

THE KNOWLEDGE AUDIT:

BUILDING THE FOUNDATION FOR THE KNOWLEDGE CULTURE

by Dale Stanley and Guy St. Clair

Introduction. The knowledge audit has come a long way in the last few years. As a management tool for the specialized libraries community, the knowledge audit has only been recognized as a technique for managers of specialized libraries for less than a decade. Prior to that, managers seeking to identify worth and establish value for services provided by a specialized library were limited—often with less than satisfactory results—to the standard needs assessment associated with general library management. Since the management of a specialized library is distinctly different from that of other libraries, it became necessary to devise new approaches to measuring the contribution of the specialized library to the achievement of the organizational mission.

Not surprisingly, as enterprise leadership began to be concerned about the connection between organizational success and services provided by the organization's specialized library, the needs assessment, in and of itself, was not robust enough. It did not have an evaluative function, and for most managers in organizations with specialized libraries, the needs assessment does not meet the requirements for determining a specialized library's value. Some efforts were made to improve on the traditional needs assessment to make it more appropriate to specialized libraries, and one of the first steps in this direction occurred as early as the 1980s or so, when library managers and faculty members in graduate library and information science programs began to focus on the community, to determine what was needed in terms of library services and how those needs might be met. In the specialized libraries field, a slight semantic twist—probably to connect with generally accepted approaches to organizational management—offered library managers the opportunity to employ the “needs analysis,” no longer the “needs assessment.”

While commendable, the new phrase did not alleviate the main problem of the needs assessment (or “analysis”), that it was, in fact, more focused on market research and sought to react to potential users' needs rather than to anticipate what those needs might be and provide solutions for working with them in resolving those needs. In the specialized library, reactive service delivery is in most cases too late, for success in specialized librarianship is often determined by the integrated efforts of the information professionals and their client colleagues, working together to ensure that the best resources are provided for the specific need. The worth of the specialized library is determined by how well the specialized library and its staff anticipate and proactively provide service delivery when (and frequently even *before*) it is required. It is in meeting those criteria that managers can determine how *good* the specialized library is.

These efforts with the needs analysis were in the right direction, and probably connected with the new designation of many specialized libraries as “information centers” in the late 1970s and early 1980s. So the “information audit” concept came into general use. It was not an unexpected step, and a number of the profession's leaders and scholars provided a variety of approaches to the subject. While it became apparent, as Sue Henczel has pointed out, that “there is no one universally accepted definition for the information audit, nor is there a

universally accepted methodology for conducting one,”¹ common to all of the efforts was the distinction that the information audit was designed to measure value, to establish how *well* library services were being provided.

By the end of the 1990s, knowledge management was being seriously explored in the larger management environment. At the same time, methodologies and techniques began to be shared among several disciplines relating to information and service delivery in libraries, information centers, and other operational functions focused on the collection and dissemination of information. Among these practices was knowledge services, particularly applicable in the management of specialized libraries. Converging information management, knowledge management, and strategic learning into a functional framework for enabling success in knowledge development and knowledge sharing (KD/KS), knowledge services quite naturally requires attention to measurement and the evaluation of service delivery. Indeed, assessing results is a key element in the knowledge services process, and since the goal of successful knowledge services is to establish and sustain an ambiance or “culture” for knowledge value in organizations, the evaluative context of the information audit process became even more attractive to managers of specialized libraries, with knowledge services audits and knowledge audits becoming part of the planning process for many different organizations.

