

# 知识管理——图书馆可能的作用？

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**摘要:**在过去 20 年中,信息载体的多样化和信息技术的转变导致图书馆自我形象和任务的极大转变,我们经历着而且正在帮助图书馆改变传统的资源收藏的位置。从最广泛的意义上来说,改变图书馆收藏图书和期刊的功能,使其变为以用户为中心的,讲究成本的服务提供者,既为社会服务,也为科学、研究和教学服务。随着信息量的增加,我们也越来越需要过滤、重组、收集、传播和处理科研与工业信息。知识管理已成为现代社会关注的中心。本文将阐述知识管理的各个方面,讨论知识管理与图书馆功能的结合,因为图书馆本身就是提供全方位信息服务的机构。我们将讨论图书馆利用知识管理的可能性以及知识管理的结构。本文还要探讨员工将来的培训问题,强调知识管理在图书馆的应用对于用户和经费资助机构的益处,指出可能的活动计划,以及图书馆利用和实施知识管理会遇到的困难。

## Knowledge Management — a Possible Role for Libraries?

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**Abstract:** In the course of the past twenty years, the diversification of the media and the development of information technology has led to a radical change in the self-image and the tasks of a library. We are therefore experiencing and actively shaping the transition away from a library in the sense of a traditional repository and collection, and thus in the broadest sense a transition from the library as an archive for books and journals, to a customer-oriented and cost-conscious service provider for science, research and teaching as well as for society as a whole. Together with the enormous increase in the volume of information, the necessity also arises of filtering, structuring, collecting, distributing and processing data and information from science, research and industry. Knowledge management (KM) has thus become a central issue for all societal processes in the modern world. This presentation will illustrate the dimensions of knowledge management and discuss the possible integration of knowledge management in the functional area of a library which regards itself as providing an all-round information service. In this connection, possibilities of implementing KM in libraries will be explored as well as the structural integration of KM. Consideration will also be given to the necessary further training for staff members. The benefits of KM in libraries for both customers and funding bodies will be additionally highlighted drawing attention to possible activities and also to constraints encountered in realizing and implementing knowledge management by libraries.

### 1 Introduction

The boundary conditions for library work have changed radically in the past twenty to thirty years. Against this background, libraries of all types are having to redefine their position, whereby doubt is increasingly being cast on their traditional activities. The situation is characterized by a dramatic technological development in the information sector (CD-ROM, DVD, Internet databases, multimedia), automation of operations, by an acquisitions budget reduced in real terms with at the same time increasing book and journal prices (Figure 1), by changes in holdings media, by the diversification of the media (Figure 2), by completely new information supply concepts becoming necessary (see, for example, the discussion on “Access vs. Hold-

ings”) and correspondingly altered user behaviour (Figure 3). “Information” is being assigned a completely new and increasingly important role in industry, science and society. At the same time, the term is being extended and understood more broadly and does not merely refer to knowledge already explicitly available on paper or in databases, but also encompasses implicit knowledge and the know-how of members of staff as human resources.

