

# eLucidate

Vol. 13 Issue 3, October 2016

ISSN: 1742-5921

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eLucidate is published by UKeiG, the UK eInformation Group. Membership and subscriptions are managed by the UKeiG Administrator, Val Skelton, 4 Friendly Street Mews, London, SE8 4DU, tel: 020 8691 0246, e-mail: <a href="mailto:val.skelton@ukeig.org.uk">val.skelton@ukeig.org.uk</a>

UKeiG is a Special Interest Group of CILIP: the Chartered Institute of Library and Information Professionals. CILIP Registered Office: 7 Ridgmount Street, London, WC1E 7AE, Registered Charity No. 313014

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#### Editor's Note

Welcome to issue 3 of eLucidate for 2016.

Martin White argues that the information profession has a lot to learn from the construction industry, introducing readers to Building Information Modelling as a sterling example of exemplary information management way beyond the confines of the "deskbound" digital workplace. Dion Lindsay addresses the human focus and significant social function of Communities of Practice, enabling knowledge sharing, organisational learning and problem solving.

Two beneficiaries of the UKeiG student and early career professional grants programme report back on conferences they attended earlier in the year. Their focus is on higher education: the emerging skills set required for effective collection development in universities, and the complex cultural (even political) considerations that have to be borne in mind before launching electronic reading list projects as part of the wider technology-enhanced learning agenda. Claudio Svaluto, Graduate Trainee at the Albert Sloman Library, University of Essex writes: "The reading list conference in Loughborough in April was closely related to e-resources, accessibility and the user experience, all subjects I have a personal interest in. Being in contact with professionals from different institutions has helped me choose how to develop my career, including affecting my choice of a postgraduate course next year. UKeiG has provided an excellent opportunity to publish in eLucidate. Sharing knowledge via publications and networking is a powerful way to give back to the community and acquire new creative ideas."

At UKeiG's 2016 Members' day in June this year John Wickenden reflected on his varied career working with one pharmaceutical company. Over the years he managed to reinvent his role as technology advanced, influencing management and ensuring his continued relevance to the business critical objectives of his employer. There are so many lessons to learn from his experiences that we revisit his career in this issue and are taken on a whirlwind tour of nearly five decades of technological transition. With every decade of IT change Wickenden, rather than fearing obsolescence through disintermediation, grabbed the opportunity for change. He was left standing long after his company's library was closed to make way for conference space.

Enjoy, and please share your feedback and join us in debate on Twitter and Facebook.

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## Building Information Modelling – a Reality Check for Information Professionals?

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I have always been fascinated by television programmes that go behind the scenes and show how a product is made or an event is staged. I can't even enjoy a frozen Walls "99" ice cream without contemplating how the flake and topping were inserted into the cone and wrapped up. It's probably the result of both my father and grandfather being engineers, a profession now being followed by one of my sons. As an intranet consultant I have spent a lot of time walking around offices and wondering just how plugs, doors, lifts and much else has ended up in (usually) the right place. The answer to that question is Building Information Modelling, or BIM for short. I came across BIM quite by accident when reading a paper in Advanced Engineering Informatics entitled "Ontology-assisted provenance visualization for supporting enterprise search of engineering and business files." As you might guess it was the "enterprise search" phrase that caught my attention! I am not going to delve further into the search elements but will focus on Building Information Modelling, because it is a wonderful example of a digital workplace and the role of information management.

#### What is BIM?

The entry on <u>BIM in Wikipedia</u> is very well written, and I'd like to quote from the Definition section.

"The US National Building Information Model Standard Project Committee has the following definition:

Building Information Modelling (BIM) is a digital representation of physical and functional characteristics of a facility. A BIM is a shared knowledge resource for information about a facility forming a reliable basis for decisions during its life cycle; defined as existing from earliest conception to demolition.

Traditional building design was largely reliant upon two-dimensional technical drawings (plans, elevations, sections, etc.). Building Information Modelling extends this beyond 3D, augmenting the three primary spatial dimensions (width, height and depth) with time as the fourth dimension (4D) and cost as the fifth (5D). BIM therefore covers more than just geometry. It also covers spatial relationships, light analysis, geographic information, and quantities and properties of building components (for example, manufacturers' details).

BIM involves representing a design as combinations of 'objects' - vague and undefined, generic or product-specific, solid shapes or void-space oriented (like the shape of a room), that carry their geometry, relations and attributes. BIM design tools allow extraction of different views from a building model for drawing production and other uses. These different views are automatically consistent, being based on a single definition of each object instance. BIM software also defines objects parametrically; that is, the objects are defined as parameters and relations to other objects, so that if a related object is amended, dependent ones will automatically also change. Each model element can carry attributes for selecting and ordering them automatically, providing cost estimates as well as material tracking and ordering.

For the professionals involved in a project, BIM enables a virtual information model to be handed from the design team (architects, landscape architects, surveyors, civil, structural and building services engineers, etc.) to the main contractor and subcontractors and then on to the owner/operator; each professional adds discipline-specific data to the single shared model. This reduces information losses that traditionally occurred when a new team takes 'ownership' of the project, and provides more extensive information to owners of complex structures."

#### Why should I be interested in BIM?

I suspect that few readers of eLucidate work in the construction sector and you are already wondering what are the implications of BIM. The answer is that in using BIM, companies are also building digital workplaces. Far too much (probably 95%+) of the discussions around digital workplaces are just about how a digital workplace will make life so much better for desk-bound digital workers. This is a total waste of effort because it doesn't matter how well your organisation manages its digital workplace if suppliers and customers either cannot match your level of sophistication or (horrors) are way ahead of you. It's all about sharing digital information along the supplier-purchaser route. That's what is so interesting about BIM. From the outset it was about sharing digital information with others on a global basis.