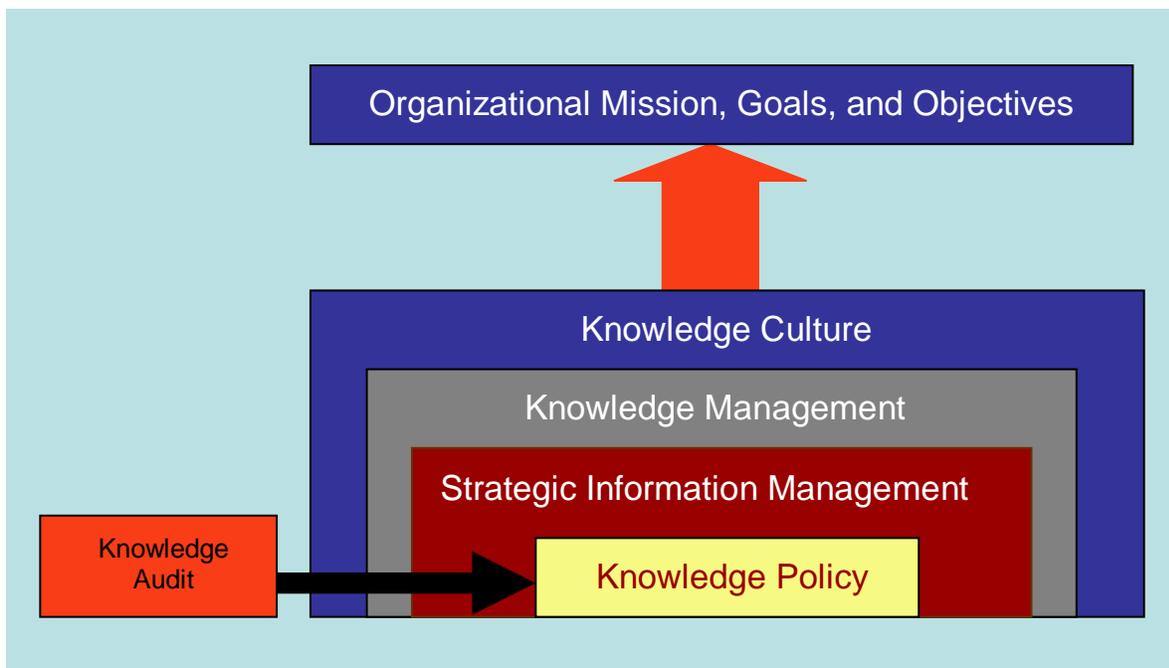


Fig. 1 Knowledge Audit to Knowledge Policy to Organizational Knowledge Culture

Strategic Role of the K-Audit. While the goal of an established knowledge culture is not necessarily articulated as such in many organizations, the emphasis on the importance of intellectual capital and knowledge management (or, as occasionally described, “strategic information management”) since the 1990s has provided an opportunity for a normal transition from the information audit to the knowledge audit. This transition has had a

noticeable influence on management thinking about knowledge, providing an opportunity for attention to the value of knowledge in characterizing the larger organizational environment as a knowledge culture (Figure 1). There are probably many explanations why the value of knowledge has become important as a management topic in the new century, but whatever the reasons, establishing the value of the knowledge audit became a corresponding activity. For one thing, the knowledge audit serves to raise awareness about the role of knowledge in the larger organization, as the knowledge audit becomes the tool for establishing the role of working with knowledge and managing the knowledge eco-structure in achieving mission-critical success. At the same time, the audit serves to encourage buy-in about the value of knowledge (and, indeed, the development of an organizational knowledge culture) from critical stakeholders, from the highest levels of leadership to the knowledge workers who deal with information, knowledge, and strategic learning in their day-to-day activities.

In considering the role of the knowledge audit and the advantages of embracing the audit process in the organization, an important distinction has been made (in another context) by Col. John A. Warden III with his well-regarded Prometheus Process.² As the move toward the deployment, or even the consideration, of the knowledge audit goes forward, Warden's targeted hierarchy for enterprise-wide engagement can be studied with good results. With the knowledge audit, energy and attention become focused on what Warden calls the project's "centers of gravity," examining the functions of leadership, processes, infrastructure, and the impacted population (both the knowledge workers involved in service delivery and individuals who seek to access information, knowledge, and strategic learning). Not inconsequentially, identifying these centers of gravity can also be related to what in the change management process is called "target readiness." The happy result is the determination of knowledge policy for the organization, a policy that, if agreed upon wisely, supports the knowledge culture, a result described by one of the present authors in a journal article about the audit's vital role in the strategic information management/knowledge management process:

It assists in the establishment of accountability and responsibility and in determining which components of the knowledge management and knowledge services functions are 'mission-critical.' By determining how people use knowledge, the audit enables management to set up standards of service based on real needs and acknowledges competition that might provide the same knowledge differently.³

As it happened, the transitioning of the information audit into the knowledge audit was a fortuitous evolution for the knowledge management community, particularly for knowledge workers in specialized libraries, information centers, and similar service delivery functions. With the development of the knowledge audit as a management tool, increasing attention was given to how employees develop and share knowledge, as noted by knowledge management specialists in the business community:

