Exploring the Effect of Word-Scale Visualizations on Reading Behavior
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Exploring the Effect of Word Scale Visualizations on Reading Behavior

We report on a study that examined how word-scale visualizations for e.g. <vis here> are used in information reading of a small sentence. We examined information reading, retention and preference for different word-scale visualization positions. Additionally, we checked if participants retrieved information from the text or from the word-scale visualizations.

Our long-term goal is to study how the placement of word-scale visualizations in text impacts reading in a broader context. We are interested in whether or not word-scale visualizations can enhance memorability and text comprehension. Additionally, we want to investigate which cases and contexts are more suitable to which position.

**Word-scale visualization**

There are small visualizations that display information associated with specific words in the text, and a generalization of the word will draw from specific terms. "small, simple, single, word-based displays, which typographically evolve," Word-scale visualizations have been a main source of cues and less relevant requirements. High-scale visualizations can encompass a wider range of "word-scales" and can use a variety of visual encodings. "In Drusselstein was 90 ant students, although the statistic "average class size" can mean the same visual nature of the word-scale visualization.

**Four different information-related conditions**

- a) the information was encoded only in the visualization
- b) the information was encoded only in the text
- c) the information was encoded only in the text and the visualization
- d) information was encoded in both the text and the visualization

**Example of a sentence presented to the participants**

An example sentence describing information ambiguously encodes in the sentence “<vis here> was presented to the participants.”

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