We are talking big numbers here, with total file numbers for a building being in the range of 500,000, and many of these are very large files indeed. We are not in SharePoint territory in terms of file management. This is where very sophisticated search applications are going to be required, as described in the informatics paper I cited earlier, based on work being undertaken at Laing O'Rourke in the UK. Mott MacDonald is also very active in the area. The UK is amongst the leaders in promoting the benefits of BIM at a national level. For several years the Royal Institute of British Architects has been publishing an annual survey of BIM adoption. The National BIM Report 2016 notes:

"We can see that BIM adoption is set to increase. Within one year, 86% of people expect to be using BIM on at least some of their projects. Within three years, 95% expect to be using BIM. Within five, that number increases to 97%."

As an information professional there are many reasons why you should be aware of and looking at BIM even if you are not in the construction industry.

- BIM is about working with non-conventional file formats. Microsoft Office can't cope! These file formats will include text, data, graphics, video and much else
- BIM is about working collaboratively on a global basis to make sure buildings are a
  delight to work in and do not fall down under any circumstances. Both are very
  challenging objectives but present a wonderful business case for BIM adoption
- BIM is about moving files through organisational boundaries, and this is possible because of standards and guidelines developed over the last fifteen years. Do you have IM standards and policies?
- BIM is about pushing search to its limits with novel solutions and a team to support them
- BIM is about e-Information, so what are UKeiG and CILIP doing to reach out to this sector and act as an information and knowledge exchange?
- BIM is about managing information in highly innovative ways, the benefits of which may well have an impact in other areas (search, tagging, information quality etc.)
- BIM requires organisations to have a digital workplace platform in order to create and use BIM files. A firm cannot be in the position of thinking about it! Hence the very high adoption figures above. Either you are in, or out. It's a binary decision
- BIM represents a sector that could offer employment opportunities to information professionals interested in pushing the boundaries of information science and information management. Could you be one of them?

#### Are there lessons to be learned?

Starting from an accidental discovery a few months ago BIM now has a heading to itself in my digital library because I'm now tracking developments quite closely to see how they might impact the development and adoption of digital workplaces. Frankly I'm tired of seeing yet more "clever" schematics about digital workplaces where collaboration is the key objective. They belong in the parallel universe of Perfect Collaboration. Digital workplaces have to about supporting the delivery of products and services to customers to drive economic development, and a lot more. BIM to me has been a reality check. All these initiatives going on and I knew nothing of them. Hopefully this article will have given you an excuse to broaden your digital workplace horizons. You may even be sitting in a building that BIM helped to build!

## 21<sup>st</sup> Century Communities of Practice - Key Components of Knowledge Management

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The Community of Practice has a right to be considered both a founding knowledge management technique and a tracer for the health of KM practice through the last thirty years. It is so resilient a source of knowledge and intelligible an idea, that this year a major European financial institution commissioned a year-long pilot knowledge management system with a network of CoPs as its sole infrastructure and key source of corporate knowledge.

They have not been without their challenges. Along with many other aspects of humanfocussed knowledge management, CoPs have had to adapt to the new working environment now most often called the Digital Workplace. Here are a couple of the challenges and how well CoPs have adapted.

#### Classic Rule #1: A successful Community of Practice must be a physical community at heart

This is based on the origins of "Communities of Practice" as a term for a key way in which individuals learn socially. Etienne Wenger, one of the founding fathers of the study of Communities of Practice, and certainly its most recognised by knowledge managers, can be heard expounding this social learning context as part of the Festival of Research at Brighton University in May 2013.

As part of this context, it was observed by knowledge managers in the 1990s and early 2000s that Communities of Practice in the work environment often originated with physical communities of like-minded workers who then used IT to continue their knowledge sharing and problem solving between meetings. For early work adopters of electronic discussion forums (almost synonymous with CoPs), the physical contact was paramount, and the IT environment an increasingly necessary adjunct.

#### And yet...

Anyone who has worked through the 1990s - 2010s will be aware how much that has changed. In most office buildings now, the worker's key relationship is with his or her digital workstation: meeting space has reduced to near zero, the water-cooler/coffee machine is less a knowledge sharing node than it was, and many key contacts are outside the office - as contractors, or working from home offices or as outward facing staff constantly on the move. And yet in my consulting practice and observations of non-work and permeable work environments, Communities of Practice - which cannot now hope to always originate in strong, sustaining face to face environments - continue to be created and maintain their value.

The two strongest reasons for this are, I believe:

- 1. In many workplaces (though not all parts of health and education are counter-examples) the digital workplace is no longer a simulacrum for "real" working environments it is the working environment itself. A significant part of the workforce and its customers are digital natives, who are as comfortable, creating, sharing and communicating in electronic environments as they are face to face.
- 2. The rising "gig" economy (in which temporary positions are common and organisations contract with independent workers for short-term engagements), pressures on office space and the increasing desire to balance challenging home and work lives, converge to produce a fractionalised staffing environment where knowledge workers are less likely to find themselves in physical proximity with each other.

## Classic Rule #2: Management must not set the agenda for discussion in Communities of Practice

This was based on the twin observations that it was hard to get people to take the time and effort to enter a CoP, and that any feeling of coercion when there put people off using them. The model CoP was a largely self-governing and self-inspiring community where people asked for what they wanted, or contributed what they thought would be useful. So once the broad parameters were established by the organisers of the CoP, the agenda would emerge from the needs of the participants.

