Knowledge management and legal practice

T. du Plessis*, A.S.A. du Toit

Department of Information and Knowledge Management, University of Johannesburg, PO Box 524 Auckland Park, South Africa

Abstract

In the practice of law the products and applications of information and communication technologies, such as intranet infrastructures; document, content and case management systems; workflow management systems; artificial intelligence technologies; and business intelligence tools are becoming increasingly important means of communication, of information distribution, and of sharing knowledge. This article examines the degree of impact the changing legal information environment has on the legal research process and to find out what benefit legal research will gain from information and knowledge management. It looks into the process of electronic or digital legal research and seeks answers to some questions with regard to the skills that lawyers, who are successful legal researchers in the print information environment, possibly will need to also be successful researchers in a digital information environment. It also reports the results of an empirical, explorative study identifying the extent as well as some barriers and concerns with regard to the utilisation of KM systems in South African law firms.

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1. Introduction

Law is a knowledge-based profession and in its core ‘legal practice’ is about providing specialised knowledge and services in a variety of ways to a variety of clients. This knowledge, or intellectual capital, i.e. the law firm’s aggregated experience or collective wisdom, applied to delivering knowledge-based services, is one of the most important assets of a law firm. Yet traditionally, many firms have taken an ad hoc approach to managing this asset, resulting in work duplication, inconsistent work practices and loss of important organisational knowledge when lawyers retire or leave the firm. One knowledge management (KM) objective is to provide a law firm with the ability to identify, capture and leverage the internal knowledge of individuals. To then combine this internal knowledge with the information and knowledge from a variety of external sources in order to enhance the ability of all law firm staff, to create and share information and knowledge across the firm, to provide excellent client service, and to compete in an increasingly aggressive professional legal services environment.

*Corresponding author. Tel.: +27 11 489 3836; fax: +27 11 489 2822.
E-mail addresses: tduplessis@uj.ac.za (T. du Plessis), adutoit@uj.ac.za (A.S.A. du Toit).

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2. Legal information and knowledge, legal research and information technology

Legal information constitutes of primary sources of information, i.e. statutes and cases, and of secondary sources, such as legal reference works, digests, indexes, law reviews, legal periodicals, commentaries, books and articles from specialised law publications. Legal knowledge, that is knowledge on law and its application, is used to procure, produce and manage legal work. This knowledge is acquired from internalising valuable information gathered during legal studies, legal research and legal experience. The processing of information to knowledge is a personal, subjective process emerging from previous experiences and current events (Roos et al., 1997, p. 25). With the advent of sophisticated technologies such as today’s information and communication technologies, the amount and accessibility of data and information have proliferated exponentially. Several studies have shown that advances in the information and communication technologies (ICTs) are increasingly transforming the methods that lawyers use to access, retrieve and process information in order to solve legal problems and deliver legal services to clients (Susskind, 2003; Van der Merwe, 2000, pp. 265–269).

One essential component of legal problem solving is effective legal research. In legal research, researchers proceed on the basis of their understanding of legal technique. Cnossen and Smith (1997), describe legal technique as an appraisal of the nature and proper purpose of law. Conducting legal research traditionally implies the use of printed legal information in the form of statutes and cases, which in the legal environment serves as the primary authorities; and the use of secondary sources, namely legal reference works, digests, indexes, law reviews and legal periodicals typically found in law libraries (Feiertag, 2000, pp. 15–24). Nowadays the Internet can also be seen as an additional ‘library’ or ‘information channel’ from where statutes, regulations and cases reported by countries worldwide, as well as secondary sources, may be retrieved either freely or on a subscription base (Barratt & Snyman, 2002; Bast & Pyle, 2001). Pacifici and Skalbeck (1999), and Curran and Higgins (2000), are further of the opinion that the biggest element to come in legal research will focus on the collaborative elements of research through the use of ICTs, with a sound information and KM strategy as foundation.

In addition to the primary and secondary sources of law, lawyers also need organised access to the information generated in the course of their relationships with clients. Client information includes that which is generated in the firm’s day-to-day business, e.g. client’s personal details and billing data needed to control the time and resources that lawyers dedicate to a particular matter (Rodrı´guez, Garcı´a, & Pizzaro, 2002). Client information also refers to the ‘work done for clients’ and this information (cases) is related to the practice of the profession. Case information is mainly found in the documents lawyers generate and should be locatable at all times, since it could be used again in other cases, or required in future claims relating to the same case.

