

SharePoint Contextual Inquiry Report

Ayesha Baig

University of Maryland University College

Abstract

No abstract provided.

Executive Summary

Computers have fashioned an information revolution that fully bloomed as they started to get connected together into large networks. The biggest networks of all, the Internet- and the fact that computers became economical enough to sit on practically every desk at home and work- created a formula for sharing information. To fulfil this need, technology such as email and the World Wide Web cropped up in the 90's. Collaboration is the key to effective organizational metrics. The abundance of websites and the use of email as a preliminary source of communication within organizations enabled the free flow of information. The implementation of corporate email systems became the norm for communication.

With these advancements in technology, companies also implemented large enterprise computer systems. These systems were proficient in handling everything from inventory to human resources also known as ERP. There are many industry players including SAP, Oracle, Microsoft and SAGE. Many companies embraced ERP systems in the early 90's. The newest trends for 2010 decade are adeptness and efficiency for data-driven employees. This trend can only come from the application of communication, collaboration and information sharing.

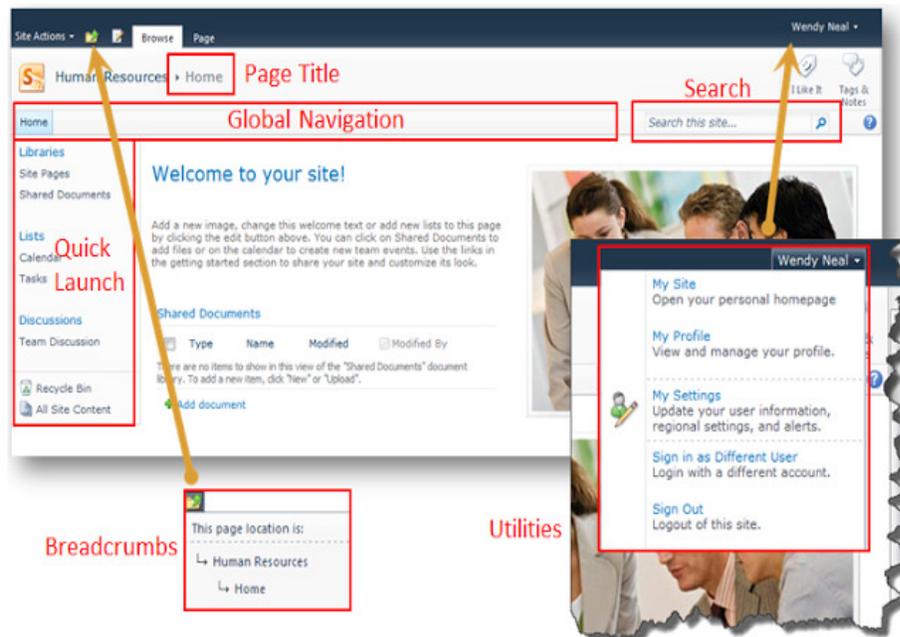
As SharePoint has come of age, it's put more tentacles into the Microsoft applications-resulting in an integrated portal platform that's controllable from familiar applications- so the race to implement SharePoint continues. Various companies offer software products for creating and using a company portal space- but so far the clear winner is SharePoint. (Williams, 2012)

"Two of the most important characteristics of good design are discoverability and understanding. Discoverability; is it possible to even figure out actions are possible and where and how to perform them? Understanding; what does it all mean? How is the product supposed to be used? What do all the different controls and settings mean" (Norman, 2013)

For the purpose of this contextual inquiry, SharePoint was being assessed for uploading documents to a library. Checking in and out documents. It was also being studied for its functionality and usability.

Two participants were selected for this study: a novice user, and an advanced user. The question that was being researched was what can be done to make uploading a document and pulling reports from SharePoint easy enough for a novice user. By looking at the issues that a new user who has never used a SharePoint site and comparing and contrasting those actions to what an advanced user does.

It was found that the novice users had difficulties understanding the concepts of uploading documents to the site. The navigations to the different areas of the site were the most complicated part for the user. The majority of the problems were caused by unclear status indications, difficulty in searching and selecting the right devices in the software, and non-responsiveness of the software.



