investment in a short period of time.

Leveraging Knowledge Capital Today

With the growth of the Internet and an increasingly mobile workforce, leveraging organizational knowledge is not an option—it is an imperative to succeed in today's competitive landscape. Companies that have the foresight to manage their knowledge capital today with an open, scalable and extensible approach will have an advantage in the future, making it tougher for their competition to catch up. ■

Managing Business Information— Content in Context

By Geoff Moore, Global Marketing Manager, TOWER Software

Most existing Document Management systems overlook a critical information retrieval concept by relying upon document content as the primary search mechanism. The discipline of Records Management and the requisite management of document context holds the key to precise and relevant retrieval.

Since the late 1990s, the widespread use of computer technology and the advent of electronic business have profoundly affected the way in which business information is created, disseminated and managed. Word processing, e-mail and e-commerce technologies have resulted in the deployment of document solutions including imaging, workflow, electronic document management, integrated document management and corporate portals—all to help users draft, disseminate and find information more efficiently.

While the uptake of these technologies has been rapid, the value of these systems has been significantly reduced by an over-reliance on content as the major (and in most cases the only) document management attribute.

The use of content for indexing and retrieval is attractive, as it allows an organization to manage information with minimal user intervention and with relatively simple database schemas. There are, however, inherent problems with the approach, problems that become particularly evident as the volume of information increases.

Context vs. Content

While a content index will return individual items that meet specific selection criteria, it precludes the system from returning groups of related documents unless all documents meet the specified content criteria. Many of the items returned may be irrelevant to the user. Further, and perhaps more significantly, many relevant items are not returned. The content-focused approach ignores two

equally important document attributes: context and structure.

According to the Canadian Description and Classification of Government Records Working Group, “*context and structure is as important and, in some respects even more important than content. A record by itself is of little value. It is only when it is combined with other records to document (or provide evidence of) a given activity that it will assume value. As a result, records must be described in sufficient detail to ensure that the relationships between records...other related records and...related business processes and activities can be understood.*” (“Approach to the Description and Classification of Government Records,” www.imforumgi.gc.ca/new_docs)

“The value of systems has been significantly reduced by an over-reliance on content as the major document management attribute.”

Similarly, the Australia Records Management Standard states that in order to be meaningful “...*the contextual linkages of records must carry necessary information to correctly understand the transactions that created and used them. It should be possible to identify a record within the context of broader business activities and functions. The links between records which document a sequence of activities should be maintained.*” (“Australian Standard: Records Management AS 4390.1-1996”, Part 3 pg. 6.)

Unfortunately, automatic classification based on content does not ensure that these important contextual relationships are captured and preserved.

In the common vernacular, to be taken “out of context” indicates an omission of facts or a “twisting” of the truth. Frequently,

business information provided without context will be used to make or justify business decisions. It logically follows that decisions based on incomplete information may result in less than optimal business outcomes.

Capturing and recording context is not a simple task. Often “context” may only be apparent to the initial recipient. Capturing this contextual information can be extremely difficult. In order to preserve the context of a document, it is necessary to preserve associated documents and to establish document relationships. In some instances, it may be necessary to record additional contextual metadata on the document profile. The additional effort required to annotate contextual information will often be neglected by users.

Information management systems that preserve the contextual relationships between the otherwise unrelated information objects improve information retrieval. If context can be combined with content during the initial search then the result-set will contain fewer irrelevant entries.

Significantly, once a single, relevant document is found, the user can (by navigating contextual relationships) immediately find all of the related documents with minimal effort.

The importance of context in information management is by no means a new phenomenon. Subject-based file-folders, for example, are fundamentally a means of contextually relating correspondence. Similar grouping mechanisms can be applied to electronic documents to ensure that contextually related items are easily retrieved as a single collection.

