

## Perceptions of Human vs. AI Literary Compositions: Exploring Authenticity, Emotional Resonance, and Prosodic Features

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### Abstract

For centuries, literary writing has been considered an exclusive human ability. However, as AI has advanced its capacity to produce literary compositions, one could wonder whether readers can distinguish between human authored and AI generated texts. To explore this, we enrolled 124 participants and asked them to read nine texts extracted from chapters of books by classic authors. Each participant read the original opening of a text, followed by a randomly presented ending, either the original or an AI generated version. The two finals were carefully matched for linguistic features (i.e. word count, prosody, and lexical structure). Participants then rated each ending for authenticity, emotional resonance, pleasantness, and written prosody features. Linguistic analysis revealed that "perplexity" (lexical unpredictability) and "burstiness" (variation in sentence structure) were the only significant differences between human and AI texts. Notably, participants could not reliably distinguish between the two types of endings. Moreover, AI endings were rated as significantly more engaging and aesthetically pleasing than their human authored counterparts. These findings challenge traditional assumptions about human superiority in generating literary texts. This study provides critical insights for engineers, linguists, and AI researchers, highlighting opportunities for redefining human-computer collaboration in creative domains.

### Keywords

Authenticity perception, AI generated texts, Literary writing, Perplexity, Burstiness.

