



Lustre and shadows: unveiling the gaps in South African University plagiarism policies amidst the emergence of AI-generated content

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Abstract

In recent years, artificial intelligence (AI) has become a key technology in the field of academic integrity. However, there is a lack of a comprehensive understanding of the legal dimensions of plagiarism in the context of AI. In this study, a theoretical framework that combines the social construction of technology and the legal dimension of plagiarism was used to explore the current construction of plagiarism in South African university plagiarism policies. This study aims to highlight the inadequacy of current plagiarism policies, which primarily focus on the act of copying from others and emphasize the need for a broader perspective that addresses the challenges posed by artificial intelligence in academic integrity in the era of AI-generated content. The author used confirming sampling and data saturation was reached with a sample of ten university plagiarism policies. The findings revealed an inadequacy of the policies on the coverage of AI-generated content and therefore justifying the need to redefine plagiarism in the context of the artificial intelligence revolution. The author concludes by redefining plagiarism and justifying the utility of the recommended definition.

Keywords University plagiarism policies · Plagiarism · AI-generated content · South Africa

1 Introduction

The arrival of artificial intelligence (AI) in academia, specifically ChatGPT, has elicited varying reactions. Tlili et al. [8] explain that as an advanced AI application, ChatGPT has gained widespread attention globally. Views are mixed on AI's role in South African higher education. These reactions mirror previous responses to technological advances like the internet and calculators. Just as Socrates questioned writing's impact millennia ago, today's AI scepticism continues an intergenerational discussion on technology's influence. Arguments against AI have focused on implications for plagiarism and integrity. This analysis of university plagiarism policies contends they require redefinition in light of AI. Kashkur et al. [9] note that as plagiarism has spread, detection methods must adapt. This need is greater with AI. Most tools cannot detect AI content, blurring ethical boundaries. Previously robust policies seem inadequate now. Policies

guide institutional problems, but current ones lack AI specificity, necessitating comprehensive policies.

This analysis explores plagiarism's nature, impacts, and prevention strategies in South African university policies. It covers traditional manifestations like copying, copyright infringement, and paraphrasing without attribution. However, AI content generation tests these definitions. With accessible AI tools, reliance on copying as the sole plagiarism criterion overlooks AI's nuances. AI can create original text undetectable to current methods. The definition needs expansion to address emerging challenges.

Merkel [4] highlights policies as critical plagiarism references for students and faculty. However, some argue policies should educate rather than police students. Clarity is essential for comprehension. They must provide meaningful guidance amidst AI. Policies uphold integrity and ethics by banning plagiarism. Their rules promote originality and proper citation, communicating expectations. This fosters commitment to integrity and deep appreciation for honesty and attribution. However, AI has rendered some policies inadequate, necessitating updates for the changing landscape.

Views on AI in academia vary. While some celebrate its potential, many critique its threat to integrity, like Chomsky's denouncement of ChatGPT as "high-tech plagiarism."

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This discord echoes past responses to new technologies like the calculator. The question remains whether AI constitutes plagiarism and if current policies suffice. Analyzing plagiarism policies of ten South African universities, this article argues AI raises integrity concerns but likely does not qualify as plagiarism under current definitions.

1.1 Origins of plagiarism

The word "plagiarism" is believed to have originated from the Latin word "plagiarius," which means "kidnapper" or "abductor" (Online Etymology Dictionary, 2023). Plagiarism traces its origins to the Latin word "plagiarius," which translates to kidnapper. The term emerged in the English language in 1621, primarily used to describe the theft of someone else's words. The word evolved from "plagiarius" to "plagiary," denoting a literary thief or plagiarist, before morphing into its current form, "plagiarism." This linguistic evolution reflects the act's negative connotations: the theft of someone else's intellectual property. Essentially, the term "plagiarism" in the seventeenth century English language described the act of literary theft. This seventeenth century can be argued to be still central in most university plagiarism policies as the act of plagiarism is constructed as theft. Today, it is commonly used to describe the act of using someone else's work without proper attribution, whether it be written, visual, or auditory. The first English copyright law, established in 1709, aimed to protect the rights of publishers and authors against unauthorized printing and piracy Bhattathiripad [11]. However, as the concept of author's rights evolved, it became imperative to address plagiarism to safeguard the rights of individuals today. According to Bhattathiripad [11], in the first English copyright law there was much to do with protecting the rights of publishers against book piracy as it did with protecting the author's rights against unscrupulous printers, but author's rights developed very quickly. James Boswell, better known as Samuel Johnson's biographer, was a lawyer who argued one of the most important cases over how long copyrights lasted for an author and his or her heirs (it was twenty-one years at the time) Bhattathiripad [11]. Additionally, the etymology of plagiarism underscores its central theme: unauthorized appropriation of another's work. From its Latin roots signifying kidnapping to its modern-day implications in copyright infringement and academic dishonesty, the term carries significant weight across various spheres—literary, academic, or professional. As technology continues to evolve, understanding and combating new forms of plagiarism will remain a crucial task for preserving intellectual integrity.

