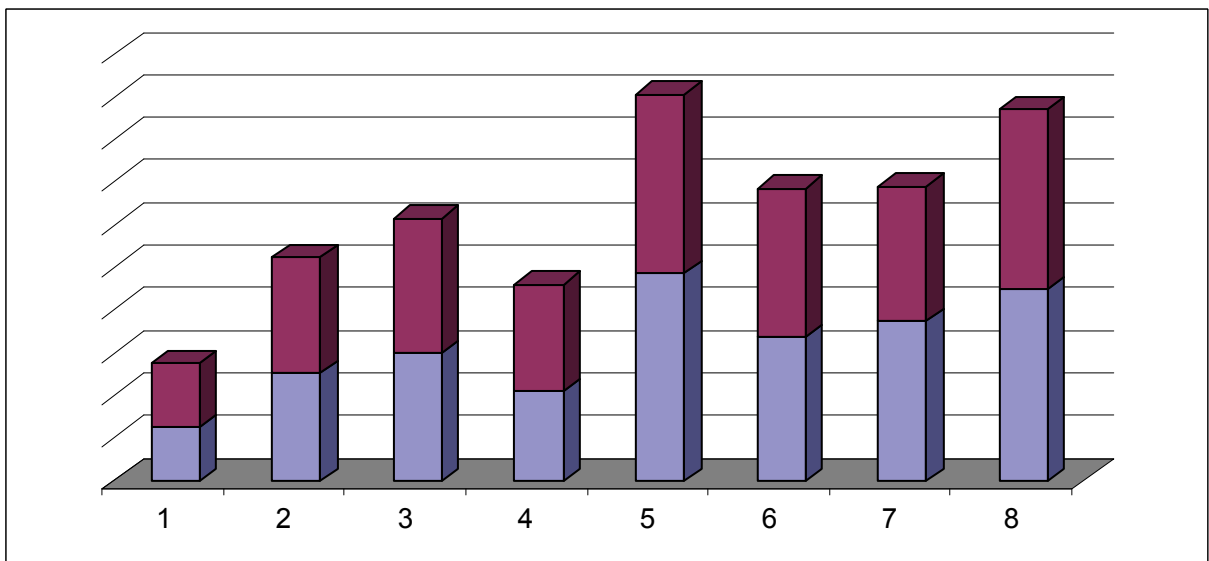


SMR INTERNATIONAL MANAGEMENT ACTION PLAN FOR KNOWLEDGE SERVICES

CRITICAL SUCCESS FACTORS



MANAGEMENT METRICS, RETURN-ON-INVESTMENT, AND EFFECTIVENESS MEASURES FOR KNOWLEDGE SERVICES

BY DALE STANLEY AND GUY ST. CLAIR

SMR INTERNATIONAL MANAGEMENT ACTION PLANS FOR KNOWLEDGE SERVICES

Putting KM to Work

MANAGEMENT MANUALS FOR KNOWLEDGE SERVICES: BACKGROUND – PRACTICES – PROCESS

Building the Knowledge Culture:
The Knowledge Services Effect

The KM/Knowledge Services Continuum:
Developing the Knowledge Services Strategic Framework

The Knowledge Services Audit:
Identifying and Evaluating the Organization's Intellectual Assets

Knowledge Strategy:
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Critical Success Factors:
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Effectiveness Measures for Knowledge Services

Enterprise Content Management (ECM) for Knowledge Services:
A Strategic Approach to Knowledge Asset Management

Business Development for Knowledge Services:
Awareness-Raising, CRM, Marketing, and the Customer Service Plan

Strategic Learning:
Knowledge Development and Knowledge Sharing (KD/KS)

Connecting People with Knowledge:
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The Partnership Workplace:
Collaboration, Cooperation, and the Knowledge Services Impact

Strategic Project Management:
Ensuring Success for KM/Knowledge Services Products and Programs

Personal Knowledge Management:
Linking Knowledge Services and the Mission-Specific Focus

The Knowledge Director:
Competencies and Skills for the Organization's Knowledge Thought Leader

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SMR INTERNATIONAL MANAGEMENT ACTION PLAN

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SERIES INTRODUCTION: KNOWLEDGE SERVICES AND THE KNOWLEDGE CULTURE

Since the early 1900s, organizations have struggled to identify and manage practical and utilitarian information, knowledge, and strategic learning. The 20th century continuum from information management to knowledge management to knowledge services now enables the knowledge culture.

It is now clear that the knowledge continuum which began early in the last century has brought a new understanding and respect for knowledge to the management community. By the early 1900s, business leaders were beginning to recognize that change was needed with respect to information management, knowledge management, and strategic learning (although these functions were not called that yet), and they began to give attention to distinguishing “practical and utilitarian” information from that sought for personal edification, educational purposes, or entertainment. As a result, the 20th century offers many examples of how workers in the sciences, business, and research struggled to deal with the information, knowledge, and strategic learning required to support their work.

With a practical approach to the management of information, knowledge, and strategic learning within the larger organization, the company realizes the advantages of excellence in knowledge asset management, strengthened contextual decision-making, accelerated innovation, and higher-level research.

By mid-century, business management had begun to take a hard look at how information was managed. Following World War II, the management of information (particularly scientific information) had reached a crisis point, and the struggle to deal with overwhelming quantities of information was on-going. Information science—as a new discipline for dealing with the situation—became a major influence. The management of information and the move toward the much talked-about “information age” provided many strong and lasting contributions to business management, but it did not seem to be enough. More effort was required, and by the last decade of the century, when Thomas A. Stewart identified “intellectual capital” as an important business assets, the evolution of knowledge management (KM) was well under way; organizational managers began to recognize that business success could be realized when the company’s knowledge could be harvested and retrieved for business purposes. With the 21st century, knowledge services came onto the scene and was soon acknowledged as the *practical* side of knowledge management. As enterprise leaders sought to “put KM to work”—as the effort was characterized—they came to understand that with knowledge services, its value lay in its very practicality; indeed, with this practical approach to the management of information, knowledge, and strategic learning, managers came to understand that the organization has the advantages of higher-level research, strengthened contextual decision-making, and accelerated innovation.

Knowledge development and knowledge sharing (KD/KS) leads to an environment in which success at all levels is supported by a willingness to share information, knowledge, and strategic learning.

The new emphasis on the role of knowledge in the operational environment turned out to be a different way of looking at the organization’s intellectual assets, its collective knowledge. As a result, knowledge development and knowledge sharing (KD/KS) is now clearly desired in the modern, well-managed organization. Enterprise leaders recognize that the knowledge-*centric* organization is one in which success at all levels is supported by a willingness to share information, knowledge, and strategic learning developed within or for the organization. A beneficial side effect has been that transparency

(that is, openness and a lack of “hoarding” in transactions having to do with information, knowledge, and strategic learning) is now understood to be for the common good, and the old days of “information power” seem to be gone. Thus for many with management authority, KD/KS becomes a necessary ambition. If the larger goal of the organization is to achieve success (however success is defined in the specific operational environment), understanding that the data-information-knowledge-learning-sharing construct can be directly applied in the KD/KS process becomes a valuable component in enterprise success, enabling quality management with respect to the organization’s information, its knowledge assets, and the arrangement of its strategic learning programs (both formal and informal learning programs).

The Organizational Knowledge Culture. All of these knowledge-focused elements come together in knowledge services, the management and service-delivery methodology that converges information management, knowledge management, and strategic learning. With this convergence, the enterprise moves to what we recognize as a *knowledge culture*. It is a much desired state of affairs, this knowledge culture, if the comments and aspirations of many in the management community are taken at face value. It is not unusual in situations in which an organization is conducting a knowledge audit or developing a strategic plan for knowledge services for there to be reference to a knowledge culture, as in “What we need in this company is a culture that helps us use what we know,” or “How can we change the culture of the organization so our workers understand the value of sharing the knowledge they develop?”

The obvious response to questions like these is knowledge development and knowledge sharing, but as is pointed out by many leaders in the field, KD/KS does not happen automatically. In fact, some managers are reticent about KD/KS and demonstrate a certain skepticism about the idea of a knowledge culture, asserting that KD/KS cannot be directed but must evolve from a willingness on the part of all players to share the knowledge they bring to the process (or develop). Of course. The whole point of knowledge management, knowledge services, and building and sustaining the knowledge culture is to move *away* from the command-and-control management framework, and it can be safely asserted (certainly it is the belief of the present authors) that the *purpose* of knowledge services is to create an environment for a knowledge culture in which the willingness of all enterprise stakeholders to share knowledge is fundamental and a given.

It is not such a stretch, this quest for a knowledge culture. For many years organizational leaders have lamented the fact that much information, knowledge, and strategic learning is not shared, and that this lack of sharing inhibits good workplace performance. At the same time (particularly since the growth of KM and management’s interest in KM over the past two decades), the informal sharing of information, knowledge, and learning—the famous “water-cooler” or “elevator”

Enterprise leaders recognize that conversation, collaboration, and cooperation are natural elements in the knowledge-centric organization and contribute to the role of knowledge services as a critical operational function.

The attributes of the knowledge culture are described in more detail in the Epilogue to *SLA at 100: From Putting Knowledge to Work to Building the Knowledge Culture*, by Guy St. Clair (Alexandria VA: SLA, 2009).

The management perspective for the knowledge culture is detailed in the SMR International Action Plan *Building the Knowledge Culture: The Knowledge Services Effect*.

conversations—has led to great efforts in attempting to identify elements of these sharing activities that can be developed into management principles. Adding to the interest in knowledge services has been the development and acceptance of a management style that recognizes the value of conversation, that collaboration and interactive cooperation are all basic building blocks in the knowledge-centric organization and contribute to the successful deployment of knowledge services as a practical and utilitarian methodology supporting the development of a knowledge culture.

The knowledge culture has been defined and its attributes listed. Just as culture itself is an accumulation of shared beliefs and values within a particular population, so, too, is the knowledge culture an accumulation of shared beliefs and values—most often within an organization or other group of people—about knowledge and the application of knowledge for that organization or group’s success. Within the knowledge culture, specific attributes (identified by one of the present authors) apply. These are:

1. Strength in collaboration (with no disincentives to collaborate)
2. Respect for and support of the integrity of the knowledge process, with an emphasis on transparency (except in clearly defined situations requiring proprietary discretion or security), honesty, and trust
3. Focus on the larger organizational role and the benefits for the larger organization (not on individuals or individual departments)
4. Professional allegiance to the organization or enterprise; allegiance to an external influence, such as a profession or a school of thought or a political, religious, or social philosophy, is secondary
5. Enthusiasm for information technology and communication in the knowledge development and knowledge sharing (KD/KS) process
6. Respect for and enthusiasm for knowledge services as a management and service-delivery methodology
7. Respect for the intellectual foundation for the effort; the intellectual quest is not disdained
8. The recognition that intellectual capital is an essential and critical organizational asset and that KM—however defined—is a legitimate functional operation in the organization.

Information Professionals: Change Agents for Knowledge Services. For the information professional, the management employee with responsibility for knowledge services, there is a very specific role in the organizational knowledge culture. That manager—who in some environments is referred to as a “knowledge services manager,” “specialist librarian,” “research assets manager”—maintains beliefs and values about knowledge that build on and connect with an understanding of the organization of information, knowledge, and strategic learning and of how those disciplines converge for the benefit of the larger enterprise. Information professionals also have a clear

With respect to knowledge services, the organization's information professionals are its natural managers. They understand the relationship between knowledge and technology and make the connection between strategy and system development.

Read the full text of the 2003 SLA Competencies Statement [here](#).

The competencies are expected to be put to work in the "new" specialized library, which was discussed in detail at a private [leadership summit](#) in March, 2007.

Knowledge services is knowledge catalysis. Once knowledge has been developed, value is created through KD/KS, resulting in opportunities that produce tangible results.

understanding of the relationship between knowledge and technology. They are eminently qualified (probably better than any other group of workers in the organization) to make the connection between strategy and the planning, design, and implementation of information, knowledge, and strategic learning systems. They are thus positioned, these information professionals, for playing a leading role in delivering knowledge services, the *practical* side of KM, and for putting knowledge management to work in support of the larger organizational mission.

It is an important distinction, this knowledge services leadership role for information professionals, and one that has been identified in the competencies statements published by SLA, the international membership association for information professionals. Recognizing that they are employed in organizations that deliver "information-based solutions to a given market," these information professionals identify themselves as knowledge thought leaders for the organization. Their workplace (variously defined as a research center, a specialized library, an information center, a competitive intelligence business unit, an intranet department, a knowledge resource center, a content management unit, *etc.*) is positioned to be the organizational *knowledge nexus*, if that is what enterprise leadership wants for the organization. The management of that function (which we generally categorize as a "knowledge services business unit") falls particularly within the professional domain of these knowledge workers. They have the professional expertise, skills, and competencies to provide an overarching and holistic knowledge asset management framework for the organization, enabling the many pieces of information, knowledge, and strategic learning scattered throughout the organization to connect and work together for the common good. These same skills and competencies ensure that these information workers understand their responsibility to ensure that excellence in KD/KS is provided for the knowledge culture upon which the larger enterprise is built. They are professionally committed to take whatever path is required to achieve that excellence.

As knowledge thought leaders, these information professionals take seriously their leadership role, and in bringing knowledge integration to the larger organization, they carefully distinguish between knowledge management and knowledge services. They understand that "knowledge management" is sometimes an inappropriate descriptor, and recognize that knowledge *per se* cannot be managed, although—as is often described—KM can be characterized as *working with knowledge*, for example, or as managing the knowledge *eco-structure*, or as knowledge *searching*. For Dale Stanley, another of this Management Action Plan's authors, the most practical approach is to focus on knowledge services. Instead of attempting to define KM, Stanley advises organizational management to move to knowledge services, considered by some to be very close to or the equivalent of the KD/KS process: "Knowledge services can be considered *knowledge catalysis*," Stanley says. "That is, once knowledge has been developed,

The leadership role of the information professional with respect to knowledge services is described in: "[Knowledge services and SLA's history: nearly 100 years of putting knowledge to work: an interview with Guy St. Clair.](#)"

value is created by facilitating an interaction (knowledge sharing) among those who have knowledge and those who need to work with knowledge. It is the creation of knowledge *value* through KD/KS, finding and leveraging opportunities that produce tangible results.”

Information professionals are the natural employees for creating knowledge value for they are, if nothing else, true knowledge, information, and strategic learning catalysts.* They clearly understand the place of positive change in the workplace and they express no doubts about their role in the creation of knowledge value. Indeed, information professionals—whether known as knowledge specialists, specialist librarians, or by any of the many other job titles applied to them as knowledge workers—have long distinguished themselves in providing added value to the information, knowledge, and strategic learning delivery process.

Like Stanley, Alvin L. Jacobson and JoAnne Sparks recognize the value creation objective. They demonstrate that it is through the successful management of the “strategy-focused” knowledge services business unit that creating knowledge value is realized. Jacobson and Sparks take the position that to begin the process—whether for knowledge services or any other element of knowledge management and knowledge services—information professionals must identify and work with four essential elements in the process:

1. Determine the central value proposition and objectives of the plan
2. Conduct an opportunity assessment of existing services, projects, technologies, and skill sets against the value proposition
3. Build strategic maps that show how you plan to get from where you are today to where you want to be tomorrow
4. Design and implement a measurement system that will monitor ongoing performance to plan and enable “mid-stream” corrections.

The key element, of course, has to do with change, and the importance of embracing change for the good of the larger enterprise. As became evident during the last years of the 20th century—when information management was evolving into KM and then into knowledge services—and as knowledge services now moves into supporting the development of the knowledge culture for businesses and organizations, the ability to move fast and to generate tangible returns becomes critical to organizational success. These qualities—speed of delivery and ROI—are no less true for knowledge management and knowledge services than for any other management tool, and it is through the application of change management principles that speed of delivery and ROI are achieved.

* Recognizing this leadership role, and to encourage clarity and consistency, the authors use the term *knowledge services director* to describe the information professionals who have operational responsibility for the management and delivery of knowledge services.

Every information professional seeking to lead knowledge integration in the organization must master change management.

While the term “change management” has become something of a cliché during the past few years—perhaps from overuse but just as likely from its characterization as something few managers want to deal with—the concepts that underlie change management continue to be valid and important in organizational management. For every information professional interested in leading the organization into a knowledge integration “mode” as the organization transitions to a knowledge culture, mastering change management becomes, in and of itself, a critical management tool. As long ago as 1991, it was being asserted by David S. Ferriero and Thomas L. Wilding that organizations must be in a constant state of openness to change if they are going to maintain a high degree of relevance. Thus change aimed at maintaining corporate relevance can be seen as both desirable and inevitable, an idea that has probably contributed to the “mantra” that has come to guide information and knowledge thought leaders in the company. Indeed, recognizing the desirability and inevitability of change and developing (or employing already developed) skills for building a foundation for change, for managing resistance, for encouraging participation, and for creating methods for rewarding and recognizing enterprise stakeholders who successfully embrace KD/KS have become major factors in determining knowledge services success. They lead directly to KD/KS. They bring attention and credibility to the importance of understanding and utilizing change management (however the activity is designated in the workplace) in the development of the knowledge culture, and they should not be underestimated.

