



Research Review 2012

Intranet Focus Ltd Research Note 01/13

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Summary

During 2012 Intranet Focus Ltd. has identified, downloaded and analysed over 200 reports, papers and books on a range of topics of relevance to the work being undertaken for clients. These publications provide insights into global business and technology trends and identify emerging implementation best practices. This Research Note summarises 40 of these publications on search, big data, SharePoint, intranets and digital workplaces, collaboration and team working and mobile access to enterprise information. In total Intranet Focus Ltd. has a collection of over 1200 publications and access to a wide range of digital library services.

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Research Notes

This is one in a series of Research Notes published by Intranet Focus Ltd. since January 2012. For further information see <http://www.intranetfocus.com/resources/downloads>. Previous Research Notes covered enterprise mobile strategy development, enterprise search team management, digital workplaces, virtual teams and legal issues for intranet managers, the future of enterprise search, and stakeholder management.

1. Introduction

At Intranet Focus Ltd we track around 100 organisations who publish research on a range of topics broadly related to information management and to the consulting assignments we undertake. Some of these research reports present the results of surveys (for example AIIM and Findwise) but others set out more fundamental research. The reports from HP Labs and the Working Papers from Harvard Business School are good examples.

During 2012 we added around 200 reports and papers to our collection, including a number of excellent research papers published in primary journals which we identified through the Digital Library Service of the Association of Computing Machinery. In 2013 we will be expanding our research coverage through the addition of the IEEE Electronic Library. We also have access to the EBSCO service through our membership of the British Computer Society, and the resources of the British Library.

The purpose of identifying, collecting and collating this research is to enable us to bring current best practice to the service of our clients, identifying for them trends in technologies and implementation strategies, the lessons from early adopters and new approaches to research methodologies.

A good example is a paper presented by a group of researchers from the IBM Research Laboratory, Haifa, at the 21st ACM International Conference on Information and Knowledge Management, held from October 29 to November 2, 2012. The paper described the Streamz application for analysing the activity streams from social media in large distributed companies in near real-time, using an Apache Lucene overlay on IBM Connections. This application has been in use within IBM for three years and potentially could become a commercial product.

In this Research Note we have provided brief comments on 40 reports, papers and books that we feel will be of particular interest to the intranet and information management community world-wide. There are also a few new books listed. Excluded from this listing are reports published as part of client subscriptions services from Forrester, Gartner and the Real Story Group.

All the reports listed were available as no-cost downloads as at 7 January 2013, though for some registration is required. In some cases the URLs are very long and we have used a URL truncation service. In these cases the home URL of the organisation is also given.

2. Big data

From Overload to Impact: An Industry Scorecard on Big Data Business Challenges

Oracle

<http://digbig.com/5bgxbf> and <http://www.oracle.com>

Oracle commissioned a survey of over 300 senior executives in North America to examine their preparedness for big data. The survey results indicated that 60% of executives rated their companies unprepared to leverage the data and cite significant gaps in people, process, and tools. The big headline was that 93% of the executives believe they are losing revenue at an average rate of 14% annually. Even if the statistical underpinning of this number might be questioned it still makes a very good number to quote in conversations about the need to invest in the technology and the people needed to manage enterprise information assets.

Exalead Guide to Big Data

Laura Wilber

<http://digbig.com/5bgxbe> and <http://www.3ds.com>

This 40 page report provides a very good overview of the underlying technologies of big data, primarily those related to data capture and pre-processing, data processing and interaction and auxiliary tools such as cloud services and visualization tools. Although published by Exalead it does not come across as a piece of corporate marketing and is exceptionally well written and designed.

Big Data is real and it is here. 2012 Survey on managing big and unstructured data

MarkLogic

<http://info.marklogic.com/post-relational-reality-dbta-survey-2012.html>

Both this report and the AIIM report referred to below are notable for addressing both the data and information aspects of search. The quality of the research, analysis and presentation in both reports is excellent. Close to half, 45% report their managers and professionals are either “highly” or “moderately” aware of unstructured data assets and 55% say there is little or no awareness or they’re not sure of the level of awareness. The report notes that it is significant that only 15% of respondents were able to report that there was a high degree of awareness of these assets. Figure 17, on the level of unstructured information, is especially interesting as it tends to support the 80/20 figure that has often been used as an indicator of the balance between unstructured and structured information assets.

