Unfamiliar words, not blue text, slows reading of hyperlinks

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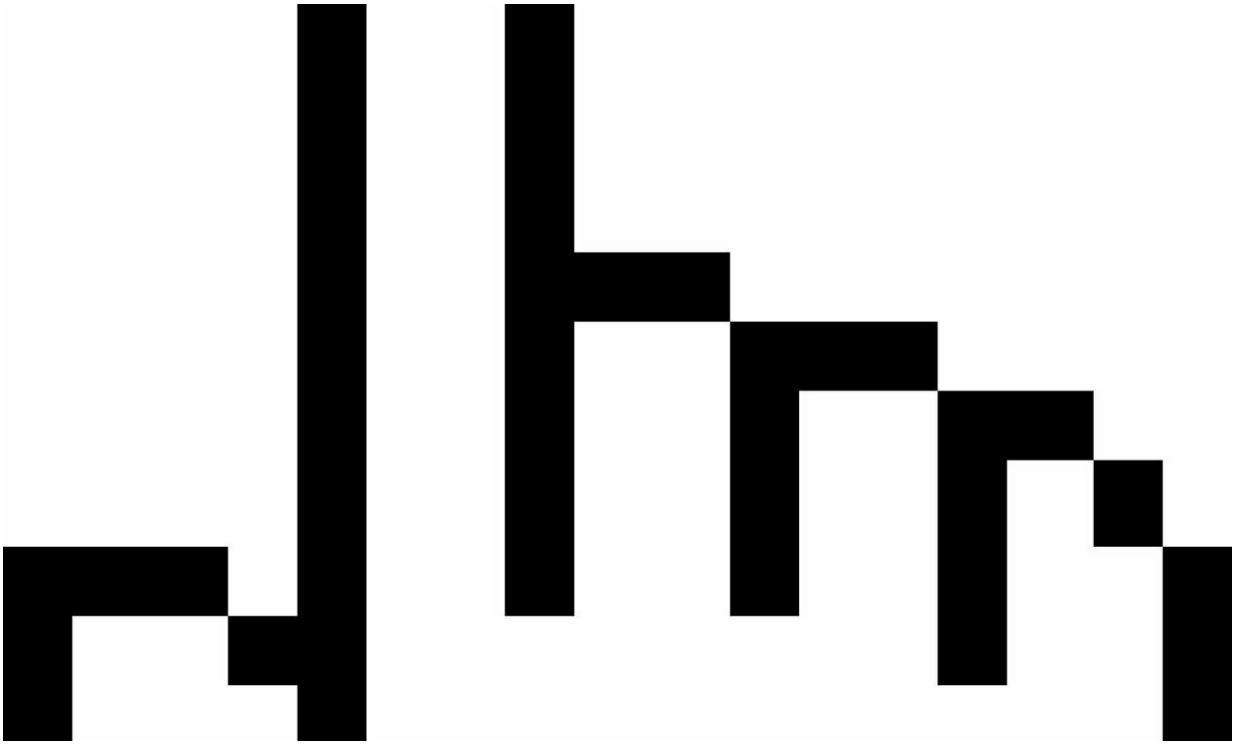

Credit: CC0 Public Domain

Hyperlinks slow down reading speed only when the linked word is unfamiliar, an effect that is independent of link color, according to new research published in the open-access journal *PLOS ONE* by Gemma Fitzsimmons, Mark Weal, and Dennis Drieghe of the University of Southampton in the UK. The effect is likely due to the reader's

perception that the unfamiliar word may carry special importance in the sentence when formatted as a hyperlink.

Since the internet's earliest days, hyperlinks have most often been formatted as blue text, but web designers have had little data on how this choice affects readability and comprehension. To explore this question, the authors performed three experiments in which they tracked the eye movements of volunteers every millisecond as they read text on a computer screen, determining how long readers dwelt on individual words, how often they skipped a word, and how often they re-read part or all of a sentence.

The researchers found that a single colored word was skipped less often than other words in the sentence, suggesting it signals the word may have special importance. The choice of specific color didn't affect how long readers spent on a word, except if the word was gray, and to a lesser extent green, which both increased fixation time, presumably because they provide less contrast with the screen background. The effect of color disappeared when multiple words were colored, most likely because the reader no longer interpreted color as signaling importance, the authors suggest.

Finally, when presented with a web-like page with standard hyperlink formatting, readers tended to dwell longer on linked words and to re-read sentences if the hyperlinked word was uncommon, but not if it was common. The authors suggest that linking uncommon words may prompt the reader to re-evaluate the content of the sentence to make sure they understood it, or to try to decide why the linked word was important.

The authors add: "Coloured hyperlinks in Webpages do not have a negative impact on reading behaviour. In fact, hyperlinks can be used to highlight important information and draw the reader's attention to important areas of the text on a Webpage."

More information: Fitzsimmons G, Weal MJ, Drieghe D (2019) The impact of hyperlinks on reading text. *PLoS ONE* 14(2): e0210900. doi.org/10.1371/journal.pone.0210900