Thus as we look to the development of a knowledge services focus for the larger organization, we consider a number of underlying themes:

- the extent to which the enterprise is perceived and enabled as a knowledge culture by all its stakeholders (and in particular the organization’s managers and leaders, exemplified by their participation as sponsors in the management of an enterprise-wide knowledge services strategic framework)
- perceptions of value with respect to knowledge and the role of knowledge services in the creation of business value
- elements of organizational success at play in the larger enterprise and how these are monitored and measured
- change management and change implementation as an operational construct.

When these themes are recognized as part of the organization’s functional structure and all enterprise affiliates understand how they affect organizational success, attention to a strengthened knowledge services focus can begin and the knowledge culture—elusive until now and thought, perhaps, not to be possible—is at hand.

AUTHORS' INTRODUCTION

Knowledge management and the provision of knowledge services are now acknowledged as critical to organizational success, but that has not always been the case. Indeed, it has been only in the last two decades or so that management attention has been directed to the benefits of excellence in knowledge management, but now that enterprise leaders understand the business value of knowledge, this first decade of the new century is offering important new opportunities for dealing with organizational information, knowledge, and strategic learning (which opportunities themselves could be characterized as KD/KS). Indeed, thanks to advances in information technology and the elevation of knowledge capture to an operational function subject to scientific study and professional management, the functioning of knowledge services in the organizational workplace is no longer a desirable but remote aspiration.

What we have, as we seek to devise a measurement strategy for knowledge services is, of course, but one element of the ever-expanding organizational attempt to “manage” knowledge, to get a handle on the information, knowledge, and strategic learning required for success in every organization, regardless of size of the organization or its subject focus or functional purpose. As with other activities associated with knowledge management, identifying strategies for success with knowledge services has moved high up the list of priorities for any person with management responsibility, whether for an entire organization or for one of its functional units. Knowledge services is now understood to be a central element in knowledge asset management, and the whole KM/knowledge services “package” is now recognized as critical to organizational success.

As with all operational functions, knowledge management and knowledge services cannot contribute to organizational success unless high performance standards are achieved, an objective clearly linked to planning (and the impetus behind this series of Management Action Plans). In the modern workplace, performance does not just “happen.” The very embodiment of performance in the workplace has to do with the planning process: determining expectations, the development of goals and objectives, and the implementation of strategies to achieve those goals and objectives. So it is with knowledge services. We must consider, we must discuss with colleagues what we are seeking to do, and we must carefully and thoughtfully give attention to what we want the knowledge services role in the organization to be. It is our expectation that the concepts and direction presented here, especially the discussion questions, will help each reader approach knowledge services with confidence.

No organization can succeed and grow until its organizational culture includes an understanding that success depends on the ability and willingness of all stakeholders to develop and share knowledge. The

purpose of this Management Action Plan—and the others in the series—is to provide information professionals and other knowledge thought leaders practical advice for achieving that success. The authors' premise is that an organizational knowledge culture is essential for the achievement of the organizational mission, whatever that mission is or however it is expressed. With this plan, the goal is to develop a strategic framework for knowledge services, to ensure that knowledge services is managed as well as it can be managed in support of the knowledge culture.

For each subject presented in these Management Action Plans, we offer background about the subject in terms of its connection with knowledge services, a description of practices associated with the subject as it applies to knowledge services, discussion questions identifying and codifying specific concepts, situations, and needs directly related to the reader's workplace, and a format for an action plan to be used to organize and frame specific activities to be undertaken by the knowledge services manager and staff. Three sections included in each of these Management Action Plans do not vary much from plan to plan, as they apply to all of the subjects described: this introduction, the series introduction—which presents the reader with general background information about knowledge services—and the afterword, our comments and thoughts about the place of change and the role of change management in the modern knowledge-centric enterprise. Whether we are comfortable with admitting it or not, this last is the basis of our success in all we do in the workplace, and it is the authors' firm belief that attention to the principles of change management and change implementation is critical to the success of any undertaking having to do with knowledge services.

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HOW TO USE THIS MANAGEMENT ACTION PLAN

1. Read the Series Introduction to determine if you are in agreement with the perspective or point of view described. The emphasis here is on the value knowledge services brings to the organization, the role of knowledge itself as an organizational asset, and the need for the development of a knowledge culture (if there is not one) or enhancement of an already existing knowledge culture in support of KD/KS in the larger organization
2. Thumb through the essay “Measuring Knowledge Services” and those which follow, through to the discussion questions. Identify sub-topics to focus on later
3. Review the Afterword (“Managing Strategic Change”) and think about how these change management concepts align with the organizational culture where you are employed
4. With your colleagues, print the discussion question, record your responses to the questions, and meet together to brainstorm about how they apply in your workplace
5. Follow that activity with an in-depth review and discussion about the elements of developing a knowledge services strategic framework
6. Return to “Measuring Knowledge” and the other essays and read them with a view to learning concepts for developing a strategic framework for knowledge services in your organizational context
7. Using the action plan format included in this document, commit to the basic action items for implementing your plan
8. Initiate your plan for putting KM to work through developing and using your knowledge services measurement strategy.
9. As with any management tool or technique, there are a variety of ways to implement planning activity. Those presented here necessarily represent the experience of the authors, with emphasis in those areas given focus in their work. Other practitioners might weigh different topics or directions, but the final result, in all cases, should be a planning guide that will support the organization as it seeks to provide excellence in the management and delivery of knowledge services.

MEASURING KNOWLEDGE SERVICES

A knowledge culture is a working environment in which knowledge development and knowledge sharing (KD/KS) are enabled and recognized as the workplace standard.

A knowledge culture is recognized as critical for success for achieving the corporate mission. In the knowledge culture, a working environment in which knowledge development and knowledge sharing define every activity, the effective re-use of knowledge and the creation of new knowledge are enabled and become the workplace standard. In turn, knowledge development and knowledge sharing (which we generally describe with the KD/KS acronym) are enabled through the management and delivery of knowledge services, converging information management, knowledge management, and strategic learning for strengthened knowledge asset management, improved contextual decision making, and accelerated innovation.

Thanks to new perspectives in organizational management and the technological advances of recent decades, the management and delivery of knowledge services (or the research and management support activities that in another era would have been the activities we now identify as knowledge services) are established as necessary functional roles. In this environment, the larger enterprise has the opportunity to take its quest for success to an even higher level of excellence.

Despite the value of knowledge services to the larger enterprise, understanding the relationship between organizational management and knowledge services is often a challenge.

Yet in this advanced and continually evolving knowledge workplace, understanding and dealing with the relationship between organizational management and knowledge services is a challenge, especially for enterprise leadership. Not that the organization's senior management is particularly concerned with the specifics of how the relationship plays out. There are established expectations for knowledge services in support of the organizational mission, and management assumes that those expectations are met through the efforts of the knowledge services director and his or her team of information professionals.* For senior management, the costs of providing the necessary professional expertise for managing and delivering knowledge services and for the technical infrastructure supporting knowledge services are the items that demand attention. Other specifics having to do with connecting people to knowledge are subsumed into and are expected to be controlled and managed as part of the usual operational function for providing knowledge services, the responsibility of others in the organization and not the purview of senior management. As long as a viable case can be made for the required expenditures, paying for the expertise and technology become no more than a matter of making a case for supporting those requirements.

On the other hand, in terms of the successful functioning of the larger organization, there is interest (and often concern) amongst all stakeholders in how organizational assets are used and exploited to support the organization's stated mission, however that mission is

* For clarity and consistency, the authors use the term *knowledge services director* to describe information professionals who have responsibility and authority for the management and delivery of knowledge services.

Understanding and assessing the connection between knowledge services and the larger organizational mission is a critical role for information professionals with knowledge services management responsibility.

Metrics enable the knowledge services director to examine and analyze operations, to differentiate the knowledge services function in the larger organizational sphere, and to reduce costs and impose productivity.

High quality knowledge services management is a key to success in any enterprise, though enterprise leaders do not always recognize this.

defined. It is thus the responsibility of all managerial employees—including the organization's knowledge services director—to incorporate performance measures relative to management and service delivery into their work. With respect to knowledge services, how the organization benefits from the management and delivery of knowledge services has for some years been a matter of considerable interest to those with responsibility for organizational development (or, as this discipline is increasingly described, organizational effectiveness). Understanding and assessing that connection and establishing how well knowledge services supports the organizational mission is an essential element in the management and delivery of knowledge services, regardless of whether the measures relate strictly to financial performance or whether—painted with a broader brush—they enable stakeholders throughout the larger organization to determine the value of and exploit the role of knowledge in their work.

As noted above, expectations play a key role in the measurement of knowledge services, as with any management function. Not only must metrics be developed and used in order to keep organizational management informed about the financial performance of knowledge services, knowledge and information professionals themselves (and particularly the knowledge services director) must develop and use measurement tools for very basic management tasks: to continually examine and analyze operations, to differentiate the knowledge services function in its larger organizational service sphere, and to reduce costs and improve productivity. Measures tell us, with respect to our work, where we've been, where we are now, and provide us with the basic information we require to determine the direction we're going.

KNOWLEDGE ASSET MANAGEMENT—THE KNOWLEDGE SERVICES FUNCTION

In the successful modern organization, enterprise leaders are not always aware of the importance of the connection between high-quality knowledge services management and delivery and the successful achievement of the corporate mission. Yet the provision of knowledge services is a legitimate operational function; knowledge services enables enterprise-wide success and its place in the organization's operational domain is probably better understood (and conveyed to senior management) if its role is expressed in terms of the contribution of knowledge services to the larger organization. From an organizational perspective, the function of knowledge services is *knowledge asset management*.

The language of knowledge asset management is (not unexpectedly) close to that of knowledge services itself, and authors Mark Clare and Arthur Detore have set up basic definitions that can be adopted for the knowledge services environment. In defining knowledge management, for example (in addition to the descriptions provided elsewhere in these management action plans), Clare and Detore offer a definition with a

slightly different perspective, referring to knowledge management as “a set of management activities designed to leverage the knowledge the organization holds in order to create value for employees, customers, and shareholders/stakeholders.” *

Their definition of knowledge is equally useful, and moves the discussion of knowledge services clearly into the practical: “any system that has content, structure, and reasoning. . . organized content to get something done.” A *knowledge asset*, they state, “is any type of knowledge held or in use by the organization . . . related to but distinct from tangible assets, monetary assets, and the traditional accounting concept of intangible assets.” In this definition, knowledge management is “dedicated to understanding, leveraging, and protecting the knowledge assets of the organization,” thus connecting to our own description of knowledge services as knowledge catalysis for the organization. (Clare and Detore, 2000).

As with knowledge services, knowledge asset management has as its goal the establishment and continuance of enterprise-wide KD/KS, and Clare and Detore identify three basic components for knowledge assets:

1. knowledge content—contains what the knowledge is about, often data or information
2. knowledge structure—how the knowledge is organized
3. knowledge reasoning—the active process of using the content to complete a cognitive process (the goals of which are those of knowledge services, which we describe as strengthened knowledge asset management, contextual decision making, and accelerated innovation)

Knowledge asset management brings together operational units with various types of knowledge services responsibility.

As an operational function, knowledge asset management incorporates into its service-delivery sphere the functions of a wide variety of operational units. These include those organizational functional units that identify, capture, retain, and make available knowledge that enables its re-use or the development of new knowledge. Typically, the departments or sections that perform these tasks include the organization’s specialized library (if the company has a specialized library, information center, or some other operational function with responsibility for managing and ensuring the delivery of internal and external literature relating to the company’s work). Other functional units with knowledge services responsibility include the company’s records and information management (RIM, formerly known as “records management”) unit, its information technology (IT) section, the strategic learning unit (often including training and/or professional and career development), the corporate archives management department, and, in organizations focused on research and the dissemination of research results, the section responsible for publications management. Falling into one or another of these functions

* For an abbreviated history of KM and some approaches to the subject, see St. Clair, Guy. “Knowledge management” *Encyclopedia of Library and Information Science*, 2003.

When KM is talked about what most people in most organizations mean is “working with knowledge.”

(usually RIM) is knowledge asset management for a variety of other functional operations, such as communications and public relations, legal, executive services, HR, financial services, and the many other business activities found in the modern, well-managed organization.

In some organizations the management of knowledge assets is established as a distinct research asset management function within the larger enterprise management structure. In these situations research management and its contributing functions (specialized librarianship and literature resources management, for example) operate as a separate or stand-alone function, usually under the aegis of a research services manager or director whose responsibilities are often referred to as “research asset management” or “research management.” This function may or may not focus on enterprise-wide knowledge assets, and some typically administrative functions might manage their own knowledge assets. In either case, the management of an organization’s knowledge assets is now recognized as a fundamental and critical operational function and today’s enterprise leaders understand that the successful development and utilization of these assets is critical to organizational success. Included in that important responsibility is the measurement of how well those assets perform.

DEALING WITH INTANGIBLES

Organizational success depends on the proper management of knowledge assets as well as on the measurement of how well those assets perform.

If Thomas A. Stewart and those who follow in his footsteps are right, the intellectual assets of the enterprise are its most valuable commodity. Along with the human beings engaged as stakeholders in the company, the organization’s intellectual assets and its intellectual infrastructure represent the key to its success. Certainly most information professionals—knowledge workers with responsibility for connecting the collective knowledge of the organization to the organization’s stated purpose—are committed to the management and delivery of knowledge services; it is through that commitment that the intellectual pursuit of the company’s mission succeeds. The tough part is identifying, organizing, and managing that knowledge, working with the company’s intellectual assets so that the very purpose with which knowledge services is identified—putting knowledge management to work—lays the foundation for ensuring that the enterprise can claim success.

As far back as 1997, Stewart was asserting that “the knowledge company travels light.” In the knowledge company—and we would assert that the company, organization, or enterprise structured as a knowledge culture can be identified as a “knowledge company”—not only are key assets intangible, as Stewart contends, but in those enterprises “it’s not clear who owns them or is responsible for caring for them.” (Stewart, 1997) Actually, it is clear who is responsible for caring for these knowledge assets, as we know. Those same information professionals with management and delivery responsibilities for knowledge services—knowledge services directors—are specifically educated for that purpose and should have been hired with these

responsibilities clearly articulated in their job descriptions. Sadly many of *their* managers and those with enterprise leadership responsibility themselves lack the management sophistication to make the connection and their own expectations about the place of knowledge assets in the organization do not match the requirements of an effectively managed knowledge company.

Thus the management of intellectual capital continues to be an ongoing challenge in many organizations, a problem captured succinctly in an article written for the business community by Denise Caruso, and the intangible attributes of intellectual capital drive the discussion:

Perhaps KM is not in and of itself a product or a thing. Perhaps KM is a management practice, an atmosphere or ambiance in support of KD/KS.

Today’s sophisticated knowledge economy is stuck with the equivalent of an abacus for measuring the actual financial value of corporate assets and liabilities. At issue is a growing collection of intangibles: assets or liabilities that have no obvious physical presence, but that represent real value or vulnerabilities. Patents, trademarks, copyrights, and brand recognition are most commonly recognized as intangibles. But as the nature of doing business has change, the list has grown. For example, the most valuable assets of an innovation-based company today—its intellectual property, software investments, staff and managerial expertise, research and development, advertising and market research, and business processes—have no natural home on the balance sheet. (Caruso, 2007)

Knowledge Services converges information management, knowledge management, and strategic learning to enable better research, contextual decision making, and accelerated innovation.

Caruso then documents some of the approaches companies are taking to better value various intangibles. One is the “triple bottom line” (for “people, planet, and profit”) ratified in 2007 as the standard for urban and community accounting by the United Nations International Council for Local Environmental Initiatives. Other companies use methodologies such as the balanced scorecard (discussed below), now estimated as being used by more than half of the companies working in the global marketplace. These several approaches are not yet recognized as standards, but all of the official accounting organizations are studying the issue of measuring intangibles, and it can be generally assumed that within a generation—if not sooner—accepted standards will be in place for measuring intangibles.

Certainly Caruso’s definition of the intangibles in the modern organization rings true for specialized libraries, information centers, and other organizational functional units focusing on the management and delivery of information, knowledge, and strategic learning services, those “assets or liabilities that have no obvious physical presence, but that represent real value or vulnerabilities.” For simplicity’s sake in attempting thinking about intangibles, we can return to Thomas Stewart. While most of us are often willing (even enthusiastic) to bring Stewart’s concepts about intellectual capital into the conversation when we are speaking about knowledge management and knowledge services

with our colleagues, we do not usually think of his work when we are seeking formulas and guidelines. In fact, using a workable and worthwhile example, Stewart provides a plan which can be valuable to knowledge services directors. Perhaps anticipating the recent interest in identifying methodologies for evaluating information, knowledge, and strategic learning in the organizational context, Stewart wrote that a case could be made “against putting measurements of intellectual capital onto company books.” At the same time, though, he seriously advocates that intangibles be recognized (“...there’s no excuse for ignoring them ... the price of ignorance is enormous”), and he presents a plan that works.*

It was a plan developed “almost by accident,” Stewart wrote, at Dow Chemical Company, when the position of director of intellectual asset management was created. Gordon Petrash, who was hired for the position, created a “simple but effective” six-step process for managing intellectual property, six steps that can be adapted by the knowledge services director (whose work in some organizations, it should be noted, is by now indeed that of “intellectual asset management”):

A Six-Step Process for Managing Intellectual Capital

1. Strategize
2. Assess
3. Classify your knowledge portfolio
4. Evaluate
5. Invest
6. Assemble a new knowledge portfolio

Repeat as Required

1. Begin with strategy. Define the role of knowledge in each business or business unit.
[For knowledge services: link each business unit’s identified knowledge need requirements to the organizational mission and to the mission of the individual business unit with responsibility for the management and delivery of knowledge services.]
2. Assess competitors’ strategies and portfolios.
[For knowledge services: conduct a benchmarking exercise.]
3. Classify your portfolio. What do you have, what do you use, and—crucially—who in the business world would be responsible for it?
[For knowledge services: conduct the knowledge services audit.]
4. Evaluate the cost and value of your intellectual properties and decide whether to keep, sell, or abandon them—a convenient table identifies whether they are currently in use (owned by the organization or under license), of potential business use, or of no interest to the organization (assigning percentages to each).
[For knowledge services: continue the knowledge services audit and move on to include metrics to intellectual assets.]

