

## How Do You Make Your Folder?

Azrina Kamaruddin  
Computing Department  
Lancaster University  
Lancaster  
a.kamaruddin@comp.lancs.ac.uk

Alan Dix  
Computing Department  
Lancaster University  
Lancaster  
a.dix@comp.lancs.ac.uk

### Abstract

Engagement with work involves many sub-activities. Folders and files creation are one of the sub activities which we engaged in achieving our task(s). The objective of this study is to understand how people manage information in these domains: desktop, folders, emails and bookmarks. A semi-structured interview on 17 computer users of different backgrounds has been conducted. The average time taken was 45 to 60 minutes. During the interview sessions, we prompted the users to show us and guide us through their desktop screen, folders, emails and web bookmarks. Using this method, we identified similar patterns among these users in how they make a folder in root directory environment, in emails and in bookmarks. We found two types of folder creations: pre-folder and post-folder. Pre-folder is a when a person creates a folder in advance by knowing what will happen and to achieve at a certain time. Post-folder creation is when a person creates a folder after grouping related files together.

Keywords: task, folder creation behaviour

### 1. Introduction

This paper describes an empirical study of the organisational structures and relationship between the workspace domains such as on the desktop, in folders, in emails and in web bookmarks on users' personal computers (PC).

Various studies have highlighted the overheads involved in managing individual hierarchies, such as laying out icons on the desktop (Barreau and Nardi [1]) and filing email messages into folders (Whittaker and Sidner [5]).

Boardman [2] studied folder naming and use in documents, emails and bookmarks. He found that whilst people created more document folders than email and bookmark folders there were substantial overlaps between the folder structures. However, there were also differences and Boardman identified several factors related to this disparity: each domain has its own specialised types of labels, labelling based on role and project contributed to the higher overlap, most users organize and maintain documents and emails consistently, managing files systems and email folders for storing the flow of communication in which users actively participated. Another studied by Jones et al [3] is about why users created folders and the purposes of making folders. Based on the previous studied, they [4] designed The Universal Labeler to support people in their personal information management (PIM); their aim is how to support people in planning their project activities. In contrast, this paper reports an investigation of ways people created their folder.

### 2. Approach

We conducted a semi-structured interview on 17 computer users with different backgrounds for example from computing, linguistics, management and engineering. The average time taken was 45 to 60 minutes. We interviewed 5 men and 12 women. All users favoured Windows XP as their operating system. All interviews took place at the person's place of work. During the interview sessions, we prompted the users to show us and guide us through their desktop screen, file folders, emails and web bookmarks. We also roughly sketched the structure and the location of icons, folders and files on desktop screens, on root directory, on emails and on bookmarks.

In order to help them articulate their answers, we helped the users when they got stuck on certain questions by asking them to clarify certain information or offering examples.

At this stage we finished analysing each domain with its own categorization. The thorough data analysis remains to be analyzed. We found out how people create folders in order to keep their information. How does this behaviour help them in retrieving their information?

### 3. What the users do? How they do it?

For the users in our study, the computer was one of their main devices to accomplish their work and leisure goals. Even though many applications have emerged to help users manage their information, we find that users are comfortable with support such as creating folders and labelling folders on their own way as provided by the system. This is supported by the Jones et al [3] study about the role of folders in the organization of project-related information. His study provided three reasons why users still want to have their folders are: trust, control, and visibility/understandability.

From our results, users say they are happy with what have been given and used by them. However, they admit that retrieval problems occur, that labelling their folders sometimes a bit tricky and that it took too much time and effort to really organize their documents.

In this paper we will focus on one interview issue that arose from the interview answers regarding the way users create their document, email and bookmark folders. Based, on the first phase data analysing, we found out that people have two ways of creating their folders. We classified these types of use as pre-folder and post-folder creations.

Pre-folder creation is when a person creates a folder in advance by knowing what will happen and what to achieve at a certain time. When users employ this type of creation, they know exactly in advance what folder they will need and what label it should have. Taken an example of a first year PhD student in the computing department. Her folders inside a root directory are shown schematically in Figure 1. She knows exactly the existence of several folders which need to be created. She created and labelled it, even though there is nothing inside the folder yet.

The example is supported by an answer from one of the users: *“If I have experience and already know what need to be keep, I will create folder for example: keeping information about Project will be in the Project folder or report presentation will be in Report Presentation folder. Whether, I have created a document or not, I will create in advance this folder.”*

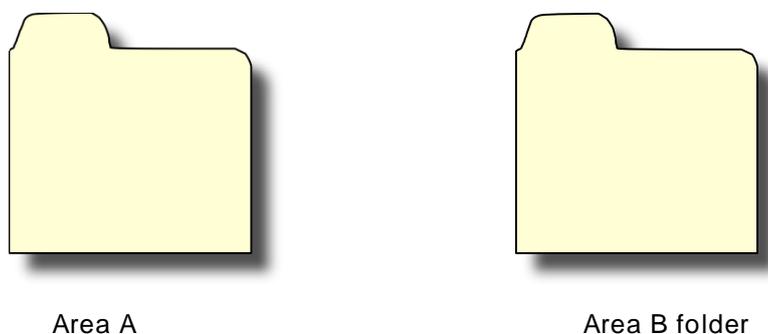


Figure 1. Pre-folder environment.