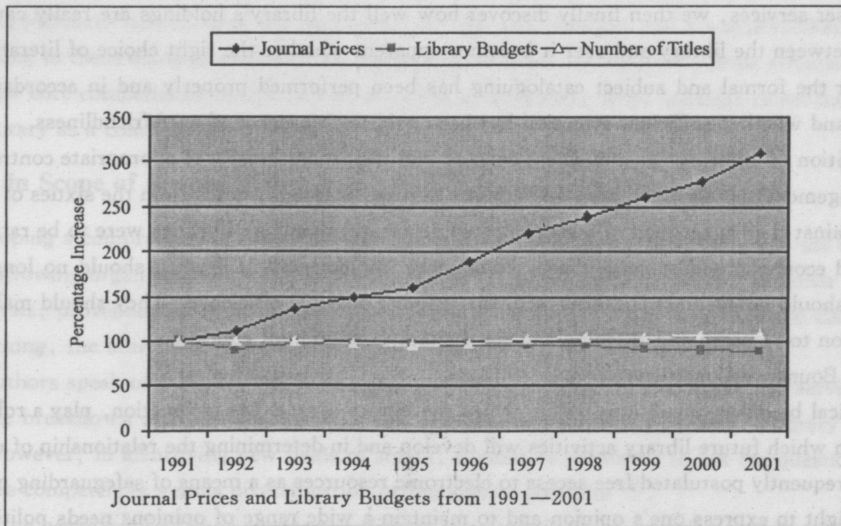


Figure 1: Journal prices and library budgets from 1991 — 2001

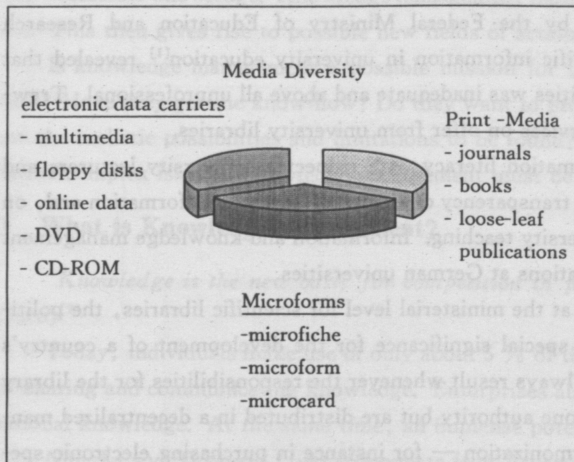


Figure 2: Variety of media in modern libraries

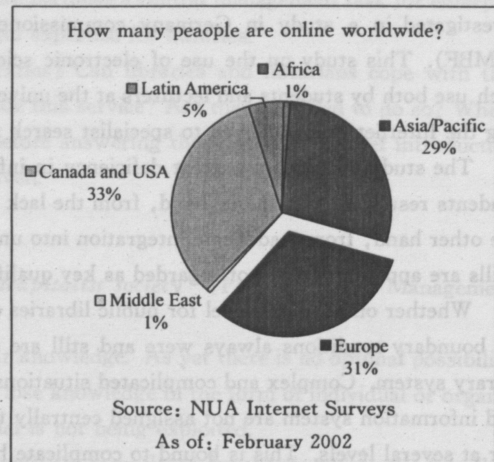


Figure 3: People online

### 1.1 Traditional Library Tasks

Libraries have existed for thousands of years as collections of literature and knowledge, as a place of reading per se and of scholarly study, and occasionally as a type of museum collecting books of the most varied nature. The traditional tasks of a library can be described as the creation, preparation, processing and maintenance of holdings for assigned users. In traditional libraries this usually involves holdings of monographs, series and journals in printed (more rarely hand-written) form. In order to fulfil this central core function, the classical tripartite structure distinguishes the fields of acquisition, cataloguing and user services. Collection building and development is the central goal of acquisitions, irrespective of whether the literature is acquired by purchase, gift, exchange or some other form. The tasks involved are essentially identical and

characterized by the traditional mechanisms of purchasing (ordering, acquisition) on the one hand and by accessioning on the other. In traditional libraries, accessioning is part of cataloguing with the aim of identifying the item as the property of the library and serving the user as a reference in the catalogue. Cataloguing is thus an important step at the interface between internal library procedures with the literature and the user's access to existing holdings. Cataloguing enables the user to retrieve the literature by subject cataloguing of the materials. In the user services, we then finally discover how well the library's holdings are really catalogued. At the interface between the library and user it becomes apparent whether the right choice of literature has been made, whether the formal and subject cataloguing has been performed properly and in accordance with the user's needs, and whether sufficient attention has been paid to the aspect of user-friendliness.

The definition of a library (as a business concern and thus the necessity of appropriate control and corresponding management) is relatively new. In Western Europe, it roughly dates from the sixties of the last century when, against the background of a concentrated desire for planning, libraries were to be rationalized and simplified, and economic and systems-theory approaches implemented. Libraries should no longer resemble museums but should be business concerns with the greatest possible efficiency. They should make an important contribution to research and teaching and the general promotion of education.

### 1.2 Political Boundary Conditions

The political boundary conditions within which the library system has to function, play a role in deciding the direction in which future library activities will develop and in determining the relationship of users to their library. The frequently postulated free access to electronic resources as a means of safeguarding personal freedom and the right to express one's opinion and to maintain a wide range of opinions needs politically mature citizens with well developed media and information competence.

The actual level of use of electronic scientific information, for example in university education, was investigated in a study in Germany commissioned by the Federal Ministry of Education and Research (BMBF). This study on the use of electronic scientific information in university education<sup>[1]</sup> revealed that such use both by students and lecturers at the universities was inadequate and above all unprofessional. Trawling the Internet was preferred to specialist search services on offer from university libraries.

The study documents a great deficiency in information literacy with respect to university lecturers and students resulting, on the one hand, from the lack of transparency of electronic specialist information and, on the other hand, from inadequate integration into university teaching. Information and knowledge management skills are apparently still not regarded as key qualifications at German universities.

Whether on the local level for public libraries or at the ministerial level for scientific libraries, the political boundary conditions always were and still are of special significance for the development of a country's library system. Complex and complicated situations always result whenever the responsibilities for the library and information system are not assigned centrally to one authority but are distributed in a decentralized manner at several levels. This is bound to complicate harmonization — for instance in purchasing electronic specialized information by consortia.

### 1.3 New Self-Image for Libraries as Service Providers

Many examples in the literature report on how the traditional image of libraries and librarians is changing. *Christine Krasser*, for example, describes the transition from librarian to information manager and puts forward as the goal of librarianship in industry "the learning enterprise or knowledge management in the sense of a systematic creation, storage, transfer, application and management of knowledge throughout the enterprise so that all those involved can access the knowledge of relevance to them"<sup>[2]</sup>.

It is immediately apparent that libraries have, or should have, the know-how for selecting and accompanying information management systems (the difference between information and knowledge management will be discussed elsewhere). Particularly in small companies, they seem cut out for this job<sup>[3]</sup>.

Librarians describe the change in traditional library tasks. "From holdings management to knowledge

management” illustrates the need for dispensing with the librarians’ traditional understanding of their role as custodians of information media and moving towards becoming managers of the knowledge available at an institution<sup>[4]</sup>.