Evolution of Context Relationships

The nature of information (and of information in documents specifically) is that a single item will often be relevant in multiple contexts (i.e., people other than the original creator will find value in the information). Further, while the information is usually provided in a particular context, over time the information may become useful in other contexts. The capacity for information system to capture the initial context and support additional context relationships as they evolve will greatly facilitate information management and retrieval of information.

The need to manage information in context appears to have been overlooked by many of today’s document technology solutions. The over-reliance on content as a primary management and information retrieval technique will result in information repositories from which precise and reliable information cannot be extracted. The discipline of records management provides a number of fundamental information management principles that can be effectively applied to the management of digital information. ■

Enterprise-Wide Modeling

By Steve Pappas, President, KGain

Introduction

The study of knowledge and its application to human endeavor goes back thousands of years to our first inquiry of “why.” The modern enterprise, a learning organization, does well to study both classical and contemporary sources. You will uncover gems, enabling you to see the past and the present more clearly—and seize the future.

Knowledge is the domain of epistemology, a branch of philosophy, and focuses on the nature, sources and limits of human knowledge. There are several theories of knowledge spanning many authors and multiple texts. Of interest to the enterprise is the “correspondence” theory of knowledge, which holds that the truth of a proposition is related to its correspondence in reality. In other words, the truth of our observations about the world is directly related to our ability to model the world.

One technique can catalyze enterprise-wide modeling by its ability to establish a resonant correspondence between different but complementary knowledge domains—metaphor. Metaphors and, by extension, analogies are powerful techniques. By relating disparate domains that resonate, they encourage insights about target domains to emerge, enabling the enterprise to magnify, calibrate, and articulate its focus.

Analogies can be used at both high and low levels of abstraction in service to the enterprise. At higher levels, analogies can be applied to enterprise objectives such as the formulation of its vision, philosophy and culture. At lower levels, analogies, depending upon their congruent extensibility with reality, can be applied to enterprise operations such as methods, training and architecture.

With this brief introduction, KGain presents the knowledge-diamond simile, metaphor, and analogy as an enterprise modeling example for Knowledge Management (KM).

Knowledge is Like a Diamond

The beauty of a diamond is a function of the combined factors of Color, Clarity, Cut and Carat weight. These four factors are a combination of natural and human processes. These processes result in a diamond that can capture and reflect light, attracting our attention and sparking the imagination.

Similarly, the truth of knowledge is a function of these combined factors: the point of view (POV) of the KM team (Color); the target knowledge domain (potential for Clarity); the descriptive and prescriptive power derived from the KM process (Cut); and the length of time devoted to acquiring relevant data points and information, and pre-processing them (Carat weight). These processes result in knowledge that can capture and reflect truth, attracting our attention and sparking innovation.

A Difference

Whereas diamonds are primarily the result of natural processes, knowledge is primarily the result of human processes:

Diamonds: The Color, Clarity and Carat weight of a diamond are inherent characteristics, or the overall quality that results from a long series of natural processes. The Cut of a diamond is given by the hands of a human being and, when performed precisely, can reveal the diamond’s inherent ability to capture and reflect light.

Knowledge: The “Color,” “Carat weight” and “Cut” of knowledge are synthetic characteristics, or the overall quality that results from a long series of human processes. The “Clarity” of a knowledge domain is given by its essential nature and context and, when perceived precisely, can reveal the knowledge domain’s inherent ability to capture and reflect truth.

Relation to Value

Truth is to knowledge as beauty is to diamonds, but what of value? The overall value of a diamond is determined by all four factors; but arguably, the most important, to increase the inherent value of a diamond, is the human process (Cut), which reveals the diamond’s ability to reflect light. Similarly, the overall value of a knowledge domain is determined by all four factors; but arguably, the most important, to increase the inherent value of a knowledge domain, are the human processes—the dominant POV (Color), depth and breadth of preparation (Carat weight), and execution (Cut), which reveal the domain’s ability to reflect truth.

Human versus Inherent Constraints

A diamond cutter can take an inherently superior diamond, in the rough, and lessen its value with errors made during the Cut. Similarly, we can understand how a team of people can take an inherently superior knowledge domain, and lessen its value with errors made with the Color of their POV, while assembling its Carat weight, or during the Cut.