Particularly in knowledge-intensive work, creating an informational environment that helps employees solve increasingly complex and often ambiguous problems holds significant performance implications. Frequently such efforts entail knowledge management initiatives focusing on the capture and sharing of codified knowledge and reusable work products. To be sure,

these so-called knowledge bases hold pragmatic benefits. They bridge boundaries of time and space, allow for potential reuse of tools or work products employed successfully in other areas of an organization, and provide a means of reducing organizational “forgetting” as a function of employee turnover. However, such initiatives often undervalue crucial knowledge held by employees and the web of relationships that help dynamically solve problems and create new knowledge.⁴

Obviously, it is that “web of relationships” that defines and indeed sustains an organization’s knowledge culture. In utilizing the knowledge audit (or the “K-Audit,” as the methodology is frequently termed), the organization’s knowledge management leaders can drill down into those relationships. Additionally (if the audit is well designed) the audit includes the analysis and evaluation of the many and varied knowledge bases that also affect knowledge performance throughout the enterprise. Once gathered, the information is then used in the development of strategies for supporting knowledge development and knowledge sharing (KD/KS). It is a process that Ann Hylton recognizes in her description of the knowledge audit:

The knowledge audit (K-Audit) is a systematic and scientific examination and evaluation of the explicit and tacit knowledge resources in the company. The K-Audit investigates and analyzes the current knowledge environment and culminates, in a diagnostic and prognostic report on the current corporate ‘knowledge health.’ The report provides evidence as to whether corporate knowledge value potential is being maximized. In this respect the K-Audit measures the risk and opportunities faced by the organization with respect to corporate knowledge.⁵

In developing the knowledge audit, there is a useful connection with the several other types of information-based audits, as Botha and Boon have discovered. These provide a framework for considering the role of the audit as a strategic tool:

- the *communications audit*, because of its focus on organizational information flow patterns
- *information mapping* for its focus on the identification and use of organizational information resources
- *the information systems audit* for its investigation of the way in which technological tools are used to manage information resources (although implicitly)
- *the knowledge audit*: knowledge management (or strategic information management) is the “highest”/last level of information management (ascending to the evolution of information management functions) and therefore logically follows on information management and information auditing
- *the intelligence audit* for its relationship with both information and knowledge management⁶

Like Hylton, Botha and Boon emphasize the diagnostic and evaluative purpose of the audit. They offer a long list of functions which, with a little editorial assistance for transitioning the process from an information audit to a knowledge audit, provide knowledge auditors with valuable insight as they move into the audit process. Devising four “levels” for ranking the extent to which the knowledge audit contributes to successful knowledge management (or to “working with knowledge,” in the now-accepted definition within specialized librarianship), Botha and Boon’s methodology suggests that knowledge strategy, which Henczel approaches as policy development, might be built around personal knowledge management, operational knowledge management, organizational knowledge management, and corporate or strategic knowledge management (Figure 2).

