



LegalTech – Knowledge Management for Legal Professionals

Finding information is the core of our business ...it should be yours too.

Challenges faced by the legal profession and how KM can help

Legal Technology (LegalTech) is vital for today's legal professionals to provide effective legal services to clients at lower costs due to the increasing complexity of the laws and legal cases, rising competition, and increasing demands from clients. Knowledge management (KM) is a branch of Artificial Intelligence (AI) that facilitates the organization and retrieval of information from the oceans and silos of information sources within and outside a legal firm.

As legal professionals develop new documents every day, many of which can be reused by the entire corporation after they are classified, indexed and properly protected. Reusable documents in a legal firm include briefs, motions, lead cases, clauses and agreements. They may also be supporting information such as best-practices, forums, research tools, opinions, writing and discussion, and news and press releases. In the past, legal professionals create and store these documents in their desktops and use only the facilities provided by the desktops to manage, browse and search them. They rely on emails and forums to communicate information with their colleagues and clients.

Today, knowledge of all kinds is created and stored in the Knowledge Base (KM). Support of the document life cycle is the core function of a Document Management System (DMS), or a Content Management Systems (CMS). DMS is the repository of the legal firm's explicit knowledge: the creation, storage, organization, updating, sharing and the ultimate disposal of the documents.

KM leverages an organization's intellectual capital through capturing, organizing, updating, harvesting, and making explicit legal knowledge (e.g., documents, emails and videos) available. This is achieved by capturing, organizing, updating and making available explicit legal knowledge content (in the form of precedents, research, and best practices checklists).

LegalTech here in Hong Kong

Hong Kong judiciary plans to roll out paperless proceedings at all levels in three to five years. Since 2022, e-filing of legal papers has been allowed in the Hong Kong District Court for personal injury cases, tax claims, civil action and employees' compensation cases, and simple cases at the Magistrate's Court involving summonses. Lawyers can file documents electronically to the court systems, which will then distribute the documents to litigants electronically, saving tens of thousands of dollars and days of work in printing and delivering hard copies.

However, e-filing and e-delivery is just the beginning of LegalTech. Once all documents are stored electronically, how can we do more? Obviously, users should be able to search and inspect all filed documents. Since legal knowledge is complex, simple keyword search that treats queries and documents as strings of keywords is not enough to fulfill the needs of the stakeholders in a legal case. In this article, we emphasize the extraction and search of legal knowledge embedded in documents.

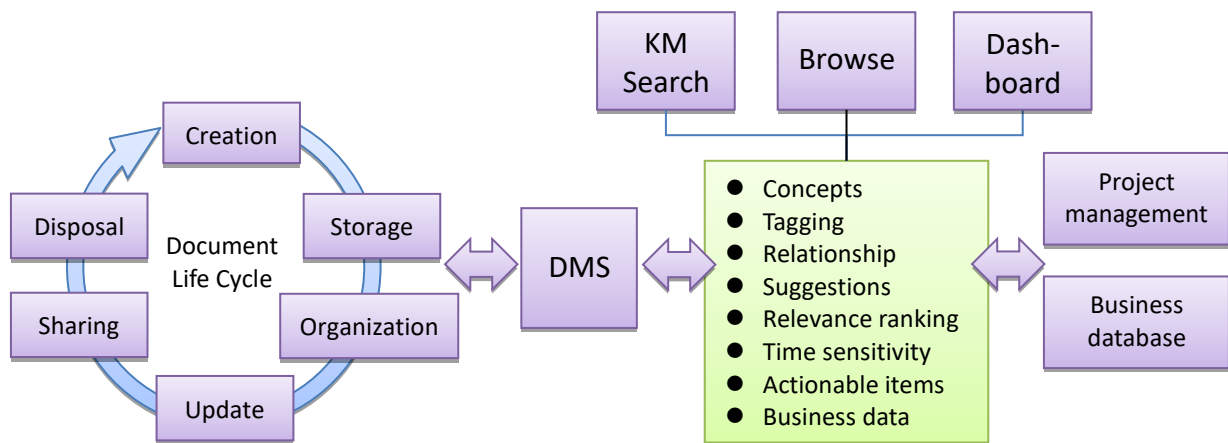
Explicit and Tacit Knowledge

KM should deal with both explicit and tacit knowledge, and the dynamic interaction between them. Explicit knowledge is knowledge which has been stored in DMS, e.g., precedents and research memos. It is easy to create, capture, organize and communicate. Tacit knowledge comprises personal experiences known only to the individual. It is tacit knowledge that is becoming increasingly important in legal firms.

In principle, tacit knowledge is knowledge that cannot be captured easily by KM, because once it is captured it becomes explicit knowledge. However, KM should facilitate the communication of tacit knowledge between users, e.g., via forums and expertise search, and the eventual conversion of tacit knowledge into explicit knowledge, e.g., via codification of opinions and best practices.

Knowledge management (KM) is more than document or content management

KM adds intelligence to DMS. Documents are not only just stored in the way they are created, but analyzed to have the main theme and concepts extracted, which are then organized into knowledge that can facilitate legal professionals to accomplish different tasks. Knowledge is categorized into different types: facts, events, tasks and processes. Taxonomy organizes knowledge into hierarchies, each node representing a concept and contains all of the associated information, e.g., documents, concepts, queries, external resources, etc.