* In fact, in the Appendix to his book Stewart does indeed provide guidelines for measuring intangibles with a strong list of “Tools for Measuring and Managing Intellectual Capital.” All of these can—with a little interpolation from the knowledge services director—be considered for the measurement of knowledge services or, if not directly applied, to provide concepts, ideas, and direction that can be adapted for the measurement of knowledge services.

5. Invest: based on what you learn about your knowledge assets, identify the gaps, with documented needs established (“evidence-based”).
[For knowledge services, prioritize staffing, resource, and knowledge services research support tools requirements and include documentation supporting both formal and informal tools and both tools created internally and those obtained externally—in other words, use the new information to develop or revise the knowledge services strategic plan.]
6. Assemble the new knowledge portfolio and repeat the process *ad infinitum*.
[For knowledge services, implement the strategic plan.]
(Stewart, 1997)

It seems almost *too* good, this “almost by accident” plan, but it does indeed contain the elements the knowledge services director needs to set up a framework for measuring knowledge services. If applied judiciously and with confidence, incorporating these elements in the management of the knowledge company can strengthen the role of the unit with responsibility for managing and delivery knowledge services (and not so incidentally contribute to the re-structuring of the organization’s fundamental operational framework as a knowledge culture).

CRITICAL SUCCESS FACTORS

Why Explore Critical Success Factors?

Because Doing So...

- Focuses attention on what’s important in the larger enterprise
- Helps determine what contributes to success (and what does not)
- Permits incorporating CSF into planning strategy

Most discussions about measuring organizational knowledge services begin with the identification of critical success factors. Often referred to with the CSF acronym, critical success factors are those activities and undertakings that must “go right” for the organization to succeed. According to some management experts, CSFs are simply a concept, and in seeking to identify and share thoughts about critical success factors, the organization’s stakeholders focus attention on what’s important in the larger enterprise. CSFs provide an outlet (because critical success factors are easy to communicate and easy to monitor) for keeping track of what is contributing to the organization’s success and what isn’t. Obviously, critical success factors require that identified activities are successful and for long-term success, the same activities must achieve a level of excellence that goes beyond mere day-to-day success. For most managers, CSFs are built in to the strategic planning process, often identified as “milestones” or other time-framed measures that must be met if the factor is to be considered successful. It is not unusual for a strategic plan framework to include, under each listed activity, a phrase such as “this activity will have succeeded if...” followed by specific criteria that can simply be checked off when the activity has met that criteria.

In establishing critical success factors for knowledge services, we find most organizations use CSFs that we would categorize in three ways:

some have to do with the mission of the larger enterprise, others relate to the management process in the larger organization, and the third group connects with good management practices for the specific functional unit with knowledge services responsibility. A possible fourth category, which might or might not have relevance in some organizations, has to do with the on-going viability of the knowledge services business unit and/or the information professionals employed there.

For knowledge services, the first is certainly the most important. Without question, the management of the organization's specialized library, information center, or knowledge asset management unit must be designed and executed for the purpose of directly supporting the company's work. When measurement results determine that some activity or service provided by the unit does not match that requirement, changes must be made. The most typical example in this situation—and easiest to document—is the ongoing maintenance of a particular knowledge services tool when the larger enterprise, perhaps through a merger with or acquisition by a company with a different focus, limits the benefits of the tool. A real-estate management firm, for example, taken over by a financial services company with plans to outsource the apartment-management operation, will have little use for a tool or tools that had been developed to support that management function. When the change in focus takes place, the knowledge services management team will probably extend the courtesy of providing the tool to the new “partners” in the company to which the work is outsourced (although that is not necessarily the case). Whatever the relationship between the two companies, though, the continued maintenance of the product by the re-focused knowledge services business unit would not support the company's new mission and would of necessity be eventually abandoned.

Critical success factors in this case are the identified and stated connections between services provided by the knowledge services unit to the larger organizational purpose and the real, perceived, and anticipated value of knowledge in supporting strengthened decision making, accelerated innovation, and better research in the parent company. These connections are identified in a number of ways: through relationships with knowledge services sponsors, advocates, and champions, through functional relationships with parallel knowledge-focused functional units in the company (HR, corporate communications, the company's organizational development and/or organizational effectiveness unit, if there is one, and similar units or departments), and in the relationships with knowledge stakeholders and other information, knowledge, and/or strategic learning targets. In the example described here, information professionals employed in the knowledge services unit work regularly with people who have specific service delivery needs. Through these interactions, they become attuned to those needs, responding to them with tools that are developed or acquired for that purpose. When the needs of the user base change, as when some of the employees go to the outsourced company or are

otherwise no longer affiliated with the now re-purposed organization, the knowledge services unit will no longer have reason to maintain the tools they required in the former situation.

Monitoring, controlling, and measuring usage may lead to the elimination of some tools and services, a difficult—*albeit necessary*—decision.

An important consideration, and one which is as much personal as professional, has to do with the abilities and capacities of knowledge services directors and their staff members to monitor, control, and measure the usage of tools and services offered by the unit. It is not unusual for a tool developed and maintained in-house to take on a kind of “sacrosanct” aura, simply because it was developed in-house, and setting it aside or turning the tool over to another functional unit is difficult. Most people working in knowledge services, with its converged link to the successful management and dissemination of information, knowledge, and strategic learning content, are reluctant to give up a tool or a technique. Its very existence testifies to their basic KD/KS expertise, and they obviously want to see the tool continue as a functioning resource. Good knowledge asset managers recognize, however, that when a tool, technique, or service is no longer valid, as determined through appropriate measurement, they do their organizations a disservice if they determine to keep it in place.

Measurement helps us determine the extent to which knowledge asset management supports the overall management process.

Certain critical success factors relate directly to the role of knowledge services in the larger organizational management process, and it is here that the knowledge services director has a fine opportunity for establishing rapport with enterprise leaders, as well as with managers with the same or similar responsibility throughout the larger organization. One useful CSF, for example, uses measurement to determine how well the knowledge asset management function is integrated into the overall management process, particularly in identifying and articulating organizational structures that impact service delivery. All organizations have bureaucratic impediments, some minor and in today’s management environment, mostly unintentional. Nevertheless, they exist, and one of the best critical success factors is to establish where a knowledge services product or tool is impeded in providing the benefits it has been established to provide. A quick and easily recognized example is a chat room or wiki for colleagues working on a particular project. Having been built for their dedicated use, for exchanging notes, comments, document drafts, etc. among themselves, there seems to be—in the organization where they are employed—an almost perverse resistance to working with knowledge services staff to learn to use the tool and then, when they have reluctantly gained enough skill to use the tool for sharing their information and knowledge, to build the utilization of the tool into their workplace experience.

It is this kind of impediment that often stops or “kills” a tool before it is fully functional, but it is also this type of situation that enables the knowledge services director and information professionals in the knowledge services business unit to experiment with metrics and measures from other functional activities in the organization, to determine how, say, the RIM unit works with staff to engage them in

using necessary tools and products. It is also the type of situation that enables the building of strong relationships with success partners or potential success partners, as managers in parallel knowledge-focused functional units also find themselves up against similar obstacles and will have developed techniques and direction for dealing with these types of situations. As solutions fall into place, natural and mutually beneficial relationships are created, increasing the opportunities for further shared solutions.

In identifying critical success factors, knowledge services professionals are positioned to determine the cost-effectiveness of selected tools and services and—when required—retire or re-purpose knowledge assets.

With respect to ensuring good management practices for the specific functional unit with knowledge services responsibility, critical success factors include determining whether the acquisition of certain information, knowledge, and strategic learning management tools are cost-effective (whether purchased externally or developed internally). If the benefits of having the tools available to identified users are provided at costs within the established range of costs for providing such tools, the knowledge services director is meeting his or her fiscal responsibility to the larger organization. Likewise, in the opposite direction (as noted in the earlier example), when the cost to maintain certain knowledge assets becomes higher than the benefits, measures enable the knowledge services staff to take steps to retire or re-purpose knowledge assets. In both situations, these are critical success factors and provide useful information and direction for planning. An important consideration with critical success factors is that, just as with the knowledge services audit (which might be considered the fundamental CSF for knowledge services management and delivery), critical success factors provide information for measuring *how well* knowledge assets support strengthened decision making, accelerated innovation, and improved research. As such, they provide the basics of opportunity assessment, identifying and ascertaining the viability of product development to meet newly recognized needs, as well as determining results capability, establishing what the knowledge services business unit is *capable of* providing and whether that unit is the best and most effective vehicle for provide the product or service.

Finally, although not relevant in all situations and organizations, a possible fourth category has to do with the continued presence (or even continued existence) of the knowledge services function. While no one—in management or amongst the knowledge stakeholders in the larger enterprise—has any doubt about the ongoing and critical place of knowledge in organizational success, the value of intellectual capital as an organizational asset, or the need for successful KD/KS as an organizational practice, for some enterprise leaders there continue to be questions about how to structure intellectual capital management. Throughout the larger management community, there continue to be concerns about the viability of stand-alone functional units devoted to providing and/or managing one or another of the several types of research assets required by the larger enterprise. Many organizations operate without a specialized library or other knowledge, information, or research center, either having determined that such a functional unit is not a necessary business unit in that particular organization or having

operated successfully without such a unit in the past. Obviously knowledge stakeholders in these organizations have identified alternate methodologies for connecting themselves with the information, knowledge, and strategic learning content they require, and it could be argued that in each case critical success factors invoked were used to support the decision to do without the knowledge services operational function. Nevertheless, in those organizations that continue to have such functional units, many information professionals find it necessary to include among their unit's critical success factors measures that not only address the opportunity to enhance and strengthen the organizational position of the information professionals employed there but, in many cases, to ensure the very survival of the knowledge services business unit itself.

DEVELOPING A KNOWLEDGE SERVICES MEASUREMENT STRATEGY

Why Measure?

The measurement strategy connects knowledge services with the central value proposition for the entire organization.

The first step in establishing the value of knowledge services is to state the objective and purpose of the measurement effort, and that is not hard to do. The organization's knowledge services director and the information professionals staffing the knowledge services business unit understand the importance of measures. Their goal in building a measurement strategy is to identify and codify the central value proposition for knowledge services within the larger enterprise in alignment with the vision, mission, and values of the organization.

In taking on this task, the knowledge services professionals expect to determine organizational standards and expectations, thus enabling themselves to evaluate current operations and service delivery and to establish a baseline for managing and delivering knowledge services (and eventually, of course, for going beyond the baseline to establish standards of *excellence* for the management and delivery of knowledge services in the larger enterprise).

Once the purpose of the exercise has been established, the focus can move to the "how-to," to identify further steps that will enable the development of a the measurement strategy for knowledge services. A typical situation is one in which team members looking at the measurement strategy discuss the process, and "What do we do first?" is the usual opening question in their initial discussion. If some in the group have experience with metrics, an early step often involves identifying metrics tools and seeking to fit the recognized tools (or those with which some staff members have experience) into the present strategy planning.

There is more, though, to building a measurement strategy for knowledge services than simply identifying metrics tools; looking at the tools first is somewhat akin to putting the cart before the horse. To be safe, every metrics development activity should proceed by thinking about the two questions which always must be asked:

Measurement Basics

Who needs to know?

What do they need to know?

1. Who will be receiving the information (and making decisions based on these metrics)?

The success of the measurement effort depends on understanding the audience for whom the metrics are developed and to whom they will be delivered. Most of these people are not necessarily focused on the role of knowledge in the organization, except as a support mechanism. It is not patronizing them to note that for these people, metrics must be presented in language that makes sense to them as non-specialists (that is, non-specialist in terms of knowledge services). For most situations, a well-used technique presents measurement results in terminology that is understandable and relevant to others in the organization, recognizing that information management, knowledge management, and strategic learning are but part of their daily worklife, not their workplace focus. Some information and knowledge professionals get around this impediment by applying the “so what?” question to each metric presented (either literally or rhetorically), thus giving those who see the metrics a description that resonates with his or her own experience and expertise.

2. What do those people want (need) to know?

So we clearly understand that any knowledge services measures must relate to business outcomes and how the business will be favorably impacted or affected by the elements measured. Another key issue, particularly when developing metrics for knowledge services, is to think about how the metrics will be used. Thus the knowledge services director and the unit’s staff are required to use care in not only deciding what to measure, but what measures to use. This can be a cumbersome and sometimes off-putting prospect, but the solution is easy to come by, and it has two parts. First, the knowledge services director and his or her staff simply to look around the organization and identify other functional units that are required to measure service delivery. Metrics development (and certainly the development of a metrics framework) does not take place in a vacuum, and since in managing and delivering knowledge services the knowledge services director expects to take an enterprise-wide perspective anyway, it is a wise choice to look to others in the organization for conversation, advice, previous experience, and direction in planning a measurement activity.

In addition to looking at how other departments and functional units measure performance, a second important step is to address the topic with senior management. Whenever possible, selected enterprise leaders should be

engaged, certainly in discussion, and occasionally (when there is an expression of interest), even in participation in the planning. Obviously such participation is usually at a strategic and not tactical level but that distinction is not really important. As is often desired with any organizational functional unit, the attention of senior management to the workings of the unit can lead to a better understanding of the role of the unit in the larger organizational picture and, when appropriate, lead to the development of a sponsorship relationship. While such a relationship is not necessarily required for the successful development of a measurement framework for knowledge services, when such engagement takes place with a management leader, the metrics effort is starting off on a sound footing. The classic sponsorship role is to express, model, and reinforce the whatever effort is being undertaken, and if a member or group of members of the senior management team signs on to champion the development of metrics for knowledge services and becomes involved in the effort, the entire process moves forward more smoothly (and not unexpectedly the larger enterprise realizes even higher-level benefits).

Knowledge Services Measurement

1. Limited number of metrics
2. Metrics relevant to the organizational purpose
3. Metrics that describe the impact (of the measured activity) on business outcomes

As for the specifics of the effort, as described above it makes sense to look beyond the immediate discipline and identify tools and techniques from other service delivery functions related to the work done with knowledge services. An obvious relationship already exists with the organization's information technology unit (and especially since information management is one of the three elements of knowledge services), and a recent list of "essential" metrics for IT can be transcribed for use with the knowledge services business unit. In a white paper from Forrester Research, Craig Symons and his colleagues note that "the key to success is choosing a small number of metrics that are *relevant* to the business and have the most *impact* on business outcomes." (Symons, 2008, emphasis added)

Transitioning the Forrester recommendations into the knowledge services framework, with its emphasis on sustained knowledge development and knowledge sharing (KD/KS), criteria for determining the relevance and impact of knowledge services and the knowledge services operational function can be established. A first metric demonstrates the alignment of the organization's investment in knowledge services to its business strategy. How have organizational goals been described? Does the company's mission statement provide a thematic approach to achieving success? Probably not, and if that is the case, where does the knowledge services director locate, say, the primary 3-5 organizational drivers for the next two or three budget periods? These must be identified before a measurement strategy can be developed, but once identified, the relationship between the services, products, and consultations offered by the knowledge services business unit and the company's focus can be linked. Metrics can then be

Key Question:

What is the relationship between knowledge services and the larger organization?

developed, for demonstrating how well the knowledge services function does (or does not) support that linkage.

Another of these identified essential metrics seeks to measure the business value of knowledge services investments, and as described in the discussion of return-on-investment (ROI) below, the relationship of knowledge services to the larger enterprise purpose, as identified through an analysis of projects throughout the organization affected by the presence of the knowledge services business unit, enables the knowledge services director to establish value. By looking at the maximum expected return on the organizational investment in projects and linking these such measurable knowledge services elements as efficiency, the quality of service delivery, and the development of strategic partnerships throughout the organization, the knowledge services contribution to the success of the projects is established. An important caveat with respect to determining the business value of knowledge services naturally demands a recognition that the subject is not only knowledge services and that the knowledge services business unit does not operate as a stand-alone discipline. The viability of knowledge services solutions depends on the level of integration of knowledge services throughout the organization, together with an understanding—despite the enterprise-wide focus—that no one solution applies for all situations in the larger organization, and that for each situation a distinction must be made between local, centralized, and enterprise-wide.

For most knowledge services operations, when looking at the relationship between balancing legacy service delivery with new initiatives and connecting these to budget activities, the pattern has generally been to rely on existing tools, information-gathering resources, and service delivery methodologies rather than to focus on new initiatives. Part of the reason has to do with the often typical assignment of support for the management and delivery of knowledge services to overhead, but there are signs that this pattern is changing. In many organizations, knowledge services is increasingly recognized for its contribution to organizational success and knowledge services directors are embracing a more expansive role. For them, benchmarking—described below—provides a methodology for identifying how other organizations and disciplines connect new initiatives with established procedures, and they use ratios in their external benchmarks to describe a variety of measures. At the same time, these directors make use of internal benchmarks, to determine how the knowledge services business unit performs in comparison with other service delivery units.

