

The visualization of request's results in a professional context of information seeking

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Introduction

- The list of query results is not a presentation format appropriate to the context of exploration of query results.
- Information systems has to present information according to:
 - cognitive needs of user in regards to the workload generated by information overload (Kuhlthau, 1991; Zhu & Chen, 2005);
 - the amount of information and its structure;
 - the information seeking process and user's information behaviour.

Problematic

- Definition : "Information visualization: the use of computer-supported, interactive, visual representation of abstract data to amplify cognition" (Card, Mackinlay, and Shneiderman 1999, 7) but there are still many problems about usability, understanding cognitive tasks, interpretation of abstract visualized information and its uses, qualitative metrics, scalability, aesthetics, human-computer interaction and logical visual inferences (Chen 2005, 12).
- What would be a good visulization for information organization and information seeking process?
- Hypothesis: Meaningful match between information organization and visual representation is the key to the understanding of information visualization in an information seeking context.

Goals & Questions

- Specify abstract information visualization in terms of modalities of representation and organization
 - ➔ What are the paradigms of information organization and visualization?
- Understanding cognitive processes in perception of visual information structures in an information seeking context
 - ➔ What are the thoughts and strategies of an expert user in an information seeking context on a visual information system?
- Measure the effect of organization on visualization in the context of information seeking tasks and vice versa
 - ➔ How efficient and usable are the organization models on visualization and vice versa?

Methodology

- Qualitative and quantitative
 - ➔ Heuristic evaluation of information visualization models and information organization models
 - ➔ Verbal protocol analysis of information seeking task
 - ➔ Statistical experimentation to evaluate performance

Attended results

- Theoretical results: specification of the interpretative process of abstract visual information
- Methodological results: qualiquantitative model evaluation with qualitative metrics measure
- Practical results: practical recommandation for visual information system

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