Big Data - extracting value from your digital landfills

AIIM

<http://www.aiim.org/Research-and-Publications/Research/Industry-Watch/Big-Data-2012>

The title apart (digital landfill!) this is a very impressive report on how organisations are coping with the rapid growth of both structured and unstructured information. Integrating this report and the report commissioned by MarkLogic provides a very sound base of evidence for the lack of awareness and preparedness on the part of organisations for this growth. There is an interesting note on search implementation. Only 20% of the respondents have enterprise search or unified search capability across departmental content. Of these, 7% have extended search across the whole enterprise.

Demystifying big data – A practical guide to transforming the business of government

TechAmerica Foundation

<http://www.techamericafoundation.org/bigdata>

Governments possess repositories of data that make corporate repositories look like no more than a flash drive by comparison. This report supports the key objectives and recommendations described in the Digital Government Strategy report that the White House released on 23 May 2012 – “Digital Government: Build a 21st Century Platform to Better Serve The American People”. This report (<http://digbig.com/5bgwxa>) highlighted the need to “unlock the power of government data to spur innovation across our nation and improve the quality of services for the American people.” This

TechAmerica report covers not just the technology but also provides some good case studies of the value of data analysis in the public sector.

Analytics: The real-world use of big data. How innovative enterprises extract value from uncertain data

IBM Institute for Business Value in collaboration with Saïd Business School, University of Oxford

<http://digbig.com/5bgxbg> or <http://www.ibm.com>

This is a very large scale survey of 1144 business and IT professionals in 95 countries combined with interviews undertaken with more than two dozen academics, subject matter experts and business executives. 63% of respondents reported that the use of information (including big data) and analytics is creating a competitive advantage for their organizations. This compares to 37% of respondents in IBM's 2010 New Intelligent Enterprise Global Executive Study and Research Collaboration – a 70% increase in just two years. Given the scale of the survey the level of analysis is somewhat superficial. Much of the report is given over to recommendations from IBM on how to develop a big data strategy.

Accenture Technology Vision 2012 Business Implications Series - Data culture

<http://www.accenture.com/us-en/Pages/insight-business-implications-data-culture.aspx>

The valuable feature of this short report is the set of twelve actions that C-suite executives should take to improve the data management culture within their organisations. The Accenture viewpoint is that if organizations are to take on a data-centred mindset then an intimate understanding of data must be embedded in the skills and characteristics of all employees at all levels. There is also a recommendation that there is a requirement for a Chief Data Officer as the champion for the strategic use of data at every level. The role should serve as the bridge between IT and the business, providing guidance to maximize the value that can be derived from data.

The Deciding Factor: Big Data & Decision Making

Cap Gemini

<http://digbig.com/5bgxbh>

This report summarises the outcomes of a survey of over 600 executives conducted by The Economist Intelligence Unit in February 2012. 38% were based in Europe, 28% in North America, 25% in Asia-Pacific and the remainder coming from Latin America and the Middle East and Africa. The sample was senior, 43% of participants being C-level and board executives and the balance—other high-level managers such as vice presidents, business unit heads and department heads. Nine in ten of the executives polled felt that the decisions they've made in the past three years would have been better if they'd had all the relevant information to hand.

3. Collaboration and virtual teams

Making cross-enterprise collaboration work

Accenture

<http://digbig.com/5bgxbj> and <http://www.accenture.com>

This is a topic that is often overlooked in the rush to implement a technology without considering the wider issues. One of these issues is that an organisation does not work in isolation but needs to link with suppliers, customers and other stakeholders. The topics covered in this short 10 page report are the need for integrated HR and workforce planning, learning, leadership, culture, governance, and finally processes and tools.

