SharePoint for information professionals: An introduction

Matt Moore[*]

Microsoft's SharePoint product has become one of the most popular tools for content management and document-centred collaboration in business and government over the last five years. This article outlines what the product does, its benefits and limitations and its broader ecosystem including third-party products. It also outlines the important role that information professionals can play in the effective deployment of SharePoint within organisations. It ends with three recent Australian case studies (New South Wales Department of Education and Training, the Ambulance Service of New South Wales and John Holland) where SharePoint and related technologies have been used to improve workplace productivity.

WHY SHOULD INFORMATION PROFESSIONALS CARE ABOUT SHAREPOINT?

Fifteen years ago, managing electronic content collectively was an obscure aspect of IT in many organisations. Document management products were expensive and used proprietary interfaces or even forbidding green screens. Lotus Notes was popular but rarely used to its full capability – for many users, it was primarily an email tool. Two things happened in the late 1990s. First, the proliferation of content creation tools such as Word, Excel and PowerPoint coupled with email as a distribution tool dramatically increased the amount of electronic content within organisations. Secondly, the success of the internet showed that it was possible to publish content, search for information and collaborate with others on a massive scale. If it was possible to manage content with such apparent ease in public then shouldn't it be possible to do so behind the organisational firewall?

Different technologies emerged for document management, records management, web content management, digital asset management (eg video), collaboration, document imaging and workflow. There has been a growing push to integrate these various activities under the heading of Enterprise Content Management (ECM), and there has been a great deal of movement in the industry in recent years – IBM acquiring FileNet, EMC acquiring Documentum, Oracle acquiring Stellent, Open Text acquiring Vignette and HP acquiring Tower (makers of TRIM). However, among these pretenders to the ECM throne, the product that has the widest reach is undoubtedly Microsoft's SharePoint. If your organisation has any Microsoft products, such as Windows or Office, then you can bet that if SharePoint has not been officially deployed in some capacity, it is probably sitting on an IT test server somewhere. Microsoft has christened its product "ECM for the masses".[1] As an information professional, you will encounter it at some point in your career and it will impact on the work you do.

This article provides an overview of the functionality offered by the latest version of SharePoint, why it has been popular, the ecosystem in which it sits, what its limitations are and who is using it. Its primary purpose is to enable you to have an intelligent first conversation with someone when they say: "We need to implement SharePoint!" It does not offer in-depth technical guidance but it does include useful references that will enable you to move onto second and third conversations should you so wish.

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[*] Matt Moore is a director of Innotecture, an occasional lecturer at University of Technology, Sydney and chair of the New South Wales Knowledge Management Forum. He has spent over a decade working in knowledge and information management, learning and development and internal communications with organisations such as PwC, IBM, Oracle and the Australian Securities and Investments Commission (ASIC). He has just published his first book, *Performance Enhancing*.

[1] Microsoft, *Microsoft SharePoint 2010: Evaluation Guide for Technical and Business Decision Makers* (2010) p 5, http://www.go.microsoft.com/?linkid=9727428 viewed 9 September 2010.

WHAT IS SHAREPOINT?

SharePoint 2010[2] is Microsoft's "business collaboration platform for the Enterprise and the Internet"[3] and the fourth version of the product released to the market. The 2003 and 2007 versions are still in use in many organisations. It offers six integrated capability areas.

1. Sites: This functionality manages the infrastructure of internal and external websites. Users can create and edit web pages, synchronise their work offline with a tool called Workspace and personalise the material they publish and view.

2. Communities: This functionality is primarily concerned with collaboration and activities that have been labelled "Enterprise 2.0". It includes personal profiles, newsfeeds, wikis, blogs, tags, bookmarking and ratings functionality.

3. Content: Microsoft calls this area "Enterprise Content Management (ECM) for the masses".[4] This includes document management, records management, the hosting of multimedia files and the creation of interactive websites.

4. Search: This functionality can either be provided by the SharePoint 2010 Server or the more advanced FAST Search Server for SharePoint. FAST was a leading enterprise search vendor that was acquired by Microsoft in 2008.

5. Insights: This area covers business intelligence functionality such as the creation of scorecards or dashboards. It integrates with both Excel and Visio 2010.

6. Composites: This final area is a collection of tools that focuses on customising SharePoint sites and integrating them with other data services. Business Connectivity Services allows the integration of external data. Access Services provides some shared database functionality. SharePoint Designer allows the customisation of sites. Workflows can be created using Visio 2010 and InfoPath can be used to create forms.

As this list illustrates, SharePoint offers a broad breadth of functionality. This breadth comes at the expense of functional depth and previous versions have been criticised for their lack of maturity in certain areas. The information management (eg taxonomy) and social software (eg wiki) tools in Microsoft Office Sharepoint Server 2007 (MOSS 2007) were rudimentary compared to other products. With the 2010 release, Microsoft claims to have improved functionality in these areas although, as the product is still relatively new, organisations are still working out what this means in practice.

