

Amaka Epundu

Abstract

Back translation plagiarism has been identified as a new form of plagiarism has become prevalent in scholarly literature. A sophisticated cyber plagiarism makes it difficult for available anti-plagiarism checkers to effectively detect surreptitious copying of content across languages. This paper investigates strategies to ascertain how back translation plagiarism can be tracked through semantic and stylistic checks of corpus generated from back translated text across selected languages. To achieve this objective, we adopt a comparative analysis of extract from selected online scholarly text which was back translated across distant and close language pairs. The study reveals that back translation plagiarism between close language pair shows significant plagiarism issues with lots of identical intelligible content matching as the original while distant language pair shows no case of plagiarism but more unintelligible sentences. Based on the findings, the study recommends the use of sophisticated plagiarism security systems to avert this academic crime in Higher Education. The paper calls for creation of online database of all undergraduate and postgraduate theses and dissertation submitted across the globe. It also suggests the need for further improvements on the quality and capacity of available online plagiarism checkers to be able to detect this form of plagiarism.

Keywords : Detecting, plagiarism, back, translation, comparative, analysis

Résumé

Le plagiat par la voie de re-traduction a été identifié comme une nouvelle stratégie de plagier se manifeste dans le système éducatif. Ce cyber crime sophistiqué déforme la capacité de meilleurs logiciels de plagiats en ligne de détecter effectivement le plagiat dans un texte. Cette étude vise à examiner les stratégies pour déterminer comment ce genre de plagiat peut être traqué en utilisant les corpus réalisés après la re-traduction du texte à travers les langues sélectionnées. Pour réaliser cet objectif, nous allons faire une analyse comparative d'un extrait du texte scolaire sélectionné en ligne, retraduit dans une langue distante ainsi qu'une langue proche. L'étude révèle que le corpus réalisé la re-traduction entre les langues proches présente remarquablement des cas de plagiat avec plusieurs phrases identiques et compréhensible tandis que le plagiat entre les langues distantes ne présente aucun cas de plagiat mais plus de phrases incompréhensibles. En se basant sur ces résultats, l'étude recommande

l'utilisation de systèmes sécuritaires contre le plagiat pour éviter ce crime académique au niveau de l'éducation supérieure. Cette étude lance appel à la création de base de données des tous les mémoires et les thèses soumis à travers le monde. On suggère également d'améliorer la qualité et la capacité des logiciels disponibles en ligne en vue de détecter facilement ce genre de plagiat en ligne.

Mots-clés: Détection, plagiat, re-traduction, analyse, comparative

Introduction

With the advent of new technology, access to online information has made writing comparatively easier. Over the years, easy access to readily available online resources has facilitated high rate of plagiarism. In academic setting, plagiarism has been identified as current trend that subverts the quality of education across the globe. The code of conduct that clamours for originality, creativity and standardization is gradually deteriorating. To aggravate the situation, most online translation plagiarism software are not only freely available but plagiarists tend to devise more sophisticated strategies to keep pace with the emergence of new online plagiarism checkers. Studies have shown how increasingly efficient machine translation plagiarism has contributed to spread of this new form of plagiarism known as back translation or cross-lingual plagiarism. According to Jones (7), back translation is a newly invented form of plagiarism. "This is where a passage of text is taken, verbatim, and translated to a foreign language, French for instance. It is then re-translated back into English using the same technique". Riu (77) also views back translation plagiarism as a case of plagiarism of idea where the plagiarists lift a text from one language, have it translated into another language, and subsequently reuse, [...]

In recent times, studies have shown that back translation plagiarism has gained its way in scholarly literature even though it is not a common practice. Jones (4) defines back translation thus: the new approach for students (especially international students) is for them to use the advanced technologies that are available to them on the Internet to translate the words they cut-and-paste so that they can conceal their cheating entirely. Using these tools (Babelfish or Google for example) students can convert the English language text to another language (French for example) and then retranslate these translated words back into English.

Similarly, Riu (op. cit) opines that "the use of translation as a plagiarism strategy is nevertheless a known issue, in academic as well as non-academic context".

Based on these premise, it is evident that rather than depending on intellectual competence to invent original copies of academic writings, students tend to shift their effort to devising easiest means to cleverly achieve academic tasks through back plagiarism. Jones (4) argues that:

Students have the creativity to devise new methods to plagiarism on a regular basis. [...] among native speakers of English, it is becoming increasingly common to back translate a text originally written in English into another language, and then translate it again into English (using a MT tool) to change the wording of the original effortlessly.