Conversely, a superior diamond cutter can make a flawless Cut; but, if the diamond’s Color, Clarity and Carat weight are inferior (potential to reflect light), the diamond cutter will be unable to increase the diamond’s inherent beauty and value. Similarly, a superior team of people can Color, Carat weight, and Cut a knowledge domain flawlessly; but, if the domain’s Clarity is inferior (potential to reflect truth), the KM team will be unable to increase its inherent truth and value.

Recommendation

Emphasize enterprise-wide modeling, whether at high or low levels of abstraction and with or without techniques like metaphor. It will enhance effective and efficient communication, vital to survival and sustained profitable growth. The best models, however, are those that provide an integrative framework for vertical and horizontal communication, during the entire lifecycle of an enterprise activity—from concept to cut. ■

KGain enables its customers to achieve their goals more rapidly and with less error through “fast and light” Enterprise Engineering consulting engagements and self-service digital content. We make extensive use of metaphor and analogy to create and transfer our enterprise-enabling Diamonds of Knowledge™. For example, an analogy to musical composition is used in V2T2: General Business Model and Methodology, when applying V2T2 to Enterprise Relationship Management. Please visit us at www.kgain.com and the V2T2 Knowledge Diamond™ at www.v2t2.com

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It is All About Knowing Your Customer...

By Eugene Sayan, President, CEO and Chairman, Softheon™, Inc.

If you are like many other businesses, you have spent millions of dollars implementing robust ERP solutions, upgrading your computers and networks, investing in e-commerce and even increasing your Internet connectivity. You have archived every single business transaction in your SAP R/3 system, recorded every customer inquiry in your Clarify CRM, captured every e-mail, even scanned and indexed every piece of correspondence.

So, what overall business value has your organization gained? More importantly, when do you expect to see a return on your investments, if any?

The most valuable business content in the New Economy continues to be about the customer. Knowing everything about your customer not only improves your existing service level but also opens new revenue opportunities. Achieving these business goals would require reorganizing millions of business objects in the form of "electronic content."

So how do you get to know everything about your customer?

By definition, content is your customers', partners' and employees' unified view of the disparate sets of information normally stored and managed by disconnected business applications, from ERP to imaging systems.

Traditionally, Electronic Document Management (EDM) implementations (using imaging, document and workflow) focus on the departmental or micro-level resolution to specific business problems, with little or no emphasis on the Internet, personalization or collaboration. Although the Enterprise Information Portal (EIP) solutions *do* provide improved interaction over the Internet, they are lacking in business process management, audit and security. Finally, the Web Content Management (WCM) implementations are primarily targeted at the HTML and related Web content, with very little, if any, interface with the real business applications.

However, the creation of a high-performance back-office content management system is a complex undertaking that cannot be accomplished in any reasonable time frame by developers looking to integrate EDM, EIP and WCM solutions from multiple vendors.

Enterprise Content Management (ECM) (such as the solution provided by Softheon) represents a platform-level convergence of these three technologies.

An ECM solution should provide many important features, including:

The acquiring and indexing of business documents of all types regardless of their source or format.

A Content Repository should be capable of accessing any other business application or knowledge repository regardless of the source, making documents from disparate systems available from the user screen or portal. Document objects of various types that relate to a single customer or business partner are accessible from the metadata index and are linked in a "virtual electronic folder" as necessary, including legacy and client/server computer-generated data documents, Web content, text, e-mail and scanned images.

A *partner relationship management portal* should allow business partners to access all documents relevant to the sales process. This includes product data and specifications, proposals, price lists, invoices, inventory status, order status, commission reports, contracts and other sales material. This content is linked to the Customer Relationship Management system for one-stop partner support.

Unified access to content from disparate sources, including ERP, CRM and legacy.

