

Teachers' Intervention in Plagiarism Detection Tool's Assessment of Students' Written Papers

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ABSTRACT

This investigative literature paper examines the necessity of teachers' intervention in Plagiarism Software's (PlagAware) tool after it has auto checked the students' academic written papers. The paper assumes that no matter how advanced the PlagAware software is, its assessment is not flawless; just like it is with the other applications of the artificial intelligence (AI). Through intensive review of the relevant literature, the paper devises three premises of argument whose findings answer the questions posed on what, why and how the teachers would intervene. The paper concludes that teachers' intervention by re-checking PlagAware's checking of students' written work is partly amust to do and partly complementary to the proper marking and grading process.

Key Words: Plagiarism Detection Software; Artificial Intelligence; Figurative Language

INTRODUCTION

Nowadays, artificial intelligence (AI) has come to the surface as the "talk of the globe" again. The main reason behind the current global debate about AI is because it is making machines formidably smart. Yes, the use of the adjective "formidable" here is not hyperbolic, but rather than an expression of a real concern especially towards the use of AI in some fields like in the warfare. The academic sphere is therefore, not an exception to this AI-human race of excellence. It has between a "cyber" battleground for quite some time where the teachers and the students are in a restless rivalry of outdoing each other over the authenticity of the assigned academic papers. While the teachers are equipped software for gauging the authenticity of the papers they assign their students, the later too have their counter-tools for evading the "red pen" marks.

How prevalent the Plagiarism Detection Software (PlagAware) tools are in the academic institutions worldwide, almost goes without saying. In fact, there is no reason for a college not have one when for a college to subscribe and have one installed in its LMS System according to the software's creator PlagAware (2023) the fixed price per year for the unlimited plagiarism check is \$206.53. This is in addition to fact that, a college may choose the less costly option of utilizing an online open source platform for such service. In most cases though, established colleges have the software installed as part of their Learning Management System (LMS) for more security and for other academic reasons. Whichever the case is, having a PlagAware software tool that auto-checks students' term papers once they upload them, is a priceless technological advantage. It is indeed an advantage for the teachers since it saves their time and effort having the students' papers appear as a window of the LMS system readily marked in percentage as (%) of textual/contextual matching.

Problems Statement

The current situation is either a teacher being "fooled" or a student's paper being unfairly graded with the Plagiarism Detection Software (PlagAware) tool in-between the two. The reason for this academic dilemma

however, is not only about out-smarting or meeting PlagAware's set percentage of the allowed text similarity, but about two other more serious issues. The first is the variance issue among the different disciplines/subjects as of the set percentage of the allowed text matching. The second issue, which is relevant to the first, is how aware of and/or committed the teachers are to undertaking the post-PlagAware assessment. Why not? It is because chances are that some teachers are new in the profession or tasked with replacing a co-teacher in a subject that is not their specialty; hence miss accounting for this variance. Not to mention the fact that different colleges may have different PlagAware software that are available in several versions with as many different features.

Methodology

The present review study attempts to cast light on the teachers' role of re-evaluating students' written papers after the papers have undergone PlagAware's plagiarism assessment. The review extends to relevant different studies published worldwide to establish facts about the necessity of teachers' intervention including the urge relevant to the PlagAware's side, and that related to the variance of the discipline and/or subject in the minimum percentage set for passing PlagAware. The analysis process with take place in form of findings drawn under each premise discussed.

Research Question:

- Should teachers categorically approve PlagAware tool's assessment?
- Does the minimum percentage set for passing PlagAware vary with the disciplines and/or subjects of the text?
- Does the growing database of students' online published papers have any impact on the future of PlagAware assessment?