2 Theoretical framework: redefining plagiarism in the context of artificial intelligence

This study on redefining plagiarism in the context of AI utilized a theoretical framework that combines two key perspectives: the social construction of technology and legal dimensions of plagiarism. This framework will provide a comprehensive understanding of the complex interplay between technology, societal norms, and the legal implications associated with plagiarism in the era of AI. The social construction of technology perspective emphasizes the mutually shaping relationship between society and technology. The social construction of technology is a theory within the field of Science and Technology Studies that explains how social factors influence the development of technology [1]. It emphasizes the importance of social context and cultural values in shaping technological design and innovation [1, 7]. In this study, this perspective helped analyze how AI, as a technological innovation, influences the conceptualization of plagiarism and the development of university plagiarism policies. By examining the social processes through which AI technologies are adopted, used, and regulated, this framework will shed light on the evolving nature of plagiarism in response to AI advancements. The legal dimensions of plagiarism encompass the legal framework and policies that define and address plagiarism [3]. This aspect of the framework explores the existing South African university plagiarism policies to examine how they define plagiarism within the context of AI. It also helps analyze the legal language, provisions, and interpretations within these policies to determine their adequacy in addressing the challenges posed by AI-generated content. Additionally, there is consideration of copyright laws, intellectual property rights, and fair use doctrines, which underpin the legal ramifications associated with plagiarism and AI. By integrating these two theoretical perspectives, the study provides a holistic understanding of how the societal and legal aspects of plagiarism intersect with the technological advancements of AI. This framework enabled a comprehensive analysis of the sample of university plagiarism policies in South Africa, exploring how they currently define plagiarism in relation to AI and identifying potential gaps and limitations in addressing this emerging issue. It also provides insights into the implications of the legal dimensions of plagiarism for the development of more effective policies and practices that promote academic integrity in the context of AI. Overall, this theoretical framework contributed to a nuanced understanding of the challenges posed by AI in redefining plagiarism and the necessary adaptations that university policies need to undergo to address these challenges effectively.

3 Research methodology

The aim of the study was to justify the redefining of plagiarism in South African university plagiarism policies. South Africa has 26 public universities and each of these has a plagiarism policy. Therefore, the population for this study was 26 university plagiarism policies. The author used confirming and disconfirming sampling in this study. The major factor that was considered in the confirming sampling was a plagiarism policy's definition of plagiarism. Moser and Korstjens [5, p. 10] state "confirming and disconfirming cases sampling supports checking or challenging emerging trends or patterns in the data." This sampling approach aims to ensure that the chosen participants possess the necessary knowledge, experience, or attributes to provide valuable and relevant insights to the study. The advantage of criterion sampling is that it allows researchers to focus on specific characteristics or qualities that are of interest to the study. By selecting participants who possess these attributes, researchers can gather in-depth and meaningful data that aligns with their research objectives. The author used confirming sampling and, data saturation was reached with a sample of 10 plagiarism policies. The sampled universities were University of Cape Town (UCT), Rhodes University; University of KwaZulu-Natal (UKZN); University of South Africa (UNISA); University of Johannesburg; Cape Peninsula University of Technology (CPUT); Stellenbosch University; Central University of Technology; University of Pretoria and University of Venda. Moser and Korstjens [5, p. 11) explain "Data saturation means the collection of qualitative data to the point where a sense of closure is attained because new data yield redundant information. Data saturation is reached when no new analytical information arises anymore, and the study provides maximum information on the phenomenon." The author utilized pseudonyms for all the universities that were included in this analysis.

4 Defining plagiarism using university plagiarism policies

4.1 Presentation of findings

Based on the analysis of the ten sampled university plagiarism policies, two main themes can be identified regarding the conceptualization and coverage of plagiarism in the context of AI-generated content. The author utilizes these themes to argue that the current university policies are inadequate in the era of AI.

4.2 Definition of plagiarism

In this section, the author presents the definitions of plagiarism according to the sampled 10 university policies. The section further unpacks the policies in the light of the adequacy to cover the use of AI-generated content.