From this case information, which could be categorised under the generic name of ‘the experience of lawyers’, evolves what is known as ‘forms and precedents’. Experienced lawyers create forms, which include comprehensive annotations and practical comments that serve as models for the type of documents that are required repeatedly in the firm’s daily practice. Thus, information on previous client work may provide useful precedents for faster and more efficient handling of related future work. This type of information is typically tacit knowledge, e.g. those tips at drafting pleadings or documents; or leads from experts; or hints at arguing motions and applications that have been acquired over time. In the practice of law, this type of knowledge is sometimes guarded over by individuals and not readily shared with others. Furthermore, many lawyers require information about the firm, the current business environment and the industries in which the business has to operate competitively. They may, for example, use the information that appears daily in the press or in official registries or gazettes. All of these resources can generally be categorised as being administrative, declarative, procedural or analytical types of legal knowledge (Gottschalk, 2002; Rodrı´guez et al., 2002).

3. The role of technology in managing legal information and knowledge

The size of modern-day law firms varies from a few practitioners to very large professional services law firms. Many of these larger firms use a partnership form of organisation. Generally, this type of firm structure rewards those lawyers who are highly effective in applying their knowledge. Lawyers have to excel in the speed
and efficiency of creating and transferring legal knowledge (Jackson, 2001, p. 33; Gottschalk, 1999, 2002). This they can do through the use of advanced technologies that enable them to take advantage of the most appropriate tools to streamline communication and reduce costs for their clients. The significance of the information era is growing on legal practitioners and the observations of Kennedy (2001) and Maier (2002) show that, to some extent, successful legal practice depends on it. This is a growing tendency and is compounded by the fast-developing nature of information technology, which stresses the need for sound legal information and KM practices. Information and communication technology is a significant force that has made KM more achievable, but it is important to recognise that technology is an enabler of KM and that KM is not always technologically based (Kull, 2000). Information technologies have made it possible for people to access, retrieve, gather and share information, unconstrained by the boundaries of space and time.

KM in a law firm is about providing the firm’s lawyers and staff with cost-effective tools and systems to support the daily processes through which an understanding of ‘the law’, ‘the world’ and ‘the client’ is created and shared. In law firms, information and knowledge is often stored in various formats and many different applications are used for this purpose, e.g. word processing programmes combined with document assembly systems and document management systems. Law firms also apply financial management systems for the purpose of time billing and accounting, and information on clients and matters are kept in case management systems. These systems are usually integrated with other practice and business information management systems and make up part of the KM environment (Rusanow, 2001).

In recent years some law firms have implemented intranets or even more sophisticated technologies, such as enterprise information portals (EIP) and context-based searching tools. But, KM is not only technology-based, rather it centres on individual participation and it is therefore important to develop a KM culture. This culture encourages and invests in the sharing of both explicit and tacit knowledge. Managing tacit knowledge is more difficult and costly, though Rusanow (2001) regards it as the most valuable element of KM to a law firm. Because KM is expensive, it is recommended that law firms consider the value of the knowledge to the firm versus the cost of making it available.

4. KM and legal research

Legal research is one of the critical skills that lawyers employ on behalf of their clients. Although certain areas of law do not require the same amount of research as other areas, competency in legal research is essential to any lawyer, regardless of area or type of practice (Best, 2003; Leckie, Pettigrew, & Sylvain, 1996). Legal research should not be considered only as information seeking; rather it is a combination of a variety of information and knowledge related activities. Information and KM is aimed at putting the intellectual assets of a law firm to the point of action. That is, the work product that lawyers create, e.g. every legal document, pleading, deposition, trial and appellate brief, memorandum, letter, email and spreadsheet, could be or is an important knowledge asset and ought to be properly managed. Managing these assets increases the visibility and the reach of a law firm’s many knowledge sources. If managed well, knowledge is leveraged in order to alleviate further work production and knowledge creation. To lawyers, this is not a new concept. However, with technological advances and changes in the legal industry, KM could play a significant role in the efficiency of legal researchers.