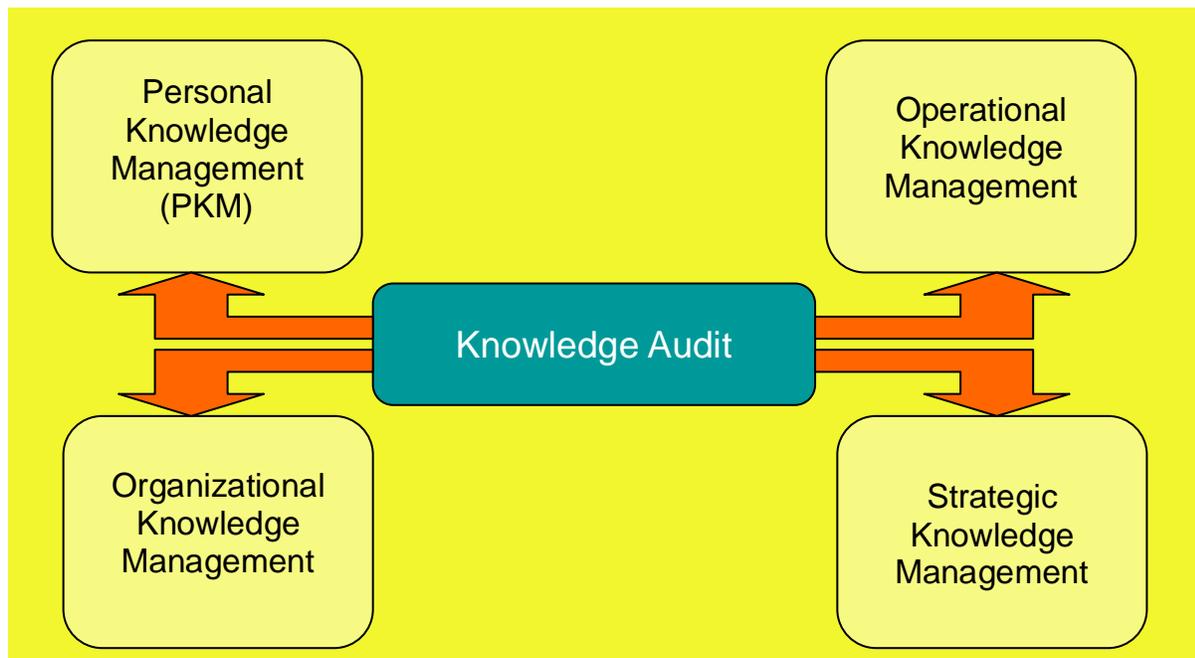


Fig. 2 Developing Knowledge Strategy with the Knowledge Audit

The Process and the Tools. Every organization has its own processes and procedures for project management, and the development and implementation of a knowledge audit is no exception. For the manager of a specialized library or other information, knowledge, or strategic learning function, the first step is to determine why there is a need for the knowledge audit. What are the various organizational drivers moving the idea forward, and who are the players? In many cases, an organizational re-structuring has been undertaken and efforts are being made to determine the level of knowledge capture already in place throughout the enterprise. In other situations, an effort being made to identify and capture valuable organizational knowledge prior to retirements or other employment terminations (or, as with the present sociological situation, the mass exodus of a particular age group simply because age demographics—the present “baby boomers,” for example—have all come to retirement age at or near the same time).

An equally dramatic situation occurs when massive change takes place, as when there is a merger between two (and sometimes more) organizations and the separate knowledge

management entities of each must be aligned. Or, as is often the case, when the information, knowledge, and strategic learning functions in one of the entities is performing at an operational level far in advance of the other or others. Similarly, in many organizations the shift from traditional hard-copy information capture to digitized information has brought about major upheaval, and particularly in specialized libraries, information centers, and knowledge centers which provide research support to the parent organization, the knowledge audit will be undertaken to determine where similarities in functionality and service provision exist in tandem and can be aligned in order to provide a higher level of service delivery.

Finally, a frequently recurring example is the move in many organizations from a library or library-like service to a research support function, often characterized by the closing of the stand-alone specialized library, information center, or similar function, with its services incorporated into a broader research asset management operation. In every case, the development and implementation of a knowledge audit will not only assure that the changes that must be undertaken are based on evidence that can be substantiated, but that—as the process moves forward—the knowledge audit will provide direction and alternative solutions which, if properly designed, will enable a higher level of service delivery for all information, knowledge, and strategic learning activities.

The Terms of Reference/Knowledge Audit Connection. In all of these situations, determining the scope, resource allocation process, and organizational commitment for conducting the knowledge audit is imperative. Indeed, it is at this point that the terms of reference for the audit are drawn up. The phrase comes from the project management community (and in fact the creation of the terms of reference—sometimes referred to as a “TOR”—is a standard element in the Initiation Phase of the Project Management Life Cycle) and in most cases includes a description of the vision for the project, the expected outcome or what is to be achieved, as well as a “background” or “rationale” statement.

With the knowledge audit, one of the most important elements of the process is the statement of scope. This clearly stated description defines how “narrow” or “broad” the audit is to be (that is, whether it will be limited to one department or functional unit such as, say, the specialized library or information center, or whether it will encompass other departments, sections, divisions, or, indeed, the entire organization). Parallel information, knowledge, and strategic learning functions will also usually be targeted, and there will often be some expressions of interest about the role of knowledge (prior knowledge/corporate history/industry trends, etc.) at the leadership level, with additional or supplementary functional operations considered for inclusion in the K-Audit.

In most knowledge audits, the intention is to start small, with a named group or unit, but once the project begins, the audit team can expect a considerable cross-functional operational exchange of information, knowledge, and strategic learning references, a situation that often requires a re-focus and a second look at resources committed to the audit.

