

## Making Sense of Interface Design: Implementing Searchling, a Visual Thesaurus-Enhanced Interface for Multilingual Digital Libraries

Amy Stafford (als2@ualberta.ca): Department of English and Film Studies  
Ali Shiri (ashiri@ualberta.ca): School of Library and Information Studies  
Stan Ruecker (sruecker@ualberta.ca), Matthew Bouchard (matt.bouchard@gmail.com), Karl Anvik  
Ximena Rossello: Humanities Computing Program  
Paras Mehta (paras.b.mehta@gmail.com): Faculty of Medicine

University of Alberta

Conceived by Karl Anvik, Ali Shiri, and Stan Ruecker at the University of Alberta, Searchling is an experimental visual interface that allows users to leverage a bilingual thesaurus for query formulation and enhancement. The design of Searchling is based on theories of thesaurus-based interface design from Shiri et al., combined with the principles of rich-prospect browsing from Ruecker. To date, the Searchling prototype has undergone several stages of revision and an initial user evaluation, and the original interface design has been altered significantly as a result (Figure 1).

We would like to use the development of Searchling as a lens through which to view the process of interface design and implementation. More specifically, we are interested in analyzing the relationships between the contributors to an interface (conceptual supervisors, graphic designers, programmers, users), and the way those relationships shape and define the project. In the case of Searchling, for example, the original designer on the team (Rossello) completed her graduate work and went on to other projects, and was not replaced with another designer. The changes to the original design concept were probably more drastic and far-reaching than they would have been if the designer had stayed involved with the project, or worked more closely with the programmers on creating the original sketch. The fact that the designer was absent after the initial stages of the project meant that the programmers and conceptual supervisors needed to make many design decisions on their own during implementation, both in terms of realizing the specific attributes of the design, and in creating the behaviours and actions of the interface not visualized in that design. When they came across parts of the interface that they could not implement as rendered, they were unable to consult with a designer and the project therefore moved further away from the original design with each iteration.

Although the project was not able to benefit from more designer-implementer feedback and interaction, Searchling development was greatly improved by input from users. We conducted two small user studies during development, and both times the users immediately identified problem areas within the interface design, which have been adjusted accordingly. The user feedback has therefore played a crucial part in shaping Searchling’s latest version, and has not only influenced interface decisions, but has even forced us to consider changes to the original conceptual framework of the project (i.e. whether we want the Thesaurus feature to become more explicit or more implicit in future interface development).

We feel that the third Chicago DHCS Colloquium is the perfect opportunity to further explore and define optimal conditions for interface design and implementation. We believe that evaluating Searchling’s development process can provide valuable insight into the relationships and organizational approach that result in successful digital humanities projects.

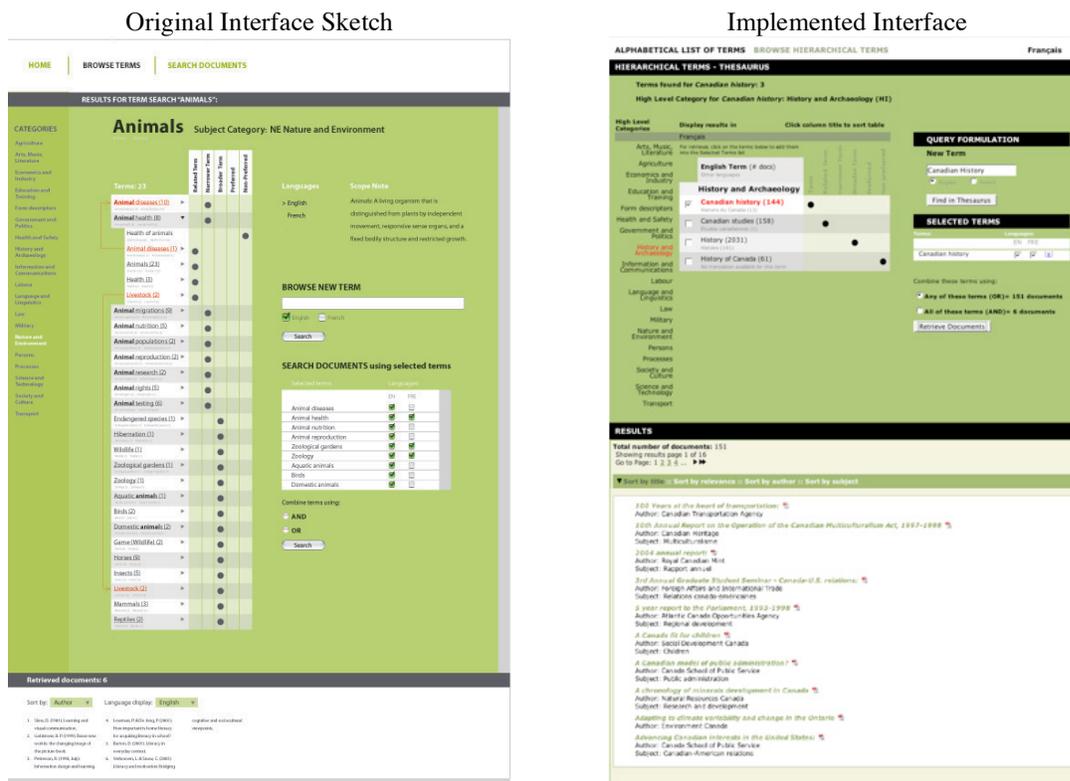


Fig. 1. Screenshot of original sketch of Searchling compared to that of current Searchling prototype