What is SharePoint?

An old skit from Saturday Night Live (Season 1, Episode 5) talks about a fake product called Shimmer that is both a floor wax and a dessert topping. This idea, that a product can be more than one thing, has often been used to talk about SharePoint. Because SharePoint is such a versatile tool, it's often quite hard to describe. Consider for a moment how you might explain a Swiss Army knife to someone who's only ever seen a regular three-blade pocket knife. How would you explain eating utensils on a pocket knife? The situation with SharePoint is much the same – it's pretty hard to describe until you're using it.

Let me offer another analogy before we get into the meat of what SharePoint is and does. When you were very young, you didn't know how to ride a bicycle. You saw older kids doing it, but you had never done it yourself. No amount of explanation from your parents or your friends can help you to understand riding a bike feels like.

Fully understanding what SharePoint is can be challenging, but there are many things that are easy to understand about SharePoint and how it can be a part of how you work. At the most basic level, SharePoint is a Web-based system. That means all you need is a Web browser to access SharePoint. The information you get from the Web browser will vary somewhat depending upon how SharePoint is being used. Let's first look at SharePoint as a collaboration tool, and from there move on to how SharePoint can be a communication tool.

Collaboration Tool

One of my favorite things to ask is: what does the word "collaboration" mean to you. The term is often used and rarely understood. Most people think it means "working together," which is somewhat odd because collaboration tools often allow you to work together – while being apart. The next time you hear the word collaboration you might want to ask, "Do you mean to conspire with the enemy?" That is one of the dictionary definitions.

For the most part, there are two kinds of collaboration. The first kind is real-time, collaboration interactions that happen immediately or at the same time. This is the kind of collaboration that happens in a face-to-face meeting, that is, if any collaboration happens at all in the meeting. Real-time collaboration is all about the dialog, people interacting at the same time for a common goal.

The second kind of collaboration is – stunningly – non-real time. That is to say, the collaboration doesn't happen at the exact same moment for both parties but, rather, occurs after some elapsed time. The best example of this is e-mail. You and a friend or colleague can be working together to plan a party or create a response to a request for proposal. While you're working together, it's unlikely that you're doing it at the exact same moment.

Microsoft (and others) offers solutions to the real time communication problem. Microsoft Office Communication Server (OCS), Microsoft Live Messenger, and Microsoft Live Meeting are all examples of real-time communication offerings from Microsoft. While SharePoint integrates with OCS or Live Messenger to show whether someone is avalabile or not (called presence information)on a SharePoint page, SharePoint is not,

itself, a real-time collaboration tool. SharePoint activates OCS or live meeting and displays an icon next to a person's name indicating their status using the same iconography and coloring provided in the real-time communications tool.

In the non-real time category of collaboration, SharePoint is like that Swiss Army knife – there are numerous tools that are available inside of SharePoint to help you work with others, whether they're in the next office over or halfway around the world. There are really two key ways to think about the kinds of things that users collaborate on.

Document Collaboration

The first key type of collaboration is documents, such as working together to create a final output document. It could be a policy, a proposal, a PowerPoint presentation, or an Excel spreadsheet. Whatever the document is, you need to get the input from multiple people into the same single document. Historically, this has been handled through file shares, or more popularly through email. The problem with email is that it's difficult to find the right version and it consumes a lot of mailbox storage to keep pushing back and forth different versions of the same file.

SharePoint has a set of tools designed to manage the process of collaborating on documents. First, SharePoint offers version control. You can keep different versions of the same file on the system. This eliminates the problems associated with trying to manually track the file by incrementing a version number and prevents accidental overwriting of other users' work. The versioning feature, like most other features in SharePoint, is configurable so that you can turn it off, on, and even control how it works. SharePoint allows you to limit the number of versions, as well as to control the type of versioning – either simple or using major and minor versions.

Major and minor versions opens up the concept of publishing – or approving – documents so that everyone can see the latest published version but contributors – those with write access – can also see up-to-date working copies. This allows documents to be worked on in the same place that users consume them – if you want. Also, SharePoint allows you to require that documents be checked out before editing and, can, by using out of the box and custom workflows, can even help to facilitate the approval process for a document.