Despite less effort to invent more sophisticated tools and strategies to detect back translation plagiarism, available ones can only detect monolingual plagiarized text. The emergence of new cyber plagiarism tools with limited capacity makes it practically difficult to efficiently detect back plagiarized texts. According to Jones (721), “[...] cross-language software has not been specifically targeted to address back translation. In many cases it has emerged as response to a debate in translation literature [...]. Recent studies have also revealed some of the available online detection tools to detect this form of plagiarism. According to Nosuasir (3), several tools already exist to suspect or detect plagiarism type (1) and (2) such as Turnitin, myDropBox, Essay Versification (EVE2), Wcopy, copycatch, Urkund, and Docoloc, ...

Nosuasir (3) revealed that only plagiarism software emerges recently in the field of software developing companies, some of them include: coygator.com, copyscape.com, duplichecker.com, ithenticate.com, plagiarism.

Nosuasir (op.cit) also argued that most recent study of Eisa, et al. (14) tries to analyze and identify the state-of-the-art plagiarism techniques in terms of their attributes, limitations, processes and taxonomies. Their research finding show that Turnitin is the most accurate in detection and steadiest tool among the existing seven tools, after analyzing their performance. Furthermore, they discovered areas where further improvements are required in existing techniques and the current trends in plagiarism detection. Most previous works have been focused on reviewing and analyzing the existing plagiarism detection techniques, algorithms, methods, systems, and tools meant for English language not for Arabic, Persia, Urdu or Kurdish. ...

Similarly, Delvin (2002) and Lukashenko et al. (2007) cited in Nosuasir; analysed the performance of seven plagiarism tools: Turnitin, Eve2, CopyCathGold, WorldCheck, Glatt, Moss and Jplag. They found that Turnitin

has the overall best detection accuracy and is more scalable. Based on the foregoing, Nosuasi argues that:

However, robust techniques for detecting plagiarism are required, especially now that authors can easily modify texts, change ideas from one form to another or hide correct references to prevent detection, using structural features and contextual information integrated with semantic similarity methods can help to detect these types of plagiarism.

More so, studies have shown high efficiency of Turnitin software and it is identified as amongst the best anti plagiarism checkers. Iparadigms, the makers of Turnitin and iThenticate, argued that one would have to change one out of every three words in an essay or article to be reasonably assured it wouldn't trip their detection. (cited in Bailey, 2011)

Limitations of existing techniques to detect translation and back translation plagiarism

Bailey (op cit) identifies three basic factors that militate against effective detection of translation Plagiarism using automated software:

- **There is no one right and exact way of translating a word.** There are so many nuances concerning this, but automated systems may see the meaning of one word as completely different words.
- **Each language has its own grammar structure:** a word-for-word translation is not possible when it comes to grammar. Even languages in one family may have different grammatical structures.
- **Automatic translation system is not effective,** when we take an English text, translate into another language and do it back again – we will get truly a hilarious result. These systems work quite well to understand the sense but not detecting exact matches.

Objectives of the study

To effectively achieve the purpose of the research, the study focuses on the following objectives:

- To investigate strategy to detect back translation plagiarism in submissions of scholarly contents.
- To ascertain the capacity of good automated anti plagiarism software to detect plagiarism issues found in back translated contents between distant and close language pairs.
- Examine the quality of back translation output vis-à-vis the language competence of the students to post-edit the content.

- Expose the limitations of online plagiarism checkers and students language competence to deep edit language issues inherent to back translated text.

Theoretical framework

This study adopts computational linguistic known as MLPlag approach that was proposed by Ceska, Zdenek, Toman, Michal and Jezek, Karel in 2008. The approach is a multilingual plagiarism detection technique that enhances detection of plagiarism of texts generated across different languages. According to Ceska et al. (83), the method is based on analysis of word positions. It utilises the Euro WordNet thesaurus, which transforms words into language independent form. This helps to identify document plagiarized from sources written text in other languages. Ceska et al. cited in Rui (73), also assert that the approach focuses on pre-processing of two texts, in order to transform them into a language independent form and subsequently compare the two. They emphasized that the performance of this method depends, however, on the availability of parallel thesaurus of the two languages involved, as well as on the size of that thesaurus, which limits the number of words that the system is able to successfully index. Based on the premise, it is evident that the availability of database lexicon of independent language determines the quality of the text output. To ascertain the quality of Machine Translation output of text retranslated across distant and close language pairs. However, the validity of the approach in this study therefore justifies the possibility of high quality multilingual plagiarism checker to identify any plagiarized document that is generated from back translation plagiarism. A comparative analysis of a document generated from back translation plagiarism will help to ascertain the level of language system match of independent forms of each language as well as the possibility of detecting back translation plagiarism of available document stored in online database.