Many librarians write about the future of libraries but the authors do not always intend to make a clean break with traditional library institutions and their missions. Although the significance of new media and technologies is highlighted, nevertheless the importance of classical holdings and a supplementary extension of services relating to these holdings is also emphasized whereas other commentators draw attention to the development of new core competences on the part of libraries moving away from holdings-centredness or describe the digital library as a comprehensive multifunctional space.

## 2 Change in Scope of Responsibilities and Redefinition of Fields of Activity

In developing a comprehensive model of “the library”, *Peter Brophy* considers that the library has always been a growing organism and, together with *Licklider*, postulates that a library is rather defined by the tasks of analysis, provision and reorganization of primary information for the user than the classical tasks of storage, indexing, the search for and delivery of documents<sup>[5]</sup>.

Other authors speak of a service mix for readers and other persons entitled to use the services, or indeed conjure up the breakdown of traditional services and attempt to make a comparison of library and economic processes. However, in identifying new fields of action, it must be permitted to ask the question of “concentration on core competences versus diversification of the service portfolio”<sup>[6]</sup>.

Against the background of the boundary conditions just described, completely new potential is developing in universities, research establishments and companies, as well as the mission of transforming this potential into accessible knowledge. Knowledge management therefore becomes a central management task for enterprises. This then gives rise to possible new fields of action and expertise for libraries.

Is knowledge management a possible mission for libraries? Can libraries and librarians cope with this task? Have they got the know-how? Do they want to provide this service? Are they qualified to do so? Where are the realistic possibilities and limitations to be found? Before answering these questions a brief introduction to the complex issue of knowledge management must be given.

## 3 What is Knowledge Management?

“*Knowledge is the new basis for competition in postcapitalist society*” (Peter Drucker, Management Guru)<sup>[7]</sup>

Today, individuals make use of only about 5 % of their knowledge. As yet there is no optimal possibility of sharing and communicating knowledge. Enterprises also lose knowledge in the form of individual or organizational knowledge. At the same time, an immense potential is not being exploited.

*Nonaka* and *Takeuchi* (two economists from Japan) explicitly formulated for the first time the fact that implicit knowledge, i. e. that which is stored in people’s heads, is the key to innovation. The great age of knowledge management begins with this theory<sup>[8]</sup>, which has now become one of the most important management topics (Figure 4).

Before we go into detail about the processes of knowledge transfer and generation, the two types of knowledge must be differentiated:

(1) **Explicit knowledge** (“knowing what”): This knowledge is factual knowledge. It is structured, formalized knowledge stored in documents and databases and is relatively easy to transfer.

(2) **Implicit knowledge** (“knowing how”): This involves experience, subjective opinions, intuition, empathy. It is deeply rooted in actions, ideals, values and emotions and is extremely personal. It is people-oriented and embedded in processes, traditions and cultures so that it is difficult to formalize.

Explicit knowledge is relatively easy to pass on to other people since it is already available in a structured

form. It is, however, more difficult to impart implicit knowledge. This knowledge first has to be transformed into a “communicable” form or transferred directly from person to person.

Ikujiro Nonaka introduces the various definitions of knowledge, explains the difference between knowledge and information, and presents the basic model of knowledge transfer and knowledge creation<sup>[10]</sup>. Figure 5 shows the individual steps in knowledge creation.

