



The Metafunctions of Alleged AI Text: An SFL Study

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Abstract

Like many artificial intelligence (AI) detection programs, Turnitin Originality presents useful data to consider when scanning student submissions for possible AI construction or paraphrasing. This function, however, is complicated when detection presents numeric and estimated results with limited explanation. As such, the instructor must still do much work in interpreting the results or checking them against other resources. One method that comes to mind would be to compare flagged and non-flagged text for linguistic metafunctions, or systemic clusters of language as defined in systemic functional linguistics (SFL). This study reviews over 30 samples from an English essay writing course. In all samples, student work garnered alleged AI-influence percentages of 30% to 70% (essentially one to multiple paragraphs). All text is reviewed for ideational (human experience), interpersonal (relationship constructing) and textual (message organization), with a comparison of results across non-flagged, AI-constructed and AI-paraphrased determinations. These metafunctions may help us understand how AI detectors like Turnitin Originality allegedly determine AI features due to perplexity (text predictability) and burstiness (sentence variation), which are most often relied upon for gauging AI.

Keywords: AI detection; AI paraphrasing; L2 writing; systemic functional linguistics; Turnitin