HOW DO USERS EXPERIENCE SHAREPOINT?

SharePoint is accessed using a web browser rather than as a standalone desktop application (like Word or Excel). As it uses Microsoft's ActiveX technology, it works best with Microsoft's browser, Internet Explorer. It is harder to use with competitors such as Mozilla Firefox or Apple's Safari. Information in SharePoint sites is typically displayed to users as web pages consisting of multiple "web parts". These web parts may be simple, static HTML or sourced dynamically from document libraries and other applications (using Business Connectivity Services or its equivalent in older versions). Discussion board, calendar and task management functionality is also available.

Exactly what users can see and change is dependent on their access level. They may be able to only view certain pages. They may be able to add and edit documents but not alter the site. They may be able to change the layout and structure of the site. Some settings can be controlled only at the central administration site of a SharePoint server farm.

SharePoint's integration with other Microsoft products means that users can access some of SharePoint's functionality via tools such as Word or the Outlook email program. Exactly where SharePoint ends and these other tools begin may not be obvious to users.

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[2] See http://www.sharepoint.microsoft.com/en-us/Pages/default.aspx viewed 9 September 2010.

[3] Microsoft, n 1, p 2.

[4] Microsoft, n 1, p 5.

WHY IS SHAREPOINT POPULAR?

The various versions of SharePoint have been very popular with organisations. The Association for Information and Image Management (AIIM) noted that two-thirds of its community is using some form of SharePoint.[5] A survey on the use of collaboration software by Australian organisations indicated that 38% of respondents were using SharePoint for this purpose – more than any other product mentioned.[6] What accounts for this popularity?

1. The Microsoft brand: Windows and Office are very common products in organisations of all sizes and Microsoft business software such as Dynamics (its Enterprise Resource Planning offering) is especially popular with small and medium-sized enterprises. IT decision-makers are comfortable with Microsoft as a purchasing option. It also helps that SharePoint is designed to integrate tightly with Microsoft's Office, Exchange and Communicator products. The .Net framework that underpins SharePoint also has a large developer community.

2. Low cost of entry: SharePoint Foundation 2010 – the introductory form of the software – is available for free with Microsoft Windows Server licences. Pricing for more feature-rich versions is still relatively low compared to other enterprise software.

3. Relative ease of use: SharePoint can be used "out of the box" by staff to store and then share documents with comparatively little configuration. It is possible to install an instance of SharePoint in a day. Of course, staff training and adoption of the software may take considerably longer.

4. Functional breadth: As noted earlier, SharePoint offers a broad breadth of functionality. This breadth makes it attractive for customers looking for a product that offers "good enough" functionality in multiple areas.

THE SHAREPOINT ECOSYSTEM

SharePoint's wide yet limited range of functionality often means that it will not meet more complex organisational needs "out of the box". Organisations have three options for meeting these needs and they will often use a mix of all three.

1. Custom development: Organisations can build the functionality that SharePoint does not have either using internal developers or external consultants. In fact, SharePoint is increasingly being positioned as a platform on which applications can be developed rather than a straightforward content management application itself.

   The advantage of custom development is that you get exactly what you want. However, the popularity of SharePoint has led to high demand for development expertise which means that custom development is expensive. There is also a major risk that excessive customisation can make upgrading to a new version of SharePoint difficult. There have been several cases of organisations customising SharePoint (at the cost of millions of dollars) to such an extent that Microsoft's regular patches (small changes to the software designed to fix bugs) cannot be implemented.

2. Third-party plug-ins: Organisations can obtain pre-written software to extend SharePoint's functionality. Microsoft has its own version of "open source" software in CodePlex, a repository of freely available code created by SharePoint developers (who are not necessarily Microsoft employees) from around the world. It should be noted that this is not officially supported Microsoft code, so there is no guarantee that a CodePlex plug-in will be supported in future versions of SharePoint. There are free plug-ins available for download outside of CodePlex and there are also tools that are available for purchase from third-party vendors.

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[5] Miles D, *SharePoint – Strategies and Experiences* (AIIM, 2010), http://www.aiim.org/Research/Industry-Watch/SharePoint-2010 viewed 9 September 2010.

[6] De La Rue K and Moore M, *The Australian Collaboration Software Report* (2010), http://www.ozcollab.com viewed 9 September 2010.

The providers of paid for, third-party additions to SharePoint have a stronger incentive to keep their products up-to-date than voluntary coders and many of these products are developing strong industry reputations of their own. Examples here include business process management tools such as K2's Black Pearl.