Research methodology

To achieve the objectives of the study, an online copy of the summary of Half of a Yellow Sun written by Chimmanda Ngozi Adichie was used for the study. The choice of the text is justified by its scholarly content and its availability on online database. A comparative analysis was carried out to ascertain the linguistic matching of the contents between the original and the back translated texts. Back translation was done across different languages families (English versus Igbo) and (English versus French). In the study, Igbo represents distant language pair while French represents close language pair. To translate the text, Google translate was used to ensure quality output of the translation. To detect plagiarism proportion of the text, we used Turnitin which is considered as one

of the best online plagiarism software. The software was used to investigate the proportion of plagiarism of back translated against the original that was in online database. Output of back translated text between distant language pair after online plagiarism check.

(English to Igbo and back to English)

Overall content matching result: No plagiarism but found 20 writing issues

Plagiarism: No plagiarism issue found in the text

Writing issues:

Grammar: 3 Grammatical issues (2 incorrect Noun Number, 1 Wrong or missing preposition)

Punctuation: 1 Punctuation issue (1 comma Misuse within clauses)

Spelling: 6 Spelling issues (6 Misspelled Words)

Enhancement: 4 Word Choice issues (4 Word Choice)

Style: 6 Stylistics issues (4 Passive Voice Misuse, 2 Wordy Sentences)

Sentence Structure: None

Output of back translated text between close language pair after online plagiarism check

(English to French and back to English)

Overall content matching result: Significant plagiarism issues found in the text but 27 writing issues

Plagiarism: Significant Plagiarism issues

Writing issues:

Grammar: 1 Grammatical issue (1Determiner use a/an/the...)

Punctuation: 10 Punctuation issues (4 Comma Misuse within clauses, 6 Punctuation in compound /complex sentences)

- Spelling:** 2 Spelling issues (2 Misspelled Words)
- Enhancement:** 3 Word Choice issues (3 Word Choice)
- Style:** 11 Stylistics issues 9 Passive Voice Misuse, 2 Intricate Text)
- Sentence structure: None

From the findings shown above, we observe that both retranslated texts present different proportions of content matching emanating from intercultural differences inherent to different languages families. The output of retranslated text generated from closed language pair (English versus French) has more significant linguistic and stylistic resemblance than distant language pair (English versus Igbo). This implies that English versus French pair has a higher tendency of sharing more identical linguistic and stylistic realities than English versus Igbo pair. However, high rate of resemblance between close language pair regrettably show significant evidence of plagiarism after online plagiarism check.

Comparative analysis of the corpus

To carry out the analysis, seven sentences were selected from identical sentences from both close and distant language pairs as shown in Tables 1 and 2 below. The following excerpt of sentences was used to ascertain the tendencies of detecting back translation plagiarism across both language pairs:

Table 1

SN	English (Original)	Igbo (Translation)	English (Back translation)
1	<i>Half of a Yellow Sun</i> takes place in Nigeria in the 1960s.	Ọkara nke Yellow Yellow na-ewere Ọnọdu na Nigeria n'afọ ndi 1960.	Half of Yellow Yellow is taking place in Nigeria in the 1960's.
2	Ugwu becomes an excellent cook and goes to school.	Ugwu na-aghọ ezigbo nri ma na-aga akwụkwọ.	Mountains grow good and go to school.