Depending upon the version of SharePoint you have, you may also have a set of records management functions that allow you to declare documents as official records for the organization – and therefore subject to a more restrictive set of policies for deleting or changing the record. SharePoint also has the ability to apply rights-management policies so that even if a user downloads the document it can still be protected from unauthorized access.

The final thing to know about how SharePoint manages documents is that SharePoint allows you to hold additional metadata for a document. Metadata literally means data about data. In this case, it's the properties associated with the document. There are some automatic properties that all documents have, including those stored on your local computer. Files have names, sizes, creation dates, modification dates, etc. All properties but the name are considered automatic metadata. It's information that the system added to the file for you. SharePoint supports automatic metadata, but in contrast to a regular file system, you can add your own metadata to a file.

This custom metadata can be anything you want. Perhaps you want to store the customer's name, the lead referral source, the type of products being sold, or nearly anything else. Once the data is stored, you can then view the list of documents not just by name and folder as you could on a hard drive but you can also view them sorted, grouped, and filtered by any of the metadata that you've entered. This makes it easier to navigate large volumes of information easily. It also means that you can treat metadata about documents just like any other list of data.

Data Collaboration

Document collaboration is what we do when we push documents back and forth via email, but there is other data that we collaborate on – or use to collaborate – that doesn't fit easily in documents. Consider for the moment a group that's working across the world. It might be useful to know what time zone each participant is in, what office they're located in, and perhaps their mobile telephone number. SharePoint allows you to create any kind of list data you want – very much like you would create columns in an Excel spreadsheet.

In the case of team members, it might be a matter of creating a new contacts list – one that has the kinds of fields that you would expect in an Outlook contact – and add fields for time zone, office, and mobile phone number. The list could then be accessible with these additional fields on the Web to be sorted, grouped, and filtered.

Contacts may or may not seem like an obvious kind of data list with which you work. There are numerous others, though. Tasks lists are simply a list of tasks to be done. Calendars are simply a list of appointments. Announcements to communicate with the group are simply notes. However, there are two key differences between SharePoint and using a more traditional method like storing the data in a spreadsheet.

The first is that SharePoint has a much richer set of options for the fields. Because a spreadsheet is designed to be rows and columns, it's sometimes hard to include pictures, or large blocks of formatted text. Since SharePoint treats each entry as a separate record and automatically generates a data entry form for you, it's easier to add fields that would be difficult to do in a spreadsheet.

Second, and perhaps more important, when you put a list of items in an Excel spreadsheet, only one person can work on that list at any given time. So Suzi and Fred can't both be completing their tasks at the same time. SharePoint, however, stores these as individual items in a collection and allows both Suzi and Fred to make updates to different items in the same collection at the same time.

Going further, SharePoint allows you to apply version control to an item. This allows you to keep older versions of the item for review. Consider the case where you have task items for a project. SharePoint can automatically track when updates were made and by whom by keeping versions of the same record. This means that contributors don't have to be as focused on what each other is doing. They can simply do their work and allow SharePoint to do its job coordinating the activity.

Communications Tool

The ability to work on information together is just one piece of the puzzle. What about how to disseminate that information to the appropriate parties inside the organization? That's a fundamentally different problem than

tracking revisions and enabling collaboration. As a communications tool, SharePoint has a set of key features that allow you as the user to control its appearance and how the data is displayed to the consumers.

Building Pages from Parts

Rarely does the user get to create his or her own Web page. While some online portals allow users to select their components and the order that they appear, in most corporate environments, everything is pre-assigned and rigid. That isn't the case in SharePoint. One of SharePoint's key features is the ability for anyone to build a page from a set of components – called Web Parts. Even more impressive is that SharePoint allows you to configure these Web Parts to suit your needs.

Web Parts have what are called properties. These are settings that you – the user – can control; these properties to make the Web Part behave the way you want it to. In some cases, the properties allow you to control which view is displayed in the Web Part. Other properties control the title and location of the Web Part on the page.

