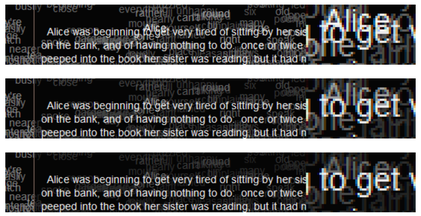
Clearer Transparent Overlays

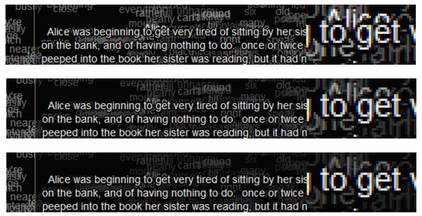
Overlay windows can be made much more readable if a few artist/typographer techniques are applied. These well-proven heuristics have been gleaned from the traditional experts in information display. Here, we also address their possible foundations in perception.



THE USUAL

The typical implementation of overlay windows simply draws a semi-transparent rectangle, then draws text or graphics on top. But the eye needs to identify letterforms and word shapes to read, and transparent windows let background edges interfere with foreground glyphs.

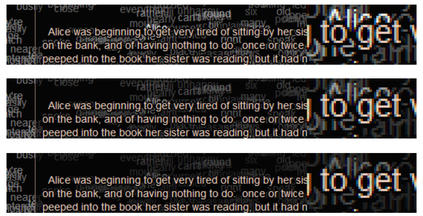
The solution of decreasing transparency (here 70%, 45%, 30%) is problematic: by the time the text is comfortably readable, the background is all but obscured.



CUT LINES

Illustrators often separate front objects from objects behind them behind by outlining them with the background color. This allows the eye to distinguish the shape of the front object with little impact on the visibility of what's behind.

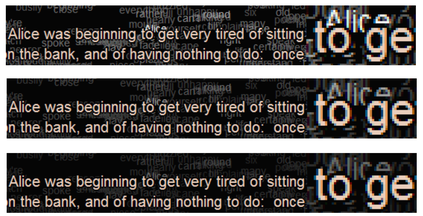
This may work because it simulates da Vinci Stereopsis: the ability of the eye to find object contours from unpaired image points in binocular views. It also increases the contrast at glyph edges.



HUE VARIATION

Some conputer vision techniques use hue differences to segment images. Perhaps this was inspired by the human visual system, which was evolved in a world where value (highlights and shadows) changed across an object but hue often changed at object boundaries.

If we mimic the natural world by making even very tiny hue changes between our front and back glyphs, can tap into this capability to help isolate front glyphs.



FONT SIZE

Changing font size, especially if the front is larger, may also help establish planes at different apparent depths.

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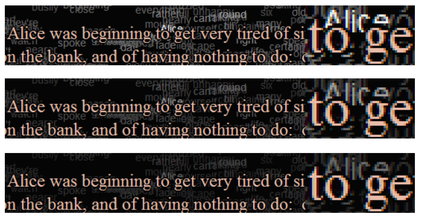

TYPEFACE

After years of reading text in different sizes and faces people may build up "mental font tables:" expectations that help prime parts of the visual system to find characters in a consistent typeface.

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