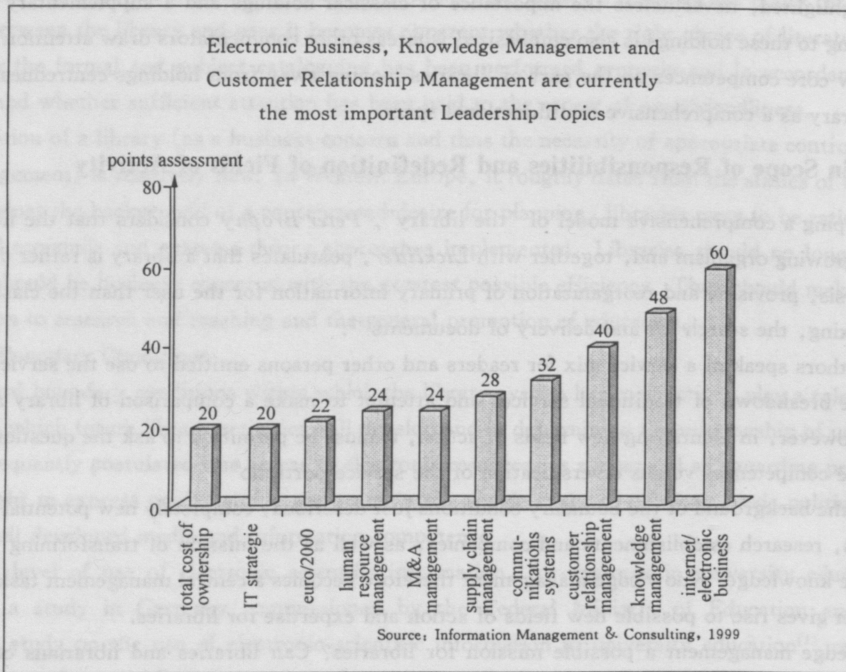


Figure 4: Knowledge management as a leadership topic<sup>[9]</sup>

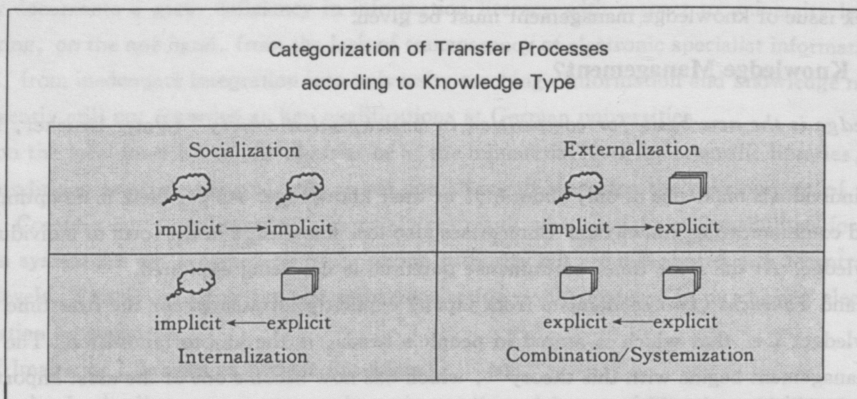


Figure 5: Knowledge creation in knowledge management <sup>[11]</sup>

- (1) Externalization: The existing implicit knowledge bound to individuals must be made transparent and accessible for others, and thus explicit.
- (2) Internalization: The existing, accessible and structured explicit knowledge must be internalized (personalized), i. e. converted into implicit knowledge and thus made usable.
- (3) Socialization: The emphasis here is placed on transmitting and imparting implicit knowledge. Individual implicit knowledge is passed on by common experience and working to-

gether and thus becomes available for other individuals in the form of implicit organizational knowledge and is retained for the enterprise. All those involved in joint tasks can learn by collaborating.

- (4) Combination and systemization: Means transforming explicit knowledge into new modified explicit knowledge and thus the creation of new, original knowledge.

The mission of knowledge management is the identification, transformation and creation of knowledge critical for success. Identification means collecting and localizing existing knowledge so that it can be made accessible again and usable in the enterprise. In the next step, by means of transfer and distribution, transformation ensures that the identified knowledge is spread in the enterprise culture so that in a third step new knowledge can be created. It becomes apparent that knowledge creation is the most important, but also the most difficult part of knowledge management. Altogether, knowledge management is not an easy exercise for enterprises: "The process of identifying and transferring practises is trickier and more time-consuming than most people imagine"<sup>[12]</sup>.

Why do companies implement knowledge management projects then? In a study, 31 knowledge management projects were studied in 24 enterprises and the four major goals for knowledge-management projects identified<sup>[13]</sup>.

(1) Create knowledge repositories: This involves the collection and creation of document libraries (reports, minutes, lectures, articles) and/or the establishment of corresponding databases.

(2) Improve knowledge access: This goal is more difficult to achieve. Various strategies are applied to make explicit or implicit knowledge available to others. Expert networks are frequently meant here, which may exist physically or electronically/virtually.

(3) Enhance knowledge environment: Various efforts have been made to achieve this goal. Some enterprises modified their organizational structure so that knowledge can be identified, transformed and created, while others attempt to build up a knowledge-management climate by changing the corporate culture.

(4) Manage knowledge as an asset: Knowledge is treated here like any other resource and is included in the balance sheet and in strategic agreements on operational targets.

In the early nineties of the twentieth century knowledge management was still not an issue in most enterprises whereas in the year 2000 it is estimated that there was a world-wide turnover of \$ US 2.1 billion in this field.

Why has knowledge management become an issue in management theory? The respective management form depends, on the one hand, on changes in external boundary conditions and conforms to them so that, on the other hand, the choice of management style is always also a question of the zeitgeist and thus of the prevailing fashion. In the sixties of the twentieth century, top management was primarily concerned with the issue of diversification, whereas the seventies were dominated by the idea of strategic management. Ten years later everyone was talking about TQM whereas in the course of the nineties the concept of shareholder value led up to business process re-engineering and ultimately the issue of core competences. From this latter issue it was then only a small step to holistic knowledge management.

The current problems in enterprises, such as those arising from downsizing and the consequent loss of valuable know-how as well as increasing staff mobility, rapidly led to the realization that corporate knowledge, available in the form of human capital, can be valuable, difficult to replace and occasionally unique. Only "knowledge management" can give a practicable answer to this question and help to salvage knowledge via identification and transformation and to retain it for the enterprise or even to create new knowledge.

Future challenges in industry will require "knowledge visioning" if boundaries between sectors are to disappear and creative and innovative potential created.

It is questionable whether knowledge management will in future still take the form that it does today as a management strategy. It is not merely the fact that fashions change but it can be conjectured that a large num-

ber of knowledge management issues will become a natural part of the working and corporate culture and therefore knowledge management will no longer be necessary as an explicit management task<sup>[14]</sup>.