“Websites usually have two types of navigation - navigation by browsing and navigation by searching. Navigation by browsing generally includes a primary navigation menu, secondary navigation menu, and utilities links. In addition breadcrumbs provide a way for users to easily see where they are at in a particular site or where they've been. Some best practices around navigation include the following.” (Sharepoint Community, 2015)

So how does SharePoint stack up? For the most part, if we're primarily looking at the basic tenets of usability and how they relate to navigation, I think it does pretty well. Figure 2 displays my grades for each element of a SharePoint team site.

Element	A	B	C	D	F
Primary navigation	✓				
Secondary navigation	✓				
Breadcrumbs				✓	
Page titles			✓		
Search	✓				
Screen size compatibility		✓			

Figure 2 - Report card with usability grades for the various elements of a SharePoint team site (Sharepoint Community, 2015)

With some relatively simple changes to the user interface SharePoint could be easier to use by a wider range of user abilities. An example is a search capability for documents. SharePoint document library and approximately how long it will take to upload documents and check them in and out and how it greatly extend the usability. Further study would be necessary to validate this inquiry by more participants with a wider range of skills since only two participants were interviewed.

“People expect great things from their products; value is not only associated with materials, styling, technology, and functionality, but also with the ability of a product to emotionally connect with and engage its user. This requires a different approach to product design: rather than designing objects and systems, product designers are designing engagement (interaction) and experiences, and products are service providers rather than simply goods or possessions.”

“All design disciplines are concerned with people's experience of interacting with products, systems, spaces, and of receiving information through active engagement. Through visual and physical interaction, information is received, interpreted, and acted upon. Designing objects that express meaning through a built-in sense of their form and that have a relationship with their context can provide greater sense-making during interaction and provide for a better user experience.”
(UXMag, 2015)

Participants

As stated previously, two participants were selected for this study: an advanced user and a novice user. The novice user had navigated through a SharePoint Site. The advanced user has navigated through a SharePoint site several times and uses this at their job currently. Each participant utilized a different operating system in their environment; the product supported both.

Name: Sarah– (Novice User)

Sarah was selected as a novice user for this inquiry. She had no experience navigating or browsing a SharePoint site. She was selected because of the fact that she had never attempted to browse a SharePoint site. She has a basic understanding of computers, and was deemed a good candidate for the interview. The interview was conducted in one session on the 16th of June 2015 at approximately 07:50 PM and lasted approximately an hour and a half with 56 minutes and 52 seconds of recorded video.

Her user environment consisted of laptop with in the dining room in her home. This is her own laptop which she uses for personal use as well as for school.

Figure 3

- Gender: Female
- Age: 25
- Marital Status: Single
- Children: none
- City: Somewhere, Virginia
- Birthplace: Somewhere NY
- Nationality: U.S. Citizen
- Languages: English
- Education Level: BS in Science from Howard University

- Work: Pharmacy Resident
- Computer Literacy: Novice to proficient
- Hobbies: Traveling, Cooking, Reading
- Likes: Cats, chocolate, and spending time with family
- Dislikes: Rude people and electronics that do not work

Sarah is an aspiring pharmacy school student at Howard University. She is currently working as a pharmacy resident and working hard to gather all the necessary skills needed to enhance her skills and become an excellent Pharmacist. Her school uses a SharePoint intranet-site that is masked as a website. There is an option to upload documents and share for group assignments. She would like to explore this option as it would help her in becoming proficient in the site and its capabilities. She is a fairly novice user of computers, and gets frustrated quickly if electronics do not work easily and quickly.

Name: Nisar – (Advanced User)

Nisar was selected as an advanced user for this inquiry. He has a great deal of experience with computers, software and software products and applications. He also has proficiency in software integration. He is an expert computer user; with multiple years of experience combined with a computer engineering degree. He was selected because of his wide range of technical abilities and previous experience with SharePoint. SharePoint is a tool that is used on his team collaboration and document shares. They also use it to share calendars.

The interview was conducted on the 19th of June 2015 at approximately 06:30 PM. The interview lasted for approximately 45 minutes, which resulted in 29 minutes and 5 seconds worth of recorded video.

His user environment consisted of his Dell laptop running Windows 7 on his dining room table at his house as shown in figure 4.