3	<p>Meanwhile Richard, a white Englishman in Nigeria, leaves his girlfriend Susan <i>when he falls in love with Kainene, Olanna's sardonic twin sister.</i></p>	<p>Ka o di ugbu a, Richard, onye England na-asu ocha na Nigeria, hapuru enyi nwanyi ya bu Susan <i>mgbe o huru Kainene n'anya, nwanne nwanyi nke Slanon nke Olanna.</i></p>	<p>Presently, Richard, the white English man in Nigeria, left his girlfriend Susan <i>when he saw Kainene, the sister of Slanon of Olanna.</i></p>
4	<p>Colonel Ojukwu, the Igbo leader, announces that <i>Southeast Nigeria</i> will secede and become the Republic of Biafra. <i>All the characters are overjoyed at this.</i></p>	<p>Colonel Ojukwu, onye ndu Igbo, kwuputara na ebe <i>ndida anyanwu Naijiria</i> ga-abia ma ghoo Republic of Biafra. <i>Ibe odide a nile nwere obi uto na nka.</i></p>	<p>Colonel Ojukwu, an Igbo leader, said the move to <i>western Nigeria</i> would come into the Republic of Biafra. <i>All of these texts are interesting and interesting.</i></p>
5	<p>The Northern Hausa blame the Igbo for the coup. There is then another coup, and this time many Igbo soldiers are killed.</p>	<p>Northern Northern na-ata uta maka Igbo maka agha ahụ. E newkwara oge ozo, na oge a otutu ndi agha Igbo gburu.</p>	<p>Northern Northern is threatening the Igbo for the war. There is another time, and many times the death of many Nigerian soldiers. Finally, Biafra surrenders in Nigeria linked. Olanna's family</p>
6	<p>Finally, Biafra surrenders and Nigeria is reunified. Olanna's family returns to Nsukka to find their house looted and all their savings liquidated.</p>	<p>N'ikpeazu, Biafra surrenders na Nigeria jikotara. Ezinulo Olanna laghachiri na Nuka iji chota ulo ha ka ha kwuru na ego niile ha nwetara.</p>	<p>Finally, Biafra surrenders in Nigeria linked. Olanna's family returned to Nsukka to find their homeowners and all their profits.</p>

7	<p>Their living situations get progressively worse as the war continues and Biafra's food and money runs out. Odenigbo and Olanna get married, but there is an air raid during the reception.</p>	<p>Ọnọdu ọnọdu ha na-ariwanye elu n'uzọ ka njọ ka agha ahu na-aga n'ihu, nri Biafra na-agbapukwa. Odenigbo na Olanna na-aluru di ma ọ bu nwunye, ma enwere ikuku elu n'oge anabataghi.</p>	<p>Their situation is getting worse as the war progresses, and Biafra's food is being switched off. Obviously, Olanna is getting married, but there is an airplane when it is unacceptable.</p>
8	<p>The violence against the Igbo becomes a pogrom, and Olanna's relatives are brutally murdered. She escapes on a train to Nsukka and sees a woman carrying her daughter's severed head in a basket.</p>	<p>Ime ihe ike megide Igbo na-aghọ pogrom, a na-egbu ndi ikwu Olanna n'uzọ obi ọjọọ. Ọ na-agbapu n'ugbo okporo igwe gaa Nsukka wee hu out nwanyi na-eburu isi nwaya nwanyi na nkata.</p>	<p>Violence against Igbo becomes pogrom, and Olanna's victims are brutally murdered. He flew into a train to Mecca and saw a woman holding her head in a basket.</p>
9	<p>The narrative is sometimes interrupted by a book called The World Was Silent When We Died, where an unknown author describes the larger political forces at work in the war.</p>	<p>Mgbe ufodu, akwukwo akuko ana - akpo World We Cold When We Die, bu ebe onye edemede a na - amaghi ama kwara akuko ndorondoro ochichi di ukwu na- aru oru na agha.</p>	<p>Sometimes the newspaper called The World We Cold When We Die, where an unknown writer described a great political report working in the war.</p>
10	<p>Odenigbo sleeps with Amala, and when Olanna returns home she finds out. She moves out and</p>	<p>Odenigbo na Amala na-ehi ura, mgbe Olanna laghachikwara, ọ huru. Ọ na-apu ma</p>	<p>Soon after Amala was asleep, when Olanna returned, she saw. It's going out and very</p>