3. Integration with other software vendors: While smaller organisations might use SharePoint as their sole content management and collaboration tool, larger organisations may already have document and records management software in place. A recent AIIM survey indicated that SharePoint is the first significant ECM implementation for 37% of respondents. However, 29% are using SharePoint as a collaboration platform with another software tool for content management purposes. Notably, only 8% are planning to phase out their existing ECM tool in favour of SharePoint.[7]

The majority of vendors that have offerings related to content management and collaboration (including search and taxonomy solutions) offer "Connectors" to SharePoint. While they compete with SharePoint, they also have to coexist with a powerful player in the content management technology marketplace.

ISSUES WITH SHAREPOINT

Many organisations have derived value from implementing SharePoint, however, it should not be viewed as a panacea. Paradoxically, some of the key problems that can arise with SharePoint implementations are closely related to the key benefits that make it attractive to buyers.

1. Unforeseen costs: SharePoint has a low cost entry but that does not mean that a SharePoint implementation will have a low total cost of ownership. Customisations may be expensive to create and maintain. As more groups within an organisation are exposed to SharePoint and view it as an easy way to create content-based applications, the temptation to customise will increase. Organisations should review the amount they are spending on their SharePoint implementations overall and ensure that they are getting value for money. Customisation should not be carried out lightly.

2. Proliferation without governance: Many organisations now have thousands of SharePoint sites. In many cases, they do not know how many they have, who is responsible for them and whether these sites are still needed. The very ease with which sites can be created makes overall governance very difficult. To counter this, organisations should manage the lifecycle of SharePoint sites and ensure that all extant sites have owners. Sites that are no longer required should go through an archiving process. This issue is not new as similar issues occurred with the proliferation of Lotus Notes databases in the 1990s. Lessons can be learnt from that experience, however, the greater popularity of SharePoint means that these issues may occur on a bigger scale.

3. SharePoint for everything: SharePoint's breadth of functionality means that in theory you can use it for nearly everything content-related within an organisation. If your IT department has a strong Microsoft focus then this will increase the department's temptation to use it for purposes where it might not be the right tool for the job. Each business need should be carefully evaluated to see if SharePoint really is the best solution. A sound knowledge of the strengths and weaknesses of the product (both out of the box and with plug-ins) and those of its competitors is crucial in this situation.

WHAT IS THE ROLE FOR INFORMATION PROFESSIONALS?

For the most part, the use of SharePoint in organisations is not driven by information professionals such as records managers, knowledge managers and librarians – rather the impetus comes from IT or individual business departments.[8] This means that strategic information issues are ignored in favour of

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[7] Miles, n 4, p 13.

[8] Miles, n 4, p 20.

technological considerations or immediate business needs. In the long term, this unbalanced approach can cause severe cost, accessibility and productivity problems when staff are stuck with sub-optimal working environments.

To counter these challenges, it is important that information professionals develop an understanding of the strengths and weaknesses of SharePoint as an information platform. The better you understand the capabilities of the tool, the better that you can use it productively and assist others in doing so. It will allow you to advocate better, rather than worse, uses of the tool within your organisation. If you want to explore specific issues such as search, taxonomy or user experience design in SharePoint then there are plenty of articles and blog posts out there on the web. If you want face-to-face contact with others working in this area, there are SharePoint User Groups in most major Australian cities and events such as SharePoint Saturday.[9] These tend to be heavy on developers, but both sides could benefit from a greater involvement by information professionals.

There is also an opportunity for information professionals to apply a strategic perspective to SharePoint. Individual business departments and corporate IT will probably not be thinking about the broader impact of SharePoint on an organisation's information ecology. It may well duplicate existing tools and in doing so cause confusion for staff and duplication of important material. Organisations need to develop policies around tool selection and use for specific business purposes. The lifecycle of SharePoint sites also needs to be considered. If there is no policy in place around unused SharePoint sites then they can quickly proliferate and cause confusion – "Which of the 12 SharePoint sites called 'Finance' contains financial information?" If records management policies are not applied to SharePoint material then valuable corporate information could be lost.

Overall, SharePoint should be seen as an opportunity to improve information management within – and even between – organisations.[10] It is too important to be left solely to the IT department or individual business units. Information professionals can have a major, positive impact on their businesses if they harness it productively.

SHAREPOINT IN AUSTRALIAN ORGANISATIONS

A summary of three recent Australian case studies by Microsoft follows describing how SharePoint and related technologies have been used to improve workplace productivity.[11]

New South Wales Department of Education and Training

The New South Wales Department of Education and Training (NSW DET) operates more than 2,200 public schools and 130 Technical and Further Education (TAFE) campuses where 96,000 teachers and staff educate more than 1.24 million primary, secondary and vocational education students. To increase literacy achievement and graduation rates for all students, NSW DET is implementing several innovative initiatives. Launched in 2009, the Digital Education Revolution (DER) program will, by 2012, distribute more than 200,000 portable computers to every New South Wales public school student enrolled in years nine through to 12, and the Connected Classrooms Program will deliver technologies that enhance teaching and learning in the 21st century.