Modules and Functions of a Legal KM

Navigating the complex knowledge space

Traditional search engine matches keywords syntactically. Two keywords are matched if they spell the same (with stemming). They cannot identify keywords that are synonymous but spelled differently or keywords that spell the same but with different meaning. KM search supports conceptual search, as opposed to keyword search. Conceptual search matches keywords based on their meanings, not how they are spelled.

Contextual search augments conceptual search by including the user context in the search. For example, if the user has been searching for document for a particular case, the user does not have to repeat the case information in every query and the search engine can produce refined and relevant documents within the context of the case. Contextual search will also include the user's personal knowledge base, current cases and tasks, team members, relevant taxonomy views, current awareness, news and contents into consideration.

Browsing can be performed based on the organizational structure of the documents, but it is the dynamically discovered relationship between documents that gives KM its value. Document relations can be discovered based on how documents are linked together (link analysis), how

concepts and theme are shared (content analysis) and how they are used by the users (click analysis).

Since browsing is a continuous process and happens in a complex knowledge landscape, KM should facilitate browsing by showing the users the clear context (look-around and look-behind) as well as the future paths (look-ahead).

Roles of KM in legal firms

1. *Document management*: A document management system (DMS) allows documents to be created or filed, tracked and stored. A DMS must be able to protect documents from illegal access, support authentication, and traceability. In addition to internal documents, legal firms also acquire knowledge from external sources, e.g., online databases, research memos, opinion letters, libraries, subscriptions, legislation, case law, treatises, journal articles, conference papers, encyclopedias, case digests and reference tools.
2. *Precedent development*: Precedents are the agreements and litigation documents drafted by lawyers on behalf of clients, including model agreements or pleadings, sample precedent agreements or pleadings from past transactions or lawsuits, clause banks of provisions, checklists for typical transactions or lawsuit procedures, transaction opinions, and deal closing documents. Precedents are explicit knowledge that can be organized in KM to facilitate browsing and search, and intelligent robust document assembly that can identify paragraph numbering and gender mistakes in the assembled documents.
3. *Legal research*: KM needs to integrate knowledge from both internal sources (such as model agreements or best practices) and external sources (such as commentary from a book or cases from an online database), making all sources of legal information, including research memos and opinion letters, available to the firm. KM integrates both primary sources of law (legislation and case law) and secondary sources (treatises, research articles, encyclopedias, case digests and reference tools) and provide federated search across all internal content and external research databases.
4. *Litigation support*: Litigation support focuses less on litigation precedent and legal research but instead dealing with case management, document review and electronic discovery. KM will play an important role in managing a huge volume of electronic documents related to a particular lawsuit, early case assessment and resource management to particular lawsuits. DM systems help in the acquisition, scanning, packaging and reviewing of a large number of documents from the clients.
5. *Practice management*: Practice management involves establishing professional standards or best practices for the firm's business, including document standards, standard document templates, procedure for managing conflicts of interest procedures, and competitive intelligence on competitor law firms.
6. *Project management*: Legal project management provides a disciplined approach for decision making, risk management, budgeting and billing. KM can support standard workflow and process management as well as knowledge sharing and codification throughout the project life cycle.
7. *Client and partner relationship management*: Firms need to empower clients with the ability to review and monitor the work done on their behalf. Many firms track news stories on clients and on industry trends to understand and anticipate their business and legal needs. Law firms often work with strategic partners on early case assessment, budgeting and billing. KM facilitates the firm's communication with clients and partners, with FAQ linking to detailed information and

contract, playbook and community management functions.

8. *Compliance*: Format, missing information and compliance checking to speed up processing and eliminating mistakes.

Legal Awareness for Corporations

Lawsuits cost a company not only money but its reputation and public image. Therefore, companies should anticipate litigation and resolve it before it turns into a lawsuit. Two common types of lawsuits facing a company are employment discrimination and product liability lawsuits. Most lawsuits do not happen overnight but are preceded with complaints, emails, call center and help desk conversations, etc., that are mostly in textual forms. An early warning system can read, organize and analyze textual information to identify potential lawsuits. However, analyzing text is difficult. Text is highly ambiguous. Simple checking of all relevant keywords about lawsuits and litigation would raise too many false alarms. Keywords must be understood within context. For example, the keyword “legal action” coming from a customer email about a product that had already caused a lot of complaints would raise a strong alarm, whereas the same keyword in a company document about copyright would not. Further, communications in emails and social media are short and informal and a conversation could span days and months. In this regard, contextualization and handling of threads of conversation as a whole is particularly important to understand the underlying issue.

What Suntek can do for you

Customization and implementation

Suntek can analyze your business requirements and implement the KM solution that suits and integrates into your business applications. Implementation includes the development of:

- Taxonomy and ontology
- KM search and browsing tools to support knowledge intensive tasks
- DMS templates and interfaces to support the complete document life cycle
- Communication tools to facilitate the collection and exchange of tacit knowledge

Suntek can develop case-based, task specific portals providing legal professionals with information adapted to individual or community preferences. The knowledge base can be collaborative expanded, maintained and shared, and along the way improving both the richness and quality of the knowledge. External knowledge sources can be continuously monitored, and any important changes will be communicated to the legal professionals.

Solution options

Suntek can develop and deliver KM solutions in several forms:

- Install KM solution on the customer’s hardware and data centers
- Provide turnkey solutions including hardware and KM solutions sized to meet your stringent performance requirements
- Build, operate and transfer (BOT) KM solutions to your premises
- Hosting of KM solutions in Suntek’s own data center with 7x24 operation, monitoring and

support