The University of Pretoria policy elaborates, "Plagiarism is the presentation of someone else's work, words, images, ideas, opinions, discoveries, artwork, music, recordings or computer-generated work (including circuitry, computer programs or software, websites, the Internet or other electronic resources) whether published or not, as one's own work, or alternatively appropriating the work, words, images, ideas, opinions, discoveries, artwork, music, recordings or computer-generated work (including circuitry, computer programs or software, websites, the Internet or other electronic resource) of others, without properly acknowledging the source" (University of Pretoria (2019, p. 3).

The Stellenbosch University policy states, "Plagiarism: The use of the ideas or material of others without acknowledgement, or the re-use of one's own previously evaluated or published material without acknowledgement (self-plagiarism)" (Stellenbosch University, 2016, p. 2).

The University of Cape Town policy states, "Plagiarism is using someone else's ideas or words and presenting them as if they are your own. It is therefore a form of academic cheating, stealing or deception" (University of Cape Town, 2014, p. 1).

The University of Venda policy states, "Plagiarism is "the act of taking another person's writing, conversation, song, or even idea and passing it off as your own. This includes information from web pages, books, songs, television shows, email messages, interviews, articles, artworks or any other medium" (University of Venda, n.d., p. 1).

The Rhodes University policy states "Plagiarism, in an academic, university context, may be defined as taking and using the ideas, writings, works or inventions of another, from any textual or internet-based source, as if they were one's own" (Rhodes University, 2008, p. 3).

The University of KwaZulu-Natal policy states, "Actions constituting plagiarism refer to, but are not limited to: Presenting the ideas of another as if they are your own; Representing the words or works of another as they were your own; Utilisation of the ideas, words or work of another without appropriate acknowledgement" (University of Kwazulu-Natal, 2014, p. 2).

The University of South Africa policy states "The appropriation of another's work, whether intentionally or unintentionally, without proper acknowledgement" (University of South Africa, 2005, p. 2).

The Central University of Technology policy states "Plagiarism is the appropriation of another person's ideas, text, theories, opinions, illustrations, creations or work

without properly acknowledging the original source and having obtained permission to use such information or material" (Central University of Technology, 2016, p. 1).

The University of Johannesburg states "Plagiarism is passing off ideas however expressed, including in the form of phrases, words, images, artefacts, sounds, or other intellectual or artistic outputs, as one's own when they are not one's own; or such passing off, as an original contribution, of ideas that are one's own but have been expressed on a previous occasion for assessment by any academic institution or in any published form, without acknowledgement of the previous expression" (University of Johannesburg, 2013, p. 3).

The Cape Peninsula University of Technology policy states "Plagiarism is the representation of another person's ideas, research, expressions, computer code, design artefacts, or work as one's own. Examples of plagiarism include (but are not limited to): copying from print or electronic sources into one's own work; imitating existing designs in one's own work; copying another student's assignment or part thereof; overuse of sources; disguising copying by substitution of wording; paraphrasing without citation" (Cape Peninsula University of Technology, 2012, p. 2).

The plagiarism policies of UCT, Rhodes, UKZN, and Unisa emphasize "presenting someone else's work/ideas as one's own" or similar phrasing. This language assumes the original source is human. AI systems are not human, so it could be debated whether passing off AI-generated content as one's own would technically constitute plagiarism under these definitions. The University of Johannesburg policy stands out because it defines plagiarism as "presenting other people's ideas or material as one's own when they are not one's own." This does not assume the source has to be human. The phrase "when they are not one's own" leaves room to interpret AI-generated content as falling under this definition of plagiarism. The author considers the CPUT policy more far-reaching because it includes "copying from print or electronic sources into one's own work." This encompasses online and digital sources, which could include be argued to include AI systems.

While the other policies do not seem to explicitly cover AI-generated content, the general principles of properly acknowledging sources and not misrepresenting authorship would likely still apply in practice. However, the language itself centres around human sources and does not address the complexities of AI authorship. The UJ and CPUT policies come closest to a definition applicable to AI systems, though there is still room for ambiguity. Revising plagiarism policies to directly address AI-generated content would help clarify expectations around proper attribution when leveraging these emerging technologies.

5 Educational approach vs. policing approach

The second theme revolves around the approach taken by the plagiarism policies, specifically in terms of their orientation toward either education or policing. Leung and Cheng [10] argue that there are two approaches to plagiarism policies: educational and policing. The educational approach to plagiarism policies focuses on teaching students about plagiarism, its consequences, and how to avoid it. It aims to foster a deeper understanding of academic integrity and ethical writing practices. This approach emphasizes formative assessment, promoting academic integrity, and focusing on knowledge and understanding. The policing approach to plagiarism policies involves enforcing plagiarism policies and ensuring compliance with academic integrity standards. It may involve using plagiarism detection software, imposing penalties, or consequences for instances of plagiarism, and policy enforcement. The aim is to deter students from engaging in plagiarism through the threat of punishment.