Both service level excellence and operational excellence (or “operational health,” as this attribute is termed in some organizations) provide what is sometimes referred to as operational metrics (as opposed to mission-specific, value-focused metrics). There is a diversity of opinion about the interest of senior management in operational measures because in the ideal management situation it is

understood that the individual departments and functional units are well-run and the delivery of operational metrics is not necessary and merely distracts senior management from the “big-picture” metrics. In reality, the finances of the overall organization, including those relating to operations, come under constant scrutiny and service level excellence is required, as well as metrics demonstrating levels of excellence. As described later, both the knowledge services audit and customer satisfaction surveys (as well as service-level agreements, if they are in place) provide specific metrics and play an important role in the knowledge services measurement strategy.

TYPES OF MEASURES

This management action plan recommends a three-way approach to measuring knowledge services: establishing tools and techniques for identifying *types* of measures, for *capturing* measures, and *communicating* measurement results. In the first, ROI and effectiveness measures are *types* of measures, as are anecdotal measures when they are used, and we capture measures through such activities as benchmarking, customer satisfaction surveys, and the knowledge services audit. We communicate the results of our measurement activities through such vehicles as the balanced scorecard (developed by Robert Kaplan and David Norton), Karl-Erik Sveiby’s Intangible Assets Monitor, anecdotal reporting and discussion, and the usual reporting mechanisms employed in all organizations (annual reports, monthly activity reports, internal newsletters and other awareness-raising activities, management team/committee participation, *etc.*).

Over the past few years, there have been any number of efforts to establish standards for measures. While most managers recognize that coming up with formulas for measuring intangible assets is a sometimes elusive goal (as noted above), other measurement tools have been developed for the larger management community. When these are applied to specialized librarianship, to information science as practiced in the more commercial- or research-focused environments, and with knowledge services, the effort has resulted in a certain level of confusion about performance measures, and we have a seeming conglomeration of synonyms being applied to a number of different activities.

Because there are so many different ways to focus on metrics, this management action plan seeks to clear up some of the confusion. In doing so, we go back to that initial question in the measurement team’s first meeting: “How do we start?” A picture of different types of measures (and how metrics terms interact with one another) might look like this:

	Operational (Tactical/Measures Efficiency)	Value (Strategic/Measures Effectiveness)
Quantitative ("hard")	<ul style="list-style-type: none"> • Transaction counts • Use of resources • Time/\$ saved looking for info (vs. time/\$ saved by value of the content) • Benchmarking ratios • Input/output/process measures 	<ul style="list-style-type: none"> • Time/\$ saved using content provided or knowledge transferred (vs. time/\$ saved looking for information) • ROI
Qualitative ("soft")	<ul style="list-style-type: none"> • Service level agreements • Service provision leading to partnership development with similar internal business units 	<ul style="list-style-type: none"> • Impact • Anecdotal (Narrative) • Outcome measures

Discussions about different measuring methodologies seem to move quickly into debate about the distinctions between “measures” and “metrics,” together with some sort of attempt to identify how the two concepts are different. Practically speaking, the distinctions are probably more semantic than anything else, with practitioners in the non-profit or not-for-profit fields of work more inclined to prefer speaking about “measures,” leaving the hard-sounding “metrics” for the business community. This is not an unreasonable way of looking at the two descriptors, since the use of “measures” would appear to be more “open,” so to speak, to including reference to intangibles in the evaluation process and thus more appropriate to the inclusion of the anecdotal as a legitimate methodology for determining value. In any case, regardless of whether knowledge services directors speak about how they “measure” success or whether they use “metrics,” the discussion of the “hard” vs. the “soft” characteristic of the measure promptly becomes part of the conversation, with the one referring to the quantitative and the other, generally speaking, having to do with qualitative measurement as information professionals seek to evaluate knowledge services performance in the larger enterprise.

At the same time, though, other semantic problems creep into the conversation, particularly with respect to the overlapping characteristics of some of the techniques that must be applied as we seek to measure knowledge services. As critical success factors for knowledge services are identified, a wide variety of measurement techniques and tools can be considered. For example, Joseph Matthews writes about the balanced scorecard (which in itself is not specifically a measurement technique but a framework for the utilization of various measurement methodologies, linking them to the organizational mission) and in doing so provides definitions for several different types of measures.

Assessment Tools

How do resources, capability, utilization, and effectiveness contribute to the success of the knowledge services function unit?

Matthews identifies the four variables utilized by specialized libraries and describes how resources, capability, utilization, and impact or effect influence the success of the specialized library as a business unit. These variables are equally applicable to the organization's knowledge services business unit, and Matthews describes the four different classic assessment tools generally used in these environments:

Input measures: resources or inputs allocated to the unit (budget figures, resources, staff count, etc.), notably easy to quantify and gather.

Process measures: “focused on activities that transform resources into services”—time to perform a task, for example (such as materials processing, etc.). As Matthews notes, “process measures are ultimately about efficiency.”

Output measures: used to establish the degree to which the functional unit and its services are being utilized, usually limited to volume counts (how many people e-mail queries received, etc.).

Outcome measures: generally characterized as “effectiveness measures,” these measures indicate the impact or effect of the functional unit and its services on the people who utilize them. In most cases, as Matthews notes, these measures have an “outward” focus or thrust and do not emphasize process management or product counts (Matthews, 2003)

The first three of these types of measures fit into the operational/quantitative measures shown in the “types of measures” chart above, with the last (“outcome measures”) being examples of both types of value/qualitative measures. For some authorities in the knowledge services industry, these measures make up the “soft” end of the “soft” vs. “hard” or the “measures” vs. “metrics” spectrum. Even though these include quantitative measures, they are not exclusively quantitative and the numbers collected are used to support what are, in fact, qualitative deliverables from the knowledge services business unit. As such, they can be thought of as operational metrics, since they reflect primarily the overall management success of the functional unit and are primarily of interest to the managers of the unit and those to whom they report directly. These are the types of results that describe the internal workings of the unit (“this database was used X times during the past month”) and provide the unit's information professionals a snapshot of how their work is succeeding on their own terms. There are exceptions, of course (“the XYZ Department measured an increased productivity level of 15% because the knowledge services team provided training for its staff members for using a particular tool on ABC project”), and tools such as effectiveness measures can transition from operations to the measurement-of-value side of the measurement scale, if the effects they report are indeed responsible for changed behavior, improved knowledge service delivery, and increased customer satisfaction.

At the other end of the measurement spectrum we have the “pure” metrics, with their focus on financial benefits from the services provided by the specialized library or knowledge services unit. These are the measures that are particularly strengthened when the “so what?” question is attached to the measure, stating the particular the information provided has with what the recipient of the information needs to know. The information becomes usable—and hopefully actionable—when the follow-on to “so what?” permits the knowledge services director to state something along the lines of “Knowing this, we can now assert/judge/understand that such-and-such a mission-specific activity can be implemented and its results brought to fruition.”

Between these two ends of the measurement range, a wide variety of tools and techniques have been developed for measuring knowledge services, all contributing to the challenge that the knowledge services director must confront. All have their advantages, and several are most useful when combined with other measurement techniques, yet taken together these measurement activities represent an ongoing and valuable tool for the organization’s knowledge services director and the audience to whom the measurement statement must be delivered.

RETURN-ON-INVESTMENT (ROI)

ROI

Return-on-investment is simply the ratio of net income to total assets (including knowledge assets)

Financial benefits provided to the parent organization through the management and delivery of knowledge services are usually expressed as return-on-investment (ROI). Any number of definitions can be found for this much-used methodology. In the accounting profession, ROI is generally thought of as the ratio of net income to total assets which includes, in our work, knowledge assets and the value we and our organization give to organizational intellectual capital. Simply put, ROI can be described as the financial benefit to the organization after the cost of the investment has been subtracted from that financial benefit. In the public sector and in organizations in which there is no specific quest for financial profit *per se*, ROI can include other values, such as cost reduction or avoiding the cost of some action which might have been taken, less the cost of whatever activity or task enables the development or enhancement being measured.

The importance of ROI in managing knowledge services is unquestioned. As with any other functional unit of the organization, a financial value must be attached to the products and services provided by the knowledge services unit, as well as to the costs of maintaining the function (overhead), simply because operational costs for all functional units determine whether the organization is going to continue as a viable entity or not. For knowledge services, measures must identify, in terms of the financial management of the larger organization, the unique value that the management and delivery of knowledge services brings to the enterprise. Is the impact of knowledge services of value to the organization? Is each expenditure considered (and reported) in terms of impact? Are these expenditure and impact

results germane to the requirements of organizational management, as those senior staff members seek to ensure that operational funding specifically supports the achievement of the organization mission? These are the kinds of questions that are answered with a well-developed and implemented ROI process, and they resonate particularly with the provision of knowledge services.

The case for demonstrating the organizational value of knowledge services in financial terms has been made recently in a study that addresses the future of specialized libraries. Respondents were selected because they were known to be leaders in their organizations, people who have achieved a level of management expertise and experience in knowledge services, and they were asked two questions:

What do you think will be the top two or three challenges for specialized libraries in the next few years (probably best to think short-term rather than long-term)?

As an information professional working in the field, how do you expect to deal with these challenges?

**Management Challenges
for Knowledge Services**

Relevance

Financial Value

The responses to the questions and the challenges identified were not surprising, but the seriousness with which the respondents spoke about the two that ranked highest was remarkable, especially for a branch of a profession which has throughout history has been designated as a societal good and thought of as providing innate value to society (and thus to any organization which provides library services as part of its operational structure). The challenge that was cited most by the respondents, demonstrating the highest concern of these professional leaders, was relevance, that the specialized library must be relevant—and remain relevant—to the achievement of the mission of the organization, however that mission is defined and stated. The responses of those participating in the study made it clear that while the relevance of the specialized library or other information, knowledge, or strategic learning delivery function is fairly well acknowledged in many organizations, particularly by colleagues in the organization who make regular use of the function, that relevance was not often known or acknowledged throughout the larger enterprise.

The second most-worrisome challenge had to do with financial value, and all respondents speaking to this issue seemed to be aware—even for some who were uncomfortable with the situation—that organizational management is required to look at quantitative measures. Such activities are part of the management discipline and, as one respondent said, “it’s what executives are hired to do.” Many respondents made it clear that they understand that the role of an executive is to control costs, and that the executive’s success is itself judged by how well that manager performs that task. So regardless of how they themselves feel about this emphasis on the financial, these managers of specialized libraries, information centers, and other knowledge services business units made it clear that whatever methodologies they prefer for their

own particular professional measurement, to be recognized and taken seriously in the larger enterprise they are required to look to quantitative measures, and especially to financial measures. This awareness can best be summed up here with some of the specific responses, in the participants' own words:

metrics, metrics, metrics—measure, measure, measure—and deliver results in business terms—it's very important to capture metrics and they must be in specific, actionable metrics

information professionals must become library business men and library business women—they must ask: *do the services provided save the company money?*—it's that simple

libraries must provide value-added services and get rid of services that do not add value

library managers must find a “magic bullet” which demonstrates—in accountant-friendly terms—just what value knowledge services and information professionals bring to the enterprise (SMR International, 2008)

Does that “magic bullet” exist? Probably not, because there is such a wide variety of influences that affect the success of any financial measurement system. When we are working with knowledge services, other attributes relating to knowledge management and knowledge services are difficult to isolate, so no matter how much effort enterprise leaders put into seeking strictly financial measures, practitioners will have a natural inclination to resist or, at least, seek to bring in other non-financial measures to make their case.

Measurement Constraints for Knowledge Services

- KD/KS is often perceived as intangible
- The KD/KS process is not a distinctive activity for many people
- The KD/KS process in the workplace is managed as overhead

In seeking to manage and provide service delivery for information, knowledge, and strategic learning (even when limiting ourselves to the management of strategic learning content alone, without considering the other functions connected with strategic learning), we are first restrained by the fact that the context and the results of these activities are generally thought of as intangible. People speak about information, knowledge, and learning in very lofty terms, but when we try to pin down what we get when a particular database is searched, or a colleague with experience in a project of the kind another worker is undertaking speaks with the person seeking to share in that knowledge, or the application of ideas and content picked up through attendance at a departmental brown-bag lunch program, we find that there isn't a lot there to “count.” No one is going to question the benefit of the activity, but to measure that benefit in quantitative terms is very difficult.

Similarly, the very people with whom information professionals and knowledge specialists interact do not themselves understand the concepts of value, or if they do, they do not think much about the value of the interaction. With respect to information, knowledge, and strategic

learning, most people do not have background or a professional affiliation with these disciplines, so the outcomes of the situations—like the examples just mentioned—are useful just because they happened, and because there was an outcome, actionable or otherwise. In these situations, the users and participants do not identify these activities as anything special or give a great deal of thought to what they come away with. If there is to be any recognition of perceived value, it is in many cases up to the information professionals in their role as organizational knowledge thought leaders to establish the validity and value of the transaction (which is why, of course, there is so much emphasis on the development and sustenance of an enterprise-wide knowledge culture and why, in many situations, that emphasis must emanate from the knowledge services management team).

Another challenge to managing the ROI process is often organizational, both within the knowledge services business unit and in the larger enterprise. In many environments, particularly if the knowledge services function is limited to the provision of services through a specialized library or information center, the management structure categorizes the function as overhead, with the costs and expenses for operating the unit and supporting the services it provides considered ongoing expenses, necessary to the continued functioning of the organization (as long as knowledge services is perceived as contributing to the success of the organization). The knowledge services business unit is not expected to generate profits or contribute in any direct way to the organizational bottom line however that bottom line is defined. In smaller organizations, the specialized library or information center—particularly if the unit is managed and operated by a single information professional—is not even carried as a budget item but is incorporated into the operational structure of whatever functional unit or division it is part of. As a result, ROI is of little interest to management, and the single-staff information professional with responsibility for the management of the unit must look for opportunities to incorporate ROI into whatever other organizational measures are used. As with other challenges, the organization that does not have any particular measurement framework for knowledge services that can be translated into—or at least approach—a statement of the return-on-investment for the provision of knowledge services will require particular innovation skills from the knowledge services director, since management must be kept apprised of how well the knowledge services business unit serves the larger organization.

In most circumstances, though, it is through the expert deployment of return-on-investment documentation (usually in combination with another measurement tool or technique) that the knowledge services director can make an impressive showing in how the delivery of knowledge services is perceived and valued in the organization. To reach that goal, we connect first with the formulas for ROI, and the formulas connect first and foremost with the users of the organization's knowledge services products. And while a great many variables are given consideration in calculating the contributions of the knowledge

services function (dollars saved, revenue generated, decision support, cost avoidance, etc.), to most users how the product or services affect their own time is usually the primary concern.

Time = Money

In almost every knowledge services management activity, the value of the user's time is the primary consideration.

So in seeking formulas for determining ROI, we almost always start with how the management of time in the workplace is affected. In his paper on the subject, Roger Strouse provides guidelines for an ROI questionnaire in which participants are asked to refer to their use of the library or information center during the past 12 months and to estimate how using the function saved them time and the approximate amount of time saved. This is calculated against that employee's hourly salary—requested with the promise to keep the information strictly confidential—to arrive at a cost benefit for the use of the specialized library. (Strouse, 2003) A useful tip is provided when Strouse notes that if salary information is not available, either from the respondents themselves or with average or estimated figures from HR, the calculation should simply be limited to the time-savings data, without reference to any financial value.

Frank Ryan came to the management of information services from his work as a scientist, and he specifically credits his interest in measurement as influenced from his earlier career: "...measurement is all," he writes. "Scientific researchers make changes and observe the consequences. They collect data, interpret it, and make conclusions that in industry lead to new products and processes." Seeking the same level of attention to measurement in the management of information services, Ryan developed a methodology that connects to users' needs ("I have always believed that the best judges of the relevance of information are those who have to use it."). In his organization, Ryan and his staff record the requests they receive, categorizing them into three types: requests for information (which he categorizes as "Research"), the direct use of online services ("Database Access"), and regular alerting services ("Current Awareness"). The record format for the requests received is captured in what Ryan refers to as a "simple system" with a "reasonable and defensible time saved tariff" assigned to each.

In this environment, much debate naturally took place as the staff carefully considered the time allotment for that reasonable and defensible time saved tariff, with the eventual adoption of 60 minutes for Research and 5 minutes per document and 30 minutes per search session for Database Access. Ryan reported that Current Awareness was not easy to codify, but after further study and consideration he and his team agreed on 30 minutes per month per user. These figures are then calculated against expenditures for resources and against time saved by employees, thus utilizing both usage and time as the basis for establishing the value of information. (Ryan, 2006)

For information professionals interested in moving further into task quantification, who want to connect time expended against a variety of different tasks that they and their non-professional colleagues perform, a quick look at a commercial white paper from IDC, on "The Hidden

Costs of Information Work” provides a good starting point. Many of the tasks described in the paper are similar to those performed in a specialized library, information center, or other knowledge services business unit, and while the document was not specifically prepared for the library profession, the charts and formulas for such activities as determining cost to the larger enterprise, for example, or the costs of information tasks per worker per week can be easily adapted to the knowledge services environment. The white paper also provides information about the costs to the organization of *wasted* time, and while useful discussions can be built around the definitions of the concept of “wasted” time in connection with performance and benefits to the ultimate users of the information, knowledge, or strategic learning content, the document provides a good list of many elements of the measurement process that might be considered.