Though the primary skill that characterises the legal profession remains intellectual capability, legal researchers nowadays must also be able to effectively manipulate modern legal research tools, enabled by information technology and supported by KM principles (Adams, 2002, p. 58; British and Irish Legal Education Technology Association (BILETA), 1997; Jackson, 2001, p. 34). Nowadays many sophisticated legal researchers might experience skill inadequacies because they are confronted with a large variety of commercial databases as well as an enormous array of Internet and other electronic information resources that are constantly expanding. Furthermore, publishers of electronic information resources are frequently adding new search functionalities and other enhancing features to their products. These features often differ from product to product, requiring researchers to acquire or adapt skills for successful information retrieval (Underwood, 2001).

Since the law is a profession and professions have an assumed expertise in a body of knowledge, lawyers are considered as knowledge workers who are defined by their relationship with information. As knowledge
workers lawyers adhere to a minimum standard of professional competence and the premise is that lawyers have a professional responsibility to research and know the law to serve in a client’s or the public’s best interest. A lawyer’s duty to research and know the law has a strong ethical component. Equally important is the application of malpractice standards to not only traditional legal research, but electronic research as well (Adams, 2002, pp. 58–59). For example, currently the Internet provides access to information resources that previously would not have been readily available and this requires modern lawyers to possess a high level of electronic research skills to find, amass, manage, evaluate, and use all readily available relevant information to serve a client’s case or matter. The question is whether lawyers as knowledge workers, i.e. professionals recognised as having knowledge and skill superior to that of the ordinary person, can be expected to be more skilled and proficient than the average layman in their use of, for example, the Internet for legal research. In terms of professional responsibility the answer is yes. In the information era lawyers cannot claim to be knowledge workers without effectively using the ICTs, the Internet and other electronic resources for legal research if the situation so requires.

5. Legal research in a digital information environment

With the rapid increase in the amount of electronic and print information as well as the increasing availability of information technologies, information literacy has become one of the most vital skill sets of knowledge workers in the information era (Bruce & Candy, 1995). Applied to the legal profession, Carroll, Johnston, and Thompson (2001), view information literacy as the ability to locate primary and secondary legal materials, which implies sufficient knowledge of retrieval tools and techniques; evaluation of source authority and content relevance, applicability and value of the materials to the task at hand; management of information, e.g. to sort, categorise, annotate and rank the information; and to eventually use the information for the task at hand. Depending on the situation, these and other legal skills such as legal writing proficiency, influence the level of lawyer competence in helping clients understand their legal rights and structure their affairs to comply with the often complex rules of law (Otike & Matthews, 2000, p. 246). A key aspect within this skill set is knowledge of how and where to seek information. Although legal research entails much more than just information seeking, the vast majority of lawyers often engage in some form of information seeking and synthesising (Dempsey et al., 2000, p. 254; Leckie et al., 1996; Wilkinson, 2001, p. 257).

Lawyers as professionals are used to unpredictable situations and skilled in, e.g. confronting complexity and anticipating potential problems or negatives and viewing matters from as many angles as possible in dispute resolution or in arranging agreements, etc. They thus already have skills that are essential in a highly active and volatile information environment, or, in what Katsh (1996) calls: the digital world. This is a world of digital communications, transactions and transferring of electronic information, a world of digital relationships and interaction in virtual societies with virtual rules. In this type of world, it might be required of lawyers to partly shift their mindset to an environment where, in general, time is accelerated and distance is compressed, where change is rapid and continuous, and relationships are quickly formed but of uncertain duration, where information verification is uncertain, and where anonymity rules and hacking prevails. It is in such a world where lawyers will gradually be expected to practice as digital lawyers, i.e. professionals who effectively apply IT to every aspect of their practice (Granat, 2001; Katsh, 1995).

Many legal researchers nowadays do not ignore the change that was brought forward by the advent of the Internet, computerised legal databases, CD-ROMs and other electronic media channels. Rather, they emphasise that legal research encompass using and mastering both print and electronic resources. In terms of electronic resources this implies skills and knowledge of information resources that are either subscription-based, e.g. Juta, Butterworths, LexisNexis and WestLaw, etc.; or freely available, e.g. SAFLII, Polity or Concourt for South African court decisions and legislation, bills and regulations, and Cornell LII, AUSTLII, BAILII, CANLII, WORLDLII, and Courtsnet for international cases and legislation, etc. Then there are also a variety of directories and search engines, e.g. Hortors, the online directory of SA legal professionals, FindLaw with access to the West Legal Directory of legal professionals, and Google or Yahoo for general information searching.

