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Original Article

Ontology of Plagiarism: the Non Academic Perspectives

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Existence of plagiarism is an occupation of education in two dimensions: for learning and a mental process construct of lack of acknowledgement of innovations in learning. Unfortunately, the common concepts of plagiarism has not been clarified in learning process. This paper argues that plagiarism is an inherent natural process of learning. With the objectives; to examine the intrinsic nature of plagiarism and to explore the trans-disciplinary existence of plagiarism in human knowledge as categorised by Dewey Classification scheme 000-999. The study applied positivist paradigm and investigated the existence in relationship between learning processes and plagiarism. The study quantitatively measured opinions of 28 participants in these processes using the Likert scale. Dewey Decimal Classification Systems was used to examine epistemic harnessing of plagiarism in the advancement of different disciplines. The findings were that plagiarism is a natural, intrinsic process of learning through which research, innovations and evolution builds on. The paper concludes by putting a case that acknowledgement and development of referencing and citation technologies are evidence of ontological realities of plagiarism and evidence of the learning process.

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INTRODUCTION

The commodification and marketisation of knowledge in the neo-liberal global knowledge economy has triggered contentious debate on plagiarism and what it is, what it is not and what it ought to be. Plagiarism is arguably a natural process enshrined in the existence of life and as a mechanism for evolutionary processes. The wellknown cell theory of mitosis demonstrates that plagiarism is essential in DNA transcription. translation, and chromosomal activities of differentiation (duplication). Mistakes in copying these processes result in gross malfunctioning of the cell, referred to as "mutation". Therefore, plagiarism is the reason for the maintenance of species lines, the similarities that exist between parents and offspring, corresponding physiological and behavioural processes and many more trans-disciplinary phenomena. The ability to reproduce (replicate) constitutes not only biological processes but an assurance of verifiable scientific processes through which humans build experience.

Science and scientific procedures are about the reproducibility of results irrespective of approaches, which leads to more trust in research findings (Mellor et al., 2018; Prager et al., 2019; Chawinga & Zinn, 2021); to this end, science owes plagiarism in connecting learning, research, and innovation processes. This can be traced back to early scholars through the famous quote, "If I have seen further, it is by standing on the shoulders of giants.", this is a bold epistemic epitaph acknowledgement of plagiarism as intrinsic in the process of research development, and innovation through creativity, the correspondence from Isaac Newton to fellow scientist Robert Hooke on 5 February 1676. Newton modestly claimed that his success had been built on the achievements of others (Burton, 2008). Over a century before Charles Darwin's Origin of Species of 1859, Hume argued that human reasoning is fundamentally similar to that of other animals. Reasoning is founded on instinct rather than on quasi-divine insight into things. Hence science must proceed by experiment and systematisation of observations, rather than by metaphysical theorising or *a priori* speculation (Hume, 2007). Through this, repetitions of experiments, events, or phenomena in order to advance human knowledge became essential. Thus, plagiarism became clearly important.

In this paper, therefore, we define plagiarism as a "repeat of a process, events or phenomenon which had existed or happened before". Also, whereas in academics, plagiarism is viewed as an unethical behaviour with dire consequences (Brimble et al., 2005), in this paper, it is viewed as an inherent means of learning, acquiring skills, growth and development with citation and referencing as evidence of the existence or attestations to plagiarism. The importance of citation and referencing is deemed to exonerate scholars from plagiarism. However, the fact that scholars provide specific details of texts onto which an essay of academic writing builds (Borg, 2000) attests to ontological reality of plagiarism in a scholarly writing.

Further, in academics, it has been demonstrated that plagiarism has many roots: Confusion, second-language frustration, limited resources for help, the growing culture of Internet copying-andpasting as well as ineffectiveness of plagiarism penalties as a deterrent (Sutherland-smith, 2010). in addition, there is perceived lack of plagiarism policy enforcement, and an attitude of acceptance towards plagiarising among students (Bethany, 2016), overall the lack of critical thinking, scholarly writing skills and ability generally lacking among students. However, this paper views that these are rather weak symptomatic reasons for plagiarism since plagiarism can be demonstrated to be an intrinsic epistemic process spectrum in all disciplines. To this end, each discipline harnesses it in different ways to advance its epistemic leverage for the advancement of the field.

Objectives of the Paper

- To examine the intrinsic nature of plagiarism.
- To examine the trans-disciplinary existence of plagiarism in human knowledge as categorised by Dewey Classification scheme 000-999.