It should be possible to view or print documents anywhere, regardless of the device or location. For example, with Softheon software the user can transform documents from the repository for the Web on the fly without programming (including image documents, text documents and computer-based) into all-points-addressable data stream formats such as PCL, IBM AFP and Xerox/Metacode/DJDE.

Federated searching and linking of different document types in the repository without requiring the user to return to application-specific retrieval screens is crucial to effective ECM systems.

The ability to enable secure and personalized access with extensive audit trails.

Document-level security, coupled with metadata, is vital to protecting critical busi-



Eugene Sayan
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With over 18 years of experience in the software industry, Eugene Sayan was the entrepreneurial spirit behind many software companies specializing in imaging, document management, workflow and Computer Output to Laser Disk (COLD) software. During his four years at Image Business Systems (IBS), his responsibilities included strategic business planning, industry and market

analysis, research and development planning and management, quality control, product management, customer-support management, process and workflow design, marketing and sales planning, and cost and pricing analysis. He has provided consulting and project management services to companies such as IBM and Computer Task Group (CTG), including large-scale integration proposal management on multi-million dollar projects. Mr. Sayan serves as the President, CEO and Chairman of Softheon™, Inc. Softheon enables Global 2000 corporations, small organizations and government agencies to harness and manage the transactional content that supports their overall operations.

ness content. For example, "Insurance Agent A" should not be able to access "Insurance Agent B's" customer policies or statements. Robust document security should also link to the personalization server to further ensure only authorized access to the documents.

A long-term regulatory compliant storage and archival.

ECM should provide a long-term history available for customer service, legal, accounting, and a business intelligence function long after the business content is generated. Softheon hierarchically archives all documents on magnetic disk, tape and optical-based media, throughout the document life cycle.

The ability to augment and streamline existing business processes.

Integrated ad-hoc and production workflow through ECM automatically controls and routes all business content throughout a department or enterprise, ensuring that there is no time lag in the completion of a process (problem escalation and resolution, management approval, routing). Workflow rules should be easily implemented using a graphical interface.

While many organizations are striving to improve customer service, the successful ones will thrive and differentiate themselves from their competition by extending the traditional content and business processes to their customers, employees, partners and suppliers. In turn, the stronger customer, supplier and partner relationship translates to reduced operating cost, streamlined processes and improved profitability—the *operational excellence*. ■

Improving Business Processes

By James Conlan, CEO, BCI Knowledge Group



James Conlan
CEO, BCI Knowledge Group

James Conlan is CEO of BCI Knowledge Group. Previously, James held various senior consulting, sales, and marketing positions within the parent company, Breakthrough Concepts, Inc. and has led a series of successful knowledge integration projects for leading financial services firms. BCI Knowledge Group provides both knowledge management

solutions and services that focus on transforming business processes. Our flagship product, The Manager, is a web-based suite of applications that provides an organization with an efficient way to capture, maintain and share knowledge in the form of process-centric decision support, collaboration, training, and risk/metrics management. The company counts J.P. Morgan Chase, First Union and Mellon among its customers.

At this point in the evolution of knowledge management as a practice, it is clear that the creation of knowledge transfer systems is of primary importance. The use of content/relationship management applications and web portals in the development of centralized databases, communities of practice and taxonomies has proven that there is no one-size-fits-all solution. One area that is gaining in importance because of its ability to directly impact the bottom line is an integrated approach focusing on improving business processes.

“Whether designing products and services, measuring performance, improving efficiency and customer satisfaction—or even running the business—Six Sigma positions the process as the key vehicle of success.” (“The Six Sigma Way—How GE, Motorola and other top companies are honing their performance,” Pande, Nueman, Cavanagh, McGraw-Hill, 2000.)

Knowledge Transformation Cycle

Knowledge management today recognizes the need to exploit intellectual capital, but many practices fall short by only concentrating on individual knowledge components. Integrated knowledge has:

- ◆ structure (it’s process-centric);
- ◆ links (it integrates parts into a dynamic, cohesive whole);
- ◆ relevance (it’s meaningful to execution of the task at hand); and is
- ◆ accurately delivered in a time-critical environment.