Applied to the situation where, for example, a lawyer is presented with a legal problem in an area of the law with which the lawyer is unfamiliar, print sources will typically aid the lawyer in analysing the facts; evaluating
what legal concepts may be relevant; finding concepts in secondary sources; identifying primary authority; synthesising the principle contained in the primary sources; and applying the principle to the legal research problem. However, in a digital information environment researchers might follow different approaches and search for information in ad hoc, tailored ways, e.g. extracting key terms while analysing the facts and using these terms as search terms in performing computerised searches to locate cases with similar facts and other applicable primary sources, or, to find secondary resources which will direct the researcher to primary resources (Bast & Pyle, 2001, p. 297; Halvorson, 2000, p. 132).

A general observation in comparing research in the different information environments is that with print sources legal researchers start quite broad and typically move from the facts of the research problem to general concepts and then to the specifics. In digital research, research usually commences with narrow or focused searching for something very particular or looking for cases that are specifically on the fact pattern, followed by reading the internal references and the noting-up of relevant cases.

6. Empirical survey

The purpose of the following empirical survey was to investigate the current situation with regards to information and KM in South African law firms and to discern the legal research skills required of lawyers in a digital information environment.

6.1. Methodology

The survey methodology consisted of questionnaires, which were distributed to the sample group. Participants were selected according to the general criterion that they were South African lawyers, i.e. law firm attorneys, advocates of the various South African bars, or members of the South African judiciary. In this report, common survey terminology, i.e. ‘respondent’, was not used because legal practitioners in general connote this term to ‘the other party’ in a case of law. The term ‘participant’ was therefore preferred to describe those who participated in the survey. The study sample included 160 attorneys, 20 advocates and 20 judges, i.e. a total of 200 lawyers. As the size of law firms might have had an impact on the results, a random stratified sample was selected. This sample was generated from the Hortors electronic directory of law firms in South Africa, which gave the facility to select certain-sized firms (Hortors, 2003). The attorney section of the sample, consisting of 160 attorneys, was made up of 100 attorneys from firms with 50 or more directors, 50 attorneys from firms with more than 11 and less than 50 directors, and 10 attorneys from small firms or solo practitioners. Every effort was taken to ensure that the sample covered a wide area of the Republic of South Africa in order that the figures would not be biased with regard to city practices and country practices, though this sample was accordingly stratified. Furthermore, the selection criteria discerned attorneys from law firms with reputable web sites to constitute 50% of the sample, thus of the 200 lawyers, 100 names were selected from law firms with established web sites.

This was an exploratory study, which involved lawyers as a particular group of information and knowledge workers and sought to gain a better understanding of legal research in practice and the current KM systems utilised by lawyers. The questionnaire contained 85 questions generally constructed with either fixed alternative items, e.g. the participant had to respond by indicating (Yes) or (No); or a Likert scale in terms of items to characterise its features and performance, e.g. a score of [1] was considered ‘never’, [2] was ‘less than once a month’, [3] was ‘monthly’, [4] was ‘weekly’, and [5] was ‘daily’, for each sub-set item. The data from the questionnaires were processed by the Statistical Consultation Service at the University of Johannesburg, who used the Statistical Package for Social Sciences (SPSS) software, version 11.0, for the input, management and statistical analysis of the data that was collected. This was then put into spreadsheets with statistical graphics for a visual presentation of the results.

6.2. Findings

The questionnaire response was received from 144 lawyers, which equated to a 72% success rate. Of those responding to the survey, 11% of the participants were from small law firms or were solo practitioners; 22%
were from small to medium-sized law firms; 27% were from medium to large-sized law firms; 30% were from large law firms; and 10% represented the other segment of the sample, namely, judges or advocates. Excluding the latter segment of the sample group, those participants who were fee-earning attorneys, constituted 85% and 15% were public sector or non-fee earning attorneys. This affects the prioritisation of a law firms’ KM initiatives, for example, fee earning attorneys are more pressured for time therefore efficiency is of the highest importance; whereas public sector attorneys are as interested in effectiveness but may be less affected by time concerns Table 1.

