

NOTEWORTHY, SOFTWARE

HOW DOES AI RECOGNIZE AI TEXT

13.03.2024

The [Semrush blog](#) has a nice summary

By analyzing two main characteristics of the text: perplexity and [burstiness](#). In other words, how predictable or unpredictable it sounds to the reader, as well as how varied or uniform the sentences are.

[Perplexity is](#)

a statistical measure of how confidently a language model predicts a text sample. In other words, it quantifies how “surprised” the model is when it sees new data. The lower the perplexity, the better the model predicts the text.

[Burstiness is](#)

is the intermittent increases and decreases in activity or frequency of an event. One of measures of burstiness is the Fano factor —a ratio between the variance and mean of counts. In natural language processing, burstiness has a slightly more specific definition... A word is more likely to occur again in a document if it has already appeared in the document. Importantly, the burstiness of a word and its semantic content are positively correlated; words that are more informative are also more bursty.

Or lets call it [entropy?](#) So we now have some criteria

- AI texts are more uniform and more predictable and often repetitive with
- lack of depth and personality
- Sometimes plagiarism checker may recognize “learned” AI phrases. Sometimes reference checkers will find “hallucinated” references
- Incorrect content and outdated information in contrast needs human experts
- An obvious, yet underappreciated downside: “[AI texts have nothing to say](#)” – “[clichéd nothingness](#)”.

Well, there appear now also [AI prologue sentences](#) in scientific literature for example like “Certainly! Here is...”