From about 2007, as organisations got tougher on demonstrating a return for the time and money invested, and before suspicion of "freewheeling" communities began to ebb, the best examples of CoPs were outside work - such as the Community Care magazine's CareSpace forum (abandoned at the end of 2013 because the user interface became out-of-date and the publishers declined to update it.) Now the best outside work examples of self-governing CoPs are often found in the health sector. The Motor Neurone Disease Association's <u>forum</u> still thrives after at least thirteen years and people with MND, their carers and occasionally professionals share tips and solutions regularly.

#### And yet...

The argument from a resourcer's point of view is clear: without an agenda how can the organisation countenance the time and effort people devote to CoPs?

Research in 2003 helped to defend CoPs: it was clear at Shell (as reported by Andy Boyd) and in health charities (as reported by me), that when workers were given the choice

between databases of solutions and forums where they could seek answers from their peers, they overwhelmingly chose the latter, even where they knew there was a high chance the databases had the solutions. Boyd, then Knowledge Manager at Bassell Polyolefins, Shell Group presented his findings on Shell's Communities of Practice at the KM Connect Conference in May 2003. I published an internal report to senior management of the Motor Neurone Disease Association Forum in February 2003. Remarkably the figures we came up with independently were very similar. Users of suites of CoPs and solution databases assessed that 85% of the solving value lay in the CoPs!

Now the CoP world is beginning to see it the resourcers' way, and the dictum that CoPs must be safe places where discussions can thrive and die, as the needs of the moment dictate, is at least being matched by technology-enabled work on extracting value. There are two trends:

- 1. Savvy Communications and HR departments are beginning to systematise the discussion threads, and to the extent this is happening, parts of Communities of Practice are turning into Communities of Commitment. Chris Collison and Geoff Parcell formulated this distinction in Learning to Fly and it is one that makes it possible for traditional Communities of Practice practitioners and ROI-orientated managers to work creatively side by side.
- 2. Participants in CoPs are well aware that the results of discussions are often valuable outside the forum, and are increasingly keen to ensure that lessons learned and the green shoots of innovation are successfully transplanted from the forum into formal work channels.

What paradoxically makes it easier for Communities of Practice to thrive is that collaborative working, of which they are a part, is often undertaken pragmatically, with organisers and participants less interested in distinctions and turf wars than they are at getting at usable knowledge and effective action.

It is often left to the knowledge managers to sensitively ensure that whatever their organisation might call them, Communities of Practice are run according to the principles that make them such an effective technique for knowledge sharing, organisational learning and problem solving. Until an opportunity arises to illustrate those principles further, the two best books I know on the subject are still *Cultivating Communities of* Practice and Learning to Fly.

Visit: DLC Ltd - New Knowledge Management Techniques

## Higher Education Focus: Meeting the Reading List Challenge

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This is a report of the *Meeting the Reading List Challenge* conference held in Loughborough (5<sup>th</sup> and 6<sup>th</sup> April 2016). Read the <u>Storify</u> and check the full conference <u>programme</u> for the presentation slides.

The conference has been run for six years now, involving developers and librarians from a variety of backgrounds. Although presenters showcased a range of different experiences, several key themes emerged as prevalent, helping delegates to share useful advice about the challenges and opportunities common in many academic libraries.

Several speakers addressed the electronic reading list implementation process, and the challenges such a project presents. Nearly every speaker addressed the issues they had trying to get users engaged with the system. Others touched on the process of integrating their chosen reading list system with other learning resources. Finally, some of the major challenges for the future of electronic reading lists were discussed.

#### What is an electronic reading list?

Higher education institutions create lists of resources (books and e-books, scholarly research papers, databases, for example) so that students have access to a detailed bibliography for each academic module. Reading list formats vary greatly depending on the nature of the subject, the information literacy levels of students and staff and the availability of resources. In recent years many institutions have adopted dedicated software to make the use of reading lists more streamlined, as well as to make the lists more interactive. (Please refer to the list of software at the end of this article.)

Electronic reading lists are increasingly important in supporting the ongoing shift to digital study habits. They enable students to access the majority of the resources they need from a single source, 24/7, without the need to go physically to the library, or at least not as frequently. Various conference delegates stressed how this is a major selling point of integrated software, because it caters to the increasingly diverse population of long-distance students, part-time students and students with disabilities. Additionally, having so many varied resources accessible in one place facilitates the research work of postgraduates and academic staff alike.

#### Planning and engagement for electronic reading lists

During the reading list project implementation phase, most libraries sought approval from senior university management using the powerful argument that well-structured electronic reading lists improve the student experience and have impacted positively on student satisfaction surveys. In some cases senior managers took personal ownership of the project and actively promoted the benefits of electronic reading lists to academics.

Other engagement strategies presented during the conference included encouraging collaboration with librarians, academics, other support staff (IT and technology-enhanced learning support, for example), and with students and representatives of the Students' Union. Engagement happened in different ways, ranging from mixed steering groups, to online surveys, to in-depth interviews with academics, to focus groups with students. Some universities trialled their new software on a small scale in a limited number of departments to make sure before the big launch that there were no major bugs, that the system worked on all operative systems, and that it served distance learners well.

A key element of the long-term strategy of many universities has been to make sure the user experience is as intuitive and streamlined as possible. Nearly everybody tried to make the reading list experience simpler for users reducing, for example, the number of steps necessary to get to the desired resource (e.g. direct link to an online article). However, hard copies often still make up a substantial portion of the resources listed even when an institution has access to a great deal of e-resources (e-books and e-journals). In various surveys specifically on reading lists, many students stated that "real" books are still the preferred way to study. Several academic libraries have acted upon this providing clearly marked online information side-panels with the number and location of copies available in the library.