Most lawyers, 77%, indicated that their law firms had intranets, though 7% of the participants were unsure. Only 5% of the participants indicated that their law firms did have an extranet and 42% of the participants were unsure. With regard to the current use of specific KM applications in law firms, the results were as follows: On average, more than 60% of law firms used KM systems as indicated in Table 2. The relatively high percentages of lawyers responding as ‘unsure’ might indicate a lack of knowledge or awareness with regard to these systems, or it could be an indication that some of these systems were not used in the law firms.

There were 79% of lawyers who indicated that their law firms did have an intranet and the reasons for using the intranet included: to gain access to resources, e.g. brief bank or library resources, 88%; to gain access to precedent information, 76%; to be provided with links to legal or factual information, 74%; and to automate administrative processes, e.g. billing, 64%. However, only 39% of lawyers indicated that their intranets provided them with expert information, while 34% said that the intranet did not provide expert information and 28% were unsure. This could indicate a lack of expertise databases available of law firm expertise or unawareness or lack of knowledge with regard to what expertise databases are. Participants who indicated having an extranet used it to communicate draft work product with clients, 60%; but were generally unsure as to whether it was used for calendaring purposes, 40%. There are thus many opportunities for South African knowledge managers to initiate KM projects aimed at creating or developing systems that could support lawyers in their daily legal research activities.

The lawyers who did have access to the Internet either considered it fairly easy to use the Internet as an instrument for information retrieval, 41%; or easy to some extent, 31%. Only 1% of lawyers did not consider it easy to use the Internet and 27% found it generally easy to use the Internet for information retrieval. And, on average, lawyers who found it easy to use the Internet for information retrieval also considered the Internet as an important and effective legal research tool. The survey furthermore showed that 80% of participants

<table>
<thead>
<tr>
<th>Law firm size (# attorneys)</th>
<th>1–10: 11%</th>
<th>11–50: 22%</th>
<th>51–100: 27%</th>
<th>100+: 30%</th>
<th>Bar/Bench: 10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee-earning attorneys</td>
<td>Yes: 85%</td>
<td>No: 15%</td>
<td>Male: 69%</td>
<td>Female: 31%</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>In current occupation: 10</td>
<td>Age: 40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average years</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>KM systems used</th>
<th>Yes (%)</th>
<th>No (%)</th>
<th>Unsure (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems for managing records or documents</td>
<td>73</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Systems for managing cases (client files)</td>
<td>72</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Systems for managing expert knowledge</td>
<td>42</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>Systems for managing customer relationships</td>
<td>42</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>Systems for managing forms and precedents (checklists)</td>
<td>68</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>Systems for managing research archives</td>
<td>60</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Systems for managing procedures</td>
<td>52</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Systems for managing in-house developed databases</td>
<td>67</td>
<td>20</td>
<td>13</td>
</tr>
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viewed the use of ICTs as principally beneficial in terms of improved access to information resources. Other indications were that ICTs were moderately to greatly beneficial with regard to increased efficiency of communication with colleagues (41–52%); and with regard to increased efficiency of communication with clients (36–58%). However, 8% considered ICTs as having low value in terms of improved communication with colleagues or with clients. Because one of the main features of ICT is improved communication, the relatively high percentage of lawyers who did not consider ICT beneficial in this regard is a matter of concern. It might be that the system did not function correctly or that there was a need, for example, for training in the use of ICTs in order to reach the system’s full potential.

Special notice should be taken of lawyers’ positive attitude towards the potential applications of IKM systems. Participants indicated an appreciation of being made aware of existing current knowledge, 97%; and being enabled to distribute, share, capture and apply knowledge, 94%; to work independent of time and location, 93%; to collect information created by colleagues, 92%; to learn new IT skills, 90%; to reduce the dependence on an individual’s knowledge, 89%; to be part of the development of new knowledge, 89%; to distribute information to colleagues, 85%; and to participate in discussions within a ‘community of practice’, 66%. The only hesitance, 20% or unwillingness, 14% detected concerned the last facet of IKM’s use. It could be because lawyers are unfamiliar with the concept, use or benefits of a ‘community of practice’ or ‘community of interest’.

