

A psychological approach to dealing with large corpora

Marcus Butavicius^{a*}, Kathryn Parsons^a, Agata McCormac^a, Brandon Pincombe^a,
Michael Lee^b, Nick Burns^c, Llaine Smith^c, Kym Preiss^c and Simon Dennis^c

^aDefence Science and Technology Organisation

^bUniversity of California

^cUniversity of Adelaide

While there are many software tools available for information search, less attention has been paid to the human aspects of search behaviour and how to model human representations of document spaces. In this talk, we will present an overview of research (previous, current and planned) that focuses on the psychological aspects of navigating and searching large document sets. The work draws on elements of cognitive science and in particular visual perception to examine fundamental aspects of software design. Specifically, the research to be discussed includes examination of the psychological aspects of:

- (1) Document similarity
- (2) Data and document visualisation
- (3) Document topicality
- (4) Context-based information retrieval

Our approach is based on two tenets. First, that the design of software tools needs to be sympathetic to cognitive and perceptual principles. Secondly, assessment of the usefulness of these tools requires empirical evaluation using an empirical psychological framework.

* Corresponding author. Tel.: +61-8-8259-6097; fax: +61-8-8259-6097.

Email Address: marcus.butavicius@dsto.defence.gov.au