An integrated solution is more effective from a process-improvement, decision-support, training and risk-management perspective than a focus on just storing and accessing information from a central repository. The transformation cycle begins with instruction, action, measurement, collaboration, transformation and ultimately returns back to instruction.

Instruction

Capturing instructions or leveraging existing information is the first critical step toward transforming tacit knowledge and experience into explicit knowledge, which can be mined and shared across an organization in the form of process-based best practices.

According to a recent IDC study, the top two business uses of knowledge management are to capture and share best practices and to provide training or corporate learning. (International Data Corporation, May, 2001)

Action

Additionally, IDC anticipates that Fortune 1000 companies will waste \$7.5 billion this year due to difficulty accessing information. (ibid)

While web portal and content management tools have made information more accessible, they have also helped support the growing problem of information overload.

In order for process-centric knowledge to be useful, it must be organized within a task-specific actionable hierarchy so that people can get answers to questions without searching through a series of web pages and documents. These answers must be based upon the most up-to-date and approved knowledge. In addition to being used as decision support, these actionable procedures should be leveraged as tactical training for the purpose of job certification.

Measurement

Implementing a measurement structure, which is bound to both the process and the customer, provides the basis for responding to warning signals or problems. The marriage of process-centric knowledge and measurement will ultimately enable the organization to proactively drive the decision-making process towards implementing the highest potential improvements.

Collaboration

One of the benefits of organizing instructions in the form of a process is that end users and managers gain a clear understanding of how their roles fit into the larger picture, which leads to opportunities for collaboration to improve the process. These opportunities exist at both the task and cross-functional levels and when coupled with the appropriate measurements can lead to significant improvement.

Transformation

The ultimate objective of the transformation cycle is to not only provide best practice-based decision support and training to an organization’s staff, but to focus on the improvement and/or redesign of business processes. This is based upon a clear under-

standing of how the process works, a focus on client-relevant performance measures, and proactive cross-functional collaboration. This cycle enables an organization to prioritize and target solutions aimed at eliminating the root cause of performance problems.

Benefits of the Knowledge Transformation Cycle

The benefit of process-based knowledge transformation transcends organizational units and departments. It provides the basis for a common understanding of the cross-functional nature of business as well as the importance of customer focus and continuous process improvement.

“Research has shown that the costs of poor quality (rework, mistakes, abandoned projects, etc.) in service-based businesses and processes typically run as high as 50% of total budget” says “The Six Sigma Way.” In today’s competitive environment, improving business processes as part of an enterprise KM initiative not only makes sense but also is imperative.

Some of the benefits include the following:

- ◆ Reduce the learning curve within and across processes;
- ◆ Support the performance of new and existing employees;
- ◆ Focus on performance measures to proactively improve processes;
- ◆ Improve customer satisfaction and accelerate the rate of improvement;
- ◆ Share ideas up and down the organizational hierarchy and
- ◆ Leverage best practices with an eye on continuous process improvement. ■

Managing Report Content and Distribution

Automatically Reformatting Reports Meets Custom Customer Requirements

By David Morgenstern, Vice President, Symtrax Corporation

The Background

The spool file is the primary format for midrange IBM iSeries system enterprise reports. Similarly, other mainframe, midrange and PC systems usually output reports in a TXT format. For maximum productivity and usability, most report files are reformatted to common desktop applications including Excel, Word, PDF and HTML. To further enhance the reports and reduce costs, custom forms and e-mail distribution replace printed multipart form sets and the associated paper distribution costs.

Symtrax Corporation, founded in 1989, develops and markets software solutions that address these common "information management and distribution" requirements. Symtrax solutions are in most markets including manufacturing, education, health-care, financial, distribution and others.

success is based on high levels of service, emphasizing close client relationships and responding to their evolving requirements. To meet their high level of service objectives, they were searching for an automated and secure method to make spool files available in various formats including PDF, DOC, XLS and RTF. Compleo, from Symtrax, was ultimately selected to deliver increased customer response and service levels, plus significant reductions in the time to produce and distribute the required custom reports.