User Adoption Strategies

Michael Sampson

<http://www.michaelsampson.net/useradoption.html>

This is 300 page/13 chapter book that deserves a seriously deep read. Our recommendation is to read right through it quickly, to get the structure in your mind, then grab a highlighter and work through it line by line, and insight by insight. Although this book is ostensibly about user adoption in the context of collaboration the basic principles can, and should, be extended to any technology-based application which requires a significant leap of faith to see the benefits and opportunities rather than the challenges and threats

Expertise Dissensus: A Multi-level Model of Teams' Differing Perceptions about Member Expertise

Heidi K. Gardner and Lisa B. Kwan

Harvard Business School Working Paper 12-070

<http://digbig.com/5bgxbk>

Expertise is specialized knowledge that people acquire through training and experience and “expertise dissensus” in teams therefore refers specifically to differences in beliefs about members’ levels of specialized knowledge. Team dissensus can vary from low to high, with low dissensus describing a situation in which team members have very similar perceptions about each team member’s expertise and high dissensus describing a situation in which team members have very dissimilar perceptions about members’ expertise levels. This is a factor that is rarely considered in team working

Making Collaboration Technology Work for the Enterprise: A Process-Oriented Perspective

Accenture

<http://www.accenture.com/us-en/Pages/insight-collaboration-technology-work-enterprise.aspx>

Accenture takes a view of effective collaboration as one that is structured around solutions which focus specifically on driving the effectiveness of clearly-identified processes. This means improving the efficiency of the process, and/or the quality of its output by improving the way the participants in the process communicate, coordinate and share knowledge – both amongst themselves, and between themselves and other relevant people who may not be directly involved in the process. In the five-step

model outlined in this concise 36 page report the selection of a collaboration technology comes at the end, so avoiding the issues around selecting a technology and then finding that it does not in fact meet business requirements.

A Manager's Guide to Virtual Teams

Yael Zofi

www.amacombooks.org

This book is an excellent handbook on all aspects of virtual team management. The eight chapters cover how to set up a virtual team, overcoming problems of communication and accountability, defusing conflict and overcoming roadblocks, getting deliverables out of the door and the future of virtual teams. Each chapter is well-structured and there are so many checklists and frameworks that I gave up counting. The book concludes with an appendix on the eight characteristics of high-performing virtual teams. Another issue that is covered very well is that of cross-cultural communications. Just because a multinational company has adopted English as its 'corporate language' does not mean that all problems of understanding what team members are saying are thereby overcome by edict.

4. Intranets and digital workplaces

Digital workplace trends report 2012

Jane McConnell, NetStrategy/JMC

<http://www.digital-workplace-trends.com/>

This is the definitive analysis of how far the concept of a digital workplace is to fruition, based on a detailed questionnaire completed by 456 organisations around the world. As well as a wealth of charts and analysis the report also contains comments from respondents. The main sections of the report cover the managed dimension, the social collaborative dimension and the mobile dimension of a digital workplace, and finally the governance and management of these workplaces. The 2013 report will be available in late January 2013.

Intranet Design Annual 2012

Nielsen Norman Group

<http://www.nngroup.com/reports/intranet-design-annual/>

The NNGroup have been running this competition since 2001 and so can place trends and developments into a long term perspective. In 2012 the winners are CenturyLink Business (USA), Everything Everywhere (UK), Genentech (US), LivePerson, Inc. (US), Logica (UK), MAN Diesel & Turbo SE (Germany), NCR Corporation (US), Scotts Miracle-Gro (US) Skanska (Sweden) and Staples, Inc. (US). Each profile is around 30 pages long, with many screen shots (187 in total). What marks out these profiles is that they are not written by journalists but by NNGroup consultants who know both where to probe and where to highlight excellent in innovation and user-centric design.

Digital Workplaces - From Vision to Reality

Martin White, Intranet Focus

<http://bir.sagepub.com/content/current>

This paper was published in Business Information Review and brings together some of the many research reports and papers that have been published on digital workplace development over the last 15 years. Current discussions on the opportunities and challenges that digital workplaces present rarely take into account a significant amount of research into computer supported collaborative workplaces (CSCW).