Although the survey confirmed lawyers’ apprehension in using IT applications with regard to security and confidentiality, it showed that they are not ignorant of the convenience of these technologies. This can be seen in the results to the questions that were aimed at investigating the preferred amenities that lawyers felt that they could expect from IT and KM systems in freeing them from having to be at their offices. Most participants indicated that should they want to work from a location other than their office, they would like to be able to communicate with clients via email, 96%; gain access to their calendars, 89%; retrieve and work on office documents, 95%; and gain access to online databases for information retrieval, 94%. These results might assist knowledge managers who plan to implement KM or improve their current KM system to focus their initiatives in order of importance on improved communication, document management and network facilities, access to legal information databases and other online information retrieval systems, and calendaring or synchronised calendaring systems, e.g. groupware.

Next, lawyers’ opinions on the competencies of legal researchers were tested and an arrangement of these skills and competencies in order of significance are given in Table 3. From the results it seems that the most important skills of a legal researcher include knowing how to find appropriate information, knowing where to find appropriate information, keeping up with new information, providing timely and accurate information to relevant people, written communication skills, problem solving skills, and decision-making skills. Lawyers also considered it important to know how to organise and manage information resources, to have creative thinking

<table>
<thead>
<tr>
<th>Being a competent legal researcher involves</th>
<th>Never (%)</th>
<th>Sometimes (%)</th>
<th>Always (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowing how to find appropriate information</td>
<td>0</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>Knowing where to find appropriate information</td>
<td>0</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>Keeping up with new information</td>
<td>0</td>
<td>5</td>
<td>95</td>
</tr>
<tr>
<td>Providing timely, accurate information to relevant people</td>
<td>0</td>
<td>8</td>
<td>92</td>
</tr>
<tr>
<td>Written communication skills</td>
<td>0</td>
<td>10</td>
<td>90</td>
</tr>
<tr>
<td>Problem solving skills</td>
<td>0</td>
<td>11</td>
<td>89</td>
</tr>
<tr>
<td>Decision-making skills</td>
<td>0</td>
<td>20</td>
<td>80</td>
</tr>
<tr>
<td>Organising and managing information resources</td>
<td>1</td>
<td>27</td>
<td>72</td>
</tr>
<tr>
<td>Creative thinking skills</td>
<td>0</td>
<td>33</td>
<td>67</td>
</tr>
<tr>
<td>Developing a personal system for finding information</td>
<td>2</td>
<td>33</td>
<td>65</td>
</tr>
<tr>
<td>Computer competency (e.g. digital information searching skills)</td>
<td>0</td>
<td>44</td>
<td>56</td>
</tr>
<tr>
<td>Oral communication skills</td>
<td>1</td>
<td>53</td>
<td>46</td>
</tr>
<tr>
<td>Building working relationships</td>
<td>3</td>
<td>60</td>
<td>37</td>
</tr>
<tr>
<td>Presentation or public speaking skills</td>
<td>9</td>
<td>61</td>
<td>30</td>
</tr>
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</table>
skills, and to develop a personal system for finding information. Of average importance were computer competency, for example, digital information searching skills, and oral communication skills. Skills such as building working relationships and presentation or public speaking skills were generally not considered as the competencies required of a legal researcher.

After testing lawyers’ opinions on the skills of a competent legal researcher, an inquiry was made to the methods of obtaining legal materials. The results are illustrated below in terms of the frequency specific methods were used for obtaining legal materials (Fig. 1).

Although librarians in general are not required to assist lawyers in their daily legal research activities, 50% of the participants did indicate asking a librarian for assistance at least once a week. Thus, the role of the librarian should not be disregarded in the legal research process. However, from the above it could be argued that librarians should rather focus their activities on enhancing the methods that lawyers actually prefer in obtaining legal materials, e.g. access to online databases, training of Internet search techniques, creating channels for knowledge sharing, and linking lawyers to other people who would possibly provide the required information. Furthermore, a reverse frequency was observed in the use of online databases and the Internet. Thus, compared to the Internet, online databases are used more often. Also, one should note lawyers’ strong dependence on their personal contacts and private collections. These methods of obtaining legal materials should be understood and taken into account by knowledge managers who plan KM projects in a law firm. For example, the process of contacting an expert to obtain legal materials or to make an enquiry should be facilitated by the KM system, e.g. via electronic communication tools, synchronised calendaring, availability of contact information and direct linking from expertise databases, training of personal IKM skills and the use of tools for managing and harvesting electronic information such as setting database alerts and creating news feeds with RSS, and establishing weblogs on the law firm intranet.

