

Reading on paper and screen: Undergraduate attitudes & preferences

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CONTEXT

e-reading is increasingly prevalent *but* international surveys indicate that students - and adults generally - have mixed feelings towards screen reading (e.g. Aharony & Bar-Ilan, 2016; Baron, Calixte, & Havewala, in press; Kurata, Ishita, Miyata, & Minami, 2017; Mizrachi et al., 2016; Two Sides, 2015).

Technological advances permit 24/7 access to virtual libraries that were unimaginable just a few years ago. Today's students need to become knowledge curators. Advanced digital literacy skills are essential, extending beyond traditional reading comprehension abilities.

Over the last decade psychologists have established that e-reading, and the processing of hypertext in particular, imposes additional cognitive demands which threaten learning outcomes (see Wylie et al., in press; DeStefano & LeFevre, 2007, for reviews).

Cognitive demands & consequences of e-reading (esp. hypertext)

More decisions, interruptions & distractions



Extra demands on attention, working memory & executive control



Disruption to mental representation



Implications for comprehension, learning & memory

Research Questions

- * What are the views of QUB students towards e-reading?
- * Do local views differ from those reported in international surveys?
- * Where should our research efforts be focused?
- * Can we identify any implications for instruction?

METHOD

- * 103 students completed surveys
- * Dec 2015 - October 2016
- * Range of disciplines, mostly psychology
- * 19 multi-part, Likert-scale questions
- * 10-15 minutes to complete

RESULTS

When given a choice, 94% prefer to read in print on paper. Why?

- * 96% believe they understand better
- * 93% believe they retain information better
- * 93% prefer print when reading complicated or demanding material
- * 6% believe they are more easily distracted



Note-taking
Processing
Navigation
Retention
Relaxed
Receptive



Cost
Availability



Cheaper
Availability
Short docs



Distraction
Lengthy text
Note-taking
Navigation
Health concerns

CONCLUSIONS

Our data align with findings reported around the world. Today's "digital natives" prefer to read on paper. Despite student preferences, reading resources at university will be increasingly digitised: student perceptions and concerns should be addressed. Given their beliefs, do students adapt their reading & study behaviour? Longitudinal research is needed.

Hypertext Our survey did not explicitly address hypertext reading.

Hyperlinked text imposes *additional* demands on cognitive resources and brings challenges for the construction of coherent mental representations of text.

Each decision point is potentially costly in terms of comprehension.

What strategies do students employ when reading hypertext?

Students may need support or instruction to develop high level skills of **navigation, evaluation, and integration.**

Ongoing PhD research in the School of Psychology is investigating the impact of working memory, prior knowledge, motivation and metacognition on hypertext processing.

REFERENCES

- Aharony, N., & Bar-Ilan, J. (2016). Students' academic reading preferences: An exploratory study. *J. of Librarianship and Information Science*, 1-11.
- Baron, N., Calixte, R.M., & Havewala, M. (in press). The persistence of print among university students: An exploratory study. *Telematics and Informatics*.
- DeStefano, L., & LeFevre, J. (2007). Cognitive load in hypertext reading: A review. *Computers in Human Behavior*, 23, 1616-1641.
- Kurata, K., Ishita, E., Miyata, Y., & Minami, Y. (2017). Print or digital? Reading behavior and preferences in Japan. *J. of the Association for Information Science and Technology*, 68, 884-894.
- Mizrachi, D., Boustany, J., Kurbanoglu, S., Todorova, T., & Vilar, P. (2016). Academic reading format international study - Investigating students around the world. Paper presented at the *European Conference on Information Literacy*, Prague.
- Two Sides (2015). Reading from paper or reading from screens. What do consumers prefer? <http://www.twosides.info/UK/Reading-from-paper-or-reading-from-screens-What-do-consumers-prefer/>. Accessed 10/4/17.
- Wylie, J., et al. (in press). Cognitive processes and digital reading. In M. Barzilai et al. (Eds.), *Learning to read in a digital world*. John Benjamins.