Exploring Desktop Resources Based on User Activity Analysis

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ABSTRACT

Relocation in personal desktop resources is an interesting and promising research topic. This demonstration illustrates a new perspective in exploring desktop resources to help users re-find expected data resources more effectively. Different from existing works, our prototype OrientSpace has two features: automatically extract and maintain user tasks to support task-based exploration, and support vague search by exploiting associations between desktop resources.

Categories and Subject Descriptors: H.5.2 [User Interfaces]:Prototyping.

General Terms: Design, Human Factors, Management.

Keywords: Desktop resources, Task exploration, Association exploration.

1. INTRODUCTION

Nowadays, the most widely used approaches to explore desktop resources is by Windows Resource Explorer(WRE) and Desktop Search Tools(DST). WRE demands users to recall precise path information, and DST demands users to remember exact key words. However, there're many occasions when users can not remember the promising keywords or pathes. In fact, users often expect to relocate desktop resources based on user tasks([1],etc). Some existing works make good efforts to tackle this problem, like prototype Haystack [2] and Phlat [3]. But these works paid little attention to the role of user activities for personal data relocation. This demonstration is try to overcome the disadvantages of the extisting works, and help users to explorer personal desktop resources based user activities and associations between desktop resources.

2. SYSTEM OVERVIEW

Figure 1 shows the interface of OrientSpace system. It has two major features: task-based resources exploration and association-based resources exploration.

Task-based Resource Exploration. In this work we define each task as a set of desktop files related to generating a special personal document, and identify each task based on analyzing user access sequential list on desktop resources. The left area of figure 1 shows a list of user tasks ranked by time, which are extracted automatically through detecting and analyzing user operations. By clicking one of the tasks, user will get the documents related to this task. This would be especially useful for those people who don't spend enough time in organizing their documents.

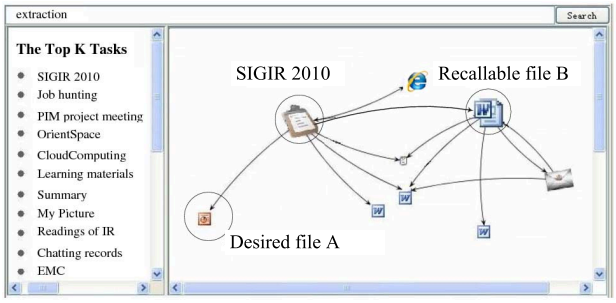

Figure 1: System Interface

Association-based Resource Exploration. The right area of figure 1 represents an association graph of documents and tasks. This is very useful when a user can not remember the right keyword and directory for the desired file, but can remember some information about other files with relation to it. As shown in figure 1, the user expects to find file A, and can not remember its keywords and directory, but can remember a keyword "extraction" of another document B associated to a same task "SIGIR 2010" with the desired file A. She can first find B by keyword "extraction", then relocate file A by this association-based explorer. Currently supported associations by OrientSpace include: have common keywords, belong to the same task, attached to email and so on.

3. ACKNOWLEDGMENTS

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4. REFERENCES

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