Writing for Two Judges: Computing Undergraduates' Linguistic Strategies for Navigating Artificial Intelligence Detection Systems and Human Evaluation in Online Assignment Writing

S. A. D. C. H. Jayaweera

School of Computing and Engineering, National Institute of Business Management, Sri Lanka

chalanahansijayaweera@gmail.com

Abstract

The increased use of Artificial Intelligence (AI) detection systems in higher education has led to new challenges for both undergraduates and academics. However, existing research is primarily normative and future-oriented and has largely focused on evaluating the reliability of AI detectors or proposing future policy reforms. Accordingly, limited attention has been given to students' and academics' lived experiences, particularly the compounded pressure they face when writing simultaneously to bypass AI detection systems and satisfy subsequent human evaluators in online assignment submissions. Additionally, English as a Second Language (ESL) undergraduates' lived experiences in navigating such difficulties remain underexplored. Therefore, this study investigates the linguistic strategies employed by computing undergraduates when writing simultaneously for AI detection systems and human evaluators in online assignment submissions, and the academic writing teaching methods currently adopted by academics to help students manage the pressure of producing both algorithmically acceptable and academically acceptable writing. The study employed a qualitative multi-method design involving 30 computing undergraduates from three higher education institutes in Sri Lanka and seven lecturers teaching Academic English to computing students. Data were collected through focus group discussions with undergraduates, semi-structured interviews with academics, and textual analysis of selected student assignments. Thematic analysis was used to analyse the data. The study found that undergraduates adopt multi-layered linguistic strategies to reduce probabilistic regularity in AI-generated writing patterns, including sentence variation, lexical diversification, conversational markers, and rhetorical questioning to improve perceived authenticity. Additionally, interviews with academics revealed varied and conflicting responses, ranging from complete acceptance of AI integration to its strict rejection, including teaching paraphrasing, academic integrity, citation, AI literacy instruction, process-based writing instruction, development of authorial voice, reflective tasks, and vivas based on online assignment submissions. It can be concluded that AI detection demands have exacerbated the academic writing difficulties of ESL learners, transforming academic writing into a dual-audience challenge. Theoretically, the study contributes to emerging literature on AI in education by examining ESL undergraduates' linguistic practices. Practically, the findings highlight the need for consistent pedagogical approaches to AI use in academic writing, and the need for clearer and more transparent institutional AI policies.

***Keywords**: AI Detection Systems, ESL Undergraduates, Higher Education, Linguistic Strategies, Online Academic Writing*