

Problem Space:**Main Tasks:**

1. Looking for a file
 - a. Through file-to-file navigation(browsing)
 - b. Through search
 - c. Through other methods(like under Recents, or other mechanisms specific to that competitor)
2. Saving files
 - a. Saving files created on this platform, with apps in the same ecosystem(like google docs in google drive)
 - b. Saving imported external files
3. Organizing files
 - a. How are files grouped
 - b. How files can be filtered or sorted
 - c. Can you customize your organization strategy?
 - d. Dealing with ambiguity
4. Deleting files:
 - a. How does the system handle deleted files

Ideas:

1. Saving file
2. Organizing file
3. Searching for a file

Key Insights:

1. **Apple is the only company who categorizes files for users**
2. **Apple products separate applications from files**
3. **OneDrive, File Explorer, and Google Drive still revolves around the directory(folder) structure**

Commonalities: Manual Folder creation, Active search system, Suggested/recents

OneDrive and File Explorer - Users have full control
Apple OS - Setting users to its own default way of things

	IOS (Boyang)	Google Drive (Michelle) Everything is folder based, with different products (slides/docs) serving as higher categories	MacOS (Jialun)	File Explorer (Justin)	One Drive (Alan)
1. Average steps to find a specific file	From pages: - Go into a specific page - Find and go into a group - Looking through micro-pages to find the app/file From Search bar - Type the name - From “Siri Suggestions”	Search bar Folder > Folder > Folder... Has a “suggested” section Left hand menu bar could be useful, but files can be duplicated and placed in multiple locations.	2 ways: A.Start from Finder. The default setting is that files are not organized by folder B.Click on the magnifying glass” icon located at the top-right corner to access the Spotlight search	From Search Bar: - Click on search bar - Remember File name - If you don't find the file, have to search through other parameters	2 steps Search Bar Finds files pretty efficiently (suggests files as input string is typed out) Folders are not suggested

	3. By voice From App Library 1. Type the name in search bar 2. Find the app by alphabet Looking for apps/files in pages are similar to that in Window's File Explorer, that you have to remember which groups you put it in before				
2. Steps to save a file	Apples are downloaded from the App Store, they are automatically stored in the empty space of the first page. Any images/videos are automatically saved in Photos PDFs and other files are saved in "Files",	New > file/folder > drag/drop file or name new file File does not save until renamed from "untitled document" or content is added to file	Click anywhere in the document window to make it active, then choose File > Save (from the File menu at the top of your screen). Enter a name in the Save As field, then enter one or more tags (optional). Click the Where pop-up menu and choose a	-First prompts to save onto one drive -But can choose a directory as well -When saving a new Word doc, always prompts to save in Documents -When saving a picture, doesn't automatically go to "pictures", for me it goes to desktop(recently used)	- Files that are compatible with Microsoft suite are autosaved - Non-editable files need to be dragged in to be updated on their respective applications

	users have to select a place in a page-tree modal. Summary: Different kinds of files are saved in different places.		location.		
3a. How does it deal with an ambiguous item?	If it is something that is not an app, image, or video, it will be saved in the “Files” app.	Classification of product (slides/docs/sheets) made right away (no ambiguity) Named “untitled document” on default	The file will be stored in the finder anyway with names that are hard to identify.	-If you enter an incorrect file name, only files that have that word within it will show -Otherwise, it just says “No items match your search”	- The suggestions feature in the search bar does not detect unknown files - Files like HTML and CSS are not recognized together, thus omitting information in file previews
3b. Sorting Strategies	Sort by categories and first letter of the name in App Library, while in page view you can sort apps in the groups you created.	Includes file previews (small tiles/thumbnails) to help users classify files. Sorts by product (slides/docs/sheets), file name, last modified, last modified by me, last opened by me	On Mac, the system organizes files by different searching parameters, such as file type(ex document), the source of file(download), or user	Able to sort by: -Name(Alphabetical) -Date Modified -Data Type -Size Preview: -Have list view -Also have larger tile	Able to sort by: -Name (Alphabetical) - Date Modified - Last modified by - File Size - File Type No thumbnail previews, only icons

		Also is divided into sections for 'priority', favorites, shared with me, and recents	usage(recents)	view but can't use together	representative of the file type In Recents, is sorted by Today, Week, Month Recycle Bin is also sorted, offering the deleted date as a sort option as well
3c. Can you customize your organization strategy?	The page view is fully customizable, as user can: 1. Edit the order of pages 2. Group/ungroup apps 3. Move groups between pages 4. Move apps into a group or out of a group 5. Delete apps	Yes, provides flexible folder creation - folders are the center focus of "mydrive" Left hand menu bar could be useful, but files can be duplicated and placed in multiple locations.	Yes, Mac OS allows users to put colored tag onto files to label them, which potentially help users to find files more efficiently.	You can organize directories/folders but that's it	Does allow creation of folders but tagging these folders or even enclosing them in larger containers does not exist.
4. What happens to files that haven't been used in awhile?	Files will always stay where they were/ However, there is a feature to delete apps that haven't been used. Once	Option to throw files into trash. File is deleted from trash 30 days after.	Mac OS doesn't delete files that haven't been used in a certain amount of time. To move a file to the Trash, drag the file to the	-Windows will automatically delete unused files if you are running low on disk space(able to turn off though)	Goes to recycle bin and can be restored Option to set a time period to start deleting files that have been in

	deleted, when users reopen the app, it will be downloaded again.		Trash in the Dock. Or select one or more files and choose File > Move To Trash (Command-Delete).	-Other than that, they stay on system	the recycle bin for too long
Notes	iOS has two modes - the page mode which is fully customized by users, and the library that is fully created by the system. This architecture is easy to understand because apps are grouped in similar UI components in both page mode and app library(Groups). The page mode lets users create their own mental model of finding files, but when this fails, users can always go into the App Library and use the categorizations made by the system to find it.				

	In terms of proactiveness. Although the system auto-groups files for users, the primary place where users spend their times - the page mode - offers not a lot of personalized aside from “Siri Suggestions”. More work could be done to combine the two modes and suggest organizations for users.				
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Questions to consider:

1. **Effortless** - Is it easy for users to find the files they want?
2. **Intuitiveness** - How easy is it to understand the information architecture(how files/documents are organized) in this system?
3. **Proactiveness** - How personalized is the system? How is the system learning and adapting to users' behaviors?

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