

Data, Information, Knowledge & Disruptive Technologies in an Age of Uncertainty – Reflections on the 2017 CILIP Conference

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CILIP's 2017 Conference promised an extravagant line up with plenty to hear and learn. There were several strong themes throughout the programme including a definite push towards persuading information professionals, especially those in education and public sectors, of their worth in the private sector. The IT sector has finally realised our potential; that the skills we possess are ones the sector and the companies it supports are desperately short of. The sheer volume of data which we produce as individuals and within organisations - and how we maximise its impact - also featured heavily throughout the event, with an emphasis on Knowledge Management leading up to the launch of the new CILIP [Knowledge and Information Group](#).

The opening keynote speaker, Dr Carla Hayden, is the first female, African American [Librarian of Congress](#) and surprisingly one of only a handful of professional librarians to have held the post. She has been dubbed the “superstar librarian” and we are, in turn, her “British peeps.” More about her speech can be found [here](#) on the CILIP webpages. Her down to earth manner, enthusiasm and determination to make the data and information at her disposal accessible to everyone, really inspired and captured the imagination of the packed to capacity lecture theatre. Dr Hayden gave us the background leading up to taking on her current post. Twitter buzzed even more than usual with school librarians celebrating that it was their sector where Dr Hayden's career had begun before she headed into public library service. She explained how she'd worked with teenagers and engaged them in library services and casually slipped into the presentation that Barack Obama had interviewed her for her new job. When she'd expressed some doubts about the post, Obama reassured her that the role needed someone with her skills to make the Library of Congress more inclusive and to maximise the full potential of its 164 million-itemed collection for the people. Dr Hayden met with “pushback” and resistance to change but eventually won the day, proving that if you are brave, think big, persevere and believe in what you're are doing, then you are bound to succeed. She concluded to thunderous applause.

“Using Data and Information” was the first seminar of the conference. Speakers from [Eden Smith](#) emphasised that we are the best-placed profession to deal with data management, accuracy and integrity and that the demand for library and information skills is increasing. Companies are beginning to realise that they have a wealth of data that they know they should be utilising but are not sure how. They require experts to advise them on how it

can save them time and/or money, and who is more suited to doing this than information professionals?

The idea that librarians are in demand from the private sector was emphasised by the number of large corporations who attended the conference in order to woo us away from our traditional public, education and health environments. Ceri Hughes, Head of Knowledge, Research and Collaboration at [KPMG](#), referenced the skills required in order to maximise an organisation's knowledge, information and data potential. She elaborated on the [strategic importance of Information Management and Knowledge Management](#), focusing on continuing professional development and the need to inspire confidence and enable a learning culture. The company's Knowledge Centre of Excellence (KCE) aims to provide a robust and continually improving information protection environment that ensures the integrity and confidentiality of organisational assets. Via the KCE, every employee of KPMG has the opportunity to achieve their fullest potential and enable themselves and the company to deliver excellence at every level.

Ceri also announced that KPMG has partnered with CILIP to re-publish the 1995 Hawley Report. Hawley concluded that information should be treated with as much importance as any other asset to a business. It appears to have been left on a dusty bookshelf; a massive missed opportunity for the profession. CILIP and KPMG now aim to ensure that, by republishing the revised and updated report, information and knowledge management will once again be visible on board level agendas.

[Sue Lacey Bryant](#), Senior Advisor, Knowledge for Healthcare at Health Education England (HEE), emphasised the importance of evidence-based services in the NHS. She has taken a strategic approach to empowering the workforce by initiating a dialogue with top level management and leaders; persuading them of the cost saving, quality and productivity implications of making greater use of data in decision making. It is obviously a no-brainer that knowledge management is essential in an environment like the NHS. HEE is also working to develop the workforce so that employees have the necessary skills, values and integrity to deliver outstanding care. Currently patients with cardiovascular disease are significantly better off in terms of care than patients with osteoarthritis as the evidence base is more advanced. HEE is working to address this with initiatives like the [#AMillionDecisions](#) campaign, leading the way to improve the understanding about the power of high quality, evidence based information in healthcare. HEE has also embraced open access and its [Knowledge Management toolkit](#) is freely available to all.

Later on in the programme Nick Milton, Director and Co-founder of Knoco Ltd offered a definition or possibly a clarification of the difference between [Managing information and Managing knowledge](#). Beginning with a controversial quote that knowledge management is a confused discipline, simply rebranded information management, he navigated through the "white space" between the two disciplines. The visual nature of Nick's presentation was enormously helpful and introduced the draft [International Standard on Knowledge Management systems](#), which will help raise the visibility of KM on organisational and management agendas.

The final presentation of the first day was [Claire Bradshaw's session](#) on improving our communication skills. Claire focused on HOW we communicate rather than WHAT we actually say. It was refreshing to take a moment out to assess what our key communication strengths are and to consider how they could impact on those we interact with, positively or otherwise. In groups we were encouraged to focus on a real life situation we either had encountered or were about to. Using a "style compass" we were encouraged to visualise our communication traits. Some of us are risk averse, some not. Some of us focus on detail, while others view the bigger picture. Some are people oriented, some process oriented. Communication is even more effective when you adapt it to your audience. This is key if library and information professionals are to communicate on an organisational level and market their impact to colleagues outside of the LIS sector.