5.1 Educational approach

The Rhodes University policy states "Departments need to acknowledge the importance of their own role in students' acquisition of academic discourse and are responsible for taking active steps to provide students with an explanation as to why, as well as how, sources may be used and cited in building academic knowledge" (Rhodes University, 2008, p. 4). This reflects an educational approach focused on teaching students proper citation practices. The UKZN policy mentions "Prevention of plagiarism requires attention to opportunities for education and awareness of plagiarism and information about this policy including mechanisms and procedures for detection" (University of KwaZulu-Natal, 2014, p. 7). It emphasizes plagiarism education and awareness. The educational approach can be considered more comprehensive and supportive for students' academic development especially in the era of AI. By providing resources, tips, and guidance on proper citation practices, this policy equips students with the necessary skills to engage in academic writing with integrity. It recognizes that students may unintentionally commit plagiarism due to a lack of knowledge or understanding, and it seeks to address this through education rather than punitive measures alone. Furthermore, an educational approach acknowledges that plagiarism is a multifaceted issue that extends beyond mere rule breaking. It recognizes that students can benefit from a deeper understanding of academic integrity, critical thinking, and responsible

research practices. By emphasizing growth and improvement, this approach encourages students to take ownership of their learning journey, develop their writing skills, and cultivate a genuine appreciation for originality and ethical scholarship.

5.2 Policing approach

The UCT policy notes "Should prima facie evidence of plagiarism exist, a formal investigation will follow" (University of Cape Town, 2012, p. 2). This indicates enforcement and investigation for policy compliance. The Unisa policy states "A student or an employee who is guilty of the infringement of copyright or unethical practice will be subject to the applicable disciplinary code" (University of South Africa, 2005, p. 2). This reflects consequences for violations. While this approach aims to uphold academic integrity, it may create an environment where students are primarily driven by fear of punishment rather than a genuine understanding of the importance of originality and ethical writing practices. A more policing-oriented approach may inadvertently create an atmosphere of distrust and apprehension among students. While deterrence and enforcement are essential components of maintaining academic integrity, an overemphasis on punishment without sufficient educational support may hinder the development of students' writing abilities and their understanding of plagiarism as a complex issue.

In the era of AI, it is important for universities to focus more on the educational approach to plagiarism policies. As Leung and Cheng [10] argue, students need to be empowered with the knowledge and skills to properly cite sources into their academic work in an ethical manner. A punitive, policing approach may discourage plagiarism in the short term but does not cultivate the deeper understanding needed for proper AI attribution. An educational approach will be more effective in equipping students to utilize AI tools responsibly.

6 Conclusions

The author argues from the foregoing analysis of the current plagiarism policies at the selected universities that plagiarism policy review should be expediated. Alternatively, AI policies need to be put in place to empower staff to engage with AI-generated content. Penalizing students using the current plagiarism policies can be viewed as contravening the principles of legality and due process. The principle of legality can be applied to the debates around the use of ChatGPT in academia, particularly in relation to issues of plagiarism. In this context, the principle suggests that academic institutions should provide clear policies and guidelines regarding the use of AI tools like ChatGPT to address

concerns of plagiarism. The principle of legality states that individuals should have fair notice of what conduct is prohibited and the consequences of engaging in such conduct. This principle ensures that laws are not arbitrary or vague, and that individuals are not subjected to punishment or sanctions without prior knowledge of the offense. Additionally, the argument also emphasizes the importance of clear policy guidelines. Policies provide a framework for decision-making within organizations or institutions. If a particular action is prohibited by policy, it is crucial that the policy explicitly outlines the prohibition, so individuals are aware of what is expected of them and can act accordingly. Essentially, if the use of AI is to be prohibited or regulated in universities in South Africa, the policy needs to be made more explicit. Additionally, students and staff should be given fair notice of this prohibition and regulatory position. However, currently the policies being relied upon can be considered an overstretching of the policy and that might expose universities to litigation. Drawing on the principle of legality, it is worth noting that the underlying rationale behind this argument is to safeguard individuals' rights and ensure that they are not penalized for engaging in conduct that is not clearly defined as illegal or prohibited by law or policy. By demanding clarity and specificity in the law and policy, individuals can be better informed about what is permitted and what is not, allowing them to conform to the established rules and regulations. Furthermore, the principle of legality also extends to the notion of due process. If a university were to take disciplinary action against a student for alleged plagiarism involving the use of ChatGPT, it would be important to ensure that the student was given fair notice of the specific rules and regulations regarding AI usage. Without explicit policies in place, the student may argue that they were not aware that using ChatGPT in a particular manner could be considered plagiarism. Furthermore, the author argues that the policy should clearly state the instrument(s) that will be used to check AI-generated content. On the other hand, the flipside of the principle of legality is informed by ethics and morality. From an ethical standpoint, it can be argued that despite the absence of a clear policy on AI, individuals have a responsibility to act within the boundaries of what is morally acceptable, even in the absence of explicit guidance. It is common knowledge that one can only take ownership of content that they have created and therefore using AI-generated content goes against that long-held view. Ethical considerations often go beyond legal or policy requirements and encourage individuals to exercise good judgment and adhere to commonly accepted principles and values.