Kenny Panton, a member of the Global ISD iSeries 400 Technical Services Group, helped provide technical and infrastructure support for Bank of Bermuda's Investment Management System and other key applications. As Panton explains, "Bank of Bermuda required an automated, secure method for making spool files available in



David Morgenstern
Vice President,
Symtrax Corporation

David Morgenstern is Vice President for Symtrax Corp., the North America division of Symtrax Holdings, Inc. He has been with Symtrax since the start of the division in 1997, helping to make Symtrax one of the leaders in developing and marketing information and report distribution software solutions.

and formatted using this method. Tailoring and distributing these reports was quite time consuming and not the most efficient of processes," explains Panton.

The Solution

"Our users now have the facility to download directly into Microsoft Word and Excel from an NT Explorer-style interface," says Panton. Furthermore, the bank now has the ability to import multiple reports, drag and drop reports into Word, Excel, PDF, Access, as well as the Web and e-mail. Users can parse out data into columns for spreadsheets, format different pages, select and omit lines and preview the results on screen.

Currently, the software is used daily to distribute reports to clients all around the globe. Panton explains: "Once report import formats are correctly set up, they can be applied again and again for other similar types of reports by just pointing and clicking. The report can be automatically parsed, downloaded into any popular PC format and distributed throughout the company. This 2-step point and click process can be applied to multiple reports. In short, Bank of Bermuda now delivers custom reformatted reports to our clients effectively and efficiently."

The Results

Panton is convinced that this ability has saved his company a great deal of time and money over the past three years. They spend less time formatting reports while focusing on more pertinent job functions. E-mail capability also plays a crucial role. Instead of printing and faxing or mailing reports to clients, users can quickly deliver the custom reports electronically. Panton also notes that his users now have more independence from him and his support staff. The users can create ad hoc reports anytime they want without having to call Panton for help, and that's the way he likes it. ■

Symtrax develops and distributes information management and distribution software. For additional information, contact <http://www.symtrax.com>, <mailto:sales@symtrax.com> or call 800-627-6013.

"The Bank of Bermuda now

**delivers custom reformatted reports to
our clients effectively and efficiently."**

The Requirement

One such enterprise utilizing Symtrax solutions is the Bank of Bermuda, a global financial institution that provides financial services to corporate, private, and retail clients. Founded in 1889, its headquarters is in Hamilton, Bermuda, and it has a network spanning 15 of the world's key financial and offshore centers. Bank of Bermuda's

various formats using a variety of different methods." They needed a replacement for the company's in-house function of downloading spool files to PCs. "Previously, the entire report would be converted to a data file that the users had to download using Client Access/400 before manually formatting and faxing the report to meet the individual client's requirements. Also, our internal applications would have to be downloaded

Building an Enterprise Taxonomy

By **Scott Potter**, President and CEO, Quiver, Inc.

Today's enterprise contains hundreds of thousands of documents located in distributed content stores across various departments and global offices. Estimates predict that unstructured information doubles every three months [Gartner Group].

Employees require consistent and predictable access to this growing knowledge to effectively do their jobs. However, as each new piece of content is added, the ability of employees to find the information they need diminishes.

In the evolution of knowledge management, organizing information into an intuitive topical hierarchy or taxonomy has proven to be an efficient and productive way for end users to not only find, but also to discover information. The topic tree presents information in context, providing users the opportunity to quickly find relevant information for more informed decision-making.

Building a taxonomy or directory of enterprise content, however, has traditionally been a challenge. Until now, enterprises have had two options for taxonomy building and maintenance—fully manual or fully automated.

Manual Approaches —Accuracy at a High Cost

Manual approaches employ humans alone in the process of finding, screening and categorizing content. Corporate librarians or information managers define topics and literally comb through content to manually place relevant information in the right place.