Intranet Usability Guidelines

Nielsen Norman Group

<http://www.nngroup.com/reports/intranet-usability-guidelines/>

This report comes in seven volumes totalling 1400 pages. The information in these reports is based on three separate rounds of user research with company employees as participants. In total, 176 people tested 42 intranets. The studies took place in the United States, the United Kingdom, Finland, the Netherlands, Switzerland, Canada, United Arab Emirates, and China (Hong Kong). The result is a very detailed analysis of intranet usability issues with 782 design recommendations for increasing employee satisfaction and productivity and almost 1000 full-colour screenshots of intranet designs.

Organising Digital Information for Others

Maish Nichani

<http://www.pebbleroad.com/perspectives/organizing-digital-information-for-others>

The challenge of finding user-effective ways of organising information items is not a trivial task. There have been a number of books on how to create taxonomies but this gem of a book takes a much wider scope and elegantly packs a huge amount of advice into just 50 pages. The main sections of this book provide very practical advice about building lists, trees and facets, the effective use of metadata and how to build a taxonomy. Each chapter includes a number of illustrations in the text, and then references to other resources. The very effective layout also reinforces the merits of simplicity and a focus on understanding and meeting user requirements which are self-evident throughout the book. At the end of the book are short sections on card sorting and on usability testing.

The Digital Workplace – How technology is liberating work

Paul Miller

<http://www.digitalworkplacebook.com>

Paul Miller and his colleagues at the Intranet Benchmarking Forum have performed a very important role in developing intranet good practice and creating an open community of members to support the development of high-impact intranets. For some time Paul has been writing about digital workplaces, and earlier this year wrote this book which sets out his vision of a digital workplace. There are seven sections to the book, entitled My World, Work World, Your World, Outside World, Digital World, Our World and Future World. Each chapter contains a number of case studies about how companies have implemented digital workplaces and the benefits that they have gained. Most of these case studies are

about large multi-national companies though there are also some good personal case studies from IBF staff about the way in which IBF itself runs as a digital workplace.

5. Mobile

The PwC Mobile Innovations Forecast

PwC

<http://www.pwc.com/technology>

The Mobile Innovations Forecast is a four-part framework for analysing and understanding mobile innovation based on an analysis of enabling technologies, new technological capabilities, new use cases and new business models. Each of these is going to be assessed in periodic articles on the PwC Technology web site in the months ahead. In addition PwC has launched a Mobile Technologies Index. PwC consider that five technologies will continue to serve as the basic building blocks of mobile innovation: device connectivity speed, infrastructure speed, processor speed, memory and storage, together is display and image sensor technologies. The analysis around the data and forecasts is very well written by consultants with many years of experience of technology forecasting and the mobile technology sector in particular. The inaugural issue is not just focused on technology but includes an interesting analysis of changing business models for mobile service delivery.

Making the Most of Mobile - content on the move

AIIM

<http://digbig.com/5bgxbm> and <http://www.aiim.org>

This survey focuses on the enterprise use of mobile access and provides an indication of the types of content accessed, the use of customer-facing and employee-facing apps and an especially interesting section on device management covering information security, corporate policies and internal support issues. As with all AIIM reports the presentation quality is high but only 400 companies took part. Most of these were in North America.

Mobile Outlook 2012

insiderRESEARCH

<http://sapinsider.wispubs.com/Article/Mobile-Outlook-2012/6385>

Kevin Benedict, the author of this report, is an acknowledged expert on the mobile industry and his blog <http://mobileenterprisestrategies.blogspot.co.uk/> is an essential source of news and analysis. The survey on which this report is based was undertaken in January 2012 and much has happened since then, but with a survey base of over 600 companies there is a significant amount of market information presented in a very stylish way. Because of the expertise of the author the questions asked are the ones that matter, such as a three year view on who will be taking corporate responsibility for mobile strategy. Hopefully this report will be updated in early 2013.

