The Use of AI In Arts Education: A Didactic Tool for Sensitising Students and for the Detection of Technology Assisted Writing in the Humanities

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Abstract

The disruption caused by the launch of generative AI such as ChatGPT in 2022 has impacted strategies for effective knowledge transfer and assessment across the higher education sector. This essay presents a model or rubric that can be used by educators in the humanities to detect the probable use of AI and to sensitise students to the unoriginality and generic nature of the generated output. The rubric was compiled by coding the artist's statements of ninety-three art students and graduates from five countries and two continents, participating in the same exhibition. Coding of the data revealed the presence of five defining characteristics that point to the probable use of AI. These are the prevalence and repetition of identified terms as well as phrases; the excessive use of flattering adjectives; hyperbolic statements; and, lastly, tortured phrases. Findings include the widespread reliance on technology in samples from all institutions in the study, across five countries on different continents. Recommendations include a focus on the development of adequate writing skills at school as well as university level combined with centring the importance of ethical conduct in research (and more broadly) as a guiding principle that goes beyond compliance. The source of the data is in the public domain. However, no students or institutions are identified in the presentation, analysis or discussion of the data.

Keywords: AI In Higher Education, Arts Education, AI Detection Rubric

Introduction

The use of AI and virtual assistants such as ChatGPT by university students in the completion of their assignments has emerged as an area of concern in higher education. Universities are scrambling to address the burgeoning phenomenon of assisted writing in their plagiarism policies and their curricula, with the certainty that neither the purported positive potential of AI nor the threat of uncritical writing and plagiarism, can be ignored.

This essay presents data that may be useful for detecting the presence of technology assisted writing in student work. Although generative AI detection software exists, such programmes may not be readily accessible to all educators and the results can be inaccurate with dire consequences (Davalos & Yin, 2024). The current visualised data can furthermore be used as a didactic tool in the classroom setting to highlight to students the unoriginality and uniformity of technology assisted writing, which they may be underestimating.

These findings might also assist in addressing a range of issues pertinent to arts training and higher education in general. These include adequate skill in writing in order to clarify one's intentions as a professional in the field; critical thinking skills and self-reflexive praxis; appropriate and ethical use of technology; and an understanding of how the technology itself works in order for students to make informed decisions about their level of engagement with AI and to be aware of issues pertaining to their own IP as artists and their privacy as citizens. As much as students may be using AI, their own creative output and any content they create in their private capacities is being harvested for further use by AI, and this might be with or without their consent, or even awareness. Sensitising students to these hazards supports their digital literacy and ability to manage risk in the cybersphere.

Lastly, the current discussion is not positioned as a value judgement but rather as an attempt by the researcher to come to a better understanding of a new and problematic phenomenon and to assist students in this regard as well.

Methodology

The rubric was compiled by coding the artist's statements of 93 art students and graduates from five countries across two continents for the prevalence of five defining characteristics that point to the probable use of generative AI. The data were purposely sampled as representative of a reasonably substantive population that participated in the same exhibition, and who were thus responding to the same brief. The artist's statements are in the public domain. However, the data has been anonymised for the current analysis and no institutions or students are referred to by name. The characteristics discussed below emerged from the data through the detection of the prevalence (frequency) of certain words and phrasing within and across samples, a tendency toward exaggeration, and the presence of meaningless phrases.

Neither the paper, nor the rubric, are intended to 'prove' beyond doubt the use of technology (such as generative AI software including ChatGPT) in the completion of student assignments. However, the foundational assumption of the current discussion is that the surprising level of uniformity, the repetition, exaggeration and in some cases meaningless sentences, do not reflect the writing of the students themselves, but comprises content generated by AI.