#### The importance of academic 'buy-in': the virtuous circle

During the conference many identified a major challenge of electronic reading list implementation is the difficulty in keeping academics involved. Early academic buy-in is crucial, to ensure a critical mass of courses are covered by the implementation project, to engage as many students as possible and in turn to encourage students to become advocates for the service and push for consistent, high quality and regularly updated reading lists.

When academics were not engaged or involved on an ongoing basis, the quality of reading lists deteriorated with students seeking out-of-date texts and less likely to discover and utilise electronic resources. The easiest solution would be to dedicate additional library staff to maintain reading lists, but while some libraries allocated resource for this in the project implementation stage, it was not a feasible long-term strategy, even for the largest libraries.

Useful tips that arose from the conference were to invite academics who compiled high quality and well-annotated reading lists to join a reading list steering group and to promote their good work outside the library to set the standard for other lecturers.

Another simple idea was to send reminders with offers of support to owners of lists that had not been updated for a year or longer, or where there were an inadequate number of references.

#### What does a good reading list look like?

One of the big questions during the conference was whether certain list structures were better than others to facilitate students' reading. Lecturers tend to submit very different reading lists depending on their reading habits, on the module structure, on the target student and on a number of other factors. While it is clear that most reading lists should not be limited to just books, there are a lot of viable options in regard to the variety of resources included, length, added notes and terminology used.

Group activity on day two was focused on this topic, with delegates trying to organise a mixed set of resources into a reading list. Most groups created sections and sub-sections grouping together resources about a particular theme; others reproduced the week-by-week structure of an academic module. Importantly, some lists had notes added in to promote critical thinking, some had tips on how to find the resource, and some explained how those resources would be used in the course (e.g. classroom discussion, reference text). Quite a few were very creative, and there was generally a very different approach from group to group.

This exercise enabled delegates to identify a range of different solutions to support students. While in most cases it will not be possible to have a uniform reading list structure across the university, it is important to initiate a discussion about reading lists with students and academics, to establish at least an agreed set of terms to use when working on reading lists (e.g. core/essential/primary reading).

#### Objections to electronic reading lists

Group discussions and several presentations brought up common objections to the idea of online reading lists.

The first source of resistance comes from some academics who think that editing reading lists is a clerical job, not something lecturers should do considering their heavy workload. Some argue that their traditional ways have always worked fine, and see no reason to change to a new system. In some organisations the imposition of electronic reading lists is seen as an attempt by administration to standardise everything. Others argue that specialised software can be frustrating and difficult to use, or that it is difficult to remember how to use it because you only update your reading list once a year.

Librarians can easily argue that they require up-to-date reading lists to ensure that they have the right resources in the right format available at the right time. But, in order to counter the academic criticisms, there are a number of key electronic reading list features that could be highlighted to the academic community during the project implementation and service launch phase. Some key features academics find particularly appealing are:

The ease of updating a reading list with minor changes for the following year

- Live information about resource availability, i.e. connecting reading lists with the online catalogue
- The possibility for students to select reading preferences i.e. 'Currently reading', 'Mark as read' etc.
- Usage statistics, so that a lecturer can see how many students are reading certain articles

Another useful idea is to make it very clear from the beginning that there is no mandate to use reading lists, as this can stir up academic resistance. A better strategy is to get senior management and top academics on board, so that they can advocate the system themselves and encourage uptake amongst the teaching community.

The conference discussed a fundamental critique that impacts on the very nature of electronic reading lists - that they impair the development of critical and information literacy skills among students. Many lecturers believe that they are part of a damaging and patronising mentality that aims at catering for student needs to the point of spoonfeeding, and that this is having a negative effect on the student's ability to do independent academic research. However, it was a widely shared opinion among the attending librarians that complex reading lists actually improve student awareness of questions critical for academic research. A module reading list not only makes studying for a course easier, but it is often the first chance for a student to be exposed to a varied and complex bibliography that has been curated and kept up to date. This can lead to increased awareness of information resources and has positive effects on information literacy levels.

#### Benefits of electronic reading lists for LIS professionals

Most delegates agreed that a major objective of electronic reading lists from their perspective is to integrate them with other resources so that students can access all of the information they require via the university's Virtual Learning Environment.

Reading list software enables librarians to analyse usage statistics and inform collection development policy and budget management on a local and national level. There is a case for sharing reading lists and associated data with other higher education institutions. This has some exciting possibilities, including a market for used books, insight into the use of open textbooks and even changes to the negotiation process with publishers, with the aim of influencing e-book pricing models.

Another point to reflect on is the idea that academics might want to see what resources colleagues in other institutions are using, although this might cause problems if not all academics are willing to share their reading lists, or if their lists are not copyrightproofed.

#### Conclusion

The conference was really useful for all librarians, for those who are already working with reading lists and for those who are thinking of implementing a new electronic reading list system. Many libraries have experienced the same opportunities and challenges, and often found similar solutions. I see this as a sign that, as a profession, we are going in the right

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direction and I will take this experience as an incentive to network more with other librarians.

#### Reading list software

The links below provide further information on the software used by the speakers at this year's conference:

<u>Leganto (ExLibris)</u>
<u>MyReading</u> - University of Huddersfield Reading Lists
<u>Rebus:list</u>
<u>Talis aspire</u>

More information on alternative reading lists solutions is available <u>here</u>.

## Higher Education Focus: Collection Development -Negotiating the Future

#### Priya Mehta

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This report covers the key themes from the Sixth National Acquisitions Group (NAG) Collection Development Seminar for Academic Libraries held in Birmingham in May 2016. Presentations were given by library and information professionals from academic libraries across the UK, and were focussed on negotiation and collaboration with the newest forms of library acquisition.