Regional DER professional learning teams work with schools to develop curricula, and teachers work with colleagues and students to develop educational content. However, meeting in person was challenging because the stakeholders were geographically dispersed, and sharing documents by email resulted in delays. Messages got lost in large volumes of email, and exchanging multiple versions of documents often caused confusion and error. NSW DET needed a more efficient way for students and teachers to work together, and it needed a centralised collaborative environment where educators would be able to capture best practices and develop effective teaching plans.

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[9] See the home of SharePoint User Group websites in Australia at http://www.sharepointusers.org.au/default.aspx viewed 9 September 2010.

[10] Sampson M, *SharePoint Roadmap for Collaboration: Using SharePoint to Enhance Business Collaboration* (Michael Sampson Co, 2009).

[11] See Microsoft's Case Studies at http://www.microsoft.com/casestudies viewed 9 September 2010.

A class of Certificate III/IV students and their teachers at the TAFE NSW – Northern Sydney Institute (NSI) used a range of Office 2010 products including Microsoft Word 2010 and Microsoft PowerPoint presentation software to co-author business course materials. NSW DET deployed Microsoft SharePoint Server 2010 at the NSI to enable the co-authoring functions in Word 2010 and PowerPoint 2010. This meant that multiple students and teachers could work together to simultaneously author, review and edit individual documents and presentations. In addition, teachers, trainers and administrators could work together to quickly produce documents, presentations, spreadsheets, budgets and educational materials across the whole curriculum – without having to waste time reconciling changes or working on the wrong version of a document.

Ambulance Service of New South Wales

The Ambulance Service of New South Wales (Ambulance) services the State's 6.7 million inhabitants and provides over a million responses (both emergency and non-emergency) annually. Ambulance decided it wanted to boost efficiency in two key areas – helping emergency medical paramedics fill out and send situation reports faster, and speeding up and reducing the cost of clinical training. Ambulance has used a variety of Microsoft tools to achieve this: the Microsoft InfoPath 2010 information-gathering program; the OneNote 2010 note-taking program; the Outlook 2010 messaging and collaboration client; the PowerPoint 2010 presentation graphics program; and SharePoint Workspace 2010.

Paramedics were able to use InfoPath to fill out forms electronically within two or three minutes. Previously it had taken up to half an hour to manually fill out and fax them. Meanwhile, PowerPoint 2010 was used to create professional-looking training animations with embedded videos in-house. PowerPoint broadcasting functionality was used to distribute these materials remotely in real-time and then SharePoint Workspace was used to manage them.

John Holland

John Holland is an Australian-based engineering and construction firm which has more than 6,000 staff across the country. Projects often involve joint ventures and alliances between multiple companies, requiring collaboration and access to shared project documentation. This means decisions need to be made for each new project as to whose system should be used, which metrics take precedence and who will support the IT infrastructure. Each project can have subtle differences, requiring the IT department to make updates for individual projects, as well as produce reports based on the disparate information available. This meant John Holland was highly dependent on its IT department for development and reporting, which slowed its business responsiveness. Additionally, users found it difficult to search and locate the appropriate procedure, process or policy, and understand how this specific documentation fitted within the wider business procedure and overall project. There was no collaboration environment and the company heavily relied on email.

To deal with the issue of multi-organisation collaboration, John Holland has begun building a Joint Enterprise Management Solution that will deliver a unified application and process delivery portal using a web browser interface based on Microsoft SharePoint 2010. The web interface enables multiple John Holland project partners to access the same project information as long as they have an internet connection.

To allow the visual presentation of business procedures and processes at both the overall project level and for specific roles and tasks, Microsoft Visio Premium 2010 is being used for its advanced diagrammatic capabilities, which includes new templates for Business Process Management Notations (BPMN), and its close integration with SharePoint 2010. As well as using the BPMN template, John Holland is using the SharePoint workflow template, Workflow diagram and the Cross Functional flowchart. All these templates are used to visualise high-level processes as well as the more detailed subprocesses and to provide context to forms, policies and procedures. The Visio diagrams provide a visualisation of the process for John Holland and serve as a user interface to interact with the elements of a process.

With SharePoint 2010, Visio 2010 and PerformancePoint Services, users can now take responsibility for the unique configurable requirements for each specific project. With SharePoint 2010 being configurable, there is less reliance on the IT department for updates and changes, and the business is able to respond faster.