

VISS: A Tool for Vizualizing Clues About the Users' Information Needs and Their Information-Seeking Tactics

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1. INTRODUCTION

Recent researches on users' information needs have pointed out that the content of the current or previously accessed documents is likely to contain relevant clues about the users' current information needs. VISS is a tool for vizualizing these clues which can be extracted from the textual content of the accessed documents. A clue is a pair (D, W) where C corresponds to the largest set of common pieces of information extracted from the textual content of the set of documents D . Relevant clues are the clues which have been accessed during the same search activity. During the demonstration the concept of clue about a user's information needs, first introduced in [1], will be presented with more details and illustrated by an example. Then, VISS, our clue vizualization software is to be put forward. Finally, a demonstration of our discovering process of the user's own information-seeking tactics using a no-supervised algorithm will be given.

2. VISS

VISS (for Visualization of Information Seeking Strategies) displays the set of relevant clues extracted from an interaction stream for a given relevance criteria. Each clue is associated with a single color and is framed in a rectangle that shows all the interactions that are likely to belong to the same search activity. A square in a rectangle means that the interaction in column contains the set of words in row. Word sets are displayed at the bottom of the window when a clue is selected. VISS has searching and filtering functionalities, some of which will be presented during the demonstration.

3. INFORMATION-SEEKING TACTICS

VISS is interfaced with the clustering algorithms of the Weka package[2]: First, in VISS, interactions must be tagged with respect to some features. Up to now, we have found 10 features based on the clues that are useful to describe an interaction. For instance, the *originality* of an interaction is defined by the number of words in the that where not contained by any clue after the previous interaction on the total number of words in the current clues. Then, a clustering algorithm taken from the weka package will process

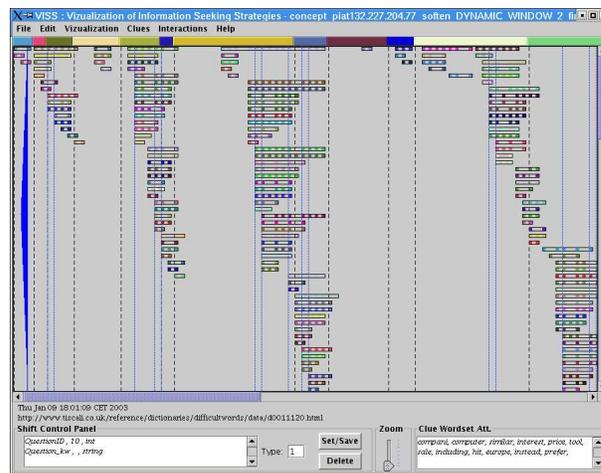


Figure 1: VISS displays both the clues about the user's information-needs and his/her information-seeking tactics.

a selected subset of interactions in the interaction stream. Interactions within each cluster found are displayed in VISS main window. During the presentation we will put forward the features we are working on and a demonstration of the process used to learn the user's own information-seeking tactics will be given.

4. CONCLUSIONS

In this paper we have presented a vizualization software intended to help to better understand how the content of the accessed documents is related to the information-needs and information-seeking behavior.

5. REFERENCES

- [1] J-Y Delort, B. Bouchon-Meunier, M. Rifqi. CEA: A Content-Based Algorithm to Detect Users' Shifts of Focus on the Web. In *Hypertext, Hypermedia, Tools, Products and Methods (H2PTM'03)*, France, 2003.
- [2] WEKA <http://www.cs.waikato.ac.nz/ml/weka/>.