SharePoint ships with numerous Web Parts, including Web Parts for showing the members of a site, for allowing you to add static content, to insert other pages as a part of your page, etc. Developers in your organization and at third-party companies can write Web Parts which are added to the gallery of available Web Parts that you can then add to a page.

Creating Your Own Pages and Sites

Your control of SharePoint isn't limited to adding parts to pages – you can add pages themselves. You can select from a template and create your own pages. These new pages can have Web Parts placed on them, as well. The benefit of being able to create your own pages is that it allows you a way to show different contents to different people – or to contain different types of content that may not belong on the same page.

For truly separate topics, SharePoint allows you to create your own containers called sites. Sites can have different security, navigation menus, and pages. Sites are like folders except more powerful. While SharePoint allows you to secure folders, sites allow you to change how users are grouped and assigned security. This allows you to tailor the experience of different groups of consumers based on varying sets of criteria.

Quick Wiki

Wikis derive their name from the Hawaiian word for "quick." The Wiki concept is designed to be quick and easy. There are several implementations of Wiki – perhaps the most popular is Wikipedia, which rivals the information held by traditional encyclopedia companies. Wikis themselves are designed to allow untrained users to quickly create and connect information. Instead of the <A HREF="http://sharepointsheperd.com">SharePoint Shepherd</A> notation that a Web page would require, a wiki allows you to build links by simply specifying the title that you want for the target. For instance, [[SharePoint Shepherd]] creates a link to a page titled SharePoint Shepherd.

What's better is that Wikis included in a SharePoint implementation will automatically allow you to create the page after you've created (stubbed out) the link. By clicking on the link to SharePoint Shepherd, you'll be given the opportunity to create the page if it doesn't already exist. The net effect is that it takes very little information to create knowledge repositories that are connected to one another.

SharePoint extends this model by allowing you to add Web Parts to a Wiki page. This means that the content and links that you've created can sit side-by-side with a Web Part, showing the results of a query, the temperature in Alaska, or status from some third-party system.

The benefit of a Wiki is plain in terms of speed to get content into the system. The negative to wikis is that pages tend not to have the same look and feel, nor does the navigation seem to have any structure to it.

Structuring Web Content

In communication environments, particularly where you're communicating with the public, the key concern isn't always how quick the content can be generated but is instead how easy it is for the consumers to consume. This means that the pages should have a consistent page layout and that the navigation should be architected. SharePoint allows for you to publish structured content though a set of features called publishing features. These features allow for the creation of page layouts – page templates – into which content can be added. The page layouts are varied by content type so that some of the pages can have more fields than others. Users can create new pages by selecting a new page and the layout that they want to use. The content is added into the entry boxes in the layout and when completed, the output is merged into a single page that the user can see.

The beauty of this arrangement is that the page is stored relatively pre-built in the database so it can be returned quickly, but it's also stored in its component parts so that it's easy to change the appearance of the page when the company changes its name or its branding. Power users can create the page layouts themselves so it's easy to create new types of content and layouts for it. It leaves the power of managing the appearance of the site to the user.

In addition to the ability to control – and change – the appearance of content, SharePoint includes several components designed to dynamically build the menus. By dynamically building menus to match the content that has been created, SharePoint minimizes the amount of effort that must be spent considering how to create the navigation and how to keep menus up-to-date. Further, SharePoint includes a page for Manage Content and Structure that allows you to move the content around, thereby changing the structure and menus which are dynamically generated. With all these tools, it's probable that you're site will seem navigable. Of course, some users won't know how to navigate through your site's structure and will need another way to find the information they're looking for – that is where search comes in.

Leveraging the Power of Search

Unlike older systems that allowed you to only search for things within special fields, SharePoint includes a full-text search capability that can extract the text from documents and allow you to search that content for information. SharePoint ships with adapters, called IFilters, for several of the most popular file formats including text, xml, and the Microsoft Office suite of applications. IFilters are available for Adobe's Acrobat PDF file format, as well.

