Intro-

Paraphrase: In today’s digital world, accessibility and inclusion are the hot key words. The world is realizing the limitations that some people have when accessing digital information, services, and tools due to disabilities.

Research about – font size/style, text alignment/spacing

[1]

In the study, a comparison was made between different fonts at 10, 12, and 14-point sizes, focusing on aspects of reading effectiveness, reading time, legibility, attractiveness, and overall preference. The eight fonts under examination encompassed serif fonts like Century Schoolbook, Courier New, Georgia, and Times New Roman, as well as sans-serif fonts like Arial, Comic Sans MS, Tahoma, and Verdana.

The findings revealed no significant disparities in reading efficiency across font types at any size, but there were notable differences in reading time. Times and Arial generally allowed for faster reading compared to Courier, Schoolbook, and Georgia. Furthermore, fonts at the 12-point size were read more quickly than those at the 10-point size. A font type and size interaction was observed concerning the perception of font legibility, with Arial, Courier, and Georgia generally being perceived as the most legible.

Regarding font attractiveness, Georgia was perceived as more attractive than Arial, Courier, and Comic, whereas Times was considered more attractive than Courier. However, these perceptions did not align with participants' general font preferences. Verdana emerged as the most preferred font overall, while Times was the least favored. Thus, while Georgia and Times serif fonts were considered more attractive, they were generally less preferred. Of all the fonts studied, Verdana appeared to be the most well-rounded choice, being both preferred, read fairly quickly, and perceived as legible.

The paper concludes by emphasizing the need for caution when generalizing these findings to other font types. Several factors, including text characteristics, size, spacing, computer settings, and user characteristics, can influence reading performance and preferences.

[2] old so can skip later

This study explores the performance and user preferences for fonts designed specifically for computer screens in the context of reading for comprehension. With the decline of reading from paper and the rise of online information sources, font choices for digital content are crucial. While previous research has discussed the legibility, readability, and font preferences, there is a significant gap between controlled experimental conditions and the practical presentation of content online.

The study comprises two parts, one focusing on binary bitmap fonts typically used for extensive text passages and the other on grayscale (anti-aliased) fonts typically employed for headers and display purposes.

The findings reveal that Georgia, a serif font specifically designed for computer screen display, performs favorably in comparison to Times Roman, suggesting it enhances online readability. The contrast between Verdana, a sans-serif font created for screen display, and Georgia results in mixed preferences, with Verdana favored over Verdana Italic.

However, these findings are preliminary and merit further exploration. To comprehensively understand typography, factors such as type size, line length, and line spacing must be considered in conjunction with the typeface. Typeface alone does not address the complete typography equation, as demonstrated by fonts like Georgia and Verdana, which may benefit from increased line spacing due to their larger x-heights. Lastly, a refined framework is needed to identify the critical factors contributing to observed differences in fonts, which would assist designers in creating more effective fonts.

[3]

This study delves into the legibility of fonts and the impact of electronic display parameters, utilizing a threshold size method. The research reveals a significant "letter superiority effect," indicating that individual lowercase letters are 10% to 20% more legible than lowercase words, underscoring the vital role of individual letters in word identification. Several factors, including pixel height, font type, stroke width, and font smoothing, exert substantial influences on threshold legibility. The optimal legibility was observed at a pixel height of 9 (equivalent to 10 points), with Verdana and Arial emerging as the most legible fonts, while Times New Roman and Franklin ranked as the least legible. The use of subpixel rendering (ClearType) enhanced legibility for specific fonts, particularly when combined with Verdana. Additionally, increased stroke width (bold) improved legibility, albeit primarily at the thinnest width tested. Notably, there was no significant difference in threshold legibility between upper- and lowercase letters when adjusted for size. These findings offer valuable insights for optimizing font design to enhance both legibility and readability in electronic displays.

[4]

This study aimed to determine the most legible and preferred font for web readers by comparing the performance of the serif font Times New Roman (TNR) and the sans-serif font Arial at 10- and 12-point sizes, as well as in dot matrix and anti-aliased formats. The research, conducted on an IBM-compatible computer with a monitor resolution of 1024 x 768, assessed readability, reading time, font legibility, sharpness, and overall font preferences.

The results suggest a slight advantage for the 12-point Arial font over the 12-point TNR font for web text. The 12-point Arial font was the most preferred and perceived as the most legible and sharpest, making it a viable choice for websites. Interestingly, the 12-point TNR font was the fastest to read, the second most preferred (tied with the 12-point anti-aliased font), and the second most legible, aligning with previous research indicating the potential for serif fonts to enhance reading comprehension.

However, the study found that TNR fonts, apart from the 12-point version, were the least preferred. This discrepancy could be due to serifs becoming less distinguishable at smaller font sizes on computer screens, possibly appearing as visual 'noise.' Furthermore, small anti-aliased fonts might introduce additional visual noise due to the smoothing effect. Notably, participants' familiarity with default fonts did not consistently influence their preferences, as some switched to Arial even when TNR was their default font.

[5]

This study explores the impact of font types on the readability of individuals with dyslexia, a neurological condition that affects reading and writing abilities. The paper is the first to use eye-tracking technology to objectively measure the effect of font type on reading speed for people with dyslexia. The study involved 48 subjects with dyslexia reading texts in 12 different fonts. The findings reveal that sans-serif, monospaced, and roman fonts significantly improve reading performance, while serif, proportional, and italic fonts have the opposite effect. The recommended fonts for people with dyslexia include Helvetica, Courier, Arial, Verdana, and Computer Modern Unicode, taking both reading performance and subjective preferences into account. In contrast, Arial Italic is to be avoided, as it significantly decreases readability. This research underscores the importance of font choice in enhancing accessibility for individuals with dyslexia.

Reference

<https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=21a32bc134881ef07726c0e45e3d01923418f14a>

<https://dl.acm.org/doi/pdf/10.1145/274644.274658>

<https://journals.sagepub.com/doi/epdf/10.1518/001872005775570998>

<https://www.researchgate.net/profile/Michael-Bernard/publication/265740857_So_What_Size_and_Type_of_Font_Should_I_Use_on_My_Website/links/5485be510cf283750c37485a/So-What-Size-and-Type-of-Font-Should-I-Use-on-My-Website.pdf>

<https://dl.acm.org/doi/epdf/10.1145/2513383.2513447>