This is a highly accurate process that provides the visibility and control necessary to deliver end users a useful directory of enterprise content. On the downside, this approach can require excessive resources, and does not easily scale to cope with the immense amount of information growing within the enterprise.

Automated Approaches —Trading Accuracy For Efficiency

Fully automated approaches leverage technology alone to provide the efficiency and scalability that manual solutions lack. By automating the process of finding,

screening, and categorizing content, organizing knowledge becomes an efficient and quick-to-deploy initiative.

But the lack of visibility and control over the categorization engine's decisions has led to less than desirable accuracy. Today's auto-categorization solutions deliver at best 60% to 70% accuracy. Mis-categorizing or losing one out of every three documents is simply unacceptable within the enterprise when organizing high-value or confidential information.

A Hybrid Approach—The Flexibility to Deliver Both Accuracy and Efficiency

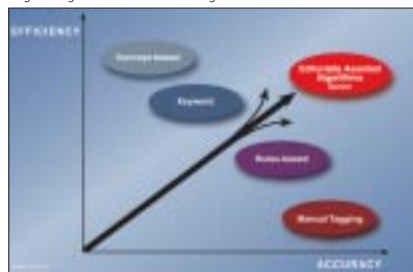
Quiver addresses the accuracy and efficiency 'trade-off' by introducing a new and unique approach to organizing content—a hybrid approach. QKS Classifier™ organizes valuable content by combining the efficiency of technology with the accuracy of human judgment, driving increased productivity and more informed decision-making.

Using a unique combination of best-of-breed auto-categorization technology and human oversight acquired through an intuitive Directory Management Toolset, Quiver's hybrid taxonomy platform delivers the most intuitive and accurate view of enterprise information assets.

State-of-the-art auto-classification technology automates the process of finding, screening, and categorizing information, enabling comprehensive and timely access to enterprise content.

The directory and workflow management interface provides granular control over exactly what information is included, who can access it, and how it is displayed. Clear visibility into the categorization engine decisions allows information managers maximum control of the employee experience.

Organizing Information Is No Longer A Trade Off



Scott Potter
President, and CEO, Quiver, Inc.

Scott Potter, President and CEO of Quiver, Inc., is a seasoned technology and corporate finance professional who joined the company in February 2000. Scott directs all business functions and strategy within Quiver, driving solid growth for market applications and strategic opportunities within the information management industry. Previously, Scott served as executive vice

president at Worldres, an online hotel distribution network, where he drove the transformation of the B2C hotel reservation website to the hospitality industry's leading B2B infrastructure company. Scott began his career in corporate finance at Venture Law Group where he played a pivotal role in the Yahoo! IPO and Microsoft's acquisition of WebTV.

A hybrid solution enables enterprises the ability to tune on a topic-by-topic level the amount of human oversight or automation. This ensures accuracy where accuracy is demanded—for topics like HR and R&D and efficiency where efficiency is desired—for topics like News.

An Intuitive Directory of Enterprise Content—Communicating Knowledge

A taxonomy provides a centralized, integrated search and browse experience for end users.

Delivering an intuitive browse interface to users:

- ◆ Improves productivity;
- ◆ Increases informed decision-making; and
- ◆ Helps users quickly find what they're looking for and spend less time searching.

A hybrid taxonomy platform has multiple applications within a variety of knowledge management initiatives:

- ◆ Enterprise portals
- ◆ Intranets
- ◆ Extranets
- ◆ Corporate websites
- ◆ Application views

Augmenting advanced auto-categorization with human oversight is key to ensuring the highest quality directory for consistent and predictable information retrieval. ■

Quiver, Inc. develops and markets categorization software that provides the most intuitive and accurate view of knowledge assets. Building on its core technology competencies in information classification, ranking and retrieval, the company delivers Quiver Knowledge Suite™ (QKS), a portfolio of information management products making Global 2000 enterprises more efficient and more productive.

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