

Human-Computer Interface

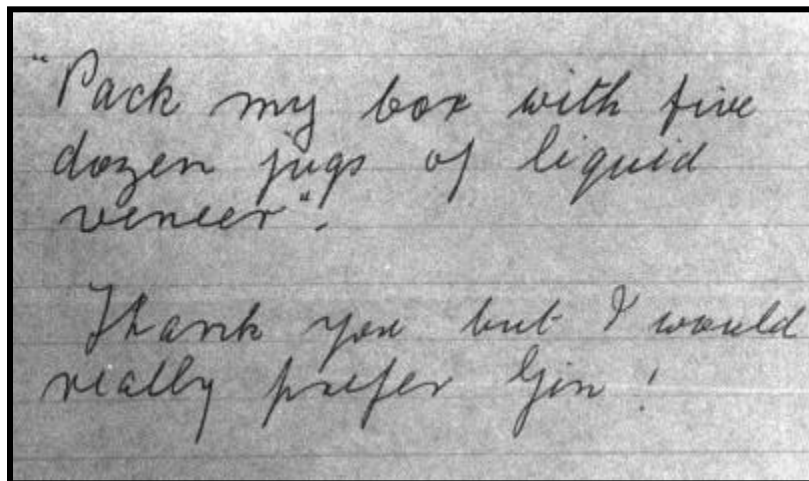
Assignment-2 [Gurpreet Singh 2021UCS1632]

Problem Statement:

Design a new font. The font should be for a particular type of users and/or a particular purpose (for example, for children aged 5 to 7 years, or for writing programs in C/C++). Use any font design tool to design the font. Mention and justify the design decisions. Write a paragraph of text using the new font.

- Link to Github Repo: <https://github.com/GurpreetSingh380/FontDesign>
- Font Design Tool Used: Birdfont

In this assignment, a new font is being designed specifically for aged people to improve their reading comfort and accessibility. As people age, they often face challenges with reduced vision and reading difficulties. The purpose of this font is to address these challenges by creating a typeface that enhances readability, reduces eye strain, and ensures clear visibility. By focusing on the unique needs of older adults, the font aims to provide a better reading experience, making it easier for them to engage with written content. This thoughtful design approach ensures that text is accessible and comfortable for aging eyes.



A typical aged-person handwriting

Design Decisions

1. **Larger Font Size:**

As people age, their eyesight often weakens, making the small text difficult to read. Using a larger font size (like 14 points or more) helps older adults read comfortably without straining their eyes. Larger text ensures that each letter and word is clear and easy to distinguish.

2. **Increased Letter Spacing:**

Letters and lines that are too close together can be confusing and hard to read. Increasing the space between letters (kerning) and lines (leading) makes it easier for older adults to follow the text. This reduces visual clutter and improves reading speed and comprehension.

3. **High Contrast:**

High contrast between the text and the background (like black on white or white on black) makes reading easier. Low contrast, such as light grey text on a white background, can be difficult for aged eyes to see clearly. Strong contrast prevents the text from blending into the background.

4. **Avoid Thin Strokes:**

Fonts with very thin lines can appear faint and difficult to read. For aged people, fonts with medium to bold strokes are better because they make the letters stand out more clearly. This reduces the effort needed to read and helps avoid eye strain.

5. **Simple and Distinct Letterforms:**

Complex or fancy fonts can be hard to read. A simple sans-serif or serif font with clear, distinct shapes for each letter ensures that similar-looking letters are not mistaken for one another. This reduces confusion and makes the text easier to follow.

6. **Open Counters and Apertures:**

Counters are the spaces inside letters (like "o" or "e"), and apertures are the openings (like in "c"). Fonts with open counters and apertures are easier to read because they prevent letters from appearing too cramped or closed off, making them more recognizable.

7. **Minimal Italics and All-Caps:**

Italics and all-capital letters can make text harder to read for aged eyes. Italics are often slanted and can blur together, while all caps lack distinct letter shapes. Using regular, upright text with proper capitalization makes reading simpler and more accessible.

8. **Consider Dyslexia-Friendly Features:**

Older adults may develop reading difficulties similar to dyslexia. Fonts

designed with features like heavier bottoms or unique shapes for each letter can help reduce letter confusion and make reading more comfortable, ensuring text remains clear and easy to understand.

Sample Paragraph

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