This focus on measuring the benefit to the unit’s users relates to establishing cost-benefit analysis, the comparison between the costs (time spent, for example, or ease of use) to the user and the costs of having the service provided by the library or other business unit. In her presentations on the subject, Anne Caputo presents a dramatic scenario in which some 3,000 knowledge workers subscribe to (or have access to) a particular information service. When surveys and other methodologies establish that the information service saves employees two hours per week, the cost savings for the organization is calculated by multiplying the average hourly salary of those employees (\$33.65) by 2 by 3,000 (number of employees) by 49 weeks (weeks worked per year) to arrive at a cost savings of more than nine million dollars. In a second scenario, Caputo calculates cost savings on four projects, assuming that the average annual salary is \$70,000, that the service provides a 10% reduction in time on the four projects, and factoring in that the average project uses 50 employees. In this scenario (50 employees x 4 projects x \$70,000 salary x 10% cost saving), the calculation of cost savings is \$1,400,000 per year.

Not included in the cost-benefit analysis, however, are other benefits, as Caputo notes. For example, such value-add during the search process as the interaction between the user and a staff specialist who has experience and expertise in the subject being searched and who can suggest alternative resources or, even better, connections to a prior user who has worked on the same topic cannot generally be factored into the cost-benefit analysis. Still, there are occasions when attention to cost-benefit analysis can be useful and the methodology should be applied when appropriate, as has been pointed out in the work of José-Marie Griffiths and Don King, particularly their *Special libraries: Increasing the information edge*, describing studies of company and government agency libraries and information centers and their service impact in their respective environments.

The purpose and value of using ROI as a measurement tool for knowledge services, and of including reference to cost-benefit analysis, relate naturally in our considerations of benchmarking as well, as will

be seen in our later discussion of benchmarking. While ROI is a type of measure and benchmarking is a process or a vehicle for capturing measures, the two combine conceptually when knowledge services directors and information professionals on their staff seek to evaluate the management and delivery of knowledge services. The power of using ratios in benchmarking is that they permit the comparison of seemingly disparate quantities, a technique which enables the management team putting together the metrics the opportunity to use a “snapshot”-type description that is not required to allude to specific dollar figures (which are not always appropriate in comparing performance in organizations of different sizes, for example, or with widely different).

What is the relationship between the knowledge services business unit and enterprise leadership?

“Measuring the distance” between the two can ensure that the different focus of each is given serious consideration in any measurement strategy.

In thinking about return-on-investment for the management and delivery of knowledge services, a concluding concern is the consideration of the relationship between the knowledge services business unit and enterprise leadership, what we might think of as “measuring the distance.” Some further attention is given to this subject as the audience for the report of any measurement is considered, but it is, nevertheless, a subject with particular resonance with respect to ROI. As implied in the responses of managers of specialized libraries about relevance and measurement, there is a “distance” between information professionals—with their training and formal education linked to the larger LIS profession—and senior management personnel. We recognize that the role of the latter is to focus on “wide-angle” matters (and results) with respect to the larger organization, yet the role of most information professionals—even information professionals with management responsibility—is service provision, to ensure that the management and delivery of knowledge services matches the needs of the functional unit’s specific sphere.

The two are not incompatible, but they are differently focused, and for success in measuring knowledge services, especially in terms of the value that knowledge services brings to the larger organization, it is necessary to identify carefully the distinctions between what is of interest and use to those to whom measures are reported and those who are responsible for knowledge services. In some organizations—perhaps most—the two are distinct, and not only is the knowledge services director required to understand that the distance exists, he or she must also be prepared to “measure” that distance in terms of the larger relationships that exist between the knowledge services business unit and the larger enterprise.

EFFECTIVENESS MEASURES

In his list of the variables that influence the success of the knowledge services functional unit, described earlier, Joseph Matthews refers to impact measures or, as they are often described, effectiveness measures. In measuring knowledge services, there are few measurement techniques more needed than these, yet most information professionals

Effectiveness Measures

Was the activity successfully implemented?

What was the impact or effect of the activity?

with responsibility for the management and delivery of knowledge services find themselves caught up in quantitative measures and the impact of a particular resource or activity is often neglected.

With effectiveness measures, the service or product delivered is weighed in terms of how the recipient of the service or product has been affected by the having access to that service or product. For some knowledge services directors, effectiveness measures connect with values measures (as opposed to operations measures). In all cases, though, effectiveness or impact measures are studied to determine if a) the activity undertaken was successfully implemented and b) the impact or effect of the successful implementation of that activity was sufficiently realized. In most situations, the latter refers to the success of the knowledge services activity in terms of cost to the user, with cost being characterized as any expenditure made by the user, whether in resources (funding), the best mechanism for finding the solution, time spent approaching (and sometimes in learning) the tool or resources with the needed solution, convenience, speed of delivery, and similar factors which might or might not influence the user in participating in the knowledge services delivery activity. Such concerns are not, of course, included in effectiveness measures when the solution is delivered directly to the colleague or co-worker needing the information, knowledge, or strategic learning content without participating in the search (although the time and cost of professional services provided by the knowledge services business unit can be calculated). In the modern organization, however, these types of “delivery services” are becoming less and less common, since most users expect to be engaged in the search, at least to some extent.

For many knowledge services directors, whether measurement efforts are enacted by the larger enterprise or through (and limited to) services provided by the knowledge services business unit, success is not achieved until the effectiveness of the activity can be determined. The unit’s primary focus becomes one of output or, as Joseph Matthews pointed out in his description of outcome measures described earlier, of having an outward focus, as opposed to the inward focus of efficiency or process measures. Effectiveness measures determine that the service provided relate to the success of the person seeking to take advantage of the knowledge services activity as he or she utilizes and implements the information, knowledge, or strategic learning content acquired in the transaction. The classic example of the effectiveness measure was described more than a decade ago, in the academic library community. Seeking information from his direct reports that could be used in outcome assessment, W. Patrick Leonard asked for “new measures of effectiveness.”

I am going to ask you for ... data that will more directly gauge the library’s influence upon its various clients. Although the usual figures on collection size, circulation, and reference will continue to be of

interest, they will no longer be sufficient. This information doesn't go far enough in an age concerned with the conflicting issues of quality and cost containment. ... I am looking for demonstrated relationship between library costs and benefits more closely related to the institution's teaching mission. ... Let me suggest some possible avenues to explore: Is there a relationship between the nature of students' library use and their academic performance? ... If we can isolate linkages between, for example, regular use of reference services and classroom performance, or student retention, then the library should be more competitive in the budget arena. If not, we may have to rethink the library's mission within the institution. (Leonard, 1992)

Reading Leonard's directive from the perspective of knowledge services management and delivery in the research, business, and scientific institutions that make up its most typical environment, we see the beginnings of attention to values metrics in addition to operational metrics. Certainly, in this case one wonders if Leonard's inspiration came from beyond the academy. Nevertheless, the examples posed are exactly the kinds of situations encountered in typical knowledge services delivery, on an almost daily basis. Can such measures be identified, captured, and communicated in the modern organizational knowledge services framework?

Anecdotal Measures

A story can be a measure of value, often conveying value more clearly than more quantitative methods (which is why anecdotal measures are often employed in combination with the quantitative).

ANECDOTAL MEASURES

While the term is somewhat misleading, it has captured the imagination of many knowledge services directors and turns up often in discussions about metrics. The reason is not hard to find. When balanced against the "hard" facts of quantitative measures, relating stories about how one or another service provided by the knowledge services business unit matched organizational priorities is a natural and quite satisfactory way to establish value. Particularly with respect to qualitative measures, a story is a measure of value and often is the most successful method for conveying a particular value. Typical examples can be seen when the delivered service or product enables the larger organization to save a great deal of money (as with the discovery—through research conducted by the information professionals—that an initiative had been undertaken previously, with specific documentation readily available) process being initiated) or positions the organization for mission-specific success that would not otherwise not have been possible or, perhaps, recognized as an opportunity (as when the knowledge services staff identifies the growth potential of an organizational activity, performs due diligence about the background of the situation, and delivers evidence-based research supporting the undertaking). In all of these activities, the anecdotal provides a delivery mechanism and enhances the metric being provided.

We obviously work with anecdotal measures—often not called that—in the formal interviewing process of the knowledge services audit, described below. An important component of the knowledge services audit (or indeed, of any audit vehicle other than the quantitative) is the interaction between the audit team and knowledge services stakeholders. Whether conveyed in individual interviews, group discussions, or formal focus groups, the data gathering of the knowledge services audit will incorporate the sharing of a wide variety of situation descriptions, experiences, identified impediments to quality service delivery, and the like. In these meetings with users, typical open-ended questions like “Are you satisfied with the results obtained when you contact the specialized library?” or “Are documents retrieved for you in a timely manner?” are often “conversation starters” and result in responses in which specific incidents and/or the actions of specific personnel are conveyed, in order to demonstrate the performance of the measured activity. It is the role of the audit team and the compilers of the audit report (usually the same people) to cull through the many anecdotal responses and determine which can be used as measures as the audit result conclusions are prepared.

Not surprisingly, there are circumstances in which several measurement types are used together. In what might be a typical example, we have a knowledge services director who has become aware of good performance from his functional unit in the form of literature analysis. In one case, when the analysis was delivered, the requestor sent a note of thanks (which of course could have been proactively asked for but in this case was spontaneously provided by the user). As usual in these situations, the message was very brief “...thanks for the good work on....”

As it happened, the director had the opportunity to verbally provide his own “thanks for the thanks” comment, noting that his unit is always interested in the impact its work has on the company and the performance of its employees and wondering if, in this case, his unit’s work saved the company any time or money. The requestor responded positively, even enthusiastically, commenting that if he had been looking for the information himself, the search “would have taken me hours.” He even provided an estimate of the time he saved, enabling the director to perform a typical metrics calculation:

$$\frac{\text{hours saved} \times \text{user's salary (estimate)}}{\text{time} \times \text{literature analyst's salary}}$$

The difference between the two figures is a quantitative or “operational” metric, measuring efficiency (money saved by the larger organization by having the services of the literature analyst available). And while there might be some debatable assumptions in the calculation (*e.g.*, the searcher perhaps didn’t find anything of more value than the requestor might have found, despite the fact that the searcher could find it faster), and while all the resources invested in support of the searcher’s role were available and could have been used

by the requestor, if he had the proper training, availability to the resources, *etc.*, the general success of this metric is clear and this type of calculation works. In fact, in their work Griffiths and King extrapolated the method to the ability to make comments on the added value of a literature analysis function if one used proper sampling (that is, if enough users are asked this same question, the result is an “average dollar savings” for whenever this service is performed.

With this basic metric in hand (and with an obvious positive relationship having been built up between the requestor and the knowledge services director), the next question turned the metric into a “value” (or, in Griffith and King’s terms, “impact”) metric: Did this work save the parent organization money or time, or make money for the company? The response was more of an anecdote or narrative instead of a calculated metric but no less valuable for that because it clearly demonstrated the value-add of the activity. If the searcher had not found the information delivered to the user, the company was prepared to create an entire research unit (including several scientists and a fully-equipped laboratory) to pursue continue research about a topic that the search of the literature had revealed to be an un-fruitful path. With that impressive result in hand, the director asked the requestor if it were possible to estimate how much time and money would have been invested in the effort, including the overall project, the people, and the laboratory. The estimate was in quantities of multiple years and millions of dollars, significantly more than the “time saved finding the information.” Thus in one striking situation, the management and delivery of knowledge services is measured in three types of integrated metrics: the quantitative or “operational” in time saved searching for the information, the qualitative or “value” in the story of the proposed new research facility, and the combined quantitative/value when the user was asked to put a dollar figure on the “cost avoidance” realized by *not* moving forward with the work.

MEASUREMENT CAPTURE

The development of the measurement strategy for knowledge services continues with an advance look at planning, specifically with attention to the organization’s strategic plan, matched against the knowledge services business unit’s own strategic plan. The two documents must be aligned, and they must identify the vision, mission, and values for both the larger organization and the unit itself. As an operational guideline, the strategic plan itself will have measures attached, and the organization’s movement forward will build on the successful implementation of strategies identified and agreed upon, in order to achieve the organization mission. Thus the very foundation of organizational success and effectiveness is based on measurement, used in the management of the organization.

KNOWLEDGE SERVICES AUDIT

The background, practice, and process for the knowledge services audit are described in detail in *The Knowledge Services Audit: Identifying and Evaluating the Organization's Intellectual Assets* (SMR International Management Action Plan for Knowledge Services # 3).

In the management process, the role of strategic planning necessarily depends on examining and preparing a value judgment on the success of the organization in meeting its objectives, and the review process supports and provides the constituent elements that define enterprise success. The same is true of knowledge services and the management and delivery of knowledge services through the organization's knowledge services business unit, regardless of how it is structured or what it is called. For knowledge services, the standard over-arching assessment methodology is the knowledge services audit.

As a methodology for measurement capture, the knowledge services audit systematically examines and evaluates the organization's well-being with respect to the management of information, knowledge, and strategic learning. The process includes an examination of the organization's knowledge needs, existing knowledge assets/resources, how knowledge flows throughout the enterprise, identifies knowledge needs not being addressed, and provides knowledge gap analysis. The knowledge services audit usually includes some attention to the behavior of people in the KD/KS process and seeks to match the organization's strength as a knowledge culture with organizational strategy, its leadership, its ambiance with respect to collaboration, its training, learning, and career development structure, and its intellectual asset and technology infrastructure.

Knowledge Services Audit

1. Examines what already exists
2. Identifies usable information
3. Determine if current methods are successful

The knowledge services audit examines what already exists and seeks to describe the current KM/knowledge services situation as objectively as possible. Its goal is to identify usable information (using both subjective and objective information-gathering techniques), and it is recognized as a proactive exercise, attempting to elicit trends and concepts from potential users and to determine requirements for success. As an evaluation tool, the knowledge services audit determines if current methods for managing and delivering information, knowledge, and strategic learning are meeting the organization's needs and, in particular, how *well* those services are being provided, delivered, and contributing to successful KD/KS for the company. In its utilization as a measurement tool, the audit combines the processes of the needs analysis (asking what information resources and services people require to do their work), the information audit (which determines how information resources and services are actually used), and the knowledge audit (which looks at knowledge assets, how they are produced, and by whom). Taken together, the several processes of the knowledge services audit provide an over-arching, enterprise-wide framework for working with knowledge in the organization and sets the stage for the various individual approaches to measuring knowledge services that will be employed as required.

CUSTOMER SATISFACTION SURVEYS

For many information professionals, the simplest and easiest methodology for attempting to determine success in knowledge services is the customer satisfaction survey. Almost all measurement activities begin with or at some point in the process link to customer satisfaction, simply because it is through the feedback from those who benefit from knowledge services that the management and delivery of knowledge services moves forward to contribute to the successful achievement of the organizational mission. Surveys are generally recognized as providing good value, since good survey design can result in the collection of useful information. Surveys work best when the market for knowledge services is a structured group or organization, and where the products and services of the knowledge services business unit are known to the population to be surveyed.

The Memorial Sloan-Kettering Cancer Center [user satisfaction survey](#) is an excellent example of survey design that provides the opportunity for respondents to demonstrate the value of services provided.

Frank Ryan, whose methodology for measuring the success of knowledge services delivery is described below, turns to the users of the information, knowledge, and strategic learning content and advocates that the users are the best judges of the relevance of knowledge services delivery. Echoing this idea, JoAnne Sparks and Donna Gibson at the Memorial Sloan-Kettering Cancer Center in New York, NY rely heavily on their library's interactions with the customers and identifying what customers require from them. As they seek to define the role of knowledge services (although what they provide their clients is not specifically designated either "knowledge management" or "knowledge services"), Sparks and Gibson think of KM as part of the "rich organizational context in which research, information, libraries, service delivery, and scientific results are all brought together to accomplish our larger goals." That concept is the basis of their team effort for working with customers. Not only does their customer satisfaction survey program provide operational direction, a kind of intellectual egalitarianism seems to connect the information professionals and the users.

Gibson and Sparks are very serious about connecting people, about forming connections between technology and knowledge, and they have a very real respect for what the customers bring to the process. As Sparks puts it, "Don't assume you're not the expert. The users have their expertise and you have yours. The system works when both sets of experts come together. Then the customers get what they are looking for." As a result, there is widespread interest in what the Memorial Sloan-Kettering Cancer Center Library is doing. When the library conducted its 2007 survey, which in and of itself could almost serve as a template of quality in survey design, the results clearly demonstrated the value of the services provided: 24% of the respondents indicated that they would need to spend 20+ hours seeking information they required for their work, approximately three hours per month per individual, and another 42% estimated saving between 5 and 15 hours if they did not have the services of the MSKCC Library and its Website available to them.

What makes the survey process succeed? At NIST, in the project described earlier, management and the project advisory team made a decision to use the survey to determine researcher use and satisfaction with the NIST Research Library's collection and the impact of journal cancellations in the NIST research environment. The project did not try to do too much, and there was a conscious effort to collect only data that was specifically connected with its goal, which had been determined before the program began. Additionally, as Deutsch and Silcox described in their report on the NIST Research Library study there was, perhaps more from a philosophical point of view than from any unwillingness to "do too much," an awareness of the need to collect "meaningful" data. While the Research Library had a broad mandate "to conduct an electronic survey of NIST scientists and management every few years," the scope of this effort was limited to "assessing customer needs and satisfaction with respect to the library's collection."

