

Understanding Annotations Using the Heideggerian Concepts of Ready-to-hand and Present-at-hand for Supporting Active Reading

Abstract

The rate of consumers' acceptance of electronic books (e-books), such as Amazon Kindle, is rapidly growing (Milliot, 2008; Springer, 2008). However, previous studies show that people still prefer to read on paper for close or intensive reading (i.e., active reading) and employ skimming strategies while reading from the computer screen (Levy, 1997; Liu, 2005 & 2008; Ramirez Leyva, 2003; Springer, 2008). A study also shows that fewer people annotate or highlight with electronic documents than with printed documents (Liu, 2005). At the same time, new technologies for the display of content, such as electronic ink and electronic paper, provide designers with more freedom from the constraints of the computer screen in reading, such as eye strain, in the design of e-books. Improving the design of e-books to support active forms of reading requires an improved understanding of the nature and experience of active reading.

This paper reports on a pilot study in which the researchers analyzed the annotation data – highlights, marginal notes, etc. – on several key readings of a doctoral student in Comparative Literature. Using the Heideggerian concepts of ready-to-hand (i.e., flow) and present-at-hand (i.e., breakdown), the study suggests that annotations represent a transitional moment from text as ready-to-hand to text as present-at-hand. This is because, in order to annotate text in page margins, the participant needs to shift from a text-reading stage (i.e., text as a tool that enables the participant to extract meaning) to a text-examining stage (i.e., text as an object that the participant needs to examine and integrate into his broader academic purpose).

The findings have implications both for e-book designers seeking to provide more robust support for active reading and researchers conducting user studies in the area of reading in the digital age.

* Note: An abstract with the title, "Supporting the Experience of Active Reading in the Design of e-Books," has been accepted to the *4th International Design Principles and Practices* conference for a 30-minute presentation; it will be presented at the University of Illinois, Chicago, 13 - 15 February, 2010. Also, a revised full paper will be submitted to the *International Journal of the Design*.

References

- Levy, D.M. (1997). I read the news today, Oh Boy: Reading and attention in digital libraries. *Proceedings of the 2nd ACM International Conference on Digital Libraries*, Philadelphia, PA.
- Liu, Z. (2005). Reading behavior in the digital environment: Changes in reading behavior over the past ten years. *Journal of Documentation*. 61(6), 700-712.
- Liu, Z. (2008). Reading behavior in the digital environment. In *Paper to digital: Documents in the information age*. Westport, Conn: Libraries Unlimited.
- Milliot, J. (2008, February 18). Report finds growing acceptance of digital books. *Publishers Weekly*, 255(7), 6.
- Ramirez Leyva, Elsa M. (2003). The impact of the Internet on the reading practices of a university community: The case of UNAM. *New Review of Libraries and Lifelong Learning*, 4(1), 137- 157.
- Springer (2008). eBooks – *The end user perspective* [White paper]. Retrieved October 6, 2008, from http://www.springer.com/cda/content/document/cda_downloaddocument/eBooks+-+the+End+User+Experience?SGWID=0-0-45-608298-0