Information Management: a 2015 Retrospective

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The literature on IM is very broad and can be found in all sorts of places. I thought it might be useful if I commented on some of the books, reports and papers that I have found of interest and value in the course of 2015. This is a very personal list and makes no attempt to be comprehensive.

Information risk management

Information risk management is a good place to start. The British Computer Society published Information Risk Management – A practitioner’s guide in 2015, authored by David Sutton. It is the textbook for the BCS Practitioner Certificate in Information Risk Management. The back cover blurb notes that the loss or unavailability of information can mean the difference between risk and ruin. It is also written in the style of a textbook and there is not much of a smile between the lines. On p36 the author states that “risk identification begins with identifying the information assets that are relevant to the organisation. This is almost certainly the critical part of the whole process – failing to identify an asset at this stage will mean that it is never risk assessed.”

The next paragraph begins, “Once the information assets have been identified the asset owners can identify the impact of their damage, loss or destruction”. There is no guidance given at all as to how information assets can be identified, not even a reference to the excellent work of Peter Griffiths in information audits. To me this is a fatal flaw in the book, despite the otherwise excellent treatment of other aspects of information risk management.

Also published in 2015 was Measuring and Managing Information Risk by Jack Freund and Jack Jones. The tag line to this book is “A FAIR approach” which is the acronym for Factor Analysis of Information Risk. This approach is not novel, with Jack Jones writing a paper on FAIR back in 2006. Indeed, many of the examples quoted in the book are described in this paper. This book is certainly not a textbook in style or content, and I suspect that many risk managers might find it heavy going.

If you want something more “executive” in style then you might read “Beyond commitment - The growing need for practical action to manage information risk in the enterprise market” which is a PricewaterhouseCoopers report written in conjunction with Iron Mountain. For the past three years, PwC and Iron Mountain have conducted studies of European mid-market companies (businesses with between 250 and 2,500 employees) to discover how they perceive and manage information risk. “Everywhere we looked we found a shortfall between where organisations currently are in terms of their ability to manage information risk and where they want or need to be. Responsibility for
information risk is invariably and almost entirely placed on the shoulders of IT, at a time when information is created and used by all functions across the business, and the potential impact of a data breach - reputational, legal, financial, and commercial - demands the attention of senior leadership and greater involvement of business units beyond IT.” Spot on in my view. However the report does get into a mess about data management and information management, which are not synonyms.

My concern about all three publications is that there is no reference to the risk to the organisation of not being able to find information because of inadequate search applications and support. I am all in favour of information risk security management but these publications, along with so many similar reports, fail to understand the extent to which not being able to find information that has been expensively created and stored is a major risk.

Information governance
I have to admit that I have difficulty in defining the differences between information management and information governance. On balance I see IM as technology independent. The Information Governance Initiative (IGI) defines information governance as the activities and technologies that organisations employ to maximize the value of their information while minimizing associated risks and costs. If you are not aware of the IGI, a US-based membership organisation, then it is well worth getting onto its mailing list. The Annual Report of the IGI is an essential read for any information manager as it presents the outcomes of a wide-ranging survey of its members about the current and future state of information governance. It is also produced to a very high standard and will grace the desk/desktop of any Director. This year the IGI has also produced a report entitled What Does Your Information Really Cost? (And Why You Need to Know Now). The vision behind the report is admirable but the methodology is a little bit less than solid. Nevertheless the discussion around ten factors that increase the total cost of owning unstructured information is of great interest and value. No organisation in the UK gets anywhere near close to the level of insight in this report. Both reports can be downloaded free of charge upon registration.

Information behaviour
I have had the honour of being a Visiting Professor at the Information School, University of Sheffield since 2002. Every time I walk into the department I am in awe of the calibre of research and teaching. I’m saying this up front as I am inevitably biased in reviewing Introduction to Information Behaviour by my (now retired) colleague Professor Nigel Ford. The concept of information behaviour was first proposed by Professor Tom Wilson, Head of the Department of Information Studies at the University of Sheffield (which is now the Information School) in the early 1980s. It is important to understand that information behaviour is not just about information seeking, though that is where much of the research has been focused because of the need to optimise the performance of search applications as information overload became a feature of daily work and living.

In his book Nigel Ford has managed to maintain academic rigour in his analysis of the research that has been carried out whilst also writing a book that will be of great value to students of any information-related discipline as well as intranet and search managers.
There have been a great many different models proposed, each with strengths and weaknesses, the weaknesses stemming primarily because of the need to delineate cognitive processes in the brain in a way that even cognitive psychologists find very challenging.

The main sections of this 250pp book cover the basic concepts of information behaviour, what we know of information behaviour, and finally discovering and using knowledge of information behaviour. This last section is especially interesting to me as it sets out some of the issues that need to be taken into account when working on projects for clients that involve any element of the use of information discovery applications. I also found Chapter 5, on how information behaviour can be collaborative, of considerable interest.