As shown at both the Memorial Sloan-Kettering Cancer Center and at the NIST Research Library, the first rule in developing and utilizing the customer satisfaction survey is clear: select an enquiry theme and avoid the temptation for a broad mandate. As a result, the implementation team can focus on the collection of that "meaningful" data by identifying the projected audience for the results of the survey (that is, who would receive the data and for what purpose would it be used?) and by bringing in focus groups and cross-functional participants. Additionally, whenever possible, the survey implementation team wants to conduct a review of prior surveys, in order to track trends by using the same or similar questions.

In her advice to knowledge services directors, Gloria Dinerman notes that—thanks to our ability to produce automated surveys (thus ensuring a more accurate analysis of the data received)—survey designers can customize the survey to the environment of the organization or corporation with which the knowledge services business unit is affiliated. By following these basic rules and guidelines, the customer satisfaction survey serves as an important tool for measure value.

BENCHMARKING

Benchmarking continues to be a popular measurement methodology for information and knowledge professionals, as evidenced by the many reports and "how-to" articles published in the literature and discussed in conference presentations, professional development workshops, and the like. From our perspective there are two types of benchmarking, process benchmarking (or, as we prefer to call it, "benchmarking for best practices") and quantitative benchmarking, comparisons that can be used to bring relevance and credibility to the metrics collected to evaluate the management and delivery of knowledge services in the organization.

In a survey article, these two types of benchmarking can be seen in the good definitions provided by David Shumaker, Roger Strouse, and Annette Gohlke. Shumaker, then at MITRE and now Clinical Professor Library Science the Catholic University of America, described benchmarking as

Benchmarking is...

both a process (looking for best practices) and quantitative (evaluating management and delivery)

“...comparing your organization with other organizations and learning from the comparison. That can involve process benchmarking, which you can do with an entirely different type of organization from your own, to adopt a process in which their techniques can be applied to a process of your own. Another kind of benchmarking can be done with like organizations to compare service levels, budgets, staffing, etc.”

In the study Strouse—at Outsell, Inc.—provided a specific specialized libraries perspective about benchmarking when he referred to the practice as:

“...a standard set of attributes to compare multiple organizations to each other. In the case of specialized libraries, those attributes are types of services being offered, how the function is changing, how much the library might be spending per user, or how much staff they have per customer. ...a framework for comparing different organizations.”

Annette Gohlke of the Library Benchmarking Institute also described benchmarking in the context of the specialized library, offering the practical definition that benchmarking is “a process of looking at how you are getting work done and then deciding if you have a problem area. ... For Gohlke the next step is to go out and find other libraries or entities that perform the same process and compare their process and results to yours, especially if they are doing it differently and getting better results.” Gohlke then recommends deciding upon which of the specialized libraries under observation have the best practices, thus providing a framework for deciding if those practices can be adopted for the specific knowledge services function under study. (Poling, 2002)

These descriptions include both types of benchmarking, beginning with what we might call the simple or uncomplicated benchmarking, the conversations we have with colleagues, the involvement of the knowledge services director and the specialized library staff with professional associations (particularly, in this case, with SLA), and similar activities in which we are seeking commonalities and solutions to common problems. This is a straightforward way of thinking about best practices benchmarking. With a more managerial focus, we can look at a particular process or function outside those usually described in knowledge services and learn from analogous situations in other industries and fields of work. For these types of benchmarks, the classic

example came about when L.L. Bean was inundated with requests from a wide variety of businesses and organizations after it became known that the company was using a very efficient inventory management and shipping system, and all the managers who heard about it wanted to know how it was done.

The descriptions also include reference to the second type of benchmarking, with its focus on the quantitative. Usually applied to operational metrics, there is an advantage in these situations in having similarity in type, purpose, and even within the same or similar industry, since the quantitative is what is being measured, and with these we can with some degree of accuracy establish relevance, looking at efficiency or effectiveness. With these metrics, though, there will be times (even when using relevant and common data) when the data alone is not comparable, and in these cases we use ratios. For a case in point, we can think about a company seeking to compare the corporate investment in a particular function or operation (the legal services, say, or accounting services). Here, the variations between different companies because of size, number of staff, and similar quantitative elements make direct comparisons inappropriate (and statistically invalid). The solution is to use ratios because ratios seriously reduce variability in the sampling and bring the relevancy of the service being measured directly into the measure. A practical example looks at staff size: in comparing the knowledge services business unit's 5-person staff with another organization that has 100 people assigned to managing and delivering knowledge services, the comparison does not reveal whether the first unit is understaffed or overstaffed. If, however, as the process begins we agree that a relevant activity for knowledge services is supporting R&D, and if we compare knowledge services staff expenditures as a percentage of R&D expenditures, the relevance of the knowledge services function is legitimately comparable.

Benchmarking
(Two Schools of Thought)

1. Benchmarking as a measurement technique
2. Benchmarking as a basis for the implementation of findings and recommendations

Sue Henczel

Recognizing that benchmarking is not limited to the information, knowledge, and strategic-learning environments, Susan Henczel produced an important study, published at about the same time, describing the elements of benchmarking as practiced in a variety of disciplines. One of her most important findings is that benchmarking, while extremely popular as a measurement technique, actually proceeds from two different schools of thought, one group being practitioners who “include the implementation of the findings and those that do not.” Henczel notes that while many benchmarking case studies focus on “the identification of the benchmarks and the measurement and comparison process... very few followed through in the process of adapting best practice to improve a process.”

Obviously Henczel is advocating the latter direction, and her study is particularly useful for knowledge services directors who are contemplating a benchmarking project. She quotes three eminent authorities in the field, and credits Christopher Bogan in one study and Michael English and Gerald Balm in another for defining several of the

terms associated with benchmarking. Thus the knowledge services director is able to share a common language with others using this methodology, and terms such as *benchmark* (“a fixed point, target, or standard against which you can be measured”), the *benchmarking partner* (“any group or organization that is used for comparison”), *best practices* (the organization “that has the most efficient and effective practices in place,” with the goal of benchmarking to be the improvement of performance “by adopting the best practices of benchmarking partners”), and *performance indicators* (“used to measure performance and monitor progress against set targets”) can be used with mutual understanding, regardless of the subject of the work being benchmarked.

Mentioned earlier in the discussion of customer surveys, Deutsch and Silcox provided a second report on the major assessment project undertaken in 2001-2003 at the National Institute of Standards and Technology (NIST). As described in the report, the organization’s established role is to focus on “advancing the nation’s technology infrastructure and supporting industry. . . .the NIST Research Library serves some 3,000 scientists, engineers, technicians, and support and administrative personnel, as well as about 1,600 “guest researchers.” In moving into the assessment project, it became clear that benchmarking would not only support the requested assessment but would enable enterprise leadership to get a better look at its customers and position the Research Library for improving services to the identified customer base. An important first step in the process was to review published data, to identify benchmark or other survey instruments used, and then to identify specialized libraries that had participated in benchmarking studies. These activities were followed by the development of criteria for determining potential benchmarking partners and, with the results, to identify trends. Another critical consideration which contributed to the validity of the process was the development of an internal benchmarking exercise, with identified participants from a variety of departments and organizations and representing a number of research-related and non-related participants were invited to meet on a regular basis to guide the process. Chosen to ensure the perspective of a wide cross-section of agency employees, the team participated in the design of the survey instrument, in coordinating communications with potential benchmark partners, and were part of the evaluation and analysis process.

In her comments about benchmarking, Annette Gohlke brings up the question of what is measured, noting that libraries have traditionally been associated with and in their benchmarking have focused on resources, the tools which provide the information, knowledge, and strategic learning content the user is seeking. Like Shumaker, though, Gohlke understands the value of benchmarking library processes as well, with medical libraries in particular sharing information about operations through a purpose-built database developed by the Medical Library Association for supporting medical librarians in their

benchmarking efforts. So the topics chosen to benchmark and given attention vary, but typically (as described in many reports about the process), the effort looks at budgets, staffing, most valuable services provided to users, vendor portfolios, digital content, and, usually, challenges that the benchmarking partners are expecting in the near future. In another activity similar to the assessment project undertaken at NIST, a study in another national research organization resulted in the development of a published series of criteria that included, among other subjects for consideration, the following, described in the report as criteria for “world-class” knowledge services:

The stated vision, mission, and values of the knowledge services business unit (with specific reference to the published vision, mission, and values of the larger enterprise)

Enterprise-wide knowledge services impact and the plans for, where appropriate, an enlarged service sphere for the management and delivery of knowledge services

Cross-functional collaboration

A centralized service role for managing knowledge services and, if established, the role of the knowledge services business unit as the organizational knowledge nexus

A defined service deliver ethos (basic vs. high-level)

Added value services

The expectation that new service delivery paradigms are seen as opportunities for new and better service delivery

An established marketing and awareness-raising structure

A client-customer focus

An established and advantageous relationship with knowledge services sponsors, advocates, and champions (Harrison, 2003)

Realistically managed, the results of a benchmarking project can provide powerful information as the knowledge services director seek to demonstrate the value of the unit’s work in the larger enterprise. Without doubt, gathering the data and compiling it into worthwhile documentation is an important exercise and if nothing else gives the director a framework for discussion and provides a valuable depiction of the current status of the contributions made by the knowledge services business unit. As Henczel argues, though, the effort is no more than an exercise unless attention is given to establishing actionable recommendations and implementing the recommendations as soon as possible. When that desired effect is realized, the true value of benchmarking and its contribution to the measurement effort is made clear.

COMMUNICATING MEASUREMENT RESULTS

As described earlier, the development of the measurement strategy for knowledge services requires considerable attention to the audience for whom the measurement effort is being made, with an equal emphasis on identifying what these management authorities want (or need) to know. While any number of processes have been developed from time to time, two seem to have been accepted by most knowledge services directors and enterprise leadership in organizations in which attempts are made to measure knowledge services. Both the popular Balanced Scorecard (first put together by Robert Kaplan and David Norton) and Karl-Erik Sveiby's Intangible Assets Monitor are practiced in a number of environments.

THE BALANCED SCORECARD

For many knowledge services directors and the information professionals who work with them in the organization's knowledge services business unit, the measurement process comes together with the balanced scorecard. The subject of Joseph Matthews' study (Matthews, 2003, noted earlier) with its focus on specialized librarianship, the balanced scorecard is not in and of itself a measurement methodology. It is, however, an approach to the management that lends itself very well to the practice of knowledge services, primarily because the balanced scorecard is designed to work with and to incorporate measures and metrics already in place (or being put in place) in the larger organization. The Balanced Scorecard Institute in Washington, DC has described the concept:

The balanced scorecard is a strategic planning and management system used to align business activities to the vision and strategy of the organization, improve internal and external communications, and monitor organizational performance against strategic goals. It was originated by Drs. Robert Kaplan (Harvard Business School) and David Norton as a performance measurement framework that added strategic non-financial performance measures to traditional financial metrics to give managers and executives a more 'balanced' view of organizational performance. While the phrase *balanced scorecard* was coined in the early 1990s, the roots of this type of approach are deep, and include the pioneering work of General Electric on performance measurement reporting in the 1950's and the work of French process engineers (who created the *Tableau de Bord* – literally, a "dashboard" of performance measures) in the early part of the 20th century. (Balanced Scorecard Institute, 2008)

According to specialists, the use of the balanced scorecard is characterized as much as a management methodology as a measurement system and it is in this approach to *balance* that the process provides the best results, particularly for knowledge services functions. Broadly speaking, the balanced scorecard is not another set of metrics. It is a way to arrange and communicate the metrics, connecting to the larger vision of the organization.

In fact, it is in that connection with the larger vision that the technique excels, for translating the corporate or organizational vision into a knowledge services vision is the first process of the balanced scorecard. (Kaplan and Norton, 1996) It asks the questions, “Why are we seeking to manage knowledge services?” and “What are our visions for knowledge services in the organization?” In doing so, the knowledge services director and the information professionals in the knowledge services business unit must work with others in the organization to agree upon the purposes of knowledge services. Following on to the other processes of the balanced scorecard, the knowledge services framework is described by how well the “idea” of knowledge services is accepted and KD/KS is rewarded in the organization. This thinking then connects with a look at internal business processes, to determine how they match with the processes and objectives of knowledge services. In this process, goals are established, metrics aligned with organizational goals, and time and money are allocated for the management and delivery of knowledge services in the organization. Finally, the balanced scorecard comes together in what practitioners refer to as learning and feedback, asking such questions of knowledge services as “Is it working?” “Are there results?” and “Are there processes and practices that can be done better?” As this “balance” begins to take shape, we begin to see the need to review—and to continue reviewing—whatever strategies we have put in place for knowledge services.

In his study, Matthews focuses attention on the specialized libraries community, where the knowledge services business unit (the specialized library) provides knowledge services for a distinctive and carefully identified user group. The four categories (which some balanced scorecard practitioners refer to as “processes”) as Matthews has structured them for specialized libraries permit a clean and unique application for knowledge services:

1. Customer perspective (how customers view the specialized library)
2. Internal perspective (how the specialized library excels)
3. Innovation and learning perspective (how the specialized library continues to grow and improve and create value)
4. Financial perspective (how the specialized library is viewed by organizational management and enterprise stakeholders)

As an example of how the knowledge services director and staff might employ the balanced scorecard, we can adapt the questions asked at KMPG, as reported by Amrit Tiwana:

- *Client orientation*: What do I want to achieve with my existing specialized library customers?
- *Market orientation*: What am I going to do to decrease existing customer turnover and find new customers? What am I going to do to strengthen my position in the organization?
- *People orientation*: What am I going to do to enable the team I manage to function better and help my employees gain stronger competencies?
- *Result orientation*: How can I obtain better results with the same inputs? How can I increase the added value of my teams and myself?
- *Personal effectiveness*: What am I going to do in the coming year to improve weak points and strengthen strong points?
- *Professionalism*: How do I keep abreast of the newest developments? How do I collaborate with my peers more extensively? (Tiwana, 2000)

THE INTANGIBLE ASSETS MONITOR

Karl-Erik Sveiby's intangible assets monitor is of particular value to what he refers to as "knowledge organizations" (which of course includes those in which the knowledge services framework supports the knowledge culture and enables success KD/KS). As such, the technique provides a good method for both measuring intangible assets and for delivering the results of the measures through a number of relevant indicators. Its claim to fame is its simplicity, and like the balanced scorecard, the intangible assets monitor links to the larger organizational picture, particularly its strategies for achieving the corporate mission. It is designed to be used with the organization's management information system and it is limited in scope to only a few indicators and a few comments. Sveiby notes that the most important areas to focus on have to do with growth and renewal, efficiency, and stability of the knowledge services function, providing—as with the knowledge services audit—a broad-based picture of the role of knowledge services in the larger enterprise. (Sveiby, 2001)

By looking at three intangible assets as "real" assets (as explained in Sveiby's description), the methodology matches non-financial measures (the intangible) with financial measures (the tangible) and seeks to look at external structure, internal structure, and the competence of the people who are involved in the KD/KS process. These three are comparable to the customer perspective, the internal business processes perspective, and the learning and growth perspective of the balanced

scorecard. As Sveiby has structured it, the intangible assets monitor, does not focus on the operational but on the values measures (as we have referred to them earlier), which in this process are described as strategic. Notably, and particularly as we focus on knowledge services, both approaches are strengthened by their emphasis on change and the value of measuring change, with the measures to be used for strengthening strategic learning and knowledge exchange in the larger organization. Linked to the emphasis on change, however, is the focus in the intangible assets monitor on the knowledge stakeholders as the organization's "profit generators" (as Sveiby puts it) with "the profits generated from people's actions ... the signs of success but not the originator of the success."

DELIVERING THE RESULTS

Whether following the outlines of the balanced scorecard, the intangible assets monitor, or using another presentation framework, what happens after the data has been collected and the measurement calculations completed becomes as important as the measuring process itself. Just as Henczel describes (with respect to many benchmarking situations), many measurement activities are undertaken and processed "to a point," after which—once a few preliminary and inconclusive statements have been passed on—little further attention is paid.

This is a mistake, and contributes to the waste (and, not to put too fine a point on it, the resistance) often associated with attempts to establish and provide a framework of solid, ongoing metrics for knowledge services. If the knowledge services director is smart, he or she will recognize that the best technique for moving the process through to completion is determined early on, when the measurement activity is undertaken. At that time, if the audience for receiving the metrics is not included in the statement of purpose for the undertaking, the point must be raised. Also, as noted before, once the audience for the metrics has been established, attention is given to then asking what information is required, what is it that these people want or need to know?