Figure 4

Picture of Nisar's Environment



- Gender: Male
- Children: 4

- City: Somewhere USA
- Birthplace: Somewhere, USA
- Nationality: U.S. Citizen
- Languages: English
- Education Level: MS Telecommunications from George Mason University.
- Work: US Navy
- Computer Literacy: Advanced
- Hobbies: Pool, Computers
- Likes: Computers, Sports, Cars
- Dislikes: Seafood and mean people

Nisar is a married US Naval civilian software engineer. During his leisure time at, Nisar enjoys spending time with his family, watching movies and learning new technologies. To centrally manage all of his documents for his team they have implemented a team SharePoint intranet site. He has had difficulties in uploading documents and uses this site quite some bit for the team environment. He shows a small amount of lack of patience when things do not work right away. For the purpose of this interview, Nisar was asked to upload some documents onto a SharePoint site and check it in and check it out. Access the libraries and calendar as well as look at the views.

Tasks for each user

- Create a SharePoint task
- Find a document, open, edit and save
- Update a task's progress
- Email a link to a document
- Find details around an team event
- Follow a document
- Create a calendar event

There were three underlining issues which were found:

- Issue editing text on page
- Issues with changing site icons
- Issues changing navigation

Findings

From the findings of this study the following conclusions were derived:

1. Varying Interaction with UI Elements.
2. Varying Placement of Landmarks/UI Elements.
3. Inadequate Top Navigation.
4. Navigation is inconsiderate of where the user is in the site.
5. Navigation does not provide a way for users to get back to where they came from.

From the results obtained from interactions with my study participants, a variety of items were identified that caused issues between the novice and the advanced user. It was not surprising that both the novice and the advanced user did not encounter problems uploading documents to the sites. I expected the novice and the advanced user to encounter

almost no problems. I expected the novice user to encounter some issues, but she seemed to be able to handle the upload with no problems.

The site is available through IE browsers. Sarah's Lenovo laptop was able to access the intra site without any issues. SharePoint usually is browser specific and runs best on IE. (Although I myself have had success on Mozilla Firefox as well). SharePoint can be accessed through the links.

There was a variety of intuitive features which help guide users through the site. There is a plus button that is on the site which indicated add a document. There are also menus on the ribbon which indicate what can be done to the document as far as views are concerned. This was not as much an issue to the advanced user as it was for the novice user. The advanced user had prior knowledge to assist in guiding him through any hurdles. Some features in the ribbon had too many options for the user to go through that the novice. The novice user watched some YouTube videos in order to be guided on how to manipulate the document properly according to her requirements and or the professor's requirements.

While adding documents to the site, the user is required to know which document library that the document should be uploaded to the SharePoint site. Some options on the ribbon and the site were and were not very evident. The site has a user ribbon on the top of the webpage.

Checking out multiple documents and uploading multiple documents to the document library became a painful process because it took approximately 30 seconds per document. The advanced user in this study complained that when he "upload multiple documents to the site, by default they become checked in to you". This was frustrating to him because other users of the group were not able to see the documents because they were only viewable to him.

There is a successful upload option that you can see in the document library that shows the new document that is added and the user who has added as well as a day and time stamp. Some options on the ribbon of the site caused extra consternation for the novice user as they were required a little bit of a better understanding of SharePoint.

SharePoint has access rights for each user based on their privileges. These rights are saved under their admin profiles. This is helpful in the fact that it saved the privileges for each user. This saves the hassle that multiple profiles and permissions can create.

Default settings and permissions are displayed on the respected sites. As the novice user became more and more frustrated, she tried to click too many times and ended up adding too many documents. The designers of SharePoint should have kept this in consideration for those users who are not that technical

User Matrix

Table 1

User Matrix for SharePoint Remote Software

User Matrix	Sarah	Nisar
What are the user's goals related to the use of this software?	To become proficient with her schools SharePoint site to become a more productive Pharmacy student.	To become an advanced user and perhaps a super user so that he can become a better team player on his project.
What tasks do they currently do to achieve these goals?	Currently uses email to forward and share documents between her team mates for her lack of usage to the schools intranet site.	Already utilizes the team SharePoint site. He has some issues with the document versioning. He has experienced issues with the multiple upload files are not checked in
How does user's domain knowledge and prior experience affect their use of the interface?	She has nominal Experience with SharePoint. She attempted to use it before However because of her Inexperience she gave up. She went back to sending difficult, Documents via email.	User has a great deal of Knowledge in this When issues were he tried to figure how to To fix it or looking help.
What are the user characteristics that might affect their relationship with the software? (Personal, social, cultural traits; previous knowledge about content, tasks, or tools)	Little knowledge about SharePoint.	Previous knowledge SharePoint