The theme of the seminar was negotiation in collection development and the speakers ranged from librarians, collections consultants and publishing representatives. They presented on a variety of topics including e-textbooks, PDA (patron-driven acquisition), EBA (evidence based acquisitions) and copyright.

The day began with Plymouth University's E-textbook Services Co-ordinator Tif Dickinson who spoke about negotiation for their e-textbook programme. Plymouth provides most of its first year undergraduates with a personal copy of their core reading in e-textbook format with access in perpetuity. The textbooks are run on the VitalSource platform. Dickinson described the process of consultation with academics in jointly choosing the books and providing them with usage statistics to justify future choices. Dickinson was keen to highlight that negative perceptions of librarians do not help negotiations, as many publishers expect librarians to pay the asking price. She argued that libraries should use their collective buying power to obtain the best deals. For example, publishers often provide the e-textbooks in PDF format, but ePUB format is much more user friendly. Therefore she encouraged academic libraries to use their collective buying power and not to pay more for an ePUB format. The challenges for the future were:

- Maintaining a level of discount
- Reacting to changing publishing business models
- Pushing publishers to invest in better formats
- Developing purchasing models for print alongside e-textbooks

The second speaker was Stuart Dempster, Head of Information Resources at Imperial College London. He presented on empowering library staff, negotiation skills and the use

of analytics in journal subscriptions. Price rises were the driver for changing the way Imperial negotiated with publishers and Dempster highlighted the three P's in facilitating change:

- People: investing in new skills such as negotiation, influencing and team work to empower staff
- Policies: Undertaking a Rapid Improvement Exercise to improve in-house policies
- Preparedness: doing research on usage statistics and alternatives such as Open Access

He suggested that librarians need to move into more analytical roles requiring advanced knowledge of statistical software like Excel and licence interpretation and management, for example.

The next presentation moved on to patron-driven acquisition (PDA) with Jackie Harrison, Content and Collections Consultant at the University of Hertfordshire. Hertfordshire adopted PDA in 2007 as one of the first in England to take up the model. Under the autopurchase model, if an ebook was accessed three times (for more than five minutes), it would be purchased. Using this model, the PDA budget was soon overspent and cutting into subject librarian's budgets.

Harrison cited a change of organisational culture under new management in 2014 as the reason for the realignment of PDA. Students and academics were consulted and a new library management system was implemented. Using data from EBL, the three hit purchase model was adjusted to ten hits, resulting in an underspend for the first time. The benefits of the changes were lower costs, more funds to spend on print books and staff confidence to make purchasing decisions.

Further to this was an interesting presentation from Anna Sansome, E-resources Librarian (Development) at University College London, on her experiences of EBA (evidence based acquisitions). As a print book heavy institution, Sansome saw the main benefits of using EBA at UCL were finding out if students really did use ebooks, and being able to provide access to these books very quickly. The usage statistics found that half of the books in the model were viewed at least once and the highest use titles were from a range of disciplines.

The main challenge to EBA was the lack of clear information from some publishers. For example, certain items are held back from packages, there may be a delay in releasing an ebook after a print version and some may not send catalogue records or lists of your purchase selections each month. For Sansome, future issues to consider are how to address ebook acquisition long term, and how EBA fits into the wider collection strategy.

The late Laurence Bebbington, Deputy Librarian and Head of Library Services at the University of Aberdeen, gave an encouraging presentation on the changes in UK copyright law. The UK's copyright reforms in 2014 have given libraries much more freedom in making resources more accessible and usable, however Bebbingdon argued that libraries were not taking advantage of them. For example, accessible copies for disabled users,

text and data analysis and the provision of content on dedicated terminals. He pointed out that these new reforms could be used with much more imagination to promote content and this message should be communicated to academics and senior university management.

Also included in the programme was a presentation from Sarah Logan and Nathan Turner from Cambridge University Press about their EBA services, and two group breakout discussions on negotiation skills and EBA, which bought out a variety of experiences from around the country.

I am currently working as Senior Information Assistant (Acquisitions) at BPP University while undertaking my professional library qualification part time with the University of Sheffield. The seminar provided me with a great understanding of the issues impacting on collection development in a rapidly changing environment. I took away two key themes from the day. The first was the importance of libraries working together through discussion to ensure they can negotiate the best deals and demonstrate their collective buying power. The second is the variety of skills now required to undertake a role in this area, including retail, budgetary management, negotiation skills and data analysis. I was able to attend the seminar through a grant kindly awarded to me by UKeiG, for which I am very grateful. Thanks also go to the organisers for an interesting and varied day.

### Online Resource Update

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Please send your submissions for the next edition to jrc@aber.ac.uk

#### Course pack copyright

Legal action begun by Oxford University Press, Cambridge University Press and Sage Publications against Georgia State University (GSU) in 2008 over copyright may have completed its final round. The publishers accused GSU of systematically encouraging staff to provide unlicensed course reading packs for their students. Earlier this year Judge Orinda Evans found for the publishers in only four of the forty-eight charges; a similar outcome to an earlier round in the same action in 2012 when they won just five of ninetynine. On July 27<sup>th</sup> this year Judge Evans ruled that, "the publishers' failure to make their case efficiently warranted a fee award" (Publishers Weekly), which could lose the publishers and their partners, the Copyright Clearance Center (CCC) and the Association of American Publishers (AAP), millions in legal costs.

