

stakeholder support across the global business. She enjoys collaborating with lawyers, business development staff, knowledge and information professionals as well as external clients to provide innovative and effective ways to satisfy information needs, minimise risk and optimise business opportunities.

Please do get in touch if you have any questions or comments in relation to the article at: [Miriam.davies@nortonrosefulbright.com](mailto:Miriam.davies@nortonrosefulbright.com)

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# Knowledge Management: a Systems Case Study from Shearman & Sterling LLP

**Abstract:** Pre-2013, Shearman & Sterling employed only two full-time knowledge management (KM) professionals across the globe. As Jon Beaumont describes, there was no centralised method of storage or retrieval for knowledge and Attorneys would have to contend with searching the firm's Document Management System (DMS), SharePoint intranet, internal discussion boards or ten disparate knowledge systems for document and matter information. 'Knowledge Center' was launched in 2015, following two years of planning, aimed at consolidating firm systems and providing users with a single interface to access any required know-how. This article will touch upon the consolidation and migration of information, but focus predominantly on Knowledge Center itself, examining functionality, search, filtering and browse. Processes for better knowledge identification of both document and matter know-how, all of which have contributed to the success of Knowledge Center, shall also be considered.

**Keywords:** law firms; knowledge management; intranets; document management systems

## INTRODUCTION

At a time when lawyers and law firms are being forced kicking and screaming (in some parts) into a world of workflows, cognitive computing, efficiency tools and machine learning, it appears many still struggle with achieving basics, such as a useful knowledge management (KM) system. Whilst in no way as fashionable (or marketable) as the latest document extraction solution, being able to access the most useful pieces of a firm's work product and previous transactional intelligence is still fundamental to efficiency and consistency of output.

The approach at Shearman is by no means revolutionary. However, the basic process for storing important

transactional documentation, the easy identification of knowledge and the linkage of both transactional and document metadata under one search achieves a useful solution for the vast majority of lawyers. The history, processes and tools are outlined below.

## THE FIRM

Shearman as a firm has around 850 lawyers across 20 offices globally with an annual turnover in 2016 of over \$900 million. Around half of the lawyers are based in the Americas, with New York being the head office. There is coverage of most work types, although there is a focus on finance and financial institutions.

Interestingly, there are very distinct KM and Library Information/Research teams, which was largely a historical approach. Overlap on projects within London are certainly commonplace between the two teams, although further cross-team relationships with different geographical locations ranges from frequent to relatively non-existent.

### KM PRE-2013

Up until 2013, Shearman had only really ‘dabbled’ with KM. It was at this time that the firm appointed its first (and only) Chief Knowledge Officer (CKO) who in turn appointed a Head of Global Knowledge Management. This resulted in a team of two very senior individuals only, however, the rationale behind this was that they would create and begin to implement a strategic plan which would totally re-design the processes for better knowledge capture, storage and retrieval of both document and matter metadata at the firm.

Despite only having two individuals attributed to KM, the organisation had certainly attempted to develop and store know-how, even if this was very much on a team-by-team basis. It is often argued that the concept of KM is misunderstood or unknown in the US, although with experience this appears to be somewhat incorrect. Informal KM has been undertaken for some years and been facilitated largely by business support groups organised by practice team, but managed by a wealth of roles from the marketing department to Human Resources (HR).

At Shearman, the historic approach to KM was for each team to have a simple browseable list of precedents, which were accessed via team-specific Lotus Notes databases which had been in place for a number of years. Access would be dictated by a single administrator, with several teams further dividing their systems geographically (leading to further password requirements and access issues).

The result was ten very disparate systems, which allowed no cross-searching or dual access, which was fine for a lawyer purely practicing one area of law, but very difficult for the majority of others. Security was a further issue, with single sign-on allowing a user to view all material housed within one system. Thus, individuals did not feel comfortable in uploading to a system if there was any sensitivity or confidentiality on a matter (there was a rule that no working documents were stored in these systems, which would have been difficult in any case as they could not be amended here).

There were Professional Support Lawyers (PSLs) operating in both London and Hong Kong at this time, although these individuals as a group were not as joined-up as would seemingly be beneficial. Options to deviate from previous ways of working were difficult as there was no shared ambition to move from current process.