The survey also investigated the extent to which the participants’ organisations gather, organise and protect key knowledge assets; assist lawyers in identifying best experts; encourage knowledge sharing within the organisation; and package an individual’s knowledge into information products. Participants’ responses are given in Table 4. Interestingly, the majority of participants indicated that these types of activities are only done to a moderate or small extent, or not at all, rather than to a large extent. This leaves knowledge managers with the challenge to develop or improve on current systems designed for typical KM activities that are aimed at law firm competitiveness. Especially, with regards to packaging an individual’s knowledge into information products.
products the general notion of participants was that their organisations either did not or only to a small extent packaged the know-how of individuals into information products. There is thus a need to develop law firm KM systems for packaging the knowledge of individuals into retrievable information products and for the creation of expertise databases.

A few specific questions were directed to investigate the need for ensuring that, should a lawyer become unable to perform his or her duties, or should the lawyer’s office become destroyed, sufficient information and knowledge existed in other locations to enable work continuation. These questions were not aimed at identifying a new trend; rather it aimed at emphasising the need for such systems or processes to also provide for the needs of lawyers who increasingly work in an electronic information environment. Participants’ responses in this regard indicated that, should they personally become unable to perform their duties, 58% of participants, to a large extent, and 24% to a moderate extent considered it important that sufficient information existed for another person to know their responsibilities and perform their duties. Only 6% did not regard it as important, and 12% indicated that it was necessary to a small extent. The majority of participants, 72%, strongly indicated the necessity that should their offices be destroyed, sufficient information and knowledge should exist in other locations for them to continue to perform their duties. The remaining participants indicated ‘to a moderate extent’, 13%; ‘to a small extent’, 8%; and ‘not necessary’, 5%. These results therefore confirmed the necessity to constantly develop systems and processes to ensure the safety of lawyers’ work and resources, including the information and knowledge work and resources that reside in an electronic environment.

Finally, in order of significance lawyers indicated that the role of librarians in legal research were mainly to know how and where to retrieve required information, 92%; to provide timely information, 85%; to provide uncomplicated access to required information, 80%; to gather, organise and make information available, 77%; to provide training in the use of new ICTs, 47%; and to evaluate the authenticity of information, 39%. Of specific interest is the small number of participants who indicated that they did not require any assistance, i.e. between 1% and 4%. It could thus be assumed that the perceived role of librarians from a lawyer’s perspective remains in the first instance information management, providing access to information, searching for information, and providing timely information; and to some extent it entails the training of ICT skills and evaluating the authenticity of information, though the last two roles are not considered as primary roles.

### 6.3. Limitations to the study

In this survey the average or mean age of the participants was 40 years, ranging between 23 and 68 years (see Table 1). The stages of participants’ careers could prove an important factor in a survey of this kind; for example, younger practitioners may be more pre-disposed than older or more senior practitioners to embrace technology in legal practice and to using IT-based KM tools. However, this is sometimes considered as a preconception similar to the notion that, for example, older judges entirely rely on research assistants and never do their own searching. Other demographic data, such as 69% of participants were male and 31% were female, was noted in the research findings but not taken into account in the analysis of the survey results. Not

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**Table 4**

Specific KM activities

<table>
<thead>
<tr>
<th>The extent to which the organisation does the following</th>
<th>Not at all (%)</th>
<th>Small extent (%)</th>
<th>Moderate extent (%)</th>
<th>Large extent (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gather, organise and protect key knowledge assets</td>
<td>11</td>
<td>20</td>
<td>37</td>
<td>32</td>
</tr>
<tr>
<td>Assist you in identifying your best experts</td>
<td>12</td>
<td>37</td>
<td>32</td>
<td>19</td>
</tr>
<tr>
<td>Encourage knowledge sharing within the organization</td>
<td>15</td>
<td>18</td>
<td>41</td>
<td>26</td>
</tr>
<tr>
<td>Package an individual’s knowledge into information products</td>
<td>43</td>
<td>41</td>
<td>15</td>
<td>1</td>
</tr>
</tbody>
</table>
taking into account the age and/or gender of participants could be viewed as a limitation to the study, for example, it could be argued that one would not expect older or senior lawyers to be familiar with the details of IT implementation in their firms.

