

https://dspace.org/

Fluid and crystallised intelligence in elderly people: design guidelines to improve web usability

Ravi, Shubapradha

2017

https://hdl.handle.net/10539/24521

Ravi, Shubapradha (2017) Fluid and crystallised intelligence in elderly people:design guidelines to improve web usability, University of the Witwatersrand, Johannesburg, <http://hdl.handle.net/10539/24521>

Downloaded from a DSpace repository. https://dspace.org/

ABSTRACT

There is a steady growth in the elderly demographic. These older people have various informational needs, and the internet plays an influential role in catering to their needs. Given the advantages that the internet offers the number of elderly adults adopting technology has not risen significantly. Understanding how age affects technological use and determining how to design technical products will assist in improving technology ratification and usage among elderly people.

Cognitive ability plays a significant role in information retrieval on web interfaces. The aim of the research is to understand the theories around fluid and crystallised intelligence in relation to information retrieval when using technology. The study intends to discuss the implications of information organisation on information retrieval when elderly adults use web interfaces. The research then proposes an information architecture aimed at older adults.

This research is qualitative. The theoretical framework which formed the basis for understanding the theory of fluid and crystallised intelligence in relation to information retrieval from web interfaces helped in understanding the two information organisations namely hierarchical and tag-based. The proposed alphabetically arranged combination of tag-based and hierarchical system formed the basis for conducting semi-structured interviews and tracking user interactions with elderly users. The research used National Institute of Health-Senior health (NIH) and South African Tourism (SAT) websites for semi-structured interviews with elderly people.

The interview data was analysed using thematic content analysis. The observation of the users and the analysis of interview data proved that an alphabetically arranged combination of tag-based and hierarchical system was simple to use for elderly users. Design guidelines were then formulated for web interfaces featuring Crystallised Intelligence enhancing the process of information retrieval by elderly adults.