LITERATURE

Plagiarism has caused problems for editors and publishers for centuries (Wagner, 2014). Many studies looked at plagiarism from academic perspective (Kashkur et al., 2010; Heckler et al., 2013; Hasan et al., 2018). It is a concept with varving meanings depending the on epistemological and philosophical background of an individual or society (Maxwell et al., 2008). The origin of the word "plagiarism" may be traced back to the Roman poet Martial (c. AD 80), who claimed that another poet recited 'my books to the crowd as if none other than his own'. The term was probably first used in English, in its current sense of literary theft, sometime in the 15th century (Wager & Wager, 2014). While most definitions of plagiarism look at academic malpractice coined to: duplication of literary works (Fox et al., 2014), presenting "as new and original an idea or product derived from an existing source" (Wager, 2011), repetition or words from another text (Introna & Hayes, 2008). Etymology: plagiary (to kidnap). Transitive senses: to steal and pass off (the ideas or words of another) as one's own: use (another's production) without crediting the source. Intransitive senses: to commit literary theft: present as new and original an idea or product derived from an existing source (Wager & Wager, 2014).

Although the ontological reality of plagiarism is less studied, the practice of safeguarding against plagiarism feature in numerous works in literature for instance; advise for plagiarism whistleblowers (Fox & Beall, 2014), attitudes towards plagiarism in academia (Vassileva & Chankova, 2019), challenges in addressing plagiarism in education (Bretage, 2013), combating web plagiarism (Pathak, 2010), design to mitigate (Heckler *et al.*, 2013) and so on, but hardly any literature exist to explain the ontological reality of plagiarism. Some authors recognized the fact that the subject is not well studied and yet plagiarism is everywhere (Johnson-Eilola and Selber, 2007; Hasan et al., 2018). As Maneggia makes succinct admission that even "in preparation for his paper on plagiarism, the first steps he did were to use the internet to retrieve articles from journals and books on plagiarism and define key terms. The next, used the internet to communicate with my professor on the direction the paper was going. The more he searched the more nervous he got, would plagiarism some part of my own paper on plagiarism? Not intentionally, of course, but with all this information accessible on the Internet how would he keep it all straight? (Maneggia, 2007)."

The concept of plagiarism is also not well examined as a broad trans-disciplinary or multidisciplinary concept. This paper therefore, examined the trans-disciplinarity of plagiarism without attaching derogatory meaning. It is through this lens that the existence of plagiarism appears to be a phenomenon spanning across disciplines and not confine to academic writings only.

METHODOLOGY

In the investigation of the intrinsic nature of plagiarism, the study used deductive approach and purposive sampling was used. This is because graduate students and staff by policy of Gulu University are required to do plagiarism check for all their works before publishing and therefore expected to understand the subject of plagiarism much better to be able to answer the questionnaire. A target population of 30 Graduate students and university staff was envisaged. A total of 28 of the target population responded to the questionnaire. Data was collected through survey design using online Google Forms to minimize the challenge of costs, and which the questionnaire was designed through the Likert scale to collect opinions of staff based on the definition of plagiarism and correctness as applied in a classroom setting.

To investigate the wide use of plagiarism in the spectrum of human knowledge, the Dewey Decimal Classification (DDC) was used.

Developed in the mid-1870s, the Dewey Decimal Classification is generally considered to be the first modern, universally adopted classification scheme for library collections (Lund et al., 2019). In 1895, the International Library Association recommended the Dewey Decimal Classification as the international system of classification (Library Journal, 1896). It is the most widely used categorization of human knowledge in ten themes or disciplines. Since it covers the entire human knowledge spectrum, it is thought to be the best for analysis of phenomena which are transand disciplinary multi-disciplinary, like plagiarism.

FINDINGS

The investigation of the intrinsic nature of plagiarism compels us to understand the occupation of teachers in the examination process. We defined the basic question "*what is an examination*?" further, "*what do examiners look for in the process of examination*?" It is by answering these basic questions that we can delve into exploring plagiarism in an independent, objective way.

Investigating Academic Plagiarism

When teachers/trainers are marking performance, they look for "correctness" of responses to questions. What is "correct?" There are various meanings of correctness. The Merriam-Webster Online Dictionary provides 4 definitions of correct: 1) "conforming to an approved or conventional standard; 2) conforming to or agreeing with fact; logic, or known truth; 3) conforming to a set figure; and 4) conforming to the strict requirements of a specific ideology or set of beliefs or values (Merriam-Webster Online Dictionary)". These statements in some sense have plagiarism in them as shall be demonstrated later. Secondly, there is a sense in which these definitions tend to be transdisciplinary by utilization of "approved conventional standards", "procedure", "agreed facts", "logic", "known truth", "a set of figures", "ideology", "beliefs" and "values".