#### Elsevier

News broke on August 30<sup>th</sup> that the major academic journal publisher Elsevier had been granted a US patent for "Online peer review and method". Such was the interest on social media that Tom Reller, Head of Corporate Relations at Elsevier tweeted, "There is no need for concern regarding the patent. It's simply meant to protect our own proprietary waterfall system from being copied". The waterfall system is the offering of a paper to other journals if it has been rejected from the one it was originally submitted to, with the author's consent. This blog by the Electronic Frontier Foundation (EFF) notes that the waterfall process had been written about three years before the patent application. It also describes the difficulties that universities have with the high subscription fees charged by Elsevier for journals that researchers at the same universities contribute to or peer-review for, the "bundling" of must-have titles, and how universities are trying to break free from this publishing model by adopting open access policies. The blog does say, "as a practical matter, the patent will be difficult to enforce"; if it wasn't Elsevier there might not be so much concern.

#### The Folger Institute

The Folger Institute has launched a new and freely available online resource focussing on 403 plays, "written primarily by authors other than Shakespeare that were performed between 1576 and 1642, and which were printed by 1660" (Folger press release). A Digital Anthology of Early Modern English Drama provides descriptions of each play including the dates of first publication and first performance, the players and the theatre (where available). The bibliographic referencing includes links to the Folger record, the library

catalogue indexing the original publication, the EEBO Text Creation Project XML, and STC and Wing numbers (where available). I looked up Dr Faustus by Christopher Marlowe and discovered the first performance was given by the Admiral's (Nottingham's) Men; from the play description I can click through to a list of plays performed by the same players including Marlowe's Tamburlaine the Great. In the Featured Plays section there is a note to say that single playbooks will be made available to read online or download, "over a two-year period (2016-2017)".

#### The Harvard Art Museums

As part of their preparations to mark the centennial anniversary in 2019 of the founding of the highly influential Bauhaus school of art and design, the Harvard Art Museums have launched the Bauhaus Special Collection (BSC). This freely-available online resource comprises 32,000 records of Bauhaus related, "paintings, textiles, and photographs to periodicals and class notes" held in Harvard's Busch-Reisinger Museum. There are many sections to browse and search in the online resource including architecture, furniture, typography, painting and sculpture with many contributions by Walter Gropius, founder of the Bauhaus and later a professor at Harvard after fleeing from Nazi Germany. Of course this will be a very useful resource for scholars but also an engaging site for anyone who loves beautiful things.

#### Jisc: research metrics

A UK partnership is taking shape, "to promote the responsible use of research metrics" (JISC press release), and will be chaired by Professor David Price, vice-provost (research) at UCL. The partners comprise HEFCE, RCUK, Wellcome, UUK and Jisc with an agenda derived from The Metric Tide, an independent report published in 2015 which describes terms of reference by which the notion of "responsible metrics" can be understood. There is a focus on collecting appropriate metrics and, "recognising that quantitative evaluation should support - but not supplant - qualitative, expert assessment". One task awaiting the forum is advising UK HE funding bodies on, "how quantitative indicators might be used in assessing research outputs and environments", as part of their work towards the next round of the REF.

#### Thomson Reuters/ONEm Communications

In a move to deliver their news to mobile users who do not own a smartphone, Thomson Reuters (TR) have partnered with ONEm Communications whose global ONEm service, "enables the mobile operator's subscriber interactive access to a rich knowledge base of content via voice and SMS" (TR Press release). TR will provided their top news stories, business, entertainment and sport in seven languages by text and in English, Arabic, Spanish and Russian by audio. The service will begin, "in the coming months", via thirty mobile operators including SMART Group who provide a mobile service in Tanzania, Uganda and Burundi.

## The Changing Face of Information Professional in the Pharmaceutical Industry

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As a Chartered Librarian in a library in a Research and Development (R&D) site of a major American Pharmaceutical Company my objective has always been to get relevant information to the scientists in the quickest and most effective way. Over the forty plus years that I have worked in the industry this has always been my objective, but over the years the way I achieved this has changed dramatically.

#### Pre-digital era

When I started work as an information professional in the early 1970s everything was paper based. Organic chemists used to search the indexes of Chemical Abstracts, Derwent Farmdoc and Beilstein for days on end to check that their latest idea was novel. There were high overheads as well, for example we subscribed to Derwent's Farmdoc Manual Code Cards which every week we had to file into the correct order, which took an admin person many hours each week. Then to search these cards you had to pick the smallest relevant category and then manually scan each card to find relevant patents. Again, this would take many hours looking through hundreds of cards. My role during this period was mainly training the users to use paper-based information effectively, but I would also reach out to other libraries to obtain information not easily accessible at our site. For example, the Royal Society of Chemistry Library, Aslib and the Science Reference Library in Holborn (later the British Library Science Reference Library).

#### The rise of online and the value of information professionals

Everything changed in the late 1970s with the start of online searching with Dialog, Blaise and Orbit, so we did not need to search many of the key databases manually and in fact it gave us access to many databases previously unavailable to us. But because of the high costs of connect and print charges along with the training needed to be able to search the databases effectively, all the searches had to be done by information professionals rather than end-users. Although the online speed was slow (300 baud acoustic modem) to start with, we could quickly and more effectively search the key databases. Taking the example of searching the Derwent Farmdoc Manual Code cards above, when you did this search online you could easily combine multiple Manual Codes and reduce the number of possible patents to check to a handful in a few minutes.

Over the next few years the online hosts developed their wares and searching became more complex. In the mid-1980s you could search Chemical Abstracts by chemical

structures rather than using names and/or registry numbers. Again this searching was done by information scientists rather than by end-users. Also the online speeds increased with X-25 Packet Switch Stream (PSS) connections.