In the terms of reference for the K-Audit, attention is also given to the stakeholders, the people who will be participating in, contributing to, and, importantly, affected by the audit. Again, once news of the K-Audit begins to move throughout the organization, considerable interest begins to be expressed and, as with the scope of the audit, important and viable

“additions” will be brought into the activity (for this reason, it is advisable, when appropriate, to provide as much internal publicity and discussion about the up-coming audit as possible, to ensure that there are no “surprises” and restraints on resources when it is too late).

As for identifying the stakeholders for the audit, a clear statement of roles and responsibilities will be devised at some point—with the cooperation of the affected colleagues, of course—and their responsibility to participate in the K-Audit process will include committing time for participation at whatever level seems feasible. Linked to this participation is the importance of having senior management sponsorship for the knowledge audit (typically “leaders” in Warden’s Prometheus Process). With sponsorship, senior managers and enterprise leaders commit themselves to express their enthusiasm for the audit, provide model behavior by participating themselves, and reinforce their commitment to the audit by making clear their expectation that others participate with them in ensuring that the audit succeeds and is taken seriously in the organization or functional unit in which it is being conducted.



Fig. 3 Terms of Reference Model for the Information Audit

Naturally, and not to be dismissed lightly, the development of knowledge audit plans with respect to resource allocation, staff involvement, financial requirements, and metrics and evaluation processes is critically important. Determining how the knowledge audit will be conducted and establishing, in effect, who will do the work can have a serious impact on the success or failure of the plan. In considering resources and resource allocation, those with responsibility for moving the audit forward will determine whether the work can be done with in-house staff or if external staff, contractors or consultants, are required. Some

companies and institutions automatically include such activities in their annual budgeting, while others expect departments and similar functional units to make use of in-house consultants already on staff. On the other hand, management in some organizations expects the unit conducting the audit to provide staff to conduct the audit, or to have in its annual funding appropriation resources for hiring auditors.

Regardless of whether external participants are engaged, a knowledge audit team will be developed, including (as noted above) a representative or representatives from organizational leadership (perhaps for advice, sponsorship, and a nominal leadership role, instead of literal participation), a chair (team leader/facilitator/lead auditor), a solid and, hopefully, experienced group of team members for taking on various activities and responsibilities in the effort, and, as noted, external consultants/audit leaders if utilized. As with many other questions having to do with the knowledge audit, decisions about who will participate will very much depend on what is customary in the parent organization in similar situations.

A final consideration, related to the above, is the development of the work plan, outlining clearly what the work breakdown structure and schedule will be, who will be responsible for each section of the work structure, and who will actually perform the tasks. A work schedule is also organized at this point, with a careful and studied (and realistic) look at organizational calendars, staff availability, and similar elements that can influence the progress of the K-Audit.

When the terms of reference has been developed and discussed with appropriate management and staff, and agreed-upon terms are in place (preferably in a brief document made available to all participants), the team lead (or leads) for the audit will then proceed to look at the audit methodology, a communications strategy, and a data collection and analysis framework.

In most cases, the development of the audit methodology will include a statement of the project purpose and a brief statement of attention to some of the terms and concepts that have been considered for the audit. These might include attention to some of the goals of the audit, such as defining, for example, the kinds of information, knowledge, and strategic learning resources and services people require to do their work, how these resources and services are actually used, and how knowledge assets used in the organization are produced (and by whom).

A second statement might describe a strategic plan for the audit, noting that it is intended to review the current state of affairs with respect to the provision of information, knowledge, and strategic learning service delivery in the organization, to identify the desired state, and to determine the necessary elements for providing enhanced service delivery (the designation “world-class” is often used with respect to KM and knowledge services), to identify strategies for achieving this objective, and stating a timeline and resource requirements for accomplishing the plan’s goals.

A quick synopsis or list of elements for the knowledge audit is provided by Botha and Boon. As noted earlier, although their intention is to review the literature and provide analysis and synthesis for the information audit, the concepts and terms they use apply to the knowledge audit. In their study, Botha and Boon offer a typical list of procedures required for audits:

- defining the organizational environment
- planning
- identifying knowledge needs
- designing the survey instrument
- scheduling appointments/meetings
- investigating technology
- analyzing the audit findings
- costing and valuing resources
- testing key control points (to identify failures, “weak links”)
- generating alternative solutions and evaluating alternatives
- monitoring adherence to existing standards and regulations
- preparing the final report
- implementing monitoring mechanisms⁷

In her description of the information audit Henczel, too, provides a framework that works very effectively for the knowledge audit.⁸ Henczel offers a seven-stage audit model, and her list, like that of Botha and Boon, provides a neat checklist. In Henczel’s case, though, there is considerably more detail, since the list is specifically designed for providing direction in implementing the audit, instead of describing it. Henczel’s seven stages, with the sub-tasks she recommends, are offered as an appendix to this document.