Subjecting Definition to Test of Plagiarism

We have listed based on activities of teachers and trainers in classroom setup and investigated graduate students and staff at Gulu University to these facts as follows: When teachers/trainers are marking performance, they look for "correctness" of response to questions. There are various meanings of "correct". We extend, therefore, to qualify the definitions by seven related statements as follows:

- When answers conform to the general concepts taught."
- When answers are exactly the way a student is taught
- When answers are exactly the way it is in the textbook used for teaching
- When answers are similar to others in the same class
- Answers are specific to address issues, questions
- Answers have new innovative methods

But first, to be fair, we subject these seven statements to verify their validity as bearing true meanings of correct in an examination environment. It is observed that respondents agree that these statements portray the correctness of answers *Figure 1*.

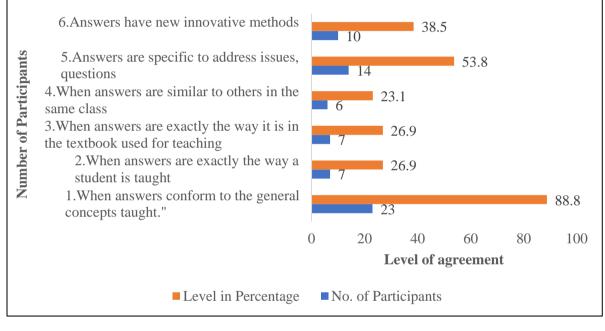
As can be observed in Figure 1, Some definations received less than 50% agreement while others received less than 50%. The three definitions of correctness scored above 50%, that is; a) When answers conform to the general concepts; b) When answers are specific to address issues; c) When answers exhibit some level of understanding of concepts. With 88.5% asserting that "When answers conform to the general concepts taught", it is possibly the most correct definition of correct. The fifth definition of plagiarism is that when "answers are specific to address issues questions" and "Answers exhibit some level of understanding concepts" are identified as the nearest meanings of the term when teachers are marking the performance of

their students. Both scored 53.8%, respectively. The third nearest meaning of *correct* is "*Answers has new innovative methods*", scoring 38.5%.

The following meanings of correct, both scoring 26.9%, are "When answers are exactly the way a student is taught" and "When answers are exactly the way it is in the textbook used for teaching". While "When answers are similar to others in the same class" scores the lowest value, meaning correct, scoring only 23.1%.

We have managed so far to quantify value meanings of *correct* to the possible definition for which teachers look when marking performances. It is clear that the seven possible definitions carry certain value, providing leverage for а teachers/instructors make independent to decisions when marking performances. It is, therefore, important to consider the seven definition candidates for the "plagiarism value test (PVT)". The PVT will enable us to determine whether the seven candidates have innate plagiarism characteristics.

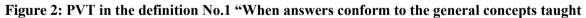
Figure 1: Level of agreement with the definition of correctness

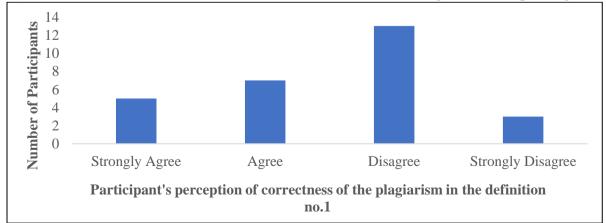


Intrinsic Plagiarism Value Test (PVT)

In carrying out PVT, we subject the six definition candidates to the Likert scale to determine

whether the definition has a value associated with plagiarism in the definition. *Figure 2* shows the results of "*When answers conform to the general concepts taught*".





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When answers conform to the general concepts taught, the majority of respondents disagree that plagiarism might have taken place. But we can also observe that opinions of respondents strongly agree and agree that When answers conform to the general concepts taught, there is some plagiarism carried along the answers. We, therefore, conclude that the PVT for no. 1 is positive. This means that in an examination answer, candidates do not write original ideas 100%. They provide answers that borrow concepts from various sources to create meanings for their responses. So, *when answers conform to the general concepts taught*, some level of plagiarism unconsciously is exercised.

In the same vein, we proceed to the second PVT for definition No. 2 "When answers are exactly the way a student is taught" in Figure 3.

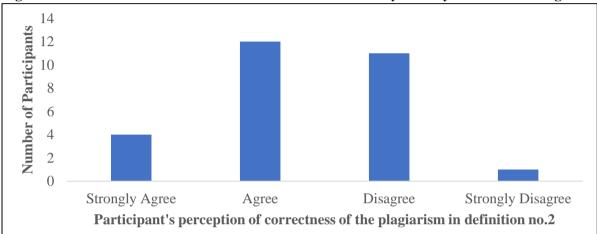
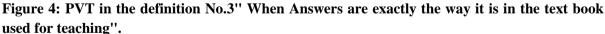