Library and information professionals have long understood that IT is simply an enabling tool. Only after reviewing organisational processes, information requirements and data quality can IT function effectively. Caroline Carruthers, the first Chief Data Officer for Network Rail, used a household hoarding analogy alongside cognitive behavioural therapy to address the issues of effective data management. In her presentation "[Is data even important?](#)" she led us through stages to address and decrease our data hoarding and disorganisation. Jeremy Foot, information and data architect, in his session "[Big I, Little t](#)", reiterated this tendency to reach for the technology first before articulating the intended outcomes or solutions. Whilst data storage is cheap the true cost is spent on staff time trying to find information and data in the organisational quagmires that have been created.

The issue of using IT in a relevant and useful way was also highlighted by [Neil MacInnes](#), Strategic Lead - Libraries, Galleries and Culture, Manchester, who recalled:

"I had a really interesting experience with the youth council once. We were talking about library apps and I proudly said to the youth council 'we've got a library app' and a youth council member said 'yes, but it's crap' because all we had done was lifted the transactional basis of the library management system and put it in the app."

Utilising quality data for evidence-based service development and negotiation with finance departments is essential. "There's not much that we don't count in libraries," MacInnes said, "but there's not much that we count that we actually use. So how can we actually use that rich quality of data to inform the business plan and service delivery?" In order to win the support of councils, politicians or whoever is holding the purse strings, we need to have the evidence to prove necessity. In order to collect it effectively we need to return to Caroline Carruther's warning against simply slinging data into cheap storage without first thinking about how it will be used. Neil has tirelessly championed the Manchester Library Services in a similar manner to Carla Hayden. Both have focused on what the library users need and how they use the services, providing access to resources and services based on the local community. Neil rebuilt the Manchester Central Library after a fire ten years ago with initially no budget and has overseen the refurbishment and modernisation of libraries in the area totalling in £75 million of capital investment. His statistics are dizzying: 144 locations with 18 million visits per year. By capturing this kind of data and using it to its full potential Neil has succeeded in gaining the [political support](#)

to make all of this happen. “Feedback from customers,” he said, “is key to plan the library service of the future.”

James Clay, from Jisc, opened the Conference Technology Briefing session, describing a vision for the ‘[intelligent library](#)’ and smart campus. Real time data could be harvested from smartphones and the Internet of Things in universities to improve student satisfaction and refine learning; to push specific, customised information and resources at individual students based on their mobile smartphone and online behaviour. Use of learning spaces, for example, could be analysed tracking a student’s movement over time. As a higher education librarian I understood the need to resolve the frequent “I didn’t know I needed to ask...” complaint. The ability proactively to respond to problems before they arise could revolutionise student induction, services and support. James suggested that facial recognition technology could identify students looking troubled/upset. Perhaps we could encourage students to have breaks if they’ve been studying in the library for a long time, freeing up library space, even suggesting where to grab a decent coffee? He encouraged us to jettison our cynicism and embrace the potential of emerging technologies and AI.

This raised the significant ethical issue of professional integrity. How do we navigate the fine line between making campuses smart or making them intrusive and detrimental to the student experience? What if individuals wanted to opt out of this kind of customised support? Those students less likely to ask for help would probably be the ones less likely to welcome such a level of personal intervention. These questions are beyond the scope of the single information professional. The ethical challenges an organisation would be confronted with if they had the ability to use personal smartphones to nudge students towards intended choices opens up huge discussions and the need for stringent, clear policies on institutional behaviour.

In contrast, Aude Charillon’s [presentation](#) explored how individuals can protect their online and smartphone privacy. By focusing on how LIS professionals can support the public Aude encouraged us to address our own behaviour and lead by example. In order to advise others about how they protect their data we must be aware of how our own devices work. How many of us enable location checking on our smartphones, broadcasting when and where we are for the world to know?

Disrupt or be disrupted was [Dave Rowe’s](#) warning of what can happen if companies don’t react quickly enough to new technology. Blockbuster and Kodak were two major casualties mentioned. Others have moved quickly to seize opportunities and organisations such as Netflix, Spotify, AirBnB and Uber have been game changers. Open data, Google and eBooks are disruptive models that have had a significant professional impact. The rally cry to brush off the traditional librarian stereotype and start disrupting things ourselves was an energetic ending to the briefing.

A Philosophical and Ethical Conclusion...

On the similar theme of disruptive technologies, Luciano Floridi, Professor of Philosophy and Ethics of Information at the University of Oxford, provided substantial food for

thought in his keynote. The digital world has uprooted the status quo. What used to be joined had now been separated, and vice versa.

Technology has enabled presence and location to be split so you can be present at a meeting whilst in a completely different location. Previously this was the stuff of science fiction. Ownership and usage have also been subject to the same intervention. You can buy an electronic book however you cannot pass it on as you might a physical one. You've simply purchased the right to USE it, not necessarily to OWN it. On another level, what used to be split has now been forced together. Producers and consumers of content are now indistinguishable, for example.

Questions are now the key to control, not answers. "Digital has unglued the question from the answer." He used a simple formula to enhance his theory:

Question (Q) + Answer (A) = Information (I)

Traditionally, information professionals have been the keepers of "I" especially when we controlled "A." The manipulation of the question now influences the way the information we require is controlled. Professor Floridi issued a call to action. In order to "break the monopoly on the control of uncertainty" we need to look at where we now belong in a culture where previously assumed relationships with information have now changed. We have always been about the information but he urges us to start looking at the questions instead and to assume control of the future.

See also: [Getting to Grips with Data Literacy and Data-Driven Decision Making](#)