### KM 2017

By 2017, much work had been undertaken and there was now a well-supported vision for knowledge capture,

storage and retrieval. Whilst useful KM at any organisation is a mixture of various elements, one of the most significant was the size of the KM team in relation to headcount. This had now increased to nine individuals with a varying skillset, but a shared desire to improve the firm’s KM. Also significant was the spread of PSLs (or ‘Knowledge Management Attorneys’) to the US and further formal and informal links between individuals in this role. A fresh outlook from new-joiners was derived from experience at other firms and this allowed current PSLs the opportunity to consider different approaches.

Huge developments had also occurred in relation to the tools available to facilitate knowledge processes, including the indexing and potential search across the firm’s Document Management System (DMS) and its Global Experience Management (GEM) system (the latter housing matter information). This not only allowed efficient storage and retrieval, it also provided the ability to create workflows which assist with the capture of knowledge. All knowledge could then be retrieved by search or browse through the new ‘Knowledge Center’ (KC) tool. Providing bespoke profiles for teams to apportion relevant knowledge values was a huge incentive for many lawyers to become better at their own KM and taking the lead on the firm’s deal room and client portal capability allowed a greater profile for the KM team itself. Finally, the creation of a firmwide approach to closing sets/transaction bibles provided significant benefit across the organisation.

### CLOSING SETS/TRANSACTION BIBLES

The term ‘closing set’ or ‘transaction bible’ can be used interchangeably, although it relates to the same set of documents which are produced at the end of a particular matter and shared with all parties (these may be banks, private equity companies, clients, other law firms etc). When originally investigating the documents the lawyers at Shearman used most (or at least wanted to), previous closing sets were by far the most valued and this an area in which the KM Team were interested. In transactional practices, these sets make up 80–90% of precedent documentation. The vast issue being that the firm had no particular process for storage of such collections of documents and further to this each office appeared to produce external sets in vastly different ways using very different (and sometimes obscure) branding. As external sets were largely produced on CDs, offices and teams created large physical CD libraries, relying on word of mouth or previous experience as to which documents may reside on which CD. Large amounts of time were wasted trawling through CDs for documents, a process further complicated by some CDs being password protected and the firm having implemented its own RME (Removable Media Encryption) policy.

Despite this generally not being prima facie a ‘knowledge project’, the benefits of taking ownership of the start to finish process of such a fundamental part of the firm’s

work product would have great benefits, with the KM team's main interests being the ability to store and make easily available these documents. Having spoken in-depth to some of those involved in the creation of sets (usually a trainee or junior member of the transactional team) it became obvious that there were a number of pain points in creating a final set, which whilst essential (in some cases clients would not pay bills until having the closing set) was often the last and very tedious piece of the transaction. Issues, though not exhaustive, included:

- Lack of central storage of materials – usually on a group fileshare or an individual's laptop;
- Uncertainty as to whether a search for documents is comprehensive;
- Lack of search functionality;
- Limited retrievability electronically;
- Security issues;
- No standardisation as to finished client product – vastly different across office; and
- Difficulty in sharing documents externally.

By standardising the creation of closing sets globally, it was thought that we could achieve many benefits:

- Full retrievability through KC based on limited document or matter metadata known;
- Document storage in the DMS to allow automatic Wallbuilder security (this software restricts document where a matter may be marked as confidential, sensitive or subject to an ethical wall);
- Certainty as to response times;
- Replacement of third party communications where CDs/hardcopies are still required; and
- Current and standardised branding and format.

The process itself was particularly simple, with the creation of a secure fileshare for individuals to save all relevant documents and an automated form to complete in order to provide the KM Team with some basic information (team, location, hardcopy requirements etc.). Saving these documents into the DMS was simple enough and using a client and matter number would ensure that documents were automatically secured where necessary and could be located with any piece of metadata used on the transaction via Knowledge Center.