<p>gets very depressed. Olanna learns that Amala is pregnant with Odenigbo's child. She gets drunk one night and seduces Richard. Richard and Olanna both agree not to tell Kainene, though Olanna soon tells Odenigbo.</p>	<p>na-enwe nnọọ nkụda mmụọ. Olanna mụtara na Amala dị ime na nwa Odenigbo. Ọ na-añụbiga mmanya ókè n'out abalị ma rafuo Richard. Richard na Olanna kwenyeghi ịgwa Kainene, ọ bụ ezie na Olanna na-agwa Odenna ngwa ngwa.</p>	<p>depressed. Olanna learned from abortion and childbirth in Albania. He was drunk one night and stole Richard. Richard and Olanna did not agree to tell Kainene, although Olanna was urgent with Odenna.</p>
---	--	---

Back plagiarized text generated form close language pair (English/French)

SN	English (Original)	French (Translation)	English (Back translation)
1	Half of a Yellow Sun takes place in Nigeria in the 1960s.	La moitié d'un soleil jaune a lieu au Nigeria dans les années 1960.	Half of a yellow sun takes place in Nigeria in the 1960s.
2	Ugwu becomes an excellent cook and goes to school.	Ugwu devient un excellent cuisinier et va à l'école.	Ugwu becomes an excellent cook and goes to school.
3	Meanwhile Richard, a white Englishman in Nigeria, leaves his girlfriend Susan when he falls in love with Kainene, Olanna's sardonic twin sister.	Pendant ce temps, Richard, un Blanc du Nigeria, quitte sa petite amie Susan pour tomber amoureux de Kainene, la soeur jumelle sardonique d'Olanna.	Meanwhile, Richard, a white man from Nigeria, leaves his girlfriend Susan to fall in love with Kainene, Olanna's sardonic twin sister.

4	Colonel Ojukwu, the Igbo leader, announces that Southeast Nigeria will secede and become the Republic of Biafra. All the characters are overjoyed at this.	Le colonel Ojukwu, le chef des Igbo, annonce que le sud-est du Nigeria fera sécession et deviendra la République du Biafra. Tous les personnages en sont ravis.	Colonel Ojukwu, leader of Igbo, announces that southeastern Nigeria will secede and become the Republic of Biafra. All the characters are delighted.
5	The Northern Hausa blame the Igbo for the coup. There is then another coup, and this time many Igbo soldiers are killed.	Les Hausa du Nord accusent les Igbo d'être responsables du coup d'État. Il y a alors un autre coup, et cette fois beaucoup de soldats Igbo sont tués.	Northern Hausa blame the Igbo for being responsible for the coup. There is another blow, and this time a lot of Igbo soldiers are killed.
6	Finally, Biafra surrenders and Nigeria is reunified. Olanna's family returns to Nsukka to find their house looted and all their savings liquidated.	Enfin, le Biafra se rend et le Nigéria est réunifié. La famille d'Olanna retourne à Nsukka pour trouver sa maison pillée et toutes ses économies liquidées.	Finally, Biafra surrenders and Nigeria is reunited. Olanna's family returns to Nsukka to find her looted home and all her liquidated savings.
7	The narrative is sometimes interrupted by a book called The World Was Silent When We Died, where an unknown author describes the larger political forces at work in the war.	Leurs conditions de vie s'aggravent progressivement à mesure que la guerre se poursuit et que la nourriture et l'argent du Biafra s'épuisent. Odenigbo et Olanna se marient, mais il y a un raid aérien lors de la réception.	Their living conditions are progressively worsening as the war continues and the food and money of Biafra are exhausted. Odenigbo and Olanna get married, but there is an air raid at the

			reception.
8	The violence against the Igbo becomes a pogrom, and Olanna's relatives are brutally murdered. She escapes on a train to Nsukka and sees a woman carrying her daughter's severed head in a basket.	La violence contre les Igbo devient un pogrom et les proches d'Olanna sont brutalement assassinés. Elle s'échappe dans un train pour Nsukka et voit une femme portant la tête tranchée de sa fille dans un panier.	The violence against the Igbo becomes a pogrom and the relatives of Olanna are brutally murdered. She escapes on a train to Nsukka and sees a woman with her daughter's sliced head in a basket.
9	The narrative is sometimes interrupted by a book called The World Was Silent When We Died, where an unknown author describes the larger	Mgbe ufodu , akwukwo akuko ana - akpo World We Cold When We Die, bụ ebe onye edemede a na - amaghi ama kowara akuko ndorondoro ochichi di ukwu na- aru oru na agha.	Sometimes the newspaper called The World We Cold When We Die, where an unknown writer described a great political report working in the war.
10	Odenigbo sleeps with Amala, and when Olanna returns home she finds out. She moves out and gets very depressed. Olanna learns that Amala is pregnant with Odenigbo's child. She gets	Odenigbo couche avec Amala et quand Olanna rentre chez elle, elle le découvre. Elle déménage et devient très déprimée. Olanna apprend qu'Amala est enceinte de l'enfant d'Odenigbo. Elle se saoule une nuit et	Odenigbo sleeps with Amala and when Olanna returns home, she discovers it. She moves and becomes very depressed. Olanna learns that Amala is pregnant with Odenigbo's child.

