# *Scaffolding the Search*: Should Assessment Design Scaffold Students' Online Information Search Behaviours?

## Abstract

Designing online assessment tasks challenges educators to meet the required learning outcomes and provide the necessary scaffolding needed for students to answer the task. In view of these challenges, the purpose of this study was to investigate online tools that university students use to find relevant information for assessment tasks, and document their information search behaviour to inform future assessment design. The findings suggest that a focus on selecting the correct information tools for the appropriate academic level and type of assessment is very important. Instructors and educational designers should scaffold and integrate the affordances of technology and learning design during the development of an assessment to guide the students' information search and provide a path to maximise their legitimate response to an assessment.

Significantly, it was found that students do not focus or maximise the informative components of internet research technologies. There are few previous studies that explore the use of internet resources technologies by students (for example [1-4]) and none that specifically focus on the informative components of these technologies for student learning. Use of these technologies and tools in online assessment tasks has been explored only partially and the commonly documented tools used by students are Learning Management Systems, Google/Google Scholar/Google books, mobile phones and messaging, Wikipedia, and other organisational websites [2, 4-6]. As online learning and teaching continues to transform the Australian Higher Education landscape, there is a need to better understand university students' online research in the context of an assessment task.

To this end, the study used a mixed methods approach across two phases to investigate and compare the information search behaviours of novice and experienced students in the context of their learning needs. In each phase, online user behaviour was digitally recorded using an eye-tracking system, followed by retrospective interviews. In Phase I, ten students, enrolled in a transition-to-university subject, undertook two assessment tasks that were embedded in the subject guide's learning modules. In Phase II, five experienced year 3 students worked on an essay-type assessment with a rubric based assessment structure. The recorded observations and interview transcripts of Phase I were analyzed using a constant comparative audit of data to discover emerging themes as per the grounded theory approach [7], with a particular focus on assessment design in higher education.

Findings from Phase I [8] suggested, even among well-known information tools (e.g. Google, Wikipedia), there is a need for training new students in the use and organization of information tools so that they are better able to undertake their academic learning work and ignore 'online distractions'. Moreover, part of that training should focus on their online reading abilities, thereby achieving the lexical processing abilities needed for university education.

Phase II data analysis is currently being carried out with findings (including comparisons with Phase I) to be presented at the conference. Preliminary findings suggest that distinct patterns of search behaviours are emerging between novice and more experienced students, which provide insights on the scaffolding of search behaviours in assessment tasks.

# References


1. Thompson, P., *The digital natives as learners: Technology use patterns and approaches to learning.* Computers & Education, 2013. **65**: p. 12-33.
2. Kennedy, G.E., et al., *First year students' experiences with technology: Are they really digital natives.* Australasian journal of educational technology, 2008. **24**(1): p. 108-122.
3. Rowlands, I., et al. *The Google generation: the information behaviour of the researcher of the future*. in *Aslib Proceedings*. 2008. Emerald Group Publishing Limited.
4. Li, Y., *Undergraduate students searching and reading Web sources for writing.* Educational Media International, 2012. **49**(3): p. 201-215.
5. Margaryan, A., A. Littlejohn, and G. Vojt, *Are digital natives a myth or reality? University students' use of digital technologies.* Computers & Education, 2011. **56**(2): p. 429-440.
6. Head, A.J., *Beyond Google: How do students conduct academic research?* First Monday, 2007. **12**(8).
7. Strauss, A. and J. Corbin, *Basics of qualitative research: Techniques and procedures for developing grounded theory*. 1998, Thousand Oaks: Sage Publications.
8. Author_1 and Author_2, *Learning from student experiences for online assessment tasks.* Information Research, 2015. (Accepted for publication).