Two additional considerations will be of value in the planning and execution of a K-Audit. In the first, attention to and conversation about (both with leaders and with line staff) what data collection and communication models are appropriate for the specific organizational need will yield valuable “bonus points” for the audit team. Such attention will eliminate awkward situations in which information about certain types of data or activities is inappropriate to the study, and for which going forward with requests about these subjects might result in damage to the process. In most project work, we do not generally give enough attention to what might be thought of as the cultural or political environments (despite meaning to do so, as we state in our formal proposals), sometimes resulting in less than satisfactory results.

Similarly, in implementing the knowledge audit, it is important to recognize that—no matter how ambitious we or our immediate management might be about the value of a planned knowledge audit—it is always wise to start small (to “take baby steps,” as one professional auditor puts it). The early deliverables from a smaller project can provide a sense of what the final product might be and, indeed, provide a useful preview of what might come with a larger project. Instead of attempting to conduct a knowledge audit about, say, the knowledge resources of an entire organization or department, it is best to work with one unit or section, to conduct a pilot deployment and attempt to determine what direction an audit might take.

As with all audit efforts, of course, these limitations are not necessarily applicable in all situations and, since every organization is different from every other organization, the individual audit will reflect the expectation of management and leaders as the program is planned.

Conclusion

Our conclusions relate to communicating the results of the knowledge audit and, not to put too fine a point on it, the risks involved in undertaking the audit. When the findings of the audit result in weak conclusions, or there is no prospect of action, the situation might be worse than never having done the audit at all. At this point, recognition must be given to established practices and arrangements in the larger organization and to the benefits to the organization in reacting to the findings of the audit. There are many situations in which the findings do not match preconceptions about the K-Audit's outcome, and those preconceptions, if not understood and recognized, can seriously affect the implementation of the audit recommendations. For the audit team, managing perceptions and expectations throughout the audit process and, particularly, at the conclusion of the audit when the recommendations are presented, can be a delicate undertaking, one in which a certain level of sensitivity to the larger organizational culture (not just its knowledge culture) is required.

Nevertheless, the value of the audit will have been established in its execution, and as organizational leadership and the audit team begin to consider next steps in the process, it becomes important to recognize that the effort is, in fact, an on-going one. The knowledge audit, if it is successful, will be thought of as a "living" process, and the procedure will be looked at on a regular basis, with up-dating as required, and treated as a standard management tool. With these considerations in mind, both enterprise leaders and the information professionals and knowledge workers who engaged in the KM/knowledge services process will continue to be positioned as essential and critical players in organizational success.

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¹ Henczel, Sue. *The information audit: a practical guide*. München: Saur, 2001. p. 13.

² Warden, John A. III. "What is the Prometheus Process?" <http://www.venturist.com/prometheusProcess.htm>.

³ St. Clair, Guy. "Matching information to needs." *Information World Review* 123 (March), 20.

⁴ Cross, Rob, Andrew Parker, Laurence Prusak, and Stephen P. Borgatti. "Knowing what we know: supporting knowledge creation and sharing in social networks," in *Creating value with knowledge: Insights from the IBM Institute for Business Value*, pp. 61-81 (New York: Oxford University Press, 2004), p. 62.

⁵ "Knowledge auditing," in *Introduction to knowledge management*. Community Knowledge http://www.communityknowledge.co.uk/KMIntro/part_e.html

⁶ Botha, Hanneri and J.A. Boon, "The information audit: principles and guidelines." *Libri* 53 2003, pp. 23-38. <http://www.librijournal.org/pdf/2003-1pp23-38.pdf>

⁷ Botha and Boon, *op cit*.

⁸ Henczel *op.cit*. The detailed information audit descriptions in the book are neatly transitioned for the knowledge audit in her article "The information audit as a first step towards effective knowledge management," published in *Information Outlook* 5 (6), June, 2001, pp. 48-62.