From the historical point of view, in 1975 CHAPARRAL STEEL, a US group, was one of the first companies to orient its organizational structure to knowledge management in order to establish its status as a market and technological leader<sup>[15]</sup>. However, at that time the application of IT was not yet envisaged.

In 1981, the consulting firm ARTHUR D. LITTLE began to develop knowledge-based systems applicable in practice. It was 1987 before the first book on knowledge management was published in Europe<sup>[16]</sup>.

The "SKANDIA" insurance group was one of the pioneers in realizing that its employees' knowledge in the form of "human capital" is one of the most important company assets. In addition to the familiar annual report, in 1996 for the first time the company published a Human Capital Report as a supplement<sup>[17]</sup>. Starting from the large discrepancy between the company's book value and its market value, efforts were made to make the intellectual capital visible by means of knowledge management.

The starting point for many companies is the question: "What is left when the staff go home?" This reveals the knowledge-management approach.

Whereas companies' previous business plan usually took a market-based approach (What product do I want and what resource do I need?), the rigorous application of knowledge management suggests a resource-based approach (What knowledge and resources have we got and what products can be produced with them?).

Depending on the significance assigned to explicit or implicit knowledge, different strategies are employed to introduce and implement knowledge management in the enterprise<sup>[18]</sup>. A study by the Harvard Business School provides an overview of the knowledge-management activities of MCKINSEY & COMPANY including both historical and current knowledge-management activities<sup>[19]</sup>. It becomes apparent that, like the BOSTON CONSULTING GROUP, MCKINSEY also favours a "personalization strategy" for knowledge management in its enterprise.

That is to say, implicit information is passed on from person to person and not indirectly by means of externalization. In contrast, this is the strategy applied by the competing consulting firms of ANDERSON CONSULTING and ERNST & YOUNG. The so-called "codification strategy" places its confidence in an IT-assisted "people-to-document" method whereas the first two companies make use of the "person-to-person" method for maintaining and creating knowledge<sup>[20]</sup>. The concrete methods for implementing knowledge management are also correspondingly different: whereas the "people-to-document strategy" emphasizes the training of staff in the various IT systems used, those companies preferring a "person-to-person strategy" attach special importance to the development of networks and an extensive mentoring system. An overview of the techniques and tools applied for creating knowledge is given in article by *Brakenseik*<sup>[21]</sup>.

A few concrete indications of how the knowledge management concept in the form of a bottom-up management strategy was implemented at XEROX can be found in the paper by *Brown and Duguid*<sup>[22]</sup>. In the practical introduction and implementation of knowledge management in companies, it becomes clear again and again that technical approaches are by no means sufficient for applying knowledge management.

Knowledge management is therefore an integral management approach which naturally involves IT systems but over and above this also includes a number of far more comprehensive methods for knowledge creation. For example, the external boundary conditions for the creation of new knowledge via knowledge management must first be established. Only the existence of a high-care culture enables knowledge sharing to be pursued and the individual steps in knowledge creation to be implemented<sup>[23]</sup>.

"High-care behaviour" therefore means:

- (1) mutual confidence
- (2) actively posing questions
- (3) providing assistance
- (4) imagination in judgements and assessments ("never kill an idea for a new product")

(5) establishing “care” as a common value

There are a number of publications concerned with the necessary conditions for implementing knowledge management. “Enabling knowledge creation” has become a research field in its own right within knowledge management<sup>[24]</sup>.

Davenport et al. identified eight conditions as critical factors for success having a significant influence on the outcome of knowledge management measures<sup>[25]</sup>:

- (1) link to economic performance
- (2) technical and organizational infrastructure
- (3) standard, flexible knowledge structures
- (4) knowledge-friendly culture
- (5) clear purpose and language
- (6) change in motivational practices
- (7) multiple channels for knowledge transfer
- (8) senior management support

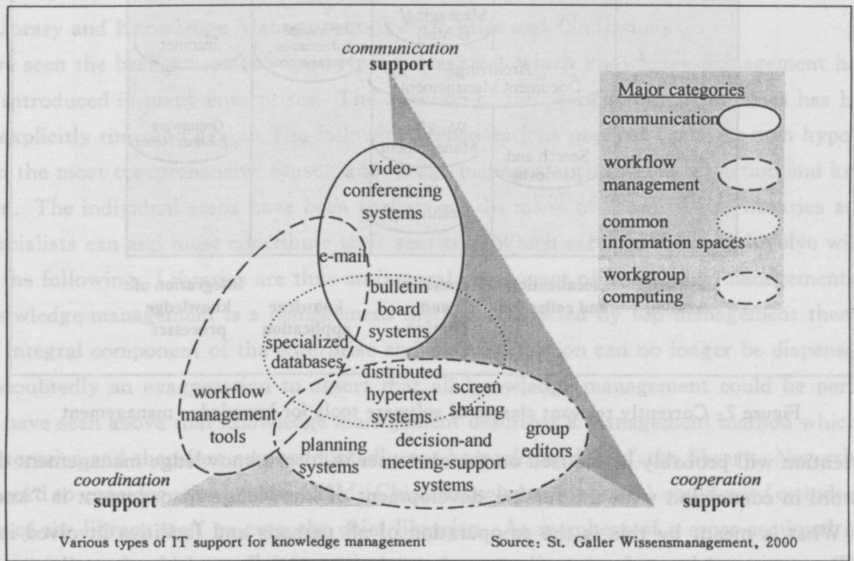


Figure 6: Various types of IT support for knowledge management<sup>[28]</sup>

If a majority of these conditions are not fulfilled then knowledge management cannot establish itself: “If cultural soil isn’t fertile for a knowledge project, no amount of technology, knowledge content, or good project management practices will make effort successful”<sup>[26]</sup>.