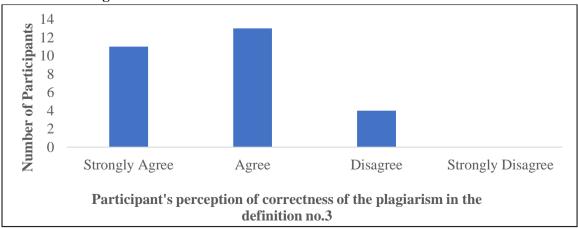
Figure 3: PVT in the definition No.2 "when answers are exactly the way students are taught"

We can observe that opinions are divided almost 50 to 50 (Strongly agree + agree) vs (Strongly disagree + disagree). This means that it cannot be denied nor accepted that plagiarism occurs "*when answers are exactly the way students are taught*". This often occurs among learners who use rote or memorization learning and cram to replicate the teacher's notes. This is a normal distribution pattern in which memory power is portrayed and

no innovation in addition to the learned concept are exhibited by the lerners.

In Figure 4, it can be observed that the definition No.3 that is "When answers are exactly the way it is in the text book used for teaching" there is a leaning towards agree and strongly agreeing that plagiarism could have taken place.



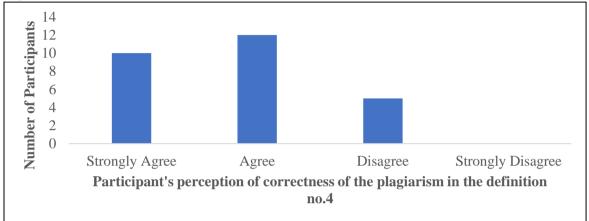


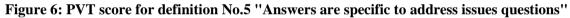
Observation shows that respondents approve that "When answers are exactly the way it is in the text book used for teaching", there is a chance that plagiarism is committed in the answers.

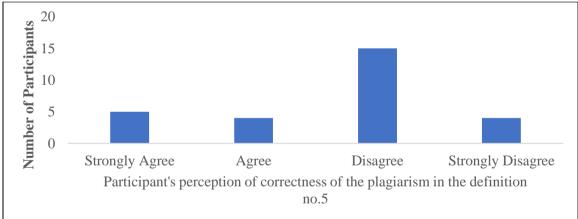
In *Figure 5*, the PVT score leans towards strongly agreeing that "When answers are similar to others in the same class", plagiarism might have been committed.

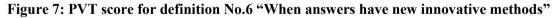
In *Figure 6*, the graph leans toward disagreeing, meaning that "When answers are specific to address issues in question", plagiarism may not have been committed. But nevertheless, some level of agreement exists that plagiarism might have been committed. This is often exhibited in practical lessons and questions that require a logical flow of procedures.

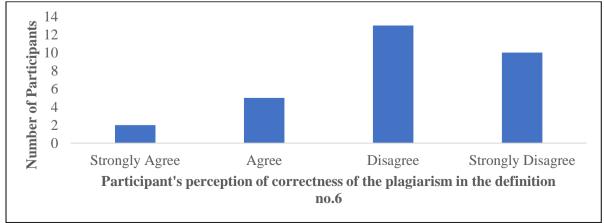
Figure 5: PVT score for definition No.4 "When answers are similar to others in the same class"











In *Figure 7*, the graph leans towards Strongly disagreeing, meaning that when answers have new innovative methods, plagiarism may not have been committed. But also, the innovation is built on some existing knowledge signalled by the low level of agreement that plagiarism may have been committed. This is exhibited among learners with good critical thinking and writing skills.

DISCUSSIONS

In academics, in its literal meaning, plagiarism is detested, for it breeds dishonesty in the scientific process, and it undermines the contributions of other scholars in the academic community when not properly recognized (Wahyuni, 2018). Many students are aware that plagiarism is unethical behaviour. However, many do not know how to avoid it (Snow, 2006). Scholars acknowledge that academic plagiarism has many roots: cultural confusion, second-language frustration, limited resources for help, the growing culture of Internet copying-and-pasting, the ineffectiveness of plagiarism penalties as a deterrent, perceived lack of plagiarism policy enforcement, and an attitude of acceptance toward plagiarizing among students (Bethany, 2016). This is further aggravated by the lack of critical thinking and scholarly writing skills.

We can generally observe that in all seven *plagiarism-value-test* (PVT), there are varying degrees of possible plagiarism in every definition alternative. This is a strong indicator that plagiarism is very much woven into the interpretation of "correctness" when instructors or teachers are marking performances. Therefore, plagiarism is part and parcel of the learning process as well as innovations that come associated with it after learning has taken place.