In most cases, the delivery stage of the measurement activity incorporates a combination of measures, put together in conjunction with some of the elements of these now-recognized techniques. For instance, a specialized library in a manufacturing company might use a blended approach incorporating outputs (such as counts to measure activity), efficiency measures (such as cost per visit), process or service measures (such as cost or time to perform a specified activity), and outcomes or impacts (such as customer satisfaction) to pull together a picture of how effective the management and delivery of knowledge services is for the organization. As we think about delivering the information derived from the

metrics, we become aware that many studies indicate that with internal communication, the quality of information and face-to-face interactions are the main predictors of the success. The same is going to be true with communicating the results of knowledge services measures, providing us with three principles for best delivering measurement results:

1. Analogous metrics delivery: identifying successful delivery methods for measures relating to performance in other functions or departments of the organization, to be applied in delivering knowledge services metrics
2. Standard communication opportunities: incorporating metrics established communications formats (annual reports, normal performance/activity reports, awareness-raising activities, *etc.*)
3. New opportunities for communication: seeking innovative or unexpected avenues for incorporating metrics (enterprise-wide committee participation, planning activities, preparing “elevator responses” for information staff, *etc.*)

All organizations have processes and formats for internal communication, and measurement results can be prepared or reformatted to fold into these. Generally speaking, as noted, these combine the quantitative, with (insofar as possible) the qualitative supplied with the quantitative, often in the form of stories or anecdotes. A variety of information-transfer media and opportunities are used for this purpose. While such standard activities as annual reports and normal performance or activity reports are often disparaged because they can be something of a nuisance (particularly in terms of deadline requirements usually attached to them), these tools present an opportunity for creative reporting for the knowledge services team. Particularly when the format permits the inclusion of comments, especially as annotations to standard quantitative data, such reports can provide documentation for service delivery that can be used to enhance or strengthen the expected “bottom-line” metrics. Naturally, in these situations, the comments or interests of identified sponsors strengthen the case being made.

Additionally, the knowledge services business unit already has (or should have) a variety of awareness-raising activities in place, and as these are reviewed for their own effectiveness in delivering their message, attention can be given to incorporating metrics into these communications products. Another worthwhile activity is participation by the information professionals of the knowledge services unit in management teams and similar committee or planning activities; these too provide opportunities for development mechanisms for sharing the results of measurement activities. On a larger scale, as enterprise-wide strategic planning and other internal activities are organized, information professionals working with knowledge services have the opportunity to describe the kinds of work and their success to people

Delivering Measurement Results

The best delivery mechanisms take advantage of awareness-raising and communications frameworks already in place.

Measurement Value

Measurement enables knowledge workers (and their managers) to position KD/KS as the organizational foundation for corporate success.

who are not usually concerned with the management and delivery of knowledge services as an operational function. Not surprisingly, there has been much attention to these methods during the past few years and in their work, Thomas H. Davenport and Laurence Prusak offer good advice about communicating knowledge value. Their insight about the importance of conversation, information sharing, and the role of knowledge and of KD/KS in the organization provides the knowledge services director with useful direction. In defining knowledge as a “fluid mix” of so many different elements and positing that knowledge “derives from minds at work,” giving knowledge workers a framework for “evaluating and incorporating new experiences and information,” Davenport and Prusak connect with the larger effort to measure knowledge services in the organization. (Davenport, 1998) It is through conversation that we ask colleagues for their opinion, inviting them to share with us what the knowledge services for which we are responsible contribute to their success and that, in the final analysis, is what we need to know as we attempt to establish metrics for knowledge services.

PLANNING THE KNOWLEDGE SERVICES MEASUREMENT STRATEGY: DISCUSSION QUESTIONS

In these SMR International Management Action Plans, we refer often to the knowledge services director and the information professionals in the knowledge services business unit as *knowledge thought leaders* for the larger organization. The purpose of these discussion questions is to give you a “thought-outline” in which you and your colleagues can capture and codify the required planning elements for your knowledge services strategic framework. This is the opportunity for your measurement team to think about what you want to do with metrics and to prepare and organize the topics, concepts, and chronological sequence for the different action steps required for developing a strategic framework for measuring knowledge services.

To begin, go back to the section entitled “How to Use This Management Action Plan.” Read through the numbered steps again, and adjust them where necessary so you and your colleagues can begin the process of giving metrics for knowledge services the attention you want to give it in this process.

In your next discussion, be prepared to connect your ideas about measuring knowledge services in the larger organization by responding to the following questions. Provide a description of the background and interest in metrics in the larger organization where you are employed. A basic question to ask is: why are you (and/or your business unit) seeking to develop a metrics framework for knowledge services?

Once you have organized these ideas, you can then proceed to the next section and use the Action Plan format published there to structure your plan.

1. As you prepare to build a measurement strategy for knowledge services, it is important to identify the measures (if any) currently in place at your workplace. Which of the following are used in your organization? Specify which are used in the larger organization *and* those used in the knowledge services business unit.

Operational and Quantitative-Measuring Efficiency

Measure	Enterprise-Wide	In the Knowledge Services Unit
Transaction counts	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Use of resources	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Time/money saved looking for information	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Benchmarking ratios	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Input measures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Output measures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Process measures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Other:		
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know

Value and Possibly Quantitative-Measuring Effectiveness (and to some extent Efficiency)

Measure	Enterprise-Wide	In the Knowledge Services Unit
Time/money saved using content provided or knowledge transferred	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
ROI	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Other: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know

Operational and Possibly Qualitative-Measuring Efficiency and Effectiveness

Measure	Enterprise-Wide	In the Knowledge Services Unit
Service level agreements	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Service provision leading to internal partnership development	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Other: _____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know

Value-Measuring Effectiveness

Measure	Enterprise-Wide	In the Knowledge Services Unit
Impact	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Anecdotal (narrative)	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Outcome measures	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
Other:		
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know
_____	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know

2. As you review current metrics for knowledge services and prepare your measurement strategy for the knowledge services unit, who will be the audience for the metrics? Who are these people, and what is their role in the larger enterprise? Especially important, what is their role with respect to the management and delivery of knowledge services?

3. Are there “secondary” key players who are in a position to influence how metrics provided about knowledge services are received?

4. What metrics do these people require?

5. How will this information be used?

6. In your organization, is all knowledge asset management incorporated into one functional unit? [If not, please go to the next question] What is this knowledge asset management unit called? Please describe this functional unit’s vision, mission, and management values.

7. If there is not a single function unit for knowledge asset management, can you describe how the various knowledge assets are managed?

8. Has there ever been, to the best of your knowledge, any attempt to identify and list the knowledge assets that are available to knowledge workers in your organization?

9. Identify parallel functional units in which the capture, retention, and dissemination of information and knowledge are critical for contextual decision making, accelerated innovation, and strengthened knowledge asset management.

- Specialized library/information center/knowledge center
- RIM (records and information management) department
- Corporate archives
- Human resources department
- Corporate communications
- Information technology/information services
- Other (please describe):

10. What types of measures are used to evaluate performance in these other functional units (choose from the list in # 1 above)?

11. What are the critical success factors (CSFs) for knowledge services in your organization? Put into words the desired effect or expectations for the management and delivery of knowledge services in the larger organization.

12. What formulas would be used in your organization for determining ROI for knowledge services? Identify several actual service delivery activities and apply the formula to determine their success.

13. In your organization, have you sought to measure knowledge services by recording requests and assigning delivery time to each request, calculated against pre-established expenditures for time, etc. (per the Frank Ryan example in the text)? What would be the prospects for applying this type of measurement activity in your organization?

14. Can you provide an example of using outcome or effectiveness measures for knowledge services in your organization? How were these measures received?

15. If you have conducted a knowledge services audit, how did you incorporate anecdotal measures into the findings of the audit? How were these measures received?

16. When you conduct a benchmarking exercise, is the comparison information applied to current or future task-development? If so, was this type of measure useful?

17. If you undertake to use the balanced scorecard, how will you coordinate the four processes with respect to knowledge services management and delivery (the four processes being the customer perspective, the internal perspective, the innovation and learning perspective, and the financial perspective)?

18. Ditto the intangible assets monitor: how do you coordinate the external structure, the internal structure, and the competencies of the people involved in KD/KS (either as providers, recipients, or in some other stakeholder capacity)?

Now proceed to develop the action plan for your specific measurement activity. Using the following two-page format, work with your team to capture the elements required for developing metrics for the measurement and delivery of knowledge services in the organization.

ACTION PLAN

Overall Desired Effect (Specific, Measurable, Achievable, Relevant, Time bound)	To: _____ (Action Word) What: _____ (Desired Effect) By: _____ (Date) So that: _____ (Result or Impact)
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Actions (Work Breakdown Structure)	Action _____ Who _____ When _____ Action _____ Action _____ Action _____ Action _____ Who _____ When _____ Action _____ Action _____ Action _____ Action _____ Who _____ When _____ Action _____ Action _____ Action _____ Action _____ Who _____ When _____ Action _____ Action _____ Action _____
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Assets	<p>Sponsor:</p> <p>Assigned (or potentially assigned) people:</p> <p>Champions:</p> <p>Other Assets (partners, experts)</p>
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Threats	<p>Threat:</p> <p>Response:</p> <p>Threat:</p> <p>Response:</p> <p>Threat:</p> <p>Response:</p>
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Contingency Plan and Exit Strategy	<p>Trigger:</p> <p>Response:</p> <p>Trigger:</p> <p>Response:</p>
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AFTERWORD: MANAGING STRATEGIC CHANGE

Knowledge Workers

- Educated
- Able to apply theoretical and analytical knowledge
- Willingness to take different approaches to their work
- Possessing a different mind-set
- Committed to continuous learning

Peter Drucker

In 1994, writing about the “age of social transformation,” Peter S. Drucker describes what the editors of *Atlantic Monthly* called “an economic order in which knowledge, not labor or raw material or capital, is the key resource.” In the essay, as he writes about the rise of the knowledge worker, Drucker makes it clear that the move toward a “knowledge economy” is more than simply a rearranging of the workforce:

The rise of the class succeeding industrial workers is not an opportunity for industrial workers. It is a challenge. The newly emerging dominant group is ‘knowledge workers.’ ...the great majority of the new jobs requires qualifications the industrial worker does not possess and is poorly equipped to acquire. They require a good deal of formal education and the ability to acquire and to apply theoretical and analytical knowledge. They require a different approach to work, and a different mind-set. Above all, they require a habit of continuous learning.

As Drucker was helping us understand the basic differences between what was expected of workers in previous societies and today’s knowledge workers—which term he had coined in 1959—an additional and critical attribute of the new workplace was being identified. During that same last decade of the previous century, John P. Kotter and other influential management leaders were stating that those same knowledge workers would also be required to manage change, to not only identify the changed work environment in which they were expected to perform but to adapt to the requirements of change, to ensure that the parent organization would continue to thrive.

INEVITABLE AND DESIRABLE CHANGE

Change is recognized as inevitable and desirable. Change influences the organization’s knowledge thought leaders as they seek new and better ways for delivering services.

As a fundamental component of the management function (and as noted at the beginning of this Management Action Plan), change is now recognized as inevitable. If pursued properly and with an eye toward long-term improvement, it is also desirable. This recognition continues and will continue to have much influence on how the organization’s knowledge thought leaders—and the people for whom knowledge services are delivered—succeed in their work.

With knowledge services, performance and innovation are uniquely connected, as those with responsibility for managing knowledge services seek to find new and better ways for delivering services to identified constituent users. We speak about knowledge services as putting knowledge management to work, the practical side of KM, and managing change in that context was connected, perhaps unwittingly, by Drucker in his *Managing in a Time of Great Change*. In the book,

Drucker described change management and entrepreneurial thinking in a quotation that is almost custom-made for information professionals and knowledge thought leaders:

An organization must be organized for constant change. It will no longer be possible to consider entrepreneurial innovation as lying outside of management or even as peripheral to management. Entrepreneurial innovation will have to become the very heart and core of management. The organization's function is entrepreneurial, to put knowledge to work—on tools, products, and processes, on the design of work, on knowledge itself

It is a difficult and sometimes complicated affair, this “putting knowledge to work.” In fact, the expectations (and aspirations) captured in the phrase had entered the lexicon of the knowledge worker as early as 1916, when it was adopted as the official slogan of the Special Libraries Association (SLA). As that organization and its service delivery emphasis on practical and utilitarian service delivery for information, knowledge, and strategic learning moved forward in the 20th century, we can see a natural transitioning into knowledge service's objective of putting knowledge management to work. It is not hard to see why. Putting knowledge management to work and identifying the practical side of KM—and then developing applications in support of the practice—must by definition connect to doing things differently, to changing behavior and the thought processes that underlie behavior (when behavior is thought about at all).

The Four Principles of Change Management

1. Sponsorship
2. Champions and Change Agents
3. Organizational Readiness and Managing Resistance
4. Communication Planning

To meet that challenge, smart information professionals and their leaders in the organization turn to change management. At this point in the history of management as a science and as a profession, there are many approaches to dealing with change, change management, and change implementation, but for many managers (including information professionals with management responsibility), the best place to begin is with established change management principles. The authors identify four fundamental principles for successfully managing change, and while recognizing that there are inevitably any number of sub-concepts that support and enhance successful change, the focus in the knowledge services environment is on generally on the following:

- *Sponsorship*. This change management principle identifies an influential leader who commits to a consultative role in the change process and agrees to express, model, and reinforce his or her commitment
- *Champions and Change Agents*. The emphasis here is on identifying and obtaining commitments from influential people willing to speak about the benefits of change and who will encourage adoption (champions are usually thought of as early adopters and change agents as individuals who will express and model the new behaviors to a population of users).

The Basic Steps of Change Management

- Conceptualize
- Prepare the organization
- Organize the planning group
- Plan
- Decide
- Manage the individual
- Surface and address resistance
- Implement
- Evaluate

Susan Curzon

- *Organizational Readiness and Managing Resistance.* This change management principle recognizes that users and affected stakeholders are engaged early in the process and, when appropriate, invited to participate in general discussions about the change and—in some situations—to participate in planning change. This principle essentially diffuses resistance or, at the very least, gives those resisting an opportunity to be part of the effort to enable useful and productive change.
- *Communication Planning.* Of critical importance, this change management principle engages users early in the process and connects with the above principles in a coordinated and consistent manner. An example of an effective application of this principle is the development of a calendar of events or project plan that incorporates elements of a consistent message in language that matches that of the organizational culture in which the affected stakeholders are employed.

When looking to enter into the change management process for knowledge services, good background directions can be found in Susan Curzon's basic list (noted at left), provided a generation ago. Of course the first step is conceptualization, and in any organizational effort, moving toward a new or different management framework requires those with management responsibility to begin their thinking and their discussions with their colleagues.

Before change management can begin, though, good intentions must be tempered with a strong dose of reality, with asking a fundamental question: Is the organization (or its knowledge services business unit) ready for change? It is all well and good to *want* to seek to transition the enterprise to a knowledge culture. It is quite another thing to take on such responsibility if the organization is not "change ready," as we generally put it. About ten years after Curzon, both Rick Maurer and Rosabeth Moss Kanter took on the study of organizational change readiness since, for the two of them, the success of any change process depends on the outcome of this determination. Maurer offers specific guidelines that continue to relate well, especially for knowledge services, and he advises organizational thought leaders to:

- **Build a foundation.** Ask how you can cultivate a strong relationship with those affected by the change, or how you can use the change to build relationships with other stakeholders.
- **Communicate with constituents.** Provide a context and a compelling business case for the change and, when you can, engage in face-to-face conversation about the change and its implications. At the same time, find ways to communicate informally with people at all levels in the organization about the change, throughout the life-cycle of the change.
- **Encourage participation.** To what extent are you identifying all the individuals and groups that have a stake in the outcome? Have you found way to involve them in the planning making decisions?

- Expect resistance. No matter how well change is planned, resistance will occur, so you must make special efforts to monitor people's acceptance or resistance to the proposed change and, at the same time, engage people in dialogue so that their concerns can be heard and understood.
- Create rewards and benefits for stakeholders. Have you found ways to demonstrate that the change will be mutually beneficial for all stakeholders? How do the affected people know that the change will benefit them?
- Lead the change skillfully. Finally, you must take special steps to ensure that you have created alignment among diverse interests, that critical feedback is invited and will be given serious attention, that the compelling vision that you and your fellow change leaders have created is articulated to all stakeholders, and that people are informed about the change as it moves forward.

Kanter, when asked how organizational leaders get past “the rhetoric of change,” replied with characteristic directness, offering three key steps for information professionals and their organizational managers:

Change of any type can be pursued successfully only with a thorough understanding of overall organizational culture, and how that culture is likely to react to the change being sought. A potentially negative reaction need not derail change, but it must be taken into account in pursuing that change.

- They put actions behind their words; talk is cheap. Leaders that do the best job of leading change—first of all, they have a vision of where they want to go that's well-articulated, communicated wisely, and communicated repeatedly. That way, everyone has a sense of the destination. There's no point in talking about change if you don't know where you want to go.
- Second, they look for exemplary practices—innovations—that are already occurring in the company that reflect the new way that they want to operate. Leaders puts those in front of people as tangible models of what can be done.
- Third, they organize to manage a change process in which projects help move the company to a new state of being. And they put real resources into it. Leaders give people responsibility. They set in place new measures that tell people what the standards are and measure progress toward the goals. They give feedback to an organization. They look to see whether policies, practices, systems, and structures support the change goals.