How then can knowledge be created in an organization and distributed more effectively? A large number of publications have dealt with this issue. Christian Högberg gives examples of the possibilities for an optimized application of corporate knowledge<sup>[27]</sup>:

- (1) world-wide networking
- (2) dialogue-creating networks
- (3) staff training to raise awareness of the value of knowledge
- (4) bringing together people of different ages and backgrounds in one team
- (5) starting knowledge management with just one pilot project, not in the whole enterprise at once (quick wins)

In parallel to the sequence of management methods and their fashionable manifestations, the corresponding support tools were developed on the IT level. The sixties of the twentieth century were characterized by



simple operative data processing with the mainframe computer technology available at that time whereas in the following twenty years attention was focused on management information systems. Finally, strategic information systems were used in strategic sectors.

There are a whole lot of IT functions supporting knowledge management processes (Figure 6).

Figure 7 shows the classes of software tools which can be applied for different knowledge transfer processes<sup>[29]</sup>.

It is not easy to demonstrate whether investment in IT actually leads to increased productivity and whether there is indeed any return of investment. IT systems often emerge as isolated solutions, so that the company as a whole hardly profits from the investment. Only if the individual applications are meaningfully interlinked to form integrated information management does an increase in productivity as a consequence of IT investments become measurable.

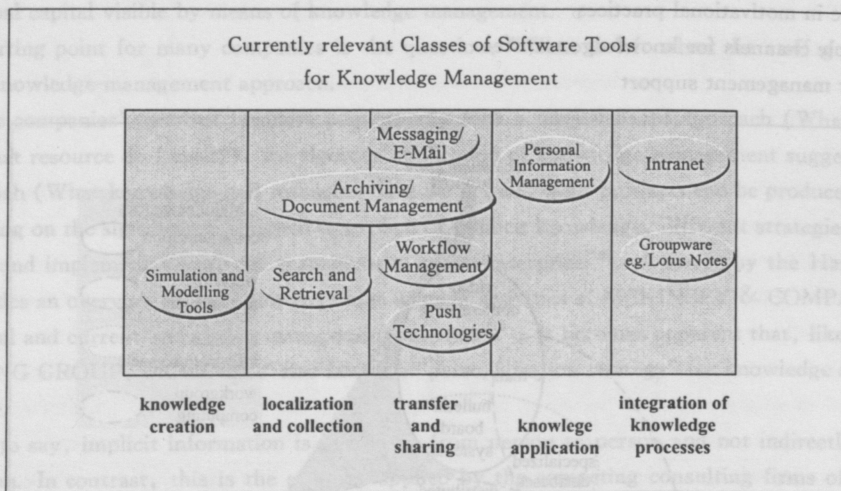


Figure 7: Currently relevant classes of software tools for knowledge management

Major attention will probably be focused on the customer in future knowledge management development. A new catchword in connection with the further development of knowledge management is “knowledge networking”<sup>[30]</sup>. What is meant by this is the co-operation of all persons and facilities involved in knowledge-management processes.

#### 4 The Role of Libraries in Knowledge Management

In the literature, there are a number of indications of how libraries, librarians and information specialists in general can contribute to knowledge management. There is apparently general agreement that in the future the greatest added value in the service sector will be achieved by providing contents (e.g. know-how, software).

In a review article summarizing the outcome of the Annual Conference of the Special Libraries Association in Philadelphia in June 2000, concrete indications are given concerning the practical integration of knowledge management in enterprises. Furthermore, the role of information specialists in the introduction of knowledge management is also discussed<sup>[31]</sup>. According to the report, it is rather rare for information specialists to be involved in strategic planning or directly as the CKO (Chief Knowledge Officer). In contrast, support for this process with all the means available to librarians and libraries should not only be welcomed but indeed encouraged. Thus, for example, information professionals have access to all relevant databases in research, production, sales, marketing and finance. The more intensively a company approaches knowledge management, the more important does the management of databases, documents, e-mails and presentations

become, as well as of virtual discussion groups and specialized chat groups. The following skills are therefore expected of an information professional: “To thrive in a knowledge environment information professionals must:

(1) start to value their own skills and have the confidence to apply them in new and unfamiliar situations,

(2) understand their organization, its strategies, its challenges, and where knowledge and information can add value,

(3) develop an understanding of the vast and complex array of knowledge and information within and available to their organization,

(4) develop the new skills required to play an effective part in a knowledge team,

(5) acquire the attributes needed to succeed in a knowledge culture”<sup>[32]</sup>.