	drunk one night and seduces Richard. Richard and Olanna both agree not to tell Kainene, though Olanna soon tells Odenigbo.	séduit Richard. Richard et Olanna sont tous deux d'accord pour ne pas le dire à Kainene, bien qu'Olanna le dise bientôt à Odenigbo.	She gets drunk one night and seduces Richard. Richard and Olanna both agree not to tell Kainene, although Olanna soon tells Odenigbo.
--	--	---	---

From the above, table 1 generally shows significant proportion of nonsensical constructions than those found in Table 2. Though sentences in Table 2 show more intelligible constructions than those in Table 1, there is a clear evidence of interlanguage discrepancies of sociolinguistic realities between distant and close language pairs.

More so, we observed total loss of information in the entire translation of distant language pair while close language pair generated construction that is more intelligible. For instance, sentences in Examples 2, 5, 6, 8 and 10 show complete loss of the original meaning where the machine fails to find adequate lexical, syntactic and stylistic equivalents in distant language pair. For instance, in example 2, machine generated more hilarious translations in Igbo language, which eventually led to loss of meaning of the entire back, translated sentences. The expression (Ugwu becomes an excellent cook and goes to school) was erroneously translated as (Mountains grow good and go to school). Interestingly, 'ugwu' can represent mountain, name of a person, man's foreskin, dignity, etc. But machine fail to identify accurate contextual meaning of the lexicon as it erroneously selected Mountain to translate Ugwu, the name of Professor Odenigbo's houseboy. Comparatively, the same sentences were translated more accurately in close language pair. The translation generated from close language pair reads (Ugwu becomes an excellent cook and goes to school) as the original. This implies that machine translation software does not have the cognitive competence to handle linguistic and extra linguistic variations inherent to distant language pair as it does with close language pair.

Similarly, Examples 1, 4, 7 and 9, the output of translation generated from distant language pair show partial loss of information in back translated text. In this case, distant language pair generated less intelligible translation than close language pair. For instance, in Table 1, the translation software wrongly selected most lexical items from online database while in close language pair; selection of

lexical items from online database was more accurate. This implies that interlanguage discrepancies and similarities inherent to these languages considerably influence the quality of translation done by translation software. For instance, in Example 4 distant language pair replaced the lexical item (Southeast Nigeria) with (Western Nigeria) while the close language pair translated it as (Southeast) which conforms to the meaning of the word in the original text. Similarly, the word (...the characters...) was translated (...these texts...) in distant language pair and (...the characters) in close language pair. In Example 5, there is a total loss of the meaning of a lexical item (coup d'Etat) which was replaced in distant language pair with (the war) while in close language pair, it was replaced with (coup) and (blow). This implies back translation plagiarism across distant language pair has the tendencies of generating more identical interlanguage matching than distant language pair.

Interestingly, Example 3 shows evidence of ridiculous constructions attributed to socio cultural influences inherent to general world view of the Igbo language community. The sentence (...when he falls in love with Kainene, Olanna's sardonic twin sister.) was erroneously translated as (... when he saw Kainene, the sister of Slanon of Olanna.). In Igbo language, the reality (to fall in love) has a literal connotation that can only be expressed as (to see someone). At this point, we can therefore deduce that plagiarized content generated from distant language pairs will particularly thwart the content of the back translated text. Consequently, any plagiarized content generated from these language pair will automatically undergo a complete deep-editing before it can trip any plagiarism software. As a matter of fact, re-phrasing the text requires high language proficiency of the target language so as to enable the text elude any anti plagiarism detection software. This implies that the task of re-constructing such poorly constructed texts entails rigorous tasks and effort to create a free plagiarized text. The exigencies of this plagiarism pattern is practically time consuming and painstaking that is as good as investing time and effort to create a brand new text.

