Readability

Concept and usefulness on SEO & user engagement

“A web page should be easily perused and read by users, besides SEs. A readable and comprehensible web page implies high quality, affecting SEs Rankings” (Yalçin & Köse, 2010).

1. Readability features and indices

Readability has long been used to predict the difficulty people will have in understanding written content. Readability is defined as “the ease of understanding or comprehension due to the style of writing” (Klare, 1963, p. 15). An earlier definition of readability was “the extent to which readers understand a text, read it at an optimal speed, and find it interesting” (Dale & Chall, 1949, p. 19).

Nowadays it is well established that the readability level of texts is a crucial factor regarding their appropriateness for ages groups and/or audiences. Readability features include several linguistic levels of text like level of vocabulary, word length, word ambiguity, figurative language, sentence length, syntactic complexity, cohesion, and number of paragraphs (Temnikova et al., 2015).

In websites’ Search Engine Optimization, readability is usually reflected in the length of paragraphs, the length of sentences, the use of passive or active voice, the use of transition words, the subheading distribution, the use of consecutive phrases, and the scores of readability indexes. Readability indexes are used to determine the comprehension difficulty of the material (Flesch, 1948) and avoid needless complexities in the mechanics of writing (Gunning, 1969).

The Readability indices include:

- Flesh Kincaid Readability Ease (FKRE): Calculates the reading level of reader
- Flesh Kincaid (FK) Grade Level: Calculates required Grade School level
- Gunning Fog Score (GF Score): Calculates Complexity of text regarding syllabus number.
- SMOG Index
- Coleman Liau (CL) Index: Calculates Complexity of text regarding syllabus
- Automated Readability Index (ARI): Calculates the approximately required age to comprehend test.

The most common indexes to measure readability of a text are the Flesch–Kincaid (FK), and the Gunning fog index (GFI) (Ismail et al., 2019). The GFI estimates the number of years of schooling a person needs to understand a given text on the first reading (Cortés, Rivera, & Carbonelld, 2022). The FK index estimates the grade level or number of years of education required for someone to understand the information, considering the average sentence and word length to assess (Wang et al., 2013).

1.1. The Flesch Kincaid Reading Rase

The Flesch Kincaid Reading Ease classifies text scores according to the following segmentation. “Very difficult” to read text scores from 0 to 30, “Difficult” to read text from 30 to 50, “Fairly difficult” to read from 50 to 60, “Easily understood” text from 60 to 70, “Fairly easy to Read” text from 70 to 80, “Easy to Read” text from 80 to 90, and “Very Easy to Read” text from 90 to 100 (Jackson, 2020; Eleyan et al., 2020). The Flesch Kincaid higher scores indicated text that is easy to understand, while lower numbers mark

increased difficulty. The algorithm considers the core measures of word length and sentence length based on the following formula (Flesh, 1998):

$$206.835 - 1.015\,[(\text{total words}/\text{total sentences}) + 100(\text{total syllabes}/\text{total words})] \quad (1)$$

Scores can be interpreted as shown in the table below (Flesh, 2016).

Score	School level(US)	Ease of understanding	Notes
100.00–90.00	5th grade	1-Very Easy	Very easy to read. Easily understood by an average 11-year-old student.
90.0–80.0	6th grade	2-Easy	Easy to read. Conversational English for consumers.
80.0–70.0	7th grade	3-Fairly Easy	Fairly easy to read.
70.0–60.0	8th & 9th grade	4-Standard	Plain English. Easily understood by 13- to 15year-old students.
60.0–50.0	10th to 12th grade	5-Fairly Difficult	Fairly difficult to read.
50.0–30.0	College	6-Very Confusing	Difficult to read.
30.0–10.0	College graduate	7-Very Confusing	Very difficult to read. Best understood by university graduates.
10.0–0.0	Professional	8-Very Confusing	Extremely difficult to read. Best understood by university graduates.

1.2. The Gunning Fog Index

The Gunning Fog Index measures the text readability indicating the level of education needed to understand each level. The Gunning fog index scale scores 6 for 6th grade level, 7 for 7th grade level, 8 for 8th grade level, 9 for high school freshman level, 10 for high school sophomore level, 11–12 for high school senior, from 13 to 15 for college junior,

sophomore, freshman level, 16 for college senior level, from 17 to 20 for postgraduate level, and for greater than 20 for post-graduate plus level (Eleyan et al., 2020).

Generally, texts requiring near-universal understanding generally need an index less than 8.

The computed result of the Gunning Fog Index algorithm is based on a formula considering the average sentence length and the number of the complex words (consisting of three or more syllables), as follows (Gunning, 1969):

$$0.4\,[(\text{words/sentences}) + 100(\text{complex words/words})] \quad (2)$$

Fog Index	Reading level by grade
17	College graduate
16	College senior
15	College junior
14	College sophomore
13	College freshman
12	High school senior
11	High school junior
10	High school sophomore
9	High school freshman
8	Eighth grade
7	Seventh grade
6	Sixth grade

2. Readability and Website SEO

The commonly mentioned Moz' Beginner's guide to SEO, refer to the relationship between readability and potential appearance to feature snippets (Muller, n.d.).

Feature snippets is a recently added SE's feature that aims to answer immediately searcher's queries. They are short snippets of texts shown in SERPs, extracted automatically from web pages (Sheffield et al., 2020).

To gain a position in features snippets web pages should comply to techniques like the above mentioned. Their success in click through rates (CTRs) enhance SEO value.

Serving the second scope of this research author further examined studies related to readability and user's behavior in an e-commerce site.

Perdana and Suzianti (2016; 2017) conducted qualitative research to identify if significant usability dimensions have a positive impact on purchasing intention. Interestingly, readability found to be an important factor that enhance purchase behavior.

Another study highlights the importance of the readability index in an e-commerce website, examining how comprehensive and clear the text is (Zheng, 2016).

As Gonçalves et al. (2018) describe in their research for accessible and usable e-commerce websites, readability features imply high usability. Specifically, an ease to read online shop with a top-down structure approach, as list of products arranged in alphabetical order and appropriate use of text color contrasting for visual impairment consumers, provide high levels of usability. Improving web page for readability induces visitors to stay longer on website and implies valuable, informative content.

3. Readability and user engagement in Social Media posts

Researchers explain the positive effects of readability on user engagement, because of the perceived processing fluency (Rennekamp, 2012). As explained, consumers respond more positively to messages that feel easier to process (Lee & Aaker, 2004; Lee & Labroo, 2004) and hence, easy-to-read messages result in greater consumer engagement with a brand.

So far, most research on readability is mainly focused on long texts (online content and educational material), while the readability of short messages receives little attention (Davis et al., 2019) and empirical research into the readability of brand communication is lacking.

Research on social media readability has mainly examined the tweets' specific features (like length limitations, use of hashtags, and emojis) that can affect readability and make messages difficult to read (Davenport & DeLine, 2014; Temnikova et al., 2015). Previous literature has also showed that text characteristics, including readability, significantly affect user engagement in websites (Ismail et al., 2019).

A recent study of Davis et al. (2019) showed that readability and text features of hashtags and at-mentions are positively associated with user engagement in Twitter messages (tweets). Readability is also linked with the users' perceived familiarity towards a brand (Davis et al., 2019), hence readability can be associated not only with consumer engagement but also with brand awareness.

Readability Tools

Readability Test tool by **WebFX**: https://www.webfx.com/tools/read-able/

The online readability test tool, calculates the readability score of a webpage, considering readability algorithms, referred in the content.

For WordPress: See **Yoast**

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