*Wittwer* also sees here — particularly for special libraries — new tasks as necessary for survival in the 21st century. He mentions internal information organization, the gathering and sifting of external information to avoid redundancy, e. g. for research and development, as well as the creation of internal databases and the organization of access<sup>[33]</sup>.

#### 4.1 The Library and Knowledge Management: Possibilities and Limitations

We have seen the background (of library policy) against which knowledge management has been implemented and introduced in many enterprises. The question of the participation of libraries has been raised implicitly and explicitly time and again. The following considerations proceed from our own hypothesis:

“In the most comprehensive sense, knowledge management means information and knowledge creation. The individual steps have been performed. In many of these fields, libraries and information specialists can and must contribute their services. Which services this may involve will be discussed in the following. Libraries are thus an integral component of knowledge management. However, if knowledge management is a management method supported by top management then the library is an integral component of the enterprise and its participation can no longer be dispensed with”.

It is undoubtedly an exaggeration to assert that all knowledge management could be performed by the library. We have seen above that knowledge management describes a management method which encompasses the entire enterprise and therefore can undoubtedly not be performed “by” the library. Nevertheless, it is by no means absurd to consider whether the CKM (Chief Knowledge Manager) could not (or indeed should not) be a member of the library staff or even the chief librarian. As members of a cross-sectional infrastructure, information specialists should be well informed about the overall enterprise and its sectors. They should be personally acquainted with a number of decision makers and familiar with their areas of responsibility, tasks or research projects.

The competences available in a library are frequently very well suited for supplying appropriate support for the concerns of knowledge management or even to function as “pushers” of this method. Since knowledge management is far more than a purely technology-oriented approach libraries have several simultaneous opportunities of supporting knowledge management levels in the fields of IT, organization, strategy and human resources.

Libraries make all types of knowledge resources available. As information professionals they arrange access to information and knowledge and provide all the required materials, data and documents. They support members of staff in creating new knowledge (“combination”, explicit to explicit) by procuring material, information and knowledge. This function leads to the traditional library tasks of acquiring, cataloguing and supply of literature.

With respect to the relevant software tools for knowledge management, opportunities for participation by libraries can be identified in communication (messaging/e-mail), in the field of document management for localizing and collecting as well as transferring and sharing knowledge (Figure 8).

Technology-oriented information and communication systems are of assistance in the process of externalizing implicit to explicit knowledge. Like all other service providers, libraries will in future have to increasingly provide technology-based services. Explicit knowledge is transparent and retrievable for everybody and thus becomes reusable and applicable. The structuring of knowledge by standardized procedures, the standardization of the entries, a meaningful and intelligent documentation of the explicit knowledge and the establishment of an efficient but pragmatic retrieval system is indispensable for this step of knowledge management.

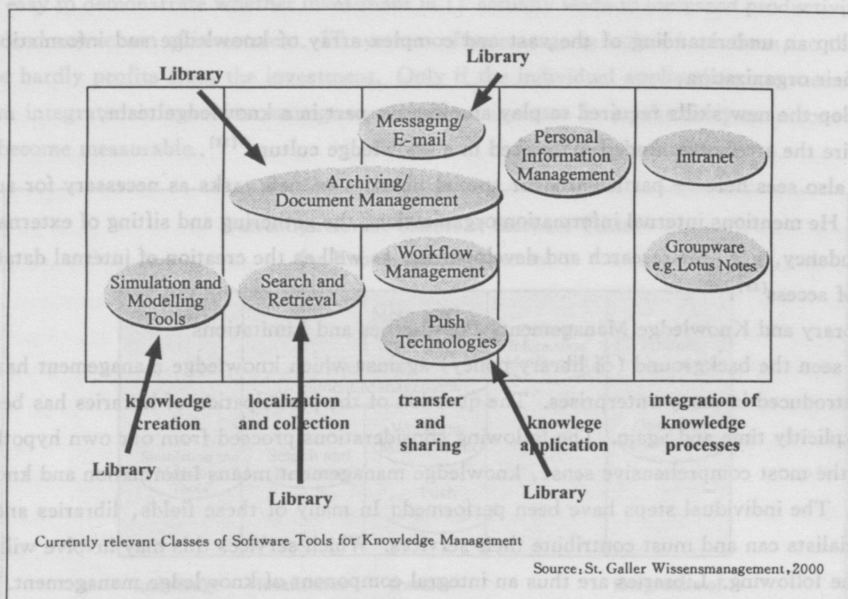


Figure 8: Library participation in the knowledge-management process

Libraries and information exchanges have competences in all these fields which they can profitably contribute for knowledge management.

However, libraries are also able to make a contribution and provide communication structures on the level of “human resources and organization”.

Proactive involvement in the creation of knowledge can be found, for example, in the establishment of knowledge communities and making information available via specialized chat groups as well as setting up appropriate access. The establishment of intranets and groupware is only the work of IT departments from the technical perspective. The operation of such software must be initiated, supported and administered by appropriate, preferably uninvolved, moderators. The creation of concrete and virtual rooms for knowledge transfer can support the socialization, i. e. the transfer of knowledge from person to person, from implicit to implicit.