Post-folder creation is when a person creates an appropriate folder based on several semantically related files in a temporary location (e.g. root folder). Users who employed this type of use reasoned that this kind of behaviour happened because users are in hurry; users could not think of appropriate label to give; there are none related files that could be grouped together and files are not cohesive enough to make a folder. Figure 2 shows that File B, C, E and F are already created and have similar meaning. Only at that stage is a folder with a label created (see Figure 3). An answer from one of the users: *“I group them together and put in the appropriate folder for example I have several CV’s , I created a CV folder and move all my CV’s document into that folder.”*

An answer from another participant regarding post-folder creation is *“I think after I had a file, I usually creating a folder after several creation of files. When I’m creating a folder, it must be in a very clear sub-domain....”*

My Computer environment

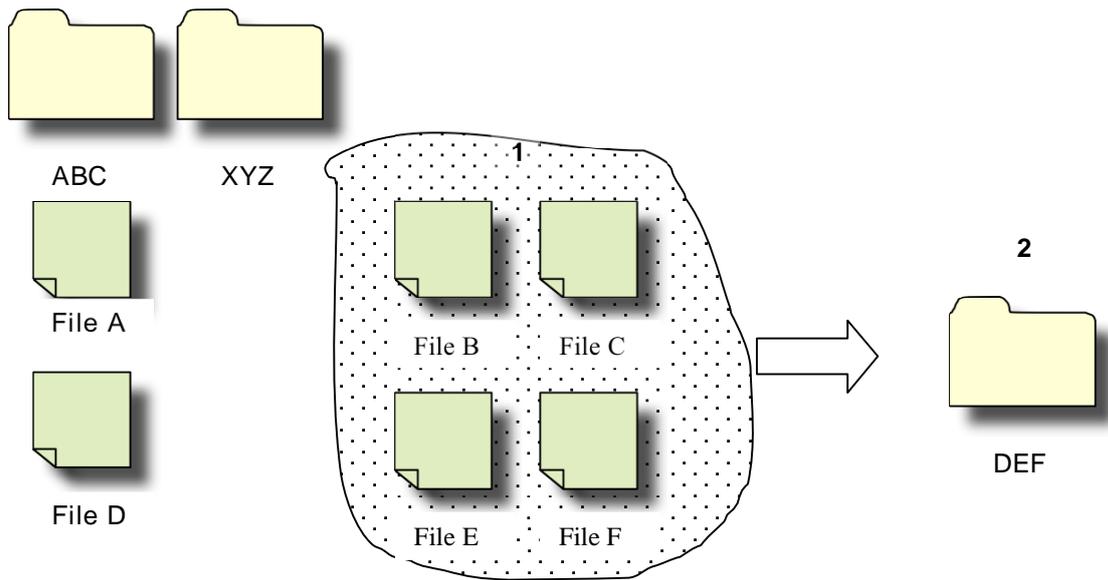


Figure 2. Post-folder creator environment.

My Computer environment

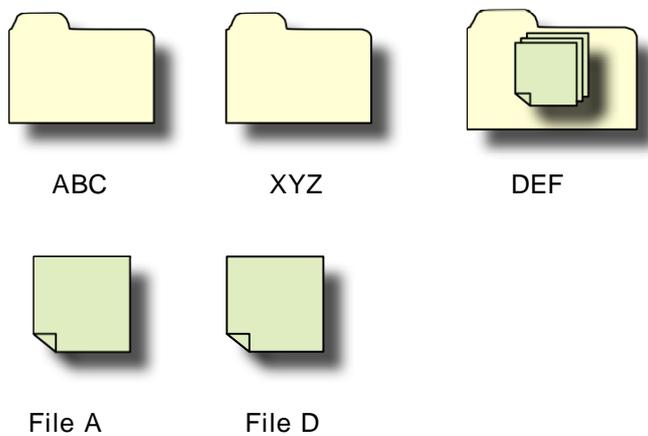


Figure 3. Shows the movement of Figure 2 activities.

Users typically employ both pre-folder and post-folder creation depends on circumstances. Their decision whether to use pre or post folder creation are fell into several factors:

- Personality “*The way I organize my files is like the way I clean my house.....*”.
- Users’ type of information “*If I put them directly in the root directly, there are thing which are kind of important but not important enough to make a folder.....*”
- Time “*If I am writing on a subject area I tend deliberately do it on certain directory. We are writing a paper for a workshop. So I got myself a specific directory for that paper.*”

#### 4. Conclusion

Pre-folder and post-folder creations are two most common users’ behaviour when creating a folder. Reasons for using both types of behaviour are because of users’ personality, user’s type of information and user’s time.

In the next stage we would like to understand more about this behaviour such as by using both creations in which way does it make retrieval easy? Does these two behaviour effects their retrieving process?

#### References

- [1] Barreau, D., and Nardi, B. Finding and Reminding:File Organization From the Desktop. SIGCHI Bulletin 27, 3 (July 1995).
- [2] Boardman, R. (2001). Multiple hierarchies in user workspace. CHI 01 : ACM SIGCHI Conference on Human Factors in Computing Systems : Student Poster Session, Seattle, Wa., ACM SIGCHI.
- [3] Jones, W., Munat, C.F., Bruce, H., and Foxley, A. The Universal Labeler: Plan the Project and Let Your Information Flow, Proceedings of ASSIST05 (September 2005).
- [4] Jones, W., Phuwantnarak, A. J., Gill, R and Bruce, H. (2005). Don’t Take My Folders Away! Organizing Personal Information to Get Things Done. Paper presented at the Conference on Human Factors in Computing Systems (CHI2005), Portland , OR.
- [5] Whittaker, S., and Sidner, C. Email overload:exploring personal information management of email, Proceedings of CHI’96 (Vancouver, 1996), ACM Press.