Nevertheless, when attempting to persuade lawyers to use any new processes, it was also necessary to provide further benefits to ensure adoption. A top-down launch to the process was appreciated and well-received (largely), but whilst this aided process change, there will always be pockets of an organisation who prefer their own way of working, even if this is not in the best interests of a firm. Therefore, software was used to automatically OCR documents (many closing set documents turned out to be image files and thus more difficult to

search), creating a single PDF with linkable table of contents and branding was applied to the set of documents. Furthermore, software was also located which allowed the creation of digital binders. Documents may be uploaded and divided as they would have been in a physical A4 binder and whilst this added nothing extra whatsoever around search, storage or security, it was a benefit that was very well liked amongst lawyers.

A final stick to encourage adoption of the new process was provided by chance, outside of the knowledge team. As many financial institutions look for better ways of transferring information and documentation, in 2016 two of Shearman's largest clients banned incoming CDs as part of their processes and insisted upon upload of documents (including closing sets) to their own document portals. This provided a wonderful opportunity for the team and uploading to these systems was incorporated into the largely internal Closing Set process, thus ensuring that anybody dealing with either of these two large clients had to use the procedure to ensure document uploads to the third party systems.

The firm has processed close to 1,000 closing sets since the beginning of 2015, which ensures instant access to all transactional documentation through Knowledge Center, no matter where a lawyer is based and in which team they reside. The involvement of the knowledge team in this project has been essential to the success of KC, as an automated process now enables immediate access for lawyers to crucial knowledge, without relying on the input of any other individuals.

## KNOWLEDGE CENTER

Knowledge Center launched at the firm in June 2015, with planning having started as far back as 2013. The idea was that it would replace all team legacy Lotus Notes systems and provide a single point of access to lawyers to both matter and document information. Despite a huge lack of functionality and security which was evident with the old systems, lawyers and their teams do not like change and thus swift and total replacement was likely to have been very difficult. However, a client audit early in 2015 resulted in a red warning flag against one of the old systems and the launch of KC was pushed forward some months. This was a huge burden on both IT and KM Team resource, but was certainly beneficial to a project which it was feared (despite being technically ready) could take many months of protracted negotiations and last minute changes enacted at the request of teams who were used to their own tailored systems.

The investigation into a new system and what this may look like had been expansive and revealed many issues such as:

- No single place to locate knowledge documents;
- No single place to locate previous matter experience and deals worked upon;

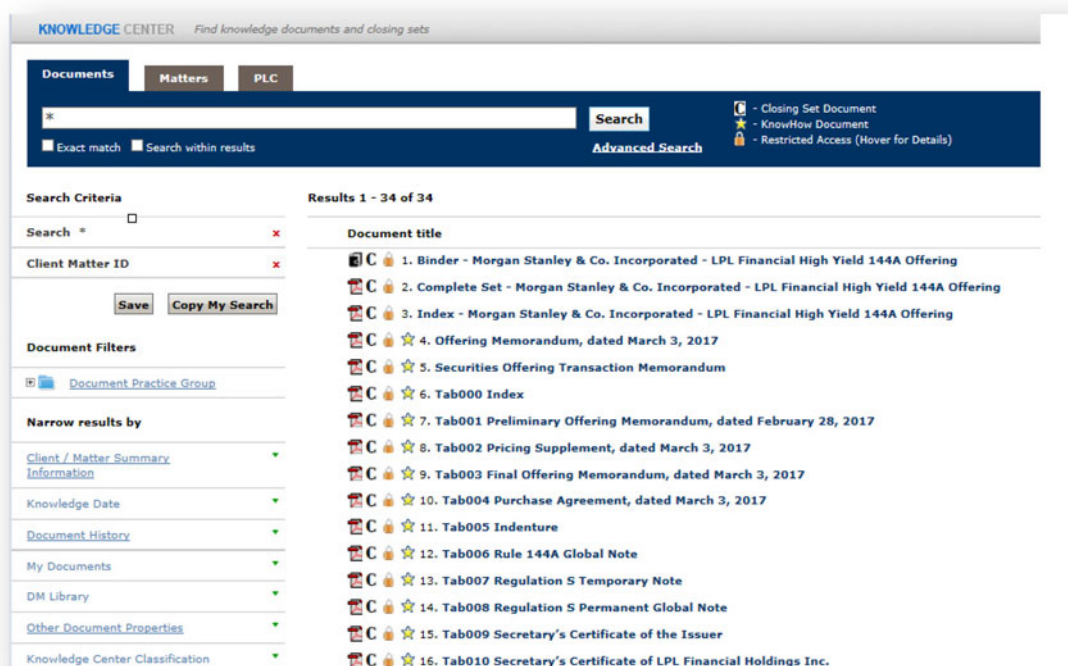


Figure 1. Two Screenshots from Knowledge Center.