The study further asserts that plagiarism is part of science and research, as scholars and researchers continue to explore new knowledge and innovations based on previously existing ones. We argue that scholars and researchers do not 'reinvent the wheel' but rather build on existing ones to create new knowledge. The definition of plagiarism appears to be transdisciplinary, which enabled us to define it as a "*repeat of a process, events or phenomenon which had existed or happened before*". We can further demonstrate the trans-disciplinarity of this definition by subjecting its re-examination to establish its features using the Dewey Decimal Classification Scheme.

Intrinsic Features of Plagiarism Across Disciplines

Ontologically, plagiarism features in all disciplines and is harnessed to advance their epistemic interests. It must be realized that nurtured plagiarism is a recognition of natural occurrence. Human ingenuity disposes of these important natural events for teaching, learning, research, and innovation way before and beyond formal academic contemporary advances. We shall demonstrate these facts using the Dewey Decimal Classification Scheme for systematic evaluation since human knowledge has been classified undisputedly into ten by Melvin Dewey (Lund et al., 2019).

Generalities

The Generalities Class represents the interdisciplinary numbers first introduced in the 18th edition of the DDC (Beghtol & Brown, 1988). In the absence of such numbers, the classifier is again faced with a choice, with precedence given to the discipline having the fuller treatment, or where this does not apply, then the less specific class of Generalities (000) is a suggested option (Beghtol & Brown, 1988). Examining the subject of plagiarism, we must pick a form of coherent knowledge base, such as a dictionary or journalism, which falls in this class. The dictionary provides meaning by defining words in their contents. Comparative definitions from different dictionaries bring you closer to the truth and true meanings of the words. The similarities in the definitions denotes some level of plagiarism epistemological arising from learning and experience of the phenomenon captured in the definition. Plagiarism is harnessed through learning "learning plagiarism" and experience

"experience plagiarism" to derive meaning and offer explanations of events. Journalism, for instance, which is the study and practice of gathering, analysing, and presenting news and information to the public (Parks & Castells, 2012), thrives on citations and recorded information from various sources. These citations and recordings are epistemic and ontological realities exonerating the journalist from plagiarism, but indeed are copied knowledgebased citations and recordings being scientific evidence.

Philosophy and Psychology

Kantian philosophers pointed to the intrinsic epistemic nature of plagiarism inherent in our experience in a more succinct approach. He believed that experience is the first product of our understanding as it works out on raw materials of sensible sensation (Guyer, 1998). It is for this reason that it is the first teaching, and in its progress, it is so inexhaustible in new instructions that the chain of life in all future generations will never have any lack of new information that can be gathered on this terrain (Guyer, 1998). For that reason, "a priori cognition" builds on experience in-cooperating contributions of other fields to establish true universality with what is borrowed from experience cognized as "posteriori" or empirically (Guyer, 1998). Kant further explains that what is especially remarkable is that even among our experience, cognitions are mixed in that must their origin in a priori and perhaps serve only to establish a connection among our representations of senses. For if one removes from our experience everything that belongs to the senses, there still remains certain original concepts and the judgements generated from them, which must have arisen entirely a priori, independently of experience, because they make one able to say more about the objects that appear to the senses than mere experience would teach, or at least make one believe that one can say this, and make assertions contain true universality and strict necessity, the likes of which merely empirical cognition can never afford (Guyer, 1998). For an empiricist like Hume, our belief that

the effect always follows the cause is arrived at from a repeated association of events and based on a custom of connecting representations. It is, in effect, the result of psychological habituation of the mind (Pearson & Large, 2006). Relations of ideas, as the name implies, can be known a priori simply by inspecting the nature and internal relations between our ideas and using either immediate 'intuition' (e.g. our direct intellectual grasp that one plus one equals two or that a square has four sides) or 'demonstration' (i.e. a sequence of 'intuitive' steps, as for example in the proof of Pythagoras' Theorem). Such truths can, therefore, be known with complete certainty (Hume, 2007). What makes a truth a priori is that it can be *justified* without appeal to experience, purely by thinking about the ideas involved. Matters of fact, by contrast, can be known to be true (or to be false) only by consulting experience (Hume, 2007); from our definition, this consultation is plagiarism.

Religion

Religiousness and spirituality have been a part of human experience throughout the length and breadth of human history. Crossing every category of human endeavour, they have been the subject and object of art, music, poetry, culture, warfare, inspiration, aspiration, sacrifice, morality, devotion, contemplation, conflict, and multitudes of other human activities (Zinnbauer & Pargament, 2005). While other classes attempt to see plagiarism as unethical conduct where one needs to exonerate oneself by citation and referencing, Religion thrives on plagiarism for its sole existence. Religiosity emphasizes moral values, practices, beliefs, rituals and social structures that revolve around the questions of ultimate meaning and the relationship between humans and Devine (Zinnbauer & Pargament, 2005), like in academics citation and referencing provides an epistemic ontology of plagiarism, Religion practice iterative processes are learned and transmitted practices, values, norms, beliefs and social structures passed generation after generation, this is cultural plagiarism and therefore, the epistemic ontology of plagiarism.