Tablet Landscape Evolution - Windows of Opportunity

Morgan Stanley

<http://www.morganstanley.com/views/perspectives/index.html>

For a very detailed review of not just the development of the tablet market but also the implications for other devices (such as pcs and printers) this is the definitive resource. The problem with any attempt to forecast growth rates in this sector is that they are already obsolete by the time the report is published. This report was one of a series of Blue Paper reports that Morgan Stanley published on quite a regular basis but none have been released since April 2012.

Mobilizing the Enterprise

Cognizant

<http://digbig.com/5bgxbn> and <http://www.cognizant.com>

Cognizant is a global information technology consulting company and publishes a number of reports on current issues each year, with the broad theme of the future of work. This 20 page report is a good example of the quality of the reports, providing a rather more measured assessment of the future of mobile access than similar reports from vendors. The report includes footnotes and some references for further reading.

BYOD and Virtualization - Insights from the Cisco IBSG Horizons Study

Cisco

<http://digbig.com/5bgxpb> and <http://www.cisco.com>

Cisco IBSG Horizons is a multimodal research and analysis programme designed to identify business transformation opportunities that will have an impact on Cisco customers. The programme uses primary research such as customer surveys, focus groups, in-depth secondary research from market leaders and influencers and the application of predictive analytics to garner insights about technology innovations and quantify their impacts. This report provides some forecasts for the growth of the Bring-Your-Own-Device requirement. Other research areas are enterprise collaboration and enterprise video.

Mobile Strategy: Be in Control

Cap Gemini

<http://www.capgemini.com/insights-and-resources/by-publication/mobile-strategy-be-in-control/>

The report is only 10 pages long but is a very concise and helpful framework for the structure of a mobile strategy. The model presented is based on six elements, policies, objectives, scope, technology, management and measurement.

Cisco Visual Networking Index: Global Mobile Data Traffic Forecast Update, 2011–2016

Cisco

<http://digbig.com/5bgxbr> and <http://www.cisco.com>

This is one of series of reports from Cisco on the rate of growth of mobile data traffic. This particular

report includes a very detailed analysis of ten factors that will affect traffic growth rates in the mobile sector, but the main purpose of the research project is to assess the growth and implications of visual networking growth for applications such as streaming video and telepresence.

iPass Global Mobile Workforce Report

iPass

<http://www.ipass.com/about/mobile-workforce-report/>

iPass is a US-based mobile services provider that publishes a quarterly report on trends in the mobile industry based on surveys of usually in excess of 1000 organisations. Unlike many reports from US research companies and vendors the survey data and analysis is global in scope. This makes these reports especially interesting as they analyse the differences in market adoption between the USA, Europe and Asia-Pacific.

Mobile Workers Use Personal Apps To Solve Customer Problems — Is IT Ready, Willing, And Able To Assist?

Forrester Group for Unisys

<http://digbig.com/5bgxbs> or <http://www.unisys.com>

The report is based on responses from two separate but related surveys conducted in nine countries. One study surveyed some 2,600 information workers (iWorkers) within organizations to gauge their use of consumer technologies in the workplace. The second study polled 590 business and IT executives to better understand their views and support of these technologies. The result is an exceptionally detailed set of charts and tables and the summary report prepared by Forrester is one of the best available on the opportunities and challenges of mobile access.

6. Search

Enterprise search and findability survey

Findwise

<http://digbig.com/5bgxba> or <http://www.findwise.com>

This is the first survey on search implementation and use to be undertaken by an organisation that is immersed in the business of search and so understands what the important questions are to ask. The results paint a rather bleak picture of the level of satisfaction with search even though the organisations participating in the research regarded information as being a business-critical asset. The major problem seems to be a lack of staff support for search, with many organisations not even having one person with full-time responsibility for search performance. The survey is being repeated in 2013 and the initial results will probably be available in April.

Enterprise Search

Martin White

<http://digbig.com/5bgxbd> or <http://oreilly.com>

The emphasis of this book is on the management of enterprise search applications, starting with defining user requirements, preparing a business plan, selecting and installing commercial and open

source search applications, and then setting up a search support team to monitor and optimise search performance. The book includes an overview of search technology (for an in-depth description see The Answer Machine below), and an analysis of the structure of the search industry. This is an e-book and will be revised on a six-monthly schedule.