- No access to any information outside of a user's practice group;
- No way of saving knowledge, apart from on a user's own laptop or fileshares (also no meaningful way of categorising knowledge outside of folders); and
- No consistency as to the knowledge available.

The first fundamental decision made on the project was to internally promote the use of two systems that KC could then index – DMS for documents and GEM for

matter information. Whilst one may assume the DMS was the obvious place for storage of documents, teams also uploaded documents to the firm's intranet (MyShearman), used fileshares or their own laptops and relied on e-mail saving through Outlook to then search for attachments. Cultural change via education of the necessity for saving into the DM (for knowledge, but also for security) would be covered and also beneficially KC allowed 'saved searches' to be linked from MyShearman, opening up directly into results. This was particularly beneficial when a user or teams would search for similar pieces repeatedly such as 'team meetings'. When a link



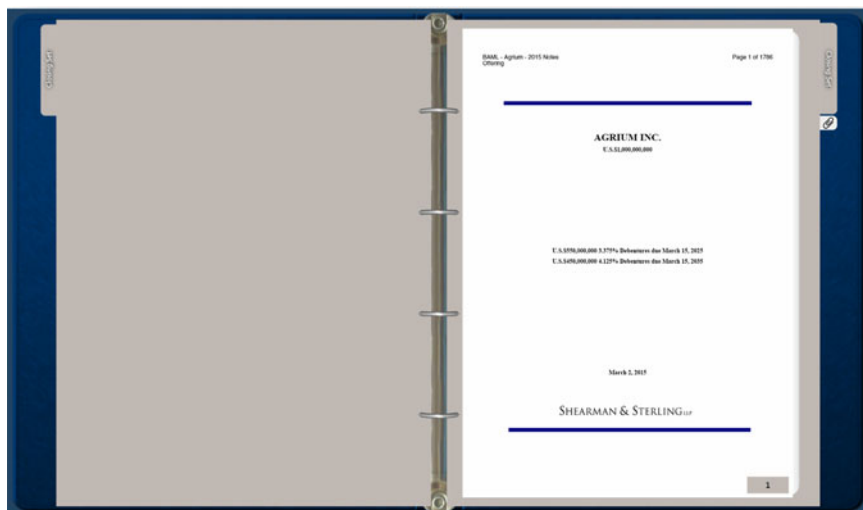


Figure 2. The creation of a digital binder.

was clicked, KC executed a new search which resulted in any new documents saved which matched search terms being returned.

Investigations also showed lawyers' adversity to search in certain scenarios (which really concerned an issue as to where they were actually searching and a fear of missing something important), a preference for browsing, a preference for documents they (or their team) had worked upon and an overwhelming preference for simplicity. None of these items were surprising or unexpected.

It was decided to use Recomind (now OpenText) Decisiv Search as the solution that could help Shearman achieve their goal and much work was undertaken with teams to create relevant filters to assist browsing which would supplement full content searching. Security through both GEM and DMS would be fully honoured and as KC worked on Active Directory the security model was relatively simple to implement. Dynamic joins between the two systems was a crucial piece of the project and one which the team were particularly proud. This allowed a search to be made on the type of deal undertaken (e.g. industry, location, date, type of work, currency, billing partner, originating office) and this would not only show these types of matters, but also all of the associated documentation including the closing set. Similarly, a search for documents would always display the matter that these documents were taken from which could then be examined with a single click

By only indexing two internal systems (albeit in full), along with using external indexes to show results in a similar fashion from PLC, users were sure of what they were searching. Whilst the indexing tools of the solution can be pointed to other systems or areas (e.g. parts of intranets, fileshares, specific sections of DMS or other databases) returning large swathes of information from different areas was almost seen as counter-intuitive.

Over 7 million documents are indexed from DMS and approximately 40,000 matter records are indexed from

GEM within KC. However, this number may be vastly reduced very quickly with the application of search terms or filters.