The five categories of potentially problematic writing that emerged from the data are as follows:

- Stock words, including terms such as captivate, celebrate, journey, passionate, and profound.
- Stock phrases such as 'capturing the essence of,' 'celebrating complexity,' 'seamless fusion,' and 'limitless possibilities' that create an overall generic and at times exaggerated effect in the text.
- The excessive use of effusive adjectives such as bold, exquisite, deepest, delightful, and extraordinary, sometimes in a single paragraph.
- Hyperbolic statements defined here as non-substantiated and exaggerated (or in some cases, vastly exaggerated) sentences that diminish the value and credibility of the output.
- Tortured phrases, defined for the current discussion as meaningless or irrational statements. Tortured phrases can arise from unsuccessful attempts to either earnestly modulate found information or unethically cover up plagiarised sentences and can also indicate the use of synonym generating software.

What is AI?

It is important to flag the difference between AI and generative AI. The former has been in use in manufacturing, finance and other industries for several decades, mostly to perform routine, repetitive tasks (Pavlik, 2023). The AI that has seemingly electrified the world and that is addressed in this paper, is generative AI which emerged in late 2022 (ibid). Pavlik (2023) defines generative AI as technology that can "rapidly create content in response to text prompts" and notes that it can produce "audio, image, and video content," but that, according to Pavlik, it is text-oriented AI that has taken the world by storm. It might be added that in the creative industries such as film, the visual arts and design, the image and audio based generative AI outputs have created a furore of their own in terms of copyright infringement, the ability to profit fairly from one's own IP, and fair labour practices. This discussion focusses on the challenges that text-based generative AI pose to providing and receiving a quality education.

Generative AI would not be possible without big data, in turn defined as petabytes of "extremely large and complex data sets" (Chen, 2024). Like AI, big data has existed for several decades, with the first data centres established in the 1970s (ibid). Big data is procured from sources as diverse as machinery fitted with sensors, financial transactions, and, increasingly since 2005, social media platforms such as "Facebook, YouTube, and other online services" (ibid). Big data sets are used to 'train' the Large Language Models (LLMs) which are a sub-set of generative AI that focusses on text-based outputs. ChatGPT is an example of an LLM. For more information on AI, generative AI, LLMs and Machine Learning see Toloka Team (2023).

Lastly, an awareness of how text-based generative AI functions is important in order to debunk claims of its benefits for creativity (or, conversely, its accuracy, discussed in greater detail in the last section of the paper). Large Language Models are fed vast volumes of text (the big data mentioned above), which they use to make "simple predictions, such as the next word in a sequence or the correct order of a set of sentences" (Pavlik, 2023). Thus, software such as ChatGPT is designed to calculate the *most likely* sequence of words, based on their prevalence in the feeding data. This would explain the repetitiveness in the data discussed below. The main aim of the current paper is to make the repetitiveness and unoriginality of LLM output *visually* apparent, particularly to students in class.

Presentation and Discussion of the Data

Of the 93 students and graduates who participated in the exhibition, 63 were flagged for instances of the use of any of the following: stock words, stock phrases, excessive and repetitive use of adjectives, hyperbolic statements, and the use of tortured phrases. This amounts to 67.7% of the samples (these being the artist's statements and accompanying short biographies). The students and graduates were participating in the same cross-institutional exhibition and addressing the same brief / theme. The samples represent students and graduates from twelve institutions of higher learning from five countries and two continents across the North-South global axis. Instances of writing falling within one or more of the five categories above occur in all twelve institutions, showing the global prevalence of the phenomenon. The lowest percentage of occurrence (the % of samples using AI against total number of samples from an institution) is 14,3% for institution 8, and the highest percentage of occurrence is 100%, which is the case in four universities (5, 6, 11 and 12). Figure 1 shows this data for the twelve institutions as a comparative chart.

