

## **Summary of Workshop on Document Search Interface Design at the JCDL'02**

Javed Mostafa

Yngve Associate Professor of Information Science  
Associate Professor of Informatics  
Indiana University, Bloomington

On July 18th, 2002 the First Workshop on Document Search Interface Design and Intelligent Access took place at the Joint Conference on Digital Libraries, Portland, Oregon. Seven papers were selected for presentation, and about 20 people were in attendance. The papers presented at the workshop can be grouped under three broad categories: 1) enhanced interaction and interface support, 2) domain-centric analysis of search needs, and 3) behavioral analysis of search and user interaction.

French et al. presented a paper that falls under the first category. Their proposal is for supporting enhanced searching by allowing users to specify and refine queries based on multiple viewpoints. Viewpoints are different contexts of the same collection that emphasize different aspects of the content. In the same category was a paper by Wu et al. concentrating on a specific interface design feature, namely Table of Content view of collections, which can be used to organize large hit sets into hierarchical displays for locating desired information quickly and more accurately. Harper and Muresan's paper focused on interaction and interface support for increasing query accuracy through a mediation step. The mediation step takes advantage of existing specialized collections, allows users to browse topical structures in these collections, and generates refined queries by applying statistical language modeling.

By considering "design" as a special domain and analyzing the information support demands from this context, Harper produced a set of specific functional requirements. Harper convincingly argued that search must be viewed from the context of domain-oriented tasks and activities and systems must be designed that seamlessly integrate search into support for other key tasks and activities. Qin and Finneran pointed out the importance of the relationship between representation and search functions by analyzing the major metadata standards used in the educational domain and the constraints these representations place on searching. Qin and Finneran proposed an ontological representation that can capture component level semantics in a more in-depth manner and thus has the potential to improve navigation and retrieval of learning objects.

Toms claimed that advances in search interfaces have been slow due to lack of consideration of key "sub-tasks" users engage in during searching. She presented a list of 16 sub-tasks abstracted from observation of typical search tasks performed by 48 participants using a modified Google interface. Kelly and Belkin defined context of search more broadly than an information need event - as a problematic situation that is influenced by various attributes including topic familiarity, topic persistence, task endurance, and problem solving stage. In their paper they described the background and methodology of a longitudinal study that aims to more clearly characterize the attributes

of user's problematic situation and identify their relationship to common search and use behaviors such as book-marking, viewing, scrolling, and printing.

The main objective of the workshop was to raise awareness and improve understanding of theories and models of interaction and new interface design approaches. In this regard the workshop can be considered a success as it attracted high quality papers as well as researchers and developers conducting cutting edge work in the field. In collaboration with the main organizer of the information visualization workshop, Katy Borner, we are already planning the 2nd workshop to be held in next year's JCDL. The information visualization workshop will be merged with the search interface workshop, and it is tentatively titled: Information Retrieval & Navigation Interfaces. Related URLs to the search interface workshop and the visualization workshop are provided below:

Mongrel Project (Kelly and Belkin): <http://www.scils.rutgers.edu/mongrel>  
Laboratory of Applied Informatics Research: <http://lair.indiana.edu>  
2nd Workshop on Visual Interfaces to Digital Libraries:  
<http://vw.indiana.edu/visual02/jcdl.html>  
1st Workshop on Document Search Interface Design in Large Collections:  
<http://xtasy.slis.indiana.edu/jcdlui/uiws.html>

The workshop committee was:

Robin Burke, California State University, Fullerton  
James French, University of Virginia, Charlottesville  
Javed Mostafa, Indiana University, Bloomington (Chair)  
Kiduk Yang, University of North Carolina-Chapel Hill

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