Information architecture
What is a paragraph on information architecture doing in a column on information management? Well...everything. In October 2015 the 4th edition of what is usually referred to as The Polar Bear book (from the cover colophon) was published. The full title is Information Architecture for the Web and Beyond, and is authored by Louis Rosenfeld, Peter Morville and (new to this edition) Jorge Arango. Previous editions had the strap line of “...for the World Wide Web” but the focus of the 4th edition has changed. In the Preface the authors write that the book “focuses on information architecture as a set of tools and techniques for dealing with tough information organisation problems - by anyone involved in any aspect of design, regardless of their job title.” You will find chapters on labelling systems, organisation systems, thesauri, controlled vocabularies and metadata. Both Peter and Lou are information scientists by profession and this is evident from the way the book is written. Information is at the core of the book, not design. Incidentally Chapter 9 on website search is especially good!

Information cartography
I would have to give an award for IM paper of the year to Information Cartography authored by Dafna Shahaf, Carlos Guestrin, Eric Horvitz and Jure Leskovec and published in Communications of the ACM, Vol. 58 No. 11, Pages 62-73. In an introduction to the paper the authors comment:

“Though human attention and comprehension can be overwhelmed by the data deluge, automatic methods can extract structured knowledge and provide maps of complex information landscapes to help people understand ideas, connections, and storylines. Properties of good maps are difficult to formalise; important characteristics include coherence of storylines, coverage of diverse and important topics, and relationships among pieces of information. These principles can be used to synthesise meaningful narratives from large datasets across multiple domains, including news stories, research papers, legal cases, and works of literature.”

This to me is information management in action. If we don’t start to make greater use of information visualisation (see of course Edward Tufte for inspiration) then we are going to find it impossible to manage the analysis of the vast amounts of information that we have available at both work and home. You can see this trend in the way that Google (and less effectively Bing) integrates information into a search ‘card’ that provides users with a
concise and well-laid out summary of core facts without any designer being involved. Some enterprise search applications can work the same magic.

Information advantage
In September PricewaterhouseCoopers in conjunction with Iron Mountain published “Seizing the Information Advantage - How organisations can unlock value and insight from the information they hold.” Why this report has not received wider attention defeats me.

A quote from the introduction:

“How successfully organisations manage their information has become a key business differentiator. Most have two potentially conflicting priorities: the first is security to protect against data breaches and loss; the second is value extraction. However, it is hard to get the balance right between managing information for risk and for potential reward. Get it wrong and your business could be the next data disaster to make the headlines, your brand’s reputation damaged, your bottom line adversely impacted and the trust of your customers, suppliers, shareholders, citizens and employees severely compromised. Get it right and your business can minimise the serious threats present in the information environment, meet the complex legal requirements that govern the management of information throughout its lifecycle and use your business information to deliver insights that could ultimately lend the business an advantage over your competitors.”

Spot on. I’d like to highlight a further comment from the Executive Summary:

“Our research found that most organisations lack the required skills, technical capabilities and culture to truly gain the greatest advantage from their information.”

What better evidence does CILIP need to push the importance of information management training at all levels of our profession?

My disappointment with the report is that, like other PwC reports and indeed reports from many of the leading consultancies, there is confusion between information management and data management. This is a grey area and not one where it is easy to come up with neat definitions, but there is an emphasis on data science at the expense of information science.

Information spaces
Steelcase Inc. is a global designer and supplier in office furniture, interior architecture and space solutions for offices, hospitals and classrooms. It also publishes Steelcase 360, a series of remarkable magazines about best practice in designing workspaces for the information age. The quality of these 120 page (typically) magazines is very high indeed both in terms of the content (much of it based on original research) and the presentation. Do take the time to look at back issues, especially Issue 65 on office culture. We focus on the digital in digital workplaces but there will be buildings for some time to come, especially in the manufacturing sector. Thinking about how we work physically is just as important as how we work digitally. Paul Corney has some thoughts on the subject. Although perhaps on the fringe of information management there is a fascinating paper in
Academy of Management Discoveries about the loneliness of the employees left behind in the office when everyone else is travelling around a virtual world. MIT Sloan Management Review has a good summary and a link to the paper.

Information seeking
Of all the books and papers I have read this year one stands out, and that is a paper by Professor Reijo Savolainen from the University of Tampere, which I blogged about in July. His subject is cognitive barriers to information seeking. It has transformed my thinking about the problems of information seeking, information retrieval and information literacy.

And if you don’t mind a slightly cheeky PS on the subject of information seeking, the 2nd edition of my book on Enterprise Search was published in October 2015, almost twice the size of the 1st edition in 2012.