Diverse Reading Themes for Readability

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Digital reading applications give readers the ability to customize font, size, and spacing, which can be challenging to implement. However, tweaking these text features can be challenging, especially given their interactions on the face and feel of the text.

To arrive at a recommended set of reading themes, we combined 1) text feature adjustments, 2) EUs, 3) feedback loops, and 3) design sessions.

Our solution is to offer readers present combinations of font, character, word, line spacing, which we bundle together into reading themes.

To understand if participants with dyslexia differ from non-dyslexic participants, we surveyed participants at the end of each iteration to compare their experience.

Figure 1. Change in word spacing for readers with dyslexia and non-dyslexic participants across the iterations.

Figure 2. Change in line spacing for readers with dyslexia and non-dyslexic participants across the iterations.

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Presented by Ben D. Sawyer

Study interface

Crowdsourcing in each THEME location: first review and rate each theme (good, neutral, or bad) from the previous iteration before selecting their favorite theme. Designers are then tasked with refining each theme.

Final themes

Four iterations of THEME composed on a set of themes: Compact, Open, and Released themes that are designated for different audiences.

Figure 3. Three themes that were selected for the Compact theme.

Figure 4. Themes converging to match readers’ preferences.

Themes converge to match readers’ preferences

In the initial iteration (R0), most participants preferred character and line spacing in the default theme, resulting in a set of diverse formats.

Participants with dyslexia increased word spacing during R1 and R3, and participants without dyslexia increased character spacing in R2 and word spacing in R4, respectively.

As the THEME iterations progressed, participants made fewer refinements to the provided themes, indicating that the defaults met their preferences.

Figure 5. Differences between initial theme settings and the refined settings in each THEME iteration.

With fewer refinements, participants also spent less time reviewing the text settings, indicating that themes now better meet their needs.

Final themes

Compact

Open

Released

Themes for readability from

Michael Kraley