Kanter's advice is particularly appropriate as information professionals with management responsibility for knowledge services turn their attention to the specifics of change that are required in the workplace. In moving to an organizational knowledge culture, particular attention must be given to ensuring that the relevance of the function continues and is not dissipated by external and non-essential distractions. At the same time, staffing for a knowledge-centric organization requires new and specifically developed skills and competencies which naturally include the ability to adapt to change. This sometimes over-whelming picture is all part of the transformation of the service delivery focus for knowledge services, and information professionals and knowledge thought leaders must recognize the enormous role of the larger and over

-arching organizational culture and its influence in determining success or failure in managing change. John P. Kotter—to become one of the most famous experts in change management—published his famous “eight-stage process for creating major change.” As Kotter sees it, organizational change must be “anchored” in the culture, which means that information professionals and others with responsibility for moving the organization to a knowledge culture must make every effort to understand the larger organizational culture before they attempt to make the change. In his book on the subject, Kotter suggests that successful change management has four particular characteristics which we can see relate specifically to change management in the knowledge services environment:

Successful change depends on results, since new approaches usually sink into a culture only after it is very clear that they work and are superior to old methods.

- Successful change requires a lot of talk, for without verbal instruction and support, people are often reluctant to admit the validity of new practices.
- Successful change may involve turnover, since sometimes the only way to change a culture is to change key people.
- Successful change makes decisions on succession crucial, since if promotion processes are not changed to be compatible with the new practices, the old culture will reassert itself.

Kotter then puts forward his eight-stage process, advising those responsible for managing change to:

1. establish a sense of urgency
2. create the guiding coalition
3. develop a vision and a strategy
4. communicate the change vision
5. empower broad-based action
6. generate short-term wins
7. consolidate gains and producing more change
8. anchor new approaches to culture

Obviously the transformation of any knowledge-centric organization into an enterprise built on a knowledge culture, with its broader and more demanding knowledge services responsibilities directed to a larger marketplace, is essentially an operational restructuring. At the same time—and surprisingly still posing a challenge to the successful development of a knowledge services structure—connections with information technology continue to come into play, as can be seen in the description of change management published by Ann Rockley in 2003, a definition that can—with a little imagination—be transferred to a definition of change management for knowledge services:

Change management is managing the process of implementing major changes in IT, business processes, organizational structures, and job assignments to reduce the risks and costs of change, and to optimize its benefits. Change management is focused on the issues of managing the resistance and discomfort experienced by people in an organization when new processes or technology are introduced.

As Rockley makes clear, for many people the tasks associated with change are difficult. In dealing with (or at least attempting to deal with) that resistance and discomfort, organizational leadership has a responsibility to recognize and attempt to understand the various barriers that inhibit change.

There are, of course, practical guidelines for dealing with resistance, and Sharon Penfold discovers useful and commonsense advice provided by experts in the Human Resources field:

- identify the type of resistance (expected as well as in evidence)
- analyze (based on the factors of intensity, source, and focus)
- look for behavior (emotional) and rational (system) factors
- view resistance as rational, not irrational
- ask what useful purpose the resistance is serving
- identify real or perceived negative consequences of the change
- weaken the apparent link between the change and the negative consequences
- reduce rather than eliminate resistance (e.g., avoid surprises, ensure participation)
- work directly with individuals affected to deal with their personal concerns
- use a mix of push and pull styles to influence individuals, dependent on each situation and individual.

From the perspective of many managers, change and change-related activities are traditionally considered—and are expected to be—disruptive and painful in the workplace, but that does not necessarily have to be the case. With a clear understanding of the elements of the change management process that support and enhance knowledge services, change can proceed for the common good. Indeed, for many leaders in the field, a focus on resistance is less productive than an emphasis on the benefits, and, as Lyndon Pugh accurately describes, “managers have already at hand the tools to do this, in addition to their skills in understanding the psychology of the people they work with.”

The key motivational structures, for Pugh, are job enrichment, job enlargement, and team structures. With them, Pugh connects successful change management (as do the present authors, as noted below) with Maslow’s recognition that an essential higher order need is self-esteem, coming from, as Pugh puts it, “a belief in one’s own ability and also in

How Managers Ensure Successful Change

- Make work challenging
 - Give people the responsibility for organizing themselves and let them choose how they work
 - Give people power
 - Help people learn
 - Use every channel of communication possible “and tell people everything you can”
 - Share leadership
- Lyndon Pugh

one’s value to the organization” and involving self-analysis and the achievement of “a realistic and honest view of one’s capabilities.” Such success also means that for managers, there is an obligation to encourage people to understand what they can accomplish and to provide support for them to do so. At the same time, change management, in Pugh’s assessment, “involves that most difficult of things, particularly for managers, that of seeking and accepting feedback from others.”

Pugh also gives a generous and surprising nod to R.H. Cox, who writes about self-esteem in sports: “Learning and development,” Pugh writes, “...play a part in increasing self-belief,” and he notes that—from the change management perspective—self-esteem is important for the long-term, an “essential pre-requisite for sustaining motivation. Once [self-esteem] is weakened, high-achievers become risk-avoiders.”

Pugh then provides his own lists for success with change management, for ensuring that—as we would frame it—the fear of “imposing” a knowledge culture is offset by a willingness and a desire to work with change management and change implementation principles to bring about a knowledge culture. In his first list (left), Pugh describes how managers bring about change success, to make the enterprise an interesting place to work.

Pugh follows this advice with a good list of specific managerial actions that will, he states, lay the foundation for a well-motivated workforce. To accomplish this important goal, managers need to

- Convince people what they can achieve in the new environment
- Design jobs to permit development and learning
- Engage in real and ongoing structural change
- Foster cultural change
- Develop and sell a vision
- Give people responsibility
- Communicate
- Change themselves
(and take a good look at their own management patterns)
- Dispense with bureaucratic behavior

When change management for knowledge services works, there is no better time to be the knowledge thought leader for the organization. A fine example was published in 2007, in Linda Stoddart’s description of the development of a knowledge sharing strategic framework at the United Nations. The changes put in place resulted in many solid accomplishments, but of particular importance was the success of the change management process in creating a sense of community with respect to knowledge services. As described by Stoddart, “A sense of community has been fostered by the creation of a network of local points providing content across the organization worldwide.... This community approach has helped encourage knowledge sharing and a transition toward a more collaborative organizational culture.”

“Establish a sense of community by creating a network of local points to provide content across the organization.”

—Linda Stoddart
United Nations

Notably, in this work the capture of the incremental steps Stoddart and her team undertook provide a strong model that, not surprisingly, incorporates important directions and reinforces their validity:

- Articulate the goal and establish focal point community
- Conduct a knowledge services audit
- Create an internal communications working group
- Reach out to all stakeholders
- Conduct planning and strategy focus training workshops

In recognizing and attempting to understand and ameliorate barriers to change, enterprise leadership carries out one of management’s most important responsibilities, the ability to sponsor success. The concepts we connect with sponsorship are often described in these Management Action Plans, included in a variety of contexts. Equally critical though (if not more so) is the role of sponsorship with respect to change management. Whether required for a single operational function or enterprise-wide, change cannot succeed unless senior management agrees to be involved and, indeed, to sponsor the change. When Drucker defined entrepreneurial innovation as the very heart and core of management, he was establishing that change must be recognized and managed, and it is in leadership provided by change sponsors that change succeeds.

The larger organization does, of course, include other people who have an interest in and perhaps enthusiasm for the success of the KD/KS process, and who are willing to be part of change as the process evolves. As noted earlier, partners and other knowledge workers who engage with the functional unit responsible for knowledge services are quick to speak about how valuable the products, services, and consultations of the unit are in their work, and in their collaborative work together in inter/intra-departmental projects, they come to know knowledge services well. But knowing and being in a position to influence change are two different things.

Likewise the good intentions of champions and advocates. These enterprise colleagues may or may not avail themselves of the contributions of the knowledge services function to their work. And while they may have good “feelings” about the place of knowledge in the organization, they are not in a position to do much more than say so, and often only when prodded or encouraged so to do. They are individuals who understand the role of change in the larger organization and who are interested in seeing change attempted but like the partners described above, they are not in a position to lead the change.

Slightly up the change-management “chain,” so to speak, are the organization’s change agents. These people—found at all job levels—are people who can help with the change by providing influence where it is needed. While your champions and advocates can speak as early-adopter users who understand the benefits of the change, change agents

are individuals the knowledge thought leaders have identified as people who can be indoctrinated to not only take advantage of the change but who are in a position to model the changed behaviors to a population of users.

Enter the knowledge sponsors. These enterprise leaders understand the KD/KS value proposition. They are senior managers who have learned—either through experience or through their interactions with the organization’s knowledge thought leaders—that the knowledge services function brings tangible and measurable benefits to the larger organization. They make it their business to authorize, validate, and demonstrate ownership with respect to knowledge services, and they take a consultative role in working with the information and knowledge specialists who have responsibility for the success of the knowledge services function. Quite often in supporting the idea of the enterprise as a knowledge culture, these senior leaders enter into a sponsorship agreement with the larger organization, outlining mutually accepted and agreed-upon actions they will take to express, model, and reinforce their connection with knowledge services. Working with the organization’s information professionals and knowledge specialists—who now take on a catalysis role in change management analogous to the role they have in knowledge services—knowledge sponsors ensure that the place of knowledge services is indeed one in support of the organizational knowledge culture.

Sponsors

Sponsors are senior leaders who enter into a sponsorship agreement for knowledge services with mutually accepted and agreed-upon actions to express, model, and reinforce their connection with the knowledge services function.

For an example, we might look back at an earlier approach to change management. Many remember an advertising campaign of several years ago, one which asserted that “change imposed is change opposed.” Today, in some circles, the same is said about knowledge services, that the development of a knowledge culture cannot be imposed upon a group of workers or made obligatory, at any level. No one disputes this but some even posit that there is no advantage to be gained in attempting to create a knowledge culture for an organization, institution, or enterprise. The present authors beg to differ. While we agree that imposed change is quite naturally wrong, if the goal is important enough, as we believe it is when we speak about the value of organizational success in an enterprise managed as a knowledge culture, the organization’s leaders can—and indeed have an obligation to—identify how the principles of change, change management, and change implementation will lead to the desired effect they envision for the larger organization.

A CHANGE MANAGEMENT STRATEGY FOR KNOWLEDGE SERVICES

When preparing the organization for developing and sustaining an enterprise-wide knowledge culture (and implementing the principles of knowledge services to do so), change management takes on a different or “special” cast. As we pursue our discussions about how we will lead the change, the situations are very appealing, because they enable us to envision just how good we can make our workplace. On the printed page or computer screen and in our conversations with our colleagues, it all looks very nice. The apparent ease of transition from idealized and theoretical KM to the practical, day-to-day workings in each situation appeal to the tidy and methodical perspective that many of us bring to our work.

But there is a different side to the story. Organizational change is hard, and while it is often not too difficult to articulate a new strategy or a restructuring, or to demonstrate the potential value of a desired result (as described earlier in those references to the pleasant intellectual discussions that take place), bringing any change into an organization is going to be difficult.* Hopefully concepts and ideas like those described in essays like this are helpful, but even when they are, we are forced to wrestle with dealing with change management and change implementation in our specific organizational environments.

What is hard—indeed, the hardest part—is getting the larger organization to understand the value of the change and to then accept the change as it becomes part of the organizational effort. As we speak about so often—almost unendingly in the management community—people and organizations just naturally seem to resist change. Nevertheless, if information professionals and knowledge workers truly desire to participate in the process of moving the organization to a knowledge culture, and indeed, to lead the process (which they should do), there are steps we can take:

1. *Define the change.* If we are not sufficiently clear and precise about what will be required (not just the desired end result but the activities that will be needed to achieve that result), it will be far too easy to resist or passively avoid any desired change. In terms of moving to a knowledge culture, to establishing a KD/KS framework for the knowledge transfer process in your organization, let the concepts and specific roles described here provide you with talking points, a basis for articulating the specific changes you desire to the people who can help you initiate change. This leads to....

* The techniques offered here are standard human change management principles. Interested readers might refer to Chip Conley’s *How great companies get their mojo from Maslow*, which relates Maslow’s hierarchy of need to change management, a connection with particular resonance as information professionals and other knowledge workers seek to prepare themselves for their profession’s future role in society.

2. *Find your sponsor.* Before you begin, ensure that you can establish strong sponsorship for whatever change will be required. Despite the verbiage that supports “grass roots” ideas and discussions about “demonstrating feasibility,” there is a strong need for an advocate or champion (or several) to take a stand. Additionally, that person or group of people is going to be required to move from simply championing the change (“that’s a good idea”) to actual participation (“what you’re proposing will impact my work—I’ll support it, I’ll tell people how this helps me and the company, and I’ll reinforce the change”). Usually there is a point in the change process where people’s behaviors and decisions need to be influenced on a substantial scale. That can’t happen unless there is leadership buy-in and a commitment to buy-in that is expressed in the words and actions of enterprise leaders.
3. *Create alliances and identify change agents.* The organizational shift to a knowledge culture is initially the result of an alliance (or in many cases a group of alliances). Utilize the various elements of the many definitions of KM that fit your situation, match them with information management and strategic learning in knowledge services, and work to establish a KD/KS environment with knowledge services as your management methodology and service-delivery focus tool. Then integrate those alliances. Start with like-minded functional leaders and thought leaders in your organization and join with them, with all of you working as change agents and identifying areas where you and they share concerns related to the full range of information/ knowledge/strategic learning interests. Look for areas where knowledge sharing is needed but is not taking place or not working well, and engage with these colleagues to come up with integrated solutions. The end result will benefit all business units in the organization, realizing an enterprise-wide holistic solution.
4. *Use caution.* Be wary of quick fixes and reactive responses.* When there is an established desire for improvements in the knowledge transfer process within the organization, leading, perhaps, to the beginnings of a knowledge culture, many of the players (including sponsors) naturally start to look for mere tools or techniques. What you will hear is “Ah, hah! Now we are ready for KM/knowledge services. Find me the best software application and let’s make this happen!” Be careful. It’s not just about software.

Keep in mind that at this juncture in the knowledge services process you will be required to reiterate to your colleagues and your organization’s leaders that culture shifts require new ways of doing work and new ways of relating to stakeholders in the enterprise, and in addition to strong reinforcement from sponsors, you will require a variety of approaches and tools. Understand clearly that you will need a comprehensive approach that involves the spectrum of KD/KS

* Not to be confused with quick wins as incremental steps towards the overall objective, as these can be powerful change forces.

solutions and the integration of appropriate functions and approaches. With such an approach, you can position yourself to ensure higher value realization and smoother change management, resulting in real, sustainable change for the larger organization. This is the hard work of knowledge services. Putting knowledge management to work and using knowledge services to enable your practical solution is hard. But it can also be said that putting knowledge services in action is the most rewarding part of the entire effort.

THE ORGANIZATIONAL KNOWLEDGE NEXUS: A CAUTIOUS PREDICTION

This Management Action Plan concludes with a guarded prediction about knowledge transfer in the future. If our studies and observations demonstrate a continuing direction toward the acceptance of business value for knowledge (as we feel they do), and if, at the same time, enterprise leadership continues to strive for strengthened KD/KS throughout the organization, we expect this knowledge transfer process to take place in an organizational environment that of necessity will be established as a knowledge culture.

We also predict that the role of specialist librarians, information professionals, and other knowledge workers and their services to the organization will be one of knowledge leadership in this environment. This evolving role will be based on their knowledge expertise and their willingness to assume knowledge leadership for the larger organization, of being the organization's knowledge thought leaders and taking on responsibility for management enterprise-wide knowledge services. However that activity is currently structured or otherwise implemented in the organization, it will be strengthened if it is shaped to serve as a centralized function, a knowledge "nexus" or a knowledge "hub" for the larger enterprise.

Today's knowledge workers and knowledge leaders are the professionals who are best qualified to manage this function. Ideally, this operational function will assume formal responsibility for all information, knowledge, and strategic learning development, management, and delivery for the larger enterprise. This centralized "nexus" function will indeed be a function. It will probably not be a space or a "place" (unless as an operational function it has responsibility for maintaining a collection of artifacts such as books, bound journals, and the like, but that is another story). In our envisioned (and perhaps somewhat idealized) scenario, the knowledge nexus—the knowledge services delivery function and the management of knowledge assets—plays a comprehensive and holistic role for the entire organization and makes a tangible and measurable contribution to mission-critical success.

Even in complex organizations, or in organizations that cannot support such a commanding role for a knowledge-focused operational function, the power of such an embedded and visionary philosophy can effectively move traditional “reactive” service delivery (and even “proactive” service) to higher levels of organizational impact. It is a strategic approach that not only allows the natural synergies among the disciplines that are the elements of knowledge services (information management, knowledge management, and strategic learning) to succeed. Indeed, with this approach there is the added opportunity of taking on a more interactive and integrated function across the larger enterprise and (perhaps more important) an integration opportunity with specific business processes. In fact, the more of this latter integration there is the more progress the enterprise can make towards building that knowledge culture to which so many organizations aspire. It is a scenario that today’s information professionals and knowledge workers can envision for themselves and, with considerable enthusiasm, work toward achieving.

For information professionals, specialist librarians, and other knowledge workers, the future looks bright. They are—or will become—the knowledge thought leaders, knowledge consultants, and knowledge coaches for their parent organizations. They recognize that putting KM to work is critical to their and their organizations’ success, and they delight in bringing a practical approach to their work through the convergence of information management, knowledge management, and strategic learning. As organizational leadership and management come to understand the relationship between technology and knowledge and to understand better the relationships between quality in knowledge transfer and organizational success, knowledge services—as a management and service delivery methodology—becomes the route to that success. These information professionals are prepared and ready to play their part, leading their organizations in the creation of knowledge value through KD/KS.

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