The Answer Machine

Susan Feldman

<http://digbig.com/5bgxbc> and <http://www.morganclaypool.com>

Sue Feldman is Vice President for Search and Discovery Technologies at IDC (International Data Corporation) and has been tracking developments in search technology for many years. The Answer Machine is a practical, non-technical guide to the technologies behind information seeking and analysis, providing an overview of search engines, categorization and clustering, natural language processing, content analytics, and visualization technologies. It also explores user-information system interactions: how and why people search for information and the online tools that they need in order to do so.

The name matching you need

Basis Technologies

<http://www.basistech.com/resources/>

This 12 page briefing paper is an excellent summary of the issues around searching for the names of people in documents and web sites. Having set out the scale of the problem the report then compares four name matching methods which are applied to matching names to queries - common key (e.g., Soundex), lists of name variations, edit distance, and statistical similarity. This report should be essential reading for any organisation where finding people is important because in all countries of the world cultural and linguistic diversity are very visible when it comes to name conventions.

Reshaping the workforce with new analytics

PwC

<http://www.pwc.com/us/en/technology-forecast/2012/issue1/index.jhtml>

This is a very readable introduction to big data techniques (including NoSQL and in-memory databases), through advanced statistical packages (from the traditional SPSS and SAS to open source offerings such as R), to analytic visualization tools that put interactive graphics in the control of business unit specialists. The clarity of the descriptions of these technologies is excellent, especially when it comes to the section on natural language processing and social media intelligence.

Frontiers, challenges and opportunities for information retrieval

<http://www.cs.rmit.edu.au/swirl12/>

Information retrieval could be described as the core science underpinning enterprise search but there seems to be a bit of a gulf between the information science and enterprise search communities. This document summarises the outcomes of a conference held in Lorne, Australia in February 2012. The key themes that emerged included the need to move beyond ranked lists of documents to support richer dialog and presentation, represent the context of search and searchers, provide richer support for

information seeking, enable retrieval of a wide range of structured and unstructured content, and develop new evaluation methodologies.

Search User Interface Design

Max Wilson

<http://digbig.com/5bgxbb> and <http://www.morganclaypool.com>

Morgan and Claypool are the publishers of the Synthesis Lectures in Information Concepts, Retrieval and Services, each of which is written by an acknowledged expert in the topic. Max Wilson is based at Swansea University, UK and provides a synthesis of over 200 research papers on search user interface design, highlighting that it sits at the centre of a set of six disciplines, namely information retrieval, library and information science, information seeking behaviour, human-computer interface design, user experience and graphic design.

7. SharePoint

The SharePoint Puzzle - adding the missing pieces

AIIM

<http://www.aiim.org/Research-and-Publications/Research/Industry-Watch/SharePoint-2012>

AIIM organizations selected SharePoint in the first place, how it has performed against expectations, which parts of SharePoint businesses are using for ECM, collaboration, social, and business process management (BPM), and where gaps have been identified. We explore how organizations are adding these missing pieces with SharePoint add-ons, 3rdparty extensions and cloud services. Finally we look at spend predictions for SharePoint-related software and services in the coming 12 months.

Best practices for SharePoint intranets. Maximising the business value of your SharePoint investment

Step Two Designs

<http://www.steptwo.com.au/products/sharepoint-intranets>

Very few books on SharePoint show screen shots of intranets to show what is visibly possible. This 132 page report includes almost sixty screen shots taken mainly from recent winners of the Intranet Innovation Awards (IIA), using both SharePoint 2007 and SharePoint 2010. There are 25 'best practices' set out in the report, structured into seven overall categories. These include Lay the foundations, Planning your project, People and social and keeping up momentum As with all Step Two Designs reports the advice is always pragmatic and of immediate value. There are many direct quotes from the intranet managers responsible for the intranets profiled in the report and these provide a validation of the good practice advice.