We can demonstrate religious cultural plagiarism as featuring characteristics of all Religion by examining each case-by-case as follows. Religion brings out patterns that transcend differences between the various faiths (Fisher, 2009) consistently preserved and passed (cultural plagiarized): the "indigenous sacred ways" notes the continued existence of people still practising their native lifeways to some extent (learned knowledge), despite the subversive influence of global Religion and global culture. Although indigenous sacred ways are quite diverse, they tend to have certain common features, such as intimate relationships with spirits in the local environment (Fisher, 2005). Hinduism attempts to sort out the great array of rituals and beliefs. It looks at ancient spiritual culture and its scriptures, and then the major philosophical and theistic paths that have evolved in the Indian sub-continent. Buddhism explores the life and legends of Gautama Buddha and elucidates his basic teaching about the Dharma. Judaism, on the other hand, traces the threads of Jewish history in Biblical times, as Rabbinic Judaism has developed, and as they are evolving in today's world. Christianity traces the life and teachings of the historical Jesus and his disciples, while Islam follows the life of the Prophet Muhammad and his companions, introduces the Qur', and then summarizes the central teachings and the Five Pillars of the faith (Fisher, 2005), all these Religion have preserved altruistic features of beliefs, practices, ritual, morals values, and social structures are epistemological transmissions generation after generation in effect are the ontological reality of "cultural plagiarism."

Social Science

A commentary by editorials on defining social science provides the complications that arise when epistemologically examining the subject. Practically, no one would deny that there are such things as social scientists. They are around us as part of our cultural environment (Gray, 1979). But is there such a thing as social science in any sense distinct from science? And if so, what is it? That is a controversial question. Still more

controversial is the issue of whether social science, once it is defined and acknowledged, can be used as a norm to judge whether a given discipline qualifies as a fully legitimate social science (Gray, 1979). Although Dewey Decimal classifies human association disciplines as social science, there is no single discipline or entity called social science, and no existing federation of disciplines has succeeded in integrating the specialties or lessening the competition among disciplines (Gray, 1979). The term itself is credited to Auguste Comte (1798-1857), the founder of sociology, who pointed out that it is derived from two words: socius, which means "companion" or "associate", and logos, which means "word". At its most basic then, it means "words about human associations or society".

Social science, like Religion thrives on altruistic norms, practices, values as well as social structures. Therefore, its epistemological transmissions, in effect, are the ontological realities of service plagiarism. Organizations that standardize their processes and services practice "service plagiarism". The epistemic customer demands are always the driving force for the emergence of new businesses in each location. New businesses that satisfy the same demand usually duplicate the same services and processes. Kentucky Fried Chicken (KFC) and Café Java restaurants, for instance, high demand for food results in the emergence of many restaurants in a particular location. This is a duplication of service and institutions or service plagiarism. The more restaurants, the more development, and some may become hotels. Social plagiarism, therefore, leads to the emergence of new services and institutions, and is a driving force for development. Another instance of institutional plagiarism occurs in education systems, with curriculum as the main transmission medium. The same curriculum is required to be taught in all schools across the country to ensure standardization: "This is service/institutional plagiarism". Thus, any institution said to be standard, accredited that replicates the services practices "institutional plagiarism". Plagiarism is harnessed as a means of standardization, accreditation or minimum

requirements practice for learning, research, and innovation.

Language

Language is one of the most distinctive characteristics of human beings (Shalabi et al., 2018). Language is one of the toolcommunication to express deeply physical effort of humans. It is like an instrument to propose the audience a specific intention. Use that language, such a sound, word or sentence represents and shows understandable interaction among the user of the language (Golinkoff, 2015; Ikhwanudin & Hashim, 2014)). Babies are not born talking immediately speak a word or produce a sound, but unconsciously, they learn a language and will imitate the user language around them (Ikhwanudin & Hashim, 2014). This act is "language plagiarism." As the care giver says mama... taata,... the baby repeats iteratively the care giver. Human language evolution enables linguists to anthropologically study dialectics among different communities, tribes, and countries to trace language plagiarism to establish relationships and origins of communities.

Natural Science and Mathematics

This class demonstrates the inherent nature of plagiarism as a natural phenomenon. The class builds on the exactness of processes and arrangement. Beginning with the smallest particles of matter, such as electrons and atomic structures, are natural particles with identical nature that can be assumed to be plagiarized. Numbers are incrementally iteratively natural as well as biological processes. The class harnesses plagiarism for precision of methodological processes, arrangements, duplication/replication, and metrification in what can be termed "*methodological and metrification plagiarism*" for their precision processes.

