
Interaction Design for Reading Devices and Apps

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Abstract

This course presents opportunities within the space of digital reading systems for supporting better readability and accessibility than current approaches. A wide range of material will be covered, from dedicated e-reading devices to best practices for presenting reading material on screens and in apps. The course will review the history and flow of paper-based reading through the ages, using this to motivate and illustrate better *digital* reading designs for the future. Attendees will be introduced, interactively, to the many issues that are present when displaying text on screens, including poor interface choices, and affordances that have been badly migrated from paper. In the process, we will explore how future designs can support greater immersion and accessibility without compromising on readability. By the end, attendees will have learnt several techniques for designing better future digital reading systems.

Author Keywords

Digital reading; interaction design; e-books; reading devices; e-reading apps.

ACM Classification Keywords

H.5.2 [User Interfaces]: Interaction styles; Screen design.

Overview

Reading is a complex activity that has co-evolved with technology over thousands of years. Mass printing in the 15th century firmly established what we know as the modern book, with its physical format of covers and paper pages, and now-standard features such as page numbers, footnotes and diagrams. Today, reading is in a period of rapid change, and digital tools have become widely-used for reading. There are, therefore, big opportunities to really make sure digital reading is done *right*. However, we are only at the start of the journey of designing truly effective tools for handling digital texts.

While digital reading has been popularised for formats such as novels, a high proportion of users still opt for paper when reading more complex content [3] (such as the materials from this conference, for example). This persistent “print to read” habit is one sign of the shortcomings of digital documents. However, the surge in popularity of e-reader devices and apps is also one sign of the shortcomings of paper, and the desire for better digital solutions. How, then, do we get the best of both worlds?

In this course we explore the current state-of-the-art in digital reading technology, and through this help attendees better understand how they can improve their designs with respect to both readability and accessibility. We will, for example, argue strongly against the habit of copying features from paper. Instead, we will show how choosing the most *appropriate* aspects to duplicate, combined with the benefits of e-reading approaches, can offer better solutions.

The number of CHI papers around digital reading has waned in previous years, yet early contributions

(e.g., [1]) are highly cited. We strongly believe that it is time for the community to revisit this important topic. Our aim is to motivate attendees to be far more aware of the potential for better approaches to digital reading. We want them to leave the course with a wider perspective around this area, and to be keen to use the techniques demonstrated and the understanding gained to build better future digital reading tools.

Learning objectives

After the course, attendees will be able to:

- Take a more critical view of existing reading devices and tools, helping them focus on areas in which improvements might be made.
- Understand why copying reading device features from paper is not necessarily a good idea, with reasoning underpinned by solid HCI principles.
- Show, through experience gained on the course, more appropriate designs for digital reading with enhanced readability and accessibility.

References

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