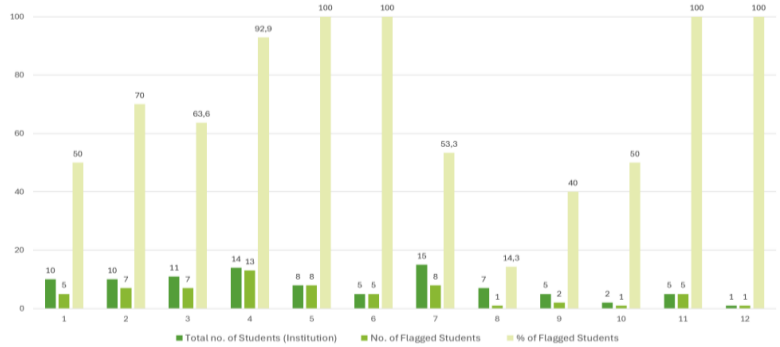

Figure 1: Flagged samples per institution expressed as a raw number and as a percentage.

From the 93 samples, 555 instances of the use of AI across the five categories were detected. Of these, stock words make up the largest category (comprising 342 individual instances or 61,6% of the total instances), followed by stock phrases (88 instances at 15,9%), hyperbolic statements (84 at 15,1% of the total), tortured phrases (29, at 5,2%), and, lastly, excessive use of adjectives (12, at 2,2%) (see Table 1).

Table 1: Overview of findings across 12 institutions.

Country No	Total no. of Students (by Country)	Institution Number	Total no. of Students (per Institution)	No. of Flagged Students	% of Flagged Students	No. of Instances	Stock Words	Stock Phrases	Excessive Adjectives	Hyperbolic Statements	Tortured Phrases
A	31	1	10	5	50	47	32	10	0	0	5
		2	10	7	70	109	86	1	0	21	1
		3	11	7	63,6	30	11	0	0	3	16
B	27	4	14	13	92,9	163	102	27	5	29	0
		5	8	8	100	64	44	7	2	11	0
		6	5	5	100	34	20	11	0	3	0
C	15	7	15	8	53,3	73	33	19	3	16	2
D	12	8	7	1	14,3	14	5	9	0	0	0
		9	5	2	40	5	1	2	0	1	1
E	8	10	2	1	50	2	0	0	0	0	2
		11	5	5	100	13	7	2	2	0	2
		12	1	1	100	1	1	0	0	0	0
	93			63	67,7	555	342	88	12	84	29
						%	61,6	15,9	2,2	15,1	5,2

In the case of the first four categories mentioned here in declining order (SW, SP, HS, TP), the total number of instances were measured, whereas the number of *samples* (artist's statements) in which excessive (repeated) use of adjectives occur are given for the category of excessive adjectives. In other words, twelve students or graduates made profuse use of adjectives. Figure 2 indicates a breakdown of the categories expressed as a pie chart indicating the number and percentage of instances per category in relation to the total number of instances across the five categories.

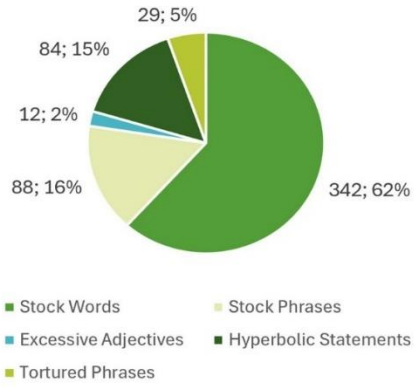

Figure 2: Types of incidents expressed as a raw number and as a percentage.

Stock Words

As noted, 342 individual stock words were identified. The stock words emerged from the data as words occurring repetitively within and across the samples. The 'sameness' of the terms creates a generic aspect in some of the statements which indicates a lack of thoughtfulness about the specific work described or the specific intent of the artist which can (and should) be avoided by the student through critically and authentically engaging with the statement. Figure 3 shows the prevalence rate as a raw number of the 12 most used words, which alone make up 282 (or 82,4%) of the total number of flagged stock words across the samples. Word variations were included. Thus, the word inspiring and variations thereof occurs 57 times, followed by journey (36) and passionate (30). Quantifying the incidences of the use of stock words was useful for the creation of the rubric, which can be used by educators to detect the use of generative AI / unoriginal language and to provide feedback to students.