As shown in Table 2, it is evident that there are several strings of words and sentences that appear almost exactly as they are in the original text without loss of meaning of the content. Translation generated from in the table shows relatively intelligible sentences but significant cases of plagiarism. Regrettably, identical content matching in sentence and word order makes it easier for any online plagiarism software to detect plagiarism issues in the text. It is important to note that plagiarized contents, no matter the high level of language of the original, are subjected to mutilation of contents of the original texts. Therefore,

there is need for plagiarists to avert this academic misconduct so as to uphold academic integrity of Higher Education.

Conclusion

From the observations made from this study, we can infer that the use of multilingual plagiarism detection software serves as a viable strategy to track back translation plagiarism. To this end, the research objectives are achieved through a comparative study of identifying how language system disparity and similarity determines the capacity level of plagiarism detection software to track back translation plagiarized text across distant and close languages. Comparatively, translation generated from distant language pair shows no case of plagiarism but significant number of structurally unintelligible sentences while close language pair show more intelligible sentences with significant plagiarism issues. For this kind of plagiarism, human deep-editing is inevitable as it has potential to spot and correct traces of plagiarism in the text. However, editing back translated text in Table 1 shows more challenges as the content is highly distorted by unintelligible sentences. Deep-editing of such texts requires high language skills to modify and control the internal structures of the text until it is different enough to pass a plagiarism check. This implies that detecting plagiarized contents generated from this strategy requires close check for poor language structures in students' submissions. On the other hand, editing of back translated text in Table 2 may not require deep-editing of the content but scanning the text for plagiarism will automatically detect plagiarism issues as it has identical corresponding data in online database. Based on this, check for students' submissions using plagiarism software is highly commendable in detecting back translation plagiarism. To maintain academic integrity in Higher Education, we therefore suggest that educators must ensure that students' submissions undergo plagiarism check irrespective of the language quality of their texts. More so, the school administration should adopt strong plagiarism security system for creating online database of all undergraduate and postgraduate thesis and dissertations in order to facilitate tracking of online plagiarized contents. On this note, we therefore recommend further development of available online translation plagiarism checkers with high capacity to detect back translation plagiarism across languages. We also call on students to invest quality time to develop their intellectual capacity through hard work and building their reading culture rather than undergoing the rigors of post-editing of plagiarized content. Students should be encouraged to unlock themselves from the consequences of plagiarism that affect their capacity to develop their own writing skills.

References

- Bailey J. (2011) "The problem with Detecting Translated plagiarism" available online at <http://www.plagiarism.today.com/2011/02/24/the-problem-with-detecting-translated-plagiarism/>
- Ceska, Z, Toman, M. & Jezek, K. (2008). Multilingual plagiarism detection. In: D. Dochev, M. Pistore and P. Traverso, Eds. *Artificial Intelligence Methodology, Systems, and Applications*, volume 5253 of Lecture Notes in Computer Science, 83-92. Springer Berlin Heidelberg.
- Half of a Yellow Sun*, summary copy of the book available online at <http://googleweblight.com/?u=http://www.litcharts.com/lit/half-of-a-yellow-sun/summary&hl=en-NG>
- Jones, M. (2009) "Back-translation: the Latest Form of Plagiarism." The 4th Asia Pacific Conference on Educational Integrity. pp.1-7, Wollongong, Australia: University of Wollongong.
- Jones, M. (2009) "Cyber plagiarism: Different Method-Same Song". *Journal of Legal, ethical and Regulatory Issues* 12 (1), pp 89-100.
- Jones, M. & Sheridan, L, (2015) "Back Translation: and Emerging Sophisticated Cyber Strategy to Subvert Advanced in 'Digital Age' Plagiarism, Detection and Prevention." *Assessment and Evaluation in Higher Education*. 40 (5), pp. 712-724.
- Nosusir K, M, (2013) "Early-Detection System for Cross-Language (Translated) plagiarism" Available online at <https://hal.inria.fr/hal-01480193/document>.
- Rui, S. S., (2014) "Detecting Translingual Plagiarism and the Backlash Against Translation Plagiarists". *Language and Law/Linguagem e Direto*, vol.1(1) pp.70-94. https://doi.org/10.1007/978-3-540-85776-10_8