## DOCUMENTS

Once again, the search in KC for documents is nothing revolutionary, but doing this through a different search solution underlines the issues with native DMS search. All DMS documents have standard metadata attached via their profile, which must be completed upon creation by an author (with certain date (including last edit date) information auto-populated). This includes:

- Title;
- Author;
- Client;
- Matter; and
- Practice Area.

Creating filters for each of these fields (along with predictive type ahead) in addition to full text searching and results ordering, provided a useful start-point for KC and was certainly an improvement already on and previous document searching. The difficulty being that there was no new ability to "tag" or "categorise" knowledge which had largely been undertaken previously (even if not overly successfully) by appropriately named folders on other systems (often listed as a certain client's documents or a certain document type).

Due to an inability to be able to do this, over 20 'knowledge profiles' were created within our DMS which would allow relevant values of teams to be apportioned to knowledge documents.

Whilst the initial concern was that this may be confusing, this was unfounded and the correct management by the KM Team of which lawyer sees which profile has

S&S - Know How CM Precedent Profile

Location: NYDOCS01

Profile Form: SS-KH\_PROFILE\_CMP S&S - Know How CM Precedent Profile

Document Name: Offering Memorandum, dated March 3, 2017 # 1692606

Author: CB25006 ... Caroline Bowman

Client: 05672 ... MORGAN STANLEY & CO. INCORPORATED

Matter: ... LPL FINANCIAL HIGH YIELD 144A OFFERING

Document Type: MSC ... Miscellaneous

Practice Area: CMAM ... Capital Markets - Americas

Application: ACROBAT ... Adobe Acrobat

Closing Set:

Comment: [Text Area]

**Knowledge Document Profile**

KM Doc Type(s): FINAL OFFERING DOCUMENT ...

Dated: 10/03/2017

Jurisdiction(s): [Text Area]

Expertise: [Text Area]

Language: ENGLISH ...

Notes / Comments: [Text Area]

Other Tags: [Text Area]

Figure 3. Knowledge profile in the DMS.

proved extremely useful. Lawyers were involved in the creation of knowledge profiles and therefore feel engaged as metadata now displayed is particularly relevant to their team. An in-house system which allows immediate addition of profile list values has been a huge success, which not only allows such additions, but also handles bulk-changes, deletions and replacements so as if a value becomes obsolete, this may still remain on previous profiles but cannot be used on new documents. The huge advantage of the knowledge profile in relation to KC is that any value which is saved into the profile then creates a value (or multivalues if a document carries several pieces of metadata) within a browseable tree list.

As these folders are dynamic, the numbers apportioned to them change with every search. Thus if a user searched for a keyword that resulted in 27 'administration agreements', then filtered further by author, this would more than likely reduce the number of results. The dynamic links between matters and documents also allows a user to search for matters and then open the tree to see documents categorised within the tree which have the values required. For example, if a user wanted to see 'administration agreements' from matters with a particular billing partner that took place in Chile, they would first filter on these two values within matters on KC ('billing party' and 'location'), before opening the tree to

view all documents in this category (tagged via a knowledge profile).

## MATTERS

The indexing and apportionment of documents values is almost a given at law firms, although the ability to search transactional data is less so. Shearman's matter database (GEM) provides a useful location to store captured information, but isn't the most intuitive and the reason why access is not provided to lawyers (who largely rely on business support teams to manipulate this data, if they know it actually exists). KC provides the first opportunity for lawyers to see this information, as GEM is indexed fully.

The data held in GEM comes from three different sources, although it is only GEM that is indexed by KC. First, at the beginning of a matter, a process known as NMI (New Matter Intake) is undertaken to open a matter. This includes a questionnaire completed by a billing partner (though in actual fact this may be an authorised PA) which provides basic information (names, addresses, contact details of the main contacts and parties), and information which flows into GEM such as the matter work type. Limited information from the firm's billing system is captured, but this is only active timekeepers on a matter as opposed to any real time information (this would be superbly useful for many