The survey also did not address the importance of social networks and knowledge communities in legal work. Knowledge communities are informal networks formed between people with a common concern or interest, who share the same problems and who has the same passion about a topic. These communities are sometimes referred to as communities of practice or interest and they form knowledge networks. Knowledge networking signifies a number of people, resources and relationships among them, who are assembled in order to accumulate and deepen individual knowledge in the area of interest by interacting and exchanging ideas on an ongoing basis. Communities of practice do not necessarily work together every day, but they regularly meet either in person or online to share information and knowledge. Not only do they accumulate knowledge that is instrumental for their work, but their personal satisfaction also accrues as they bond with colleagues who appreciate each other’s perspectives (Rusanow, 2001, p. 5; Wenger, McDermott, Snyder, 2002, pp. 8–9).

Communities of practice have two important features that work towards building organisational memory. In the first place a sense of trust and mutuality is created among colleagues who frequently interact. Trust, that is, the confidence in the goodwill and worthiness of others, is one of the most important factors that determine the willingness to share knowledge. Secondly, an understanding is created of the skills and particular knowledge of other individuals. This assists people in seeking out the right peers for assistance or advice in different situations (Cross & Baird, 2000, pp. 69–70; Gottschalk, 2000, p. 117). Though communities of practice are considered to be informal, the knowledge networks of professional services firms are sometimes institutionalised in a fairly formal way with a principal or head, a secretary and a board of topic experts and other network members (Kautz & Mahnke, 2003, p. 79). Both formal and informal or social knowledge networks in a law firm require the support of a knowledge and technology infrastructure, i.e. a set of information services and a communications network for optimal functioning and seamless knowledge sharing. Future KM systems research and surveys should therefore also address the importance of social networks (Cross & Parker, 2004; Teigland, 2003) specifically in the law firm.

7. Conclusion

Many legal business analysts are of the opinion that the practice of law is under pressure from several sources and susceptible to change. The factors that could lead to change include economic conditions and globalisation issues; the courts and clients; and the flexibility and immediacy brought along by the information and communication technologies (Abraham, Spencer, & Monk, 1998; Kennedy, 2001; Rao, 2003; Widdison, 2002). These and other factors such as the effect that technology has on productivity and innovation; dematerialisation; the expectations of digitally skilled lawyers with diverse work patterns; legal risk exposure; the law firm’s reputation; customer relationships; the multi-office and multi-practice work environment, collaboration and communities of practice; and the increasing problem of information overload and knowledge attrition are some of the many reasons why lawyers should consider KM in their daily practice.

Among the most notable findings of the survey of KM practice in South African law firms was that participants in general indicated the use of IT applications and KM systems for managing information and knowledge in their organisations. However, the relatively high percentages of lawyers responding as ‘being unsure’ might indicate a lack of knowledge or awareness with regard to KM systems, or it could be an indication that such systems are not currently used in law firms. The results also showed that the use of Internet and intranet applications was high and the value of these technologies highly considered, but the concept of an extranet proved to be unfamiliar. Of some concern remains the relatively high percentage of participants who did not consider the ICTs beneficial as communication tools. Though, the attitude of most participants was positive towards the potential applications of IKM systems in support of legal research.

There are thus many opportunities for knowledge managers to initiate KM projects aimed at creating or developing systems that could support lawyers in daily legal research activities. The results of this research might assist knowledge managers who plan to implement KM or improve their current KM systems and to focus their initiatives according to what lawyers consider as the more beneficial uses of KM systems. In addition, the results have shown that although librarians in general are not required to assist lawyers in their
daily legal research activities, there was strong indication that the role of the librarian should not be disregarded in the legal research process. An indirect assumption that was arrived at was that librarians should increasingly take on the challenge of developing or improving on current systems designed for typical KM activities that are aimed at law firm competitiveness, especially with regards to packaging individuals’ knowledge into information products.

References


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Dr Tanya du Plessis is a lecturer at the Department of Information and Knowledge Management and specialises in VLE integration. She is also involved in the development of the Centre for Information and Knowledge Management at the University of Johannesburg. She holds a D. Litt et Phil. (University of Johannesburg, South Africa), with the focus on information and knowledge management in support of legal research in a digital information environment.

Prof Adeline du Toit is the Chairperson of the Department of Information and Knowledge Management at the University of Johannesburg and involved in the development of the Centre for Information and Knowledge Management. Her teaching responsibilities include information economy and information management. She has published more than 55 peer-reviewed articles and conference papers in international publications and has acted as a consultant to various private enterprises.