#### The start of end-user search tools

In the late 1980's the end users could start to search electronic information themselves. I developed an in-house library administration system that gave all our end users' desktop access to our book catalogue, journal holdings (at individual issue level), inter-library loan/photocopy requesting and a company scientific publications catalogue. We also purchased a CD-Rom version of Index Medicus/Medline that end-users could search themselves. But only one year at a time could be searched so it was a bit slow to search multiple years. In 1992 we purchased the ADONIS electronic journals on CD-Rom so that our users had almost instant access to hundreds of biomedical journals, the index of which we made available on the library administration system.

#### End-user searching takes off with the advent of the web

In the mid-1990s the Internet became a reality and more end-user search tools became available, along with PC based search tools. The search tool that had the most impact for the pharmaceutical industry was Chemical Abstract's SciFinder software. This allowed organic chemists to search for chemical structures for themselves on their desktop PCs. This had previously been untaken by information scientists. It was in the late 1990s that information scientists had to change from doing information retrieval to doing more proactive information analysis, but also supporting the end-users in their use of end-user tools.

Also with the advent of the Internet and also the Intranet, more and more information resources were becoming available to end-users. This included PubMed/Medline, the major biomedical database that became freely available on the web in 1997. In the late 1990s more and more electronic journals became available online. Our company started with American Chemical Society journals in 1998, Elsevier's ScienceDirect in 2000 and Wiley Interscience soon afterwards. This meant that hundreds of full text journals were available to scientists at their desk. We also made good use of the company intranet to help users access relevant information resources. This involved writing our own HTML web pages.

#### The demise of the physical library and advent of the virtual library in the early 2000s

During the late 1990s our physical library was under threat as prime office or conference space was required and very few people were actually visiting the library now many resources could be accessed from the desktop. The Library was located in a beautiful position in an old Victorian house with French windows out onto a patio. I had already foreseen the demise of the physical library and become a biomedical information scientist in 1997. In 2000 our large physical library closed and the older journals were moved to mobile shelving in a basement. The old library became a conference room. Soon afterwards the UK library staff were adsorbed by the US HQ Library Staff and we became a virtual library. The Librarian retired in 2003 and was never replaced. The remaining library was run by a part time administrative assistant, mainly doing photocopy requests from the British Library.

#### Information scientists integrated into the business to become competitive information scientists

At the beginning of 2004 I wanted to develop my role as a biomedical information scientist and wanted to understand the information needs and practices of the biologists in discovery research. So I set up a project to interview ten to twelve senior biologists to find out how they used external information resources.

As a result of this project a number of recommendations were made to biologists to improve the way they used external information. About a year after carrying out this project the organisation of biology was changed dramatically and their information needs became primarily drug target based rather than disease based. As a result I changed my services to them to take account of the changes. In the USA information scientists were starting to do competitive information analysis for key compounds that were coming up to product decision. Although I was also doing this on a smaller scale, as a result of my project in 2004 I decided that our local biologists needed competitive information much earlier in the development cycle. I persuaded my Manager in the US that this was a real need for my customers, and she allowed me to undertake this work as an experiment. This resulted in me being much more integrated into the research business, attending project meetings, etc. This required access to multiple drug pipeline databases (Cortellis, Pharmaprojects, ADIS R&D Insight), scientific patent and literature databases, etc. We acquired various electronic tools to help us collect relevant information on various drug targets, which would help us write an analysis of the area. In 2009 the idea of providing competitive information in early drug research was taken up by the whole of the competitive information team. As part of this role we used the company intranet and the MS Sharepoint tools, text mining tools (like Linguamatic's I2E) and specialist desktop tools (like BizInt Smart Charts). Later we used Northern Light's knowledge management tools to capture internal tacit knowledge

#### Conclusion

Over the years I become more of a specialist, and also more proactive in the way I provided information to my customers. I also had to know my customers' needs intimately and get integrated into their business.

My career in a fast moving industry meant that I had to adapt quickly to technological changes and apply them to my role to effectively manage information for my customers. If I had stayed in my Librarian role I would have been redundant in 2003, if not before. If I remained a biomedical information scientist I would have probably left in 2009. But because I was far-sighted enough to see the changes ahead I remained in a very productive and fulfilling role until I retired in 2015. I did have another advantage because I was almost my own boss until 2005 (when we became part of the Lilly Information and Knowledge [LINK] global LIS team) so I could relatively easily introduce changes without becoming embroiled in company politics. Also being a small R&D site I could easily get to know my customer's needs, as I met them over coffee, lunch, etc.!

#### Lessons learned

- Be informed get to know your customers' info needs. Meet with key customers regularly
- Be available always have time for them, even when you are busy. Listen carefully to what they say
- Be visible Use lunchtimes to sit with different people/regularly walk around the
- Be supported develop LIS advocates/supporters, for extra money and resources
- Be willing to change don't get stuck in a rut! Push appropriate boundaries for new technology

#### **Appendix**

#### List of new technology introduced

Throughout my career I always wanted to ensure that the company had excellent and cutting-edge resources. Over the years I introduced new technologies as soon as they were shown to be valuable, and sometimes before. Being part of a resource-rich innovative company helped dramatically, because they wanted their research staff to have valueadded information that would help them make quick business decisions. Below I have listed the major new resources that I introduced over the years.

**1972** Purchase of Derwent's Chemical Patent Index (Agdoc and Farmdoc).

1977 Online Searching. Signed contracts with Dialog, ESA-Recon (Dialtech), Blaise and Orbit.

1979 Computerised Book Catalogue - Batch creating and print-out.

**1980** Purchase of Microfiche/film of journals to save space.

**1981** Signed up with Questel DARC for substructure searching of Chemical Abstracts.

1982 Signed up with CAS Online (STN) for substructure searching of Chemical Abstracts.

1986 Use of first PC. We had a Graphics terminal emulator to search STN and DARC using an X-25 Packet Switch Stream (PSS) connection at 1200 Baud. Also had word processing system IBM 5520.