LITERATURE REVIEW

AI and the Challenge of Mastering Human Language

The answer to the old-new question, "why does Google Translate tool render so maimed target/source language text," is almost obvious so long as language remains an exclusive human gift. This concept of Computing Machinery and Intelligence though, has long been addressed and as early as the 1950s by intellectuals such as Alan Turing's who concludes, "if a computer can pass the test, we would have to assume that it is capable of understanding" (Castelfranchi, 2013). So, the question is no longer about why the computer cannot process language perfectly, but rather how closer the Machine Language could be made to humans. Indeed, the artificial intelligence (IA) is expanding and deepening its domain after it has replaced its predecessor the Computer Assisted Language Learning (CALL). However, the human-machine language rivalry is far from over for others. For Gragett & Barnden (2024) at least, whether or not AI will be able to handle figures of speech -humor, hyperbole, metaphor, the EU-funded GEN-META machine already realizes it to some degree (META, 2024). So far, machine's human like language programs can only follow syntax rules but could not associate any understanding to any object/symbol, let alone semantics to words (Wang, 2011). It is the reason the smartest Machine Language programs can produce is only mimicking semantic understanding, while this is absolutely different from genuine "semantic understanding". However, even this machine "mimicking" is not going any further, as argues the computer academics, Anna Jonsson (2021) as long as languages are infinite, while computer's memory space is finite. The novelty of the Natural Language Processing (NLP) may have pushed AI to the edge, but it is still the edge where Chatbot language model keeps mimicking humans even if it sounds responding to questions and composing sentences. Meaning, this machine language inability arises at the early programming stage, rather than at the later processing stage. It is because the computer needs a language model and data structures that its binary (01) paradigm can represent as syntax and semantics and finally enable it to analyze human language (Levy & Stockwell, 2006). The bottom line for such machine language capability is drawn by Soni (2018) who argue, for a breakthrough to occur where

data in the form of human language is produced by which the computer is able evaluate the language analysis models, such scenario requires some information about what is considered correct syntax and semantics. So far such breakthrough scenario is far from possible.

Variance in Setting the Minimum Text Matching Allowed

Does including more citations and direct quotations make a research paper more scholarly? It is rather an introductory question, otherwise the answer is “it depends”. In the literature of the Islamic religion, for example, and in many cases the cited texts –Quranic and prophetic texts, are more than or as much as the researcher’s commentary. This is without overlooking plagiarism’s exonerating rule that detecting similarities in a paper is not a fraud as long as the content is: properly cited quotes, includes in-text citations or attaching reference list entries, as well as the commonly used phrases and parodies (Aissany, 2022). This rule applies to other fields as well such as in poetry and math which inevitably contain high percentages of citation (Meo, 2019). According to the International Mathematical Union, “some articles, especially in some disciplines, are highly cited for reasons other than high quality, and it does not follow that highly cited articles are necessarily high quality” (IMU, 2008). Reading Academic knowledge base in their annual Similarity Reports clarify misconception about what their tool Turnitin detects and what it doesn’t; saying, “it merely shows the amount of matched text it has found by highlighting the matched text on a student’s paper and identifying sources for the matched text; this will include correctly referenced and quoted texts” (Reading Academy, 2018).

The Impact of the Growing Database of Online Academic Sources

Addressing teachers, “Stop focusing on plagiarism, even though ChatGPT is there,” calls a professor of Harvard Business Publisher platform, adding the tag line; “*Create a culture of academic integrity instead!*” (Peters, September 14, 2023). On the other hand, isn’t avoiding academic plagiarism getting more difficult as more research are published and made available online? One possible reason this question isn’t posed in the academic arena might have to do with the context of the EFL environments. In EFL environments such as the Arab world’s academia and other regions of scarce academic research (Masri, 2017). Now, connecting the dots here, why academic plagiarism is getting more difficult for the Arabic speaking EFL students is because of the limited online academic sources, consumed by as huge population of students. This argument is supported by UNESCO (15 December 2016) testimony under the headline, “Out of date textbooks put sustainable development at risk”. Meaning, so long as the assigned academic papers are the same, and the students keep citing the same online academic resources; excerpting papers and paraphrasing paragraphs, a whole database of tertiary sources will keep building up. These two factors would contribute to raising the textual and contextual similarity between the original and the cited works; consequently, the student papers tagged as plagiarized. This is especially true with availability of AI’s plagiarism avoidance tools online such as the Paraphrasing Tools, JustDone, and other platforms. These tools would indeed contribute to expanding the already growing database of tertiary sources and in fact there are dozens of them as enlisted by Soni (2018).

CONCLUSION

In conclusion, teachers’ intervention in Plagiarism Detection Software (PlagAware) of checking students’ written papers is necessary for proper marking and grading process, and for two reasons. The first is, teachers’ re-assessment is not only complementary to PlagAware job, but also, they are of the software’s “user manual” of overcoming its flaws. The second reason is because of the inherent variance in setting the minimum acceptable percentage of the textual/contextual matching as it depends on the discipline to which the written paper belongs.

This conclusion yields two threads of implication. The first is that the longer the teacher’s years of experience are, and in teaching the same subject/course, the more constructive his/her intervention is. Secondly,

with the rapid and constant growth of the database of students' published papers online, this floppy reliability of PlagAware may even double in the future.

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