Beyond being able to search content stored in SharePoint, the search engine can be configured to index information in File Shares, Exchange, and nearly every kind of system that you can imagine if you're willing to build the XML file that specifies how to get to that content. The result is that SharePoint can be an enterprise-level tool for finding information.

SharePoint's full-text search capability can even reach out to other systems through federation. This allows you to run the same search on your intranet that you run on the Internet – at the same time. SharePoint also allows for the use of faceted search, using the metadata that SharePoint stores on a document or list item to further refine the result sets.

Consider that you're looking for a specific presentation on the topic of wind power that you know was given to the ABC Corporation in May. You can search for "wind power abc corporation" and receive a relatively large set of results and then click on a link on the set to limit your results to the PowerPoint presentation type. You can further refine the results to those where the client is identified as ABC Corporation by clicking on the dynamic list of customers that was generated from the results. Ultimately you can even click into a date range to shrink the scope of the search results to a more manageable level. Often one, two, or three facets will quickly reduce the number of results to a handful (less than a page). The impact of this is that it is easier to find the results that you're looking for – quickly.

Faceted search relies upon the correct metadata being filled out by users as they upload content to the system. That's something that is facilitated by the upload process – and by the Microsoft Office clients themselves.

Adding Office Client Applications

One of the key challenges in any content management system is getting users to apply metadata or storage location consistently. SharePoint is different than most other content management systems because SharePoint leverages the Office client applications to facilitate the addition of the metadata by the users when they're creating the document.

One feature is QuickParts, which allows the user to enter data into the document directly and have that data promoted to metadata properties automatically. Another is the document information panel (DIP), with an InfoPath form that appears at the top of the document to specify properties. These both aid in the capture of metadata in the document. SharePoint promotes the properties in the documents to metadata in the SharePoint document library. This can dramatically simplify the process of capturing the metadata necessary to route documents (SharePoint's Content Organizer can move documents to new locations based on metadata).

Office client integration also includes the ability to take SharePoint data off-line and to synchronize calendars and contacts to Outlook. This means that SharePoint can be your storage repository for your data even if the primary way that you access that data is to leverage office tools like SharePoint Workspace and Outlook.

A Tale of Two SharePoints

It's important to realize that most, but not all, of the features ascribed to SharePoint are available in any version. There are two different SharePoint products. There's the SharePoint Foundation product, whose license is included as a part of your Windows Server license and the SharePoint Server, which is a separate for-pay product.

SharePoint Foundation has all of the Office integration, document management, and list management features, as well as basic search capabilities. SharePoint Server includes the Web content management features for publishing. SharePoint Server itself comes in two versions: Standard and Enterprise. Enterprise includes services

like Visio Services, InfoPath Form Services, and others. Refer to your Microsoft licensing expert for more specific details.

The key here is that there is a great deal that can be done with SharePoint Foundation. When you need features like Web Content Management, you'll want to upgrade to SharePoint Server Standard edition. When you want to use enhanced services like Visio services, you'll need to get SharePoint Server Enterprise edition.

What is SharePoint Designer and Do I Need It?

For the most part, SharePoint is a Web-based system. Most of the changes that you do for SharePoint are done from a Web browser. There are some cases, like creating a new page layout or modifying a design, where you need to use a free tool called SharePoint Designer. SharePoint Designer also allows you to create your own workflows so that you can create your own automatic responses to how data flows.

These two key features of SharePoint Designer would cause you to need it. Beyond these two uses, there are other valuable things you can do, which can be done in the Web browser, as well. Creating content types and some other operations available from the Web user interface are much quicker when performed from within SharePoint Designer.

If you're allowed to install software and you're going to use SharePoint, then you should install SharePoint Designer and see if it can help you out.

Conclusion

There are dozens of features not mentioned in this brief introduction to SharePoint. The point here is to give you a flavor – not enumerate every feature. An enumerated feature list can be found at http://www.microsoft.com/sharepoint.

If you have a better way to explain what SharePoint is, please drop me a line at Rob.Bogue@ThorProjects.com