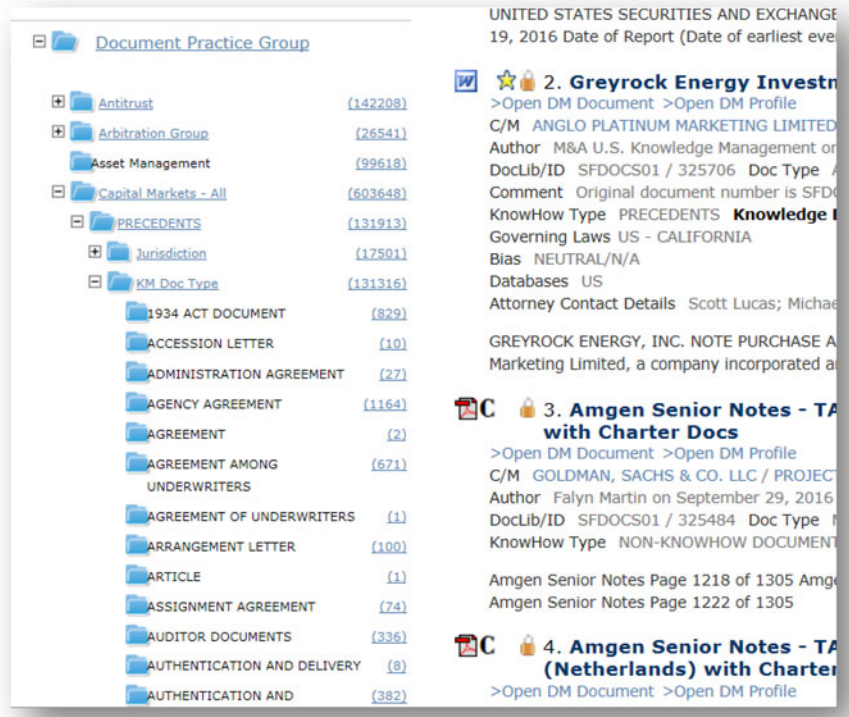


Figure 4. Browseable tree list.

Client-Matter Information	
Client Matter Number	<input type="text"/>
Matter name	<input type="text"/>
Client Name	<input type="text"/>
Closing Date	
Closing Date	<input type="text"/>
Key Parties Involved	
Borrower / Lessee / Issuer	<input type="text"/>
Key Finance Parties	<input type="text"/> <small>Insert names and roles of MLAs, Agent, Security Agent and Hedging Bank, where relevant</small>
Sponsor	<input type="text"/>
Target	<input type="text"/>
Others	<input type="text"/> <small>Insert names and roles of other key parties not already listed above, if relevant</small>
Type of Financing	
Credit Type	<input type="radio"/> Leveraged <input type="radio"/> Investment Grade <input type="radio"/> Cross-over
Security	<input type="radio"/> Secured <input type="radio"/> Non-secured
Lending Type	<input type="radio"/> Bilateral <input type="radio"/> Syndicated
Matter Work Type	
Matter Work Type	<input type="text" value="[Select]"/> <small>Select most relevant from list</small>

Figure 5. Client matter collection form.

different purposes, but technical and cultural restrictions exist). Finally, input and amendment to GEM can take place as soon as a matter is open and this is largely the most valuable of knowledge.

## MATTER INFORMATION GATHERING

Different teams have different methods of gathering post-transaction closing knowledge, although up until 2014 it was usually a printed form that had to be completed by hand or even worse, the process was not undertaken at all. Similarly to closing sets, the KM team understood the importance of good knowledge capture here and became involved within the process. As lawyers can now view and better understand matter information (via KC), this has been incorporated into closing procedures within teams (which also involves the completion of a Closing Set). The knowledge team provide several methods of gathering such information, through SharePoint from MyShearman to automated forms through Contract Express.

Whilst completion of matter transaction form is undoubtedly useful, it is a further process which has to be undertaken by lawyers (due to their in-depth knowledge of a matter and any notable points of interest or peculiarities), and may be prone to a forgetful individual not completing. However, having the opportunity to show partners (or others of influence) how this information may be used via KC for reporting will underline to others in a group the importance of completion.