What is the user's physical environment?	Single Family Home utilizing a laptop on the dining room.	Single Family Home utilizing a laptop on the living room table.
What tools do they use?	Utilized Youtube and MSDN for help and tutorials to navigate through the site and add the appropriate documents.	No additional tools were necessary.
How they acquired these tools?	Web-based.	N/A
How do users relate tasks to goals?	By successfully completing the tasks of uploading documents	By successfully uploading the documents have views for all users.
How do users measure success?	By successfully uploading documents and completing all activities.	By successfully uploading documents and completing all activities.
Do they accomplish their work alone, with others?	Relies on sister to guide her on how to upload documents and all other activates necessary for the class.	Works alone.
What resources (people, information, artifacts) are available to users as they work?	Help files, online resources, technical forums, a technical support hotline, and multiple technical people that she knows.	Multiple resources available such as help files, online resources/tech forums. A tech support call may occur if it could not be determined completely on his own. More than likely would not ask friends for help.
Is the task linear, interrupted, or concurrent with other tasks?	The task was linear, but multiple interruptions occurred due to encountering errors.	The task was linear, but multiple interruptions occurred due to encountering errors.

Had firewall issues with SharePoint site?	No because these sites are usually in an intranet site that already have firewalls implemented.	No, did not seem to affect the SharePoint site.
Automatic Software Update?	System updates are done in the backend does not affect the user.	System updates are done in the backend does not affect the user.
Read all of the web based instructions?	Skimmed through the text initially. When needed referenced back to the instructions	Skimmed most of the text. Is already familiar with this site and its features.
Operating System	Windows 7	Windows 7
Had prior experience training on Sharepoint?	No	Yes, has used multiple SharePoint sites.
Number of SharePoint user Profiles?	1	1
Initially utilized a SharePoint site?	Yes	Yes

Recommendations

In conclusion, SharePoint had a fairly forthright method for uploading documents and checking them in and out as well as adding to the calendars and sending emails. As with all Microsoft products there is some room for improvement to make that process usable for users at every level. Advanced users have enough background information to work around most of the issues observed. Brand new users can encounter issues that they might not be able to work around. Included are some recommendations to assist in making the remote more user-friendly for the majority of the user population.

While selecting documents for uploading and or checking in and out, show user progress and have a simpler navigation available to users. Integrating widgets and tools can help users find relevant information easily. Designers should ask if the information provided actually helps save a user’s time or supply information that would be hard to access otherwise. Can then be automatically sent to SharePoint for a review and approval process where it would be integrated into its master database.

If the SharePoint is waiting on an action, or is performing a function in the background, it needs to be clearly articulated through a status to the user. Add the appropriate error handling that if the site does not receive the required input, then it notifies the user of this and moves on. If a button is not able to be used at a given time because of a process going on in the background, gray it out to symbolize to the user that that button is not an option at that given time. Integrate a help feature that utilizes a pop-up on the site that can help with troubled users.

Incorporating these changes could assist in reaching a goal of making the ease of use of SharePoint easy and help migrate users from novice to advanced users. These changes will at the very least reduce user frustration, which could result in more potential future sales, and less customers returning their devices.

References

Association, A. P. (2010). *Publication Manual of the American Psychological Association*. Washington, DC: American Psychological Association.

Beyer, H. & Holtzblatt, K. (1998). Contextual Inquiry and Practice. In D. Cerra (Ed.), *Contextual Design*, (1st ed., pp. 41-78). San Francisco: Morgan Kaufmann.

Kuniavsky, M. (2003). Ch. 8: Contextual inquiry, task analysis, card sorting. In *Observing the user experience: A practitioner's guide to user research*, (pp. 159-199). San Francisco, CA: Morgan Kaufmann Publishers.

Norman, D. A. (1988). *The Design of Everyday Things*. New York: Basic Book.