A possible moderation of virtual or real discussions or chats by information specialists is also conceivable. The neutral and interdisciplinary status of libraries is especially appropriate for this purpose. Libraries can also support the creation of knowledge by establishing a creative “space”. The environment and atmosphere of a “knowledge-saturated” space generates inspiration and creativity. In this way, libraries assist in internalizing as well as in combining and systematizing by making primary sources and suitable secondary resources available (Figure 9).

When companies complain that “we reinvent the wheel everywhere, and there is no way to pass on success stories”<sup>[34]</sup>, then the library can and must be the interdisciplinary interface, the neutral space for communication throughout all sectors of the enterprise.

#### 4.2 The Librarian as “Knowledge Worker” and CKO? A Plea for a New Self-Image of Librarians

It may be said that the training of librarians has rather a poor reputation throughout the world. Doubt is cast both on the quality of the training institutions and the lecturers, as well as on the quality and motivation of the students. Criticism of traditional library curricula is particularly widespread. Fault is found with colleges of librarianship world-wide due to the lack of service orientation during training<sup>[35]</sup>.

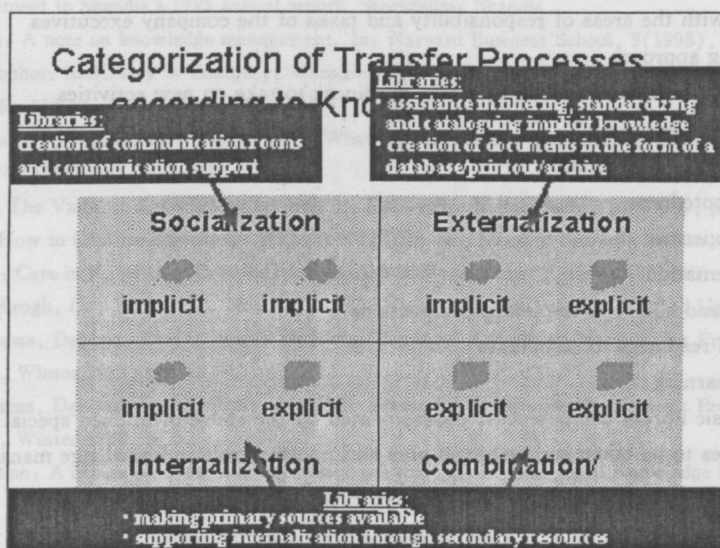


Figure 9: Library participation in the transfer processes of knowledge management

The librarian's job profile is also rather miscellaneous, not to say diffuse. It is difficult to identify the essence of the library profession. For much too long, libraries and librarians were preoccupied with "inner" values and they also ignored the customers as direct recipients of service quality for too long and did not take an entrepreneurial approach.

The quality and scope of librarians' know-how is therefore less and less appropriate for the tasks assigned to them. The virtues of correctitude, orderliness and conscientiousness, occasionally augmented by the pseudo-intellectual argument of wide reading, have fortunately no longer been the central focus of librarian training for several years. However, special skills in cataloguing and verifying bibliographic data are rarely of assistance in meeting the challenges. Undertaking missions in knowledge management requires broad-based qualifications on the part of library staff. Whereas a CKO (Chief Knowledge Officer) develops strategies, establishes standards and processes, takes the initiative, and has to change the atmosphere and culture, the colleagues involved with knowledge management have to fulfil a number of special supplementary and supporting measures. Thus, for example, a knowledge-management team is composed of knowledge-management consultants who introduce and accompany knowledge-management initiatives in the individual divisions of the company, an intranet manager who implements the corresponding IT systems from the technical aspect, content managers and extranet managers who include external information for the enterprise.

All these missions can be undertaken in most libraries but staff qualifications have to be appropriately altered and supplemented. A knowledge manager is by no means a wunderkind, but with the comprehensive and well-founded basis of know-how available in many libraries considerable success can also be achieved in knowledge management.

The most important reorientation concerns "management thinking". Unfortunately, most librarians are not even familiar with the basic terminology and an entrepreneurial approach is foreign to them and is often rejected out of hand. Many librarians still cling to old patterns of thought and remain attached to the traditional values of librarianship. The creation of basic management skills in libraries is, however, urgently re-

quired in order to understand the overall system.

In detail, this does not so much concern the specialist qualifications but rather general key qualifications which are not usually required on the part of civil servants and have therefore been neglected:

(1) comprehensive knowledge of the supporting organization, the overall enterprise and the corporate strategy

(2) familiarity with the areas of responsibility and tasks of the company executives

(3) cross-cutting approach

(4) flexibility in the respective field of work, readiness to take on new activities

(5) entrepreneurial approach

(6) rigorous customer orientation

(7) demand orientedness

(8) cost consciousness

(9) process orientation

(10) eagerness and ability to implement innovations

(11) ability and readiness to co-operate

(12) life-long learning

The existing basic library competences, supplemented by the above-mentioned special skills, will enable librarians and libraries to be taken seriously and play an important role in knowledge management.

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