A wonderful example of this arose when a Finance Partner was shown KC for the very first time. It was claimed later that KC was 'broken' due to a search only returning 30 out of 100 matters the firm had undertaken for a particular sponsor. Further investigation showed that this field within GEM has regularly been ignored by individuals completing deal information. A strongly worded e-mail from the said partner to their team soon changed this behaviour and the KM Team now consistently see this field on a matter being populated.

Nevertheless, this example underlines a very fundamental point – a system is only as good as the information contained. If users are unaware of this point, the undermining of anything new is always a possibility.

## MYSHEARMAN

The prevention of the uploading of documents to the firm's intranet removed the ability somewhat of a team's ability to arrange their knowledge in a way in which they wanted. Largely, this was simple lists of documents, ordered how they believed were useful. This was a limitation of KC, which purposefully did not allow the creation of lists or results based upon personal opinion over actual metadata.

Lawyers will always attempt to find ways around given processes or systems and one particular PSL developed a method of creating browseable team pages. As KC benefitted from the ability to save and share searches, the PSL

found that they were able to use SharePoint to create manual lists of deals and then used saved searches to link individuals into specific matters, knowledge documents and closing sets.

Initially, the knowledge team were a little annoyed by this, considering that this was directing users from using KC in the way in which it was intended. However, upon further discussion with the PSL in question, it was found that this was actually a useful method of guiding users (largely those who were unfamiliar with KC) into the tool, subsequently allowing them to use KC further if required. Two further teams have now recreated the approach and provide their lawyers with linkable deal lists.

## TABLEAU/DATA ANALYTICS

Data analytics have increased massively at all organisations over the past few years, and this requirement (rather belatedly) has started to flow through to law firms. Producing valid and useful reporting upon KC was vastly important, though native reporting was only provided through vast spreadsheets (exported manually) which were difficult to understand for the team, nevermind those requesting data.

In order to provide understandable usage information, a third party solution was utilised (Tableau). This not only allowed brilliant quantitative data displays based upon individual user page movements, it also allowed us to view how users were searching based upon filters opened, saved searches clicked, keywords used, searches shared, documents pinned and native records accessed. This is very useful when examining what users are actually doing and why they may not be best utilising KC. As reporting is real time, it has also been discussed whether alerts are formulated to allow identification of users who are performing many unsuccessful searches who then may be contacted to offer assistance. This was considered a little too intrusive, although requests for usage are ongoing and analytics will continue to be vital.

## CONCLUSION

The initiative to entirely change the approach to knowledge at Shearman has been lengthy, but by and large fairly successful. Whilst reaching a pleasing point, with access to as many transactional pieces of know-how as is possible to lawyers, this is by no means an excuse to cease investigation into further processes, efficiencies and requirements. The firm will continue to do so.

Over the course of the last five years, the following has been identified:

- Lawyers do not like to search (they prefer browseable lists)
- Individuals are concerned when they do not know which content they are searching



## Jon Beaumont

- Lawyers do not like change, even when they acknowledge it is beneficial
  - If there is a method to work around a process, people will find and use it
  - Document and matter information must be as close to perfect as possible – allowing partners to see results can transform thinking
  - Development of systems is not cheap, but a worthwhile investment
- Tips would include:
- Speak to as many people as possible
  - Focus on which knowledge is actually important to a firm, practice group or team
  - Never over-promise
  - Inspire others to get involved
  - Large data tasks may be time-consuming – learn to understand when these may be beneficial and when they may not
  - Get involved in pre and post transactional behaviours (and anything else beneficial!)
  - Don't allow individuals to take advantage
  - Use an organisation's PMO (Project Management Office) or equivalent where available
  - Current processes are largely manual – consider the impact of AI not only on the work of lawyers, but in knowledge processes too

### Biography

Jon Beaumont is KM Systems Advisor at Shearman & Sterling, part of a global Knowledge Management team which services the organisation's 20 offices. He is primarily responsible for "Knowledge Center", the firm's principal access point to know-how and immersed in many other knowledge projects relating to taxonomies, profiling and search. Jon is also responsible for Shearman's firm-wide Closing Set process and heavily involved with their document management system. Previously with Shakespeares for 13 years, Jon progressed from Information Officer to Head of KM before departing for Shearman in 2014. Jon is a BIALL Council member and is Co-Chair of the Recommind Decisiv Search Group in London.