1986 Wrote own computerised Library Administration system using CompuServe's System 1032 (Continued in active use until 1996).

1988 Purchase of SilverPlatter Medline on CD-Rom for end-user searching (Continued in active use until 1996).

1992 Purchase of Adonis journals on CD. The infancy of electronic journals (continued in active use until 2005). Purchased hard copy of PJB's Pharmaprojects our first Drug Pipeline resource.

**1996** Created own Library intranet web pages.

1996 Internet end-user search of Medline using Ovid Web.

1997 Started using Sirsi Unicorn Library Administration system that our parent company had installed. About the same time we signed up our first electronic journal subscription. Digital VAX System 1032 Library Admin system closed down, replaced by Sirsi and Winchill. 2000 Signed up for a European License for ScienceDirect to provide the full text of fortytwo journals. This was a collaboration of five Eli Lilly R&D Sites in Europe. I negotiated this agreement on behalf of the five sites. Also started negotiations with WileyInterscience and Nature for European licenses, these were taken over by Parent Company later in 2000 to create a Global license.

2001 Information Services division of Information Centre formed to maximise information science to the site. Chemical/Patents and Biomedical Information Scientists appointed. iDDb3 (later Cortellis) Drug Pipeline database purchased.

2005 Became part of LINK (Lilly Information and Knowledge) Information Research and Analysis global group.

2007 Pioneered use of Microsoft SharePoint technology in new company portal "LillyNet" to create a number of Collaboration Sites for department and customers. Used SharePoint's RSS Reader to create RSS Alerts for Literature and Patents using OvidSP and PatBase databases, these were used to deliver current information on key topics to customers, e.g. Drug Target information using an internal Wiki.

2008 Investigated various Social Media Tools to market LIS services and disseminate information, but because of intellectual property concerns, we had to use internal versions of Wikis, Facebook, Blogs, etc.

2012 Developed use of Northern Light's Knowledge Management tool to capture tacit knowledge around Drug Targets

2013 Piloted various Drug Pipeline database integration tools. None were developed enough at that time to make a purchase decision.

#### Notes for Contributors

eLucidate is the journal of the UK Electronic Information Group. It is usually published four times each year, around March, June, September and December. It aims to keep members up to date with developments and innovations in the digital information industry, considering the impact on information professionals and consumers of e-information.

UKeiG encourages the submission of articles, reports and reviews about any of the topics covered by the journal. These include: electronic resource awareness, information management, digital/information literacy, effective information retrieval and search technologies, intranets, social media, open access, e-publishing and e-industry research and development. UKeiG can't pay contributors, but you will retain your copyright and will be able to republish your work elsewhere.

Please follow these simple guidelines:

#### About our members

Our membership is eclectic and includes information professionals at all levels of the UK workforce involved in digital content management and awareness, information dissemination, training and service delivery.

The UKeiG demographic comprises academia, but also the private, commercial and public sectors, embracing schools, further and higher education, the NHS, healthcare and pharmaceutical industries, science, law, finance, arts, humanities, archives, museums and libraries.

UKeiG's most popular training courses include search tools and strategies,

intellectual property, e-books, intranets and content management.

A key benefit of membership is that the training courses, meetings and networking forums provide "crossover" insight from one discipline to another. Members see UKeiG as a way of keeping up to date with trends and developments outside of their core, day-today business. Few other organisations provide this kind of cross-sectoral context and oversight.

#### Technical level

Although members rate themselves highly for technical awareness, they are typically users rather than creators of technology. Articles should not assume understanding of technical terms without explanation.

#### Length of article

Feature articles should be in the region of 1500-2500 words, but the editor is flexible on article length. Each article should be prefaced by a short summary (around 50 words.)

#### What to write

The world is your oyster in terms of suggested themes and subjects as long as they reflect the disciplines and membership base articulated above. You should never assume that readers will be entirely familiar with your topic, so anything you can do to offer definitions, explanations, examples and context would be welcome. You should always link to suggested reading and alternative resources to enable readers to explore your article further.

While the obvious focus of the group is the UK electronic information sector, the industry, by its very nature, is global and international developments should be

reported when they impact on the UK landscape.

The most valuable viewpoint you can give is that of a practitioner. While UKeiG welcomes theoretical debate, we are primarily a forum where peers can share their practical experiences and understanding. So, if something worked for you, tell the readership. If something didn't, tell the readership why not.

#### How to submit

Please e-mail your copy to the editor gary.horrocks@gmail.com Articles should be delivered in a simple Word format.

Hyperlinks to alternative/suggested content/further reading should be embedded in the text. Images are welcome if they illustrate a point or clarify a statement.

Please send them separately, and also place them in the Word document in the appropriate sections. They may be in gif or jpeg formats.

#### Rights

By submitting an article to eLucidate, authors grant UKeiG the non-exclusive right to publish the material in any format in perpetuity. However, authors retain full rights to their content and remain the copyright owner.

#### About you

Please provide a 10-20 word biographical summary about yourself, alongside an email address and job title.

#### **Editorial process**

Your article will be copy-edited for spelling and for sense. If there are major changes to the article we may return it to you for your comments and approval, but most articles require only light corrections before appearing in eLucidate, and do not need a further review by the author.

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Book reviews are typically 600-1000 words. Because UKeiG is independent of any publisher, we are not obliged to have favourable reviews. If you think a book is poor, then by all means explain why. Members and non-members alike are welcome to suggest books for review or to submit reviews.