The discovery and the continued study and understanding of the signature of life in the form of deoxy-ribo nucleic acid (DNA) by Friedrich Miescher (Dahm, 2005; Pray, 2008) and the replication process of DNA (Alberts, 2003) provides evidence to the natural process of plagiarism in which nature preserves its processes in life creation. We are similar to our parents because of DNA plagiarism in the natural inherent process of cell replication. When the replication process is not done correctly, it results in deformities "mutation". You are probably a little more evolved with a little more ability to withstand nature because you have largely copied a great wealth of DNA from your parents and ancestors' natural epistemic codes derived and maintained over centuries and millions of years of evolution. Indeed, evolution keeps the survival characteristics and passes them to the next generation while dropping incompetent characteristics in the process of natural selection. Evolution due to the gene mechanism carefully and concretely replicated through the DNA transcriptase process.

Technology (Applied Sciences)

The online Encyclopaedia Britannica defines "technology" as the application of scientific knowledge to the practical aims of human life or, as it is sometimes phrased, to the change and manipulation of the human (Perrin, 1990). The definition exposes that this discipline is artificial, involving human ingenuity arising from learned knowledge. Harnessing plagiarism in this discipline is, therefore, a risky business because it is not intrinsic, although it builds on existing knowledge. While regulations associated with disciplines find copyright as suitable for them, this discipline looks at patent rights and intellectual property rights as tending to play a critical role in safeguarding the human innovation associated with this discipline. Plagiarism, however, remains important in ensuring that the learning experience is maintained by the creator for continuity of the industry that innovates a product. The ontological expressions of plagiarism are expressed by many versions of the product. Examples include editions of books, models of cars, processes, etc.

Arts and Recreation

Arts and Recreation are a transdisciplinary class covering art in general, fine and decorative arts, music, and the performing arts. Recreation,

including sports and games, is also classed in 700 (OCLC, 2023). Reciting plays of Romeo and Juliet, Napoleon, creatively mimicking events, speeches making movie documentations of written text, etc, are all harnessing plagiarism in creative ways. Fine and decorative arts are attempts to recreate natural phenomena basing on experience. The history of printing and print culture may seem, on first encounter, a narrow and rather esoteric field of study (Hinks, 2020). Production of manuscripts for publication could demonstrate the harnessing probably of plagiarism in a classical way. Only the first original manuscript represents the first copy, and subsequent production harnesses plagiarism for the mass production of manuscripts or books for purpose of commercialization the and dissemination. This, therefore, provides a similar explanation for the reproduction of art pieces as well and reprographic technologies are all designed to harness plagiarism to meet demand and dissemination.

Literature and Rhetoric

We have observed how plagiarism plays a role in class 400. Perhaps rhetoric is a classic example of harnessing plagiarism for the benefit of effective communication. These techniques include the use of plural pronouns, repetition, allusion, rhetorical questions, negation, comparatives, present and future tense, hyperbole, and personification. The political speeches analysed here are Barack Obama's inauguration speech (2009), Nelson Mandela's inauguration speech (1994), Thabo Mbeki's "I am an African" speech (1996). Muhammadu Buhari's inauguration speech (2015), and Mmusi Maimane's SONA Debate speech (2015). The study found that all five speeches make use of the identified rhetorical devices to 'sell' their ideas to their listeners and canvass their support. The study clarifies the concept of rhetoric in public speaking and also explains why people (listeners) may be persuaded by politicians to 'buy' their ideas conveyed through manipulative political language (Makoro, 2018). The vocal aspect of delivery is traced through representative works in rhetoric and public speaking, from Aristotle to Rush. Its importance has been recognized from the earliest known writings on rhetoric (Balcer, 1959).

History and Geography

The reasoning of Dewey Decimal Classification is that history happens in place, so there is a strong connection between history and geography, thus putting them in the same category (Meyer, 1947). The metaphorical statement "history repeats itself' is somewhat an indication of iteration of events of the past, is a statement tinted in plagiarism. Seemingly, events that happened in the past appear to repeat again, which are difficult to trace how they happened (Molotch et al., 2000). Natural events, as well as human activities, appear to be influenced and controlled by system dynamics as events evolve, so there is a sense in which systems are deterministic, ensuring a repeat that at times predictable and at times, occurrence follows complex systems that are unpredictable, being controlled by chaos theory (Garnett, 1998; Watson & Watson, 2011).

