Linguistics Department Research Seminar, 27 Nov. 2020

Minna Korhonen

Readability of online health texts: Beyond the traditional readability formulas

In today's world, the Internet is often the first port of call for patients to find information on health topics and hence the readability of online health texts is paramount. To help audiences from a variety of backgrounds to access accurate health information, texts on health websites need to be appropriate for the literacy and reading levels of the readers. Unfortunately online health information is often well above the recommended readability level (e.g., Dobbs et al. 2017, Weiss et al. 2016). Traditional readability formulas, such as Flesch-Kincaid Grade Level, which are based on surface-level linguistic features, such as word and sentence length, have often been used to determine the level of readability of texts. But in order to properly engage with the readability of a text, more sophisticated tools to measure cohesion and text difficulty at various levels of language and discourse are needed and this is what the online tool Coh-Metrix is designed to do (see, e.g., Crossley et al. 2011; Graesser et al. 2014). It provides over 100 indices, such as content word overlap and syntactic similarity, that can be used to determine the difficulty of a text, also including a composite score for L2 readability. In addition, Coh-Metrix T.E.R.A. (Text Ease and Readability Assessor) provides measures of text "easability" and readability for L1 readers on five different dimensions: narrativity, syntactic simplicity, word concreteness, referential cohesion, and deep cohesion.

In this presentation, I will demonstrate how the use of Coh-Metrix can provide insights into the readability of texts for L1 and L2 readers and provide comparisons with the traditional readability formulas. In order to do that, I present analyses of a selection of patient-oriented skin cancer texts, sourced from both government and community organisation websites in Australia, with the hope of showing how the use of the enhanced readability metrics may aid text editors in ensuring more accessible health information for the general public.

References

Crossley, Scott A., David B. Allen & Danielle McNamara. 2011. Text readability and intuitive simplification: A comparison of readability formulas. *Reading in a Foreign Language* 23(1): 84–101.
Dobbs, Thomas, Giles Neal, Hayley A. Hutchings, Iain S. Whitaker & James Milton. 2017. The Readability of Online Patient Resources for Skin Cancer Treatment. *Oncol Ther* 5: 149–160.
Graesser, Arthur C., Danielle S. McNamara, Zhiqang Cai, Mark Conley, Haiying Li & James Pennebaker. 2014. Coh-Metrix measures text characteristics at multiple levels of language and discourse. *The Elementary School Journal* 15(2): 201–229.
Weiss, Kathleen D., Christina R. Vargas, Olivia A. Ho, Danielle J. Chuang, Jonathan Weiss & Bernard T. Lee. 2016. Readability analysis of online resources related to lung cancer. *Journal of Surgical Research* 206: 90–97.