While there is a plethora of AI-generated content detectors, their performance has been under scrutiny due to lack of consistence and reliability. Mujezinovic [6] questioned the veracity of AI content detectors such as Writer, GPTZero among others. Experiments and testing of some of these

AI-content detectors have yielded discouraging results, with some being a source of comic relief. An example of a test that was carried out on the efficacy of GPTZero by Barsee ruled that the US Constitution was written by AI (see below). Another experiment by Islam [2] revealed discrepancies in the AI content detection using Writer and ChatGPT classifier. Therefore, the author casts aspersions on the use of AI detector in their current state to determine the fate and ultimately the future of students. Additionally, there are several YouTube videos and online tutorials demonstrate how to fool AI cheat detectors and thus exacerbating the challenge for AI detectors. Hence, it is imperative that universities invest in research on the efficacy of AI detectors before unfairly penalizing students using faulty tools. Universities would have failed the due process test if they rely on faulty AI content detectors to police the use of AI in university assessments. Notable progress needs to be acknowledged in the case of the Turnitin plug-in. Other AI content detectors required users to paste or upload their content to check but Turnitin has saved academics from this routine by using a platform there are already familiar with.

In conclusion, the author reviewed a sample of plagiarism policies in South African universities. Drawing from the reviewed plagiarism policies the authors argues that most universities in South Africa do not have a legal standing to police the use of AI content by both staff and students. Relying on the current plagiarism policies leads to several questions around the principles of legality and due process. While it can be argued that the flipside of the principle of legality entails debates around morality and ethics, there is still a need for a clear policy on the use of AI and penalties for contravention thereof. To effectively address the impact of AI on plagiarism, universities must adopt a more comprehensive and flexible approach. Redefining plagiarism within the context of AI should encompass not only direct copying but also the misuse or unethical use of AI tools. This includes instances where AI-generated content is submitted without proper attribution or when AI is used to manipulate or fabricate data. Alongside redefining plagiarism, educational institutions should prioritize educating students and staff about the ethical use of AI tools. By providing guidance and clear policies on the responsible application of AI technologies, universities can foster a culture of academic integrity that adapts to the evolving digital landscape. The rise of AI technology poses new challenges for academic integrity and the definition of plagiarism. Current university plagiarism policies, primarily focused on copying, fail to adequately address the complexities introduced by AI. To ensure the preservation of academic integrity, it is crucial to redefine plagiarism within the context of students and staff using AI. A comprehensive approach should encompass the ethical use of AI tools and acknowledge the nuances involved in detecting AI-generated content. By adopting

such a perspective, universities can adapt to the changing academic landscape and foster a culture that upholds integrity in the age of AI.

7 Recommendations

Based on the analysis of the reviewed policies and the challenges posed by AI-generated content, a suggested definition of plagiarism that encompasses AI-generated content could be as follows: *Plagiarism, in an academic context, refers to the act of taking and using ideas, writings, works, inventions, or any form of intellectual or creative output, whether generated by a human or artificial intelligence, without proper attribution or acknowledgement, and presenting it as one's own original work.*

This definition acknowledges that plagiarism extends beyond the traditional understanding of "someone else's work" to include any content, whether produced by humans or AI systems, that is not appropriately credited or acknowledged. It recognizes the unique challenges posed by AI-generated content, such as ChatGPT, and emphasizes the importance of proper attribution and acknowledgment in all forms of academic work. By adopting a definition that explicitly considers AI-generated content as a potential source of plagiarism, academic institutions can address the evolving landscape of content creation and ensure fair and consistent treatment of cases involving AI-generated content. This definition encourages responsible use of AI technologies, promotes academic integrity, and provides clear guidance for students, staff, and faculty members in identifying and avoiding plagiarism in the context of AI-generated content.

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Declarations

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