The Rise of Plagiarism Technologies

Humans have a need to communicate, as they are social beings, and the development of printing enabled them to communicate in a more efficient manner (Forrester, 2020). The numerous technological innovations date back to ancient times making it difficult to chronologically document (Li & Wang, 2004). We may begin tracing such innovations from a representation of nature in the form of arts and crafts that can be traced to ancient civilizations across the world, signifying early attempts at plagiarism instincts of humans. The advent of the printing press by Gutenberg in the 15th century and later copy typing were huge technological inventions that eased processes of plagiarism and reproducing almost exact copies of documents in the European industrial Renaissance (Forrester, 2020). Several technological innovations constantly ensured better methods of copying/printing were available (Hinks, 2020). The Xerox machine and photocopying technologies marked a new era in copying technologies. The fax machine, modern

printers, scanners, and related software ushered in further innovations into copying. 3D printers, wireless technologies, internet-of-things, and artificial intelligence marked new milestones in related sophisticated plagiarism technologies.

Artificial Intelligence

The current development of machine learning and artificial intelligence has been recognized by numerous scholars as another inevitable plagiarism technology with far-reaching effects harnessing human intelligence (Francke and Bennett, 2019; King et al., 2023; Kleebayoon and Wiwanitkit, 2023; Taloni et al., 2023). It is a social discourse since, without acknowledgement, all the information it generates is not intrinsic in itself. Plagiarism and research integrity are sensitive issues in the academic setting, especially after the recent offspring of artificial intelligence (AI) and large language models (LLMs) such as GPT-4.0 (Gao et al., 2023). As the popularity of ChatGPT increases, some authors have attempted to write abstracts and full-text articles using AI, obtaining essays that resemble genuine scientific papers (Taloni et al., 2023). The debate has started on whether artificial intelligence can be ethically used for academic purposes (Salvagno et al., 2023) and whether it does create new knowledge (Sarkar, 2023). Although there are equally growing techniques for the detection of plagiarism (Diederich, 2006; Subroto and Selamat, 2014), it appears that the use of artificial intelligence is getting more and more domesticated in corporate bodies as well as in academics at in unimaginable level.

Artificial intelligence is poised to harness the full potential of plagiarism since it has taken a broad spectrum as a trans-disciplinary and multidisciplinary front. It is known that AI is featured across disciplines: in medicine (Hamet *et al.*, 2017), in law (Surden *et al.*, 2019; Raaijmakers, 2019), artificial intelligence in education (Chen *et al.*, 2019; Chen *et al.*, 2022), artificial intelligence in making art (Tigre *et al.*, 2023; He and Sun, 2021), artificial intelligence in language instructions (Liang *et al.*, 2023) in geographic information systems (Vozenilek, 2009), Religion and the promise of artificial intelligence (Geraci, 2008).

Knowledge and the Neo-liberal Market Economy

With the commodification of knowledge and innovations in the neo-liberal global knowledge economy and the threats of Artificial Intelligence to academia. Higher education has turned into a consumer-based system and a "marketable product" that is "valued, rated, bought and sold" and ultimately "considered essential by the knowledge market economy and the market demand and supply" (Cranton, 2006). Universities need to reposition themselves in the global knowledge structure and recognize the need to design a globalization strategy by rethinking and unpacking concepts such as 'plagiarism'. Academics have appreciated the importance of a proactive stance lest their universities be takers rather than makers of global knowledge. But how do we capture opportunities and reposition ourselves in the debate on plagiarism as an opportunity and vice?

CONCLUSION

Plagiarism is an essential part of learning, as well as technology defining human civilization. We live it, we learn it, we advance it, and we behave it. Plagiarism is demonstrated to be a Transdisciplinary and multi-disciplinary development affecting all spheres of human life. It is intrinsic to the human epistemic quest in learning, research, and innovation. Whereas in academic disciplines, plagiarism is viewed with scepticism, referencing and citation provide relief as evidence and exonerate perpetrators. Other disciplines and human intrinsic need to continuously acquire more knowledge and skills are yet to fully realize the potential of plagiarism and relentlessly build new associated technologies that harness it. Advance in artificial intelligence is a bold move into undeterred mega plagiarism projects surpassing our imagination. AI is thought to be the next most revolutionary development that will affect all human life (Makridakis, 2017; Dwivedi et al., 2021). Because AI is multi-disciplinary, it has to be embraced for ethical use since it enables

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us to perform tasks better and more accurately. The line between ethical and unethical use should be the main discussion in academics in order to optimize its potential. Regulations have always lagged behind technology, and the rate at which AI is advancing makes the gap even wider. Academic institutions should define and propose guidelines for the ethical use of artificial intelligence.

AUTHOR'S CONTRIBUTIONS

Ongaya, K. drafted the paper, Alidri, A. reviewed the paper from an education perspective, Bagarukayo, E. read through the draft and made corrections, Oyo, B. Analysed the figures, Bazibu M.C. collected data, Luyimbazi G. formatted, and Komakech D. Oyo, B. made final editing.

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