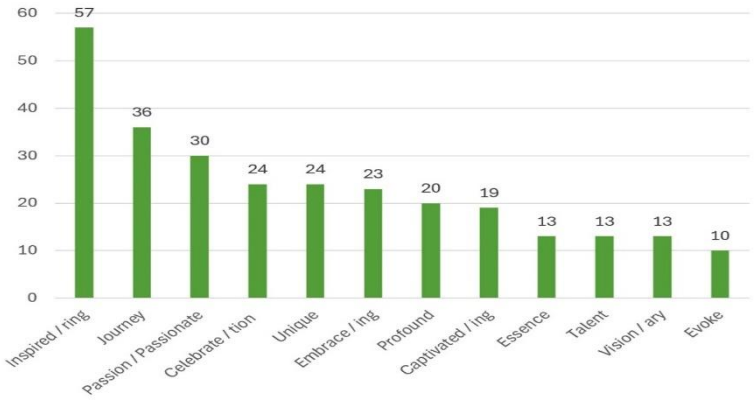

Figure 3: The 12 most used words across the samples.

A clearer indication of the impact of the use of stock words and phrases comes to light when zooming in on samples where incidents occur at a higher rate. Candidates number 9 and 11 provide notable samples of the (over)use of stock words. Tables 2 and 3 show the incidents of the probable use of AI filtered by category, namely stock words in this case, and by candidate. The two candidates are from different universities. Artist's statements are generally short texts of roughly 500 words. The statements should describe the underlying concept/s of a particular artwork or body of related works and provide contextual information to help viewers understand and appreciate the creative output. For the terms to appear so repetitively in a short text is disturbing in terms of both conceptual acuity and quality of expression. As part of their professional practice, visual arts students and graduates should be able to reflect on their artworks and provide authentic and accurate insight about the work to a general audience in a form that is both a critical reflection of the artwork and a clear expression of the artist's intention. Generic and repetitive statements do not address either of the aims of an artist's statement, making the later redundant.

Table 2: The use of stock words in sample 11.

Respondent	Flagged word or phrase
11	Captivated / ing
11	Captivated / ing
11	Captivated / ing
11	Captivated / ing
11	celebrate / tion
11	celebrate / tion
11	celebrate / tion
11	celebrate / tion
11	celebrate / tion
11	drive / driven
11	embrace / ing
11	embrace / ing
11	Essence
11	Essence
11	Evoke
11	Fascinat /ed /ing
11	Harmony / Harmonious
11	Harmony / Harmonious
11	hone
11	immersed
11	immersed
11	Inspired /ing
11	Inspired /ing
11	Inspired /ing
11	Inspired /ing
11	Inspired /ing
11	Journey
11	Journey
11	Journey
11	Journey
11	Journey
11	Passion/Passionate
11	Profound
11	pushing frontiers / boundaries / material
11	pushing frontiers / boundaries / material
11	Spark
11	talent
11	talent
11	Unique
11	Unique
11	Vibrant
11	vision / visionary
11	vision / visionary
11	vision / visionary
11	vision / visionary

Table 3: The use of stock words in sample 9.

Respondent number	Flagged word or phrase
9	Captivated / ing
9	celebrate / tion
9	celebrate / tion
9	drive / driven
9	drive / driven
9	embrace / ing
9	Essence
9	Essence
9	Essence
9	Essence
9	Essence
9	Evoke
9	Fascinat /ed /ing
9	Inspired /ing
9	Inspired /ing
9	Inspired /ing
9	Passion/Passionate
9	Profound
9	Profound
9	Profound
9	Unique
9	vision / visionary
9	vision / visionary

Stock Phrases

Stock phrases, like stock words, have a simultaneously generic and exaggerated tone that should be avoided. Examples of repeated phrases include 'celebrating diversity,' 'capturing the essence,' and 'in a rapidly changing world'. Sample 69 is a notable example that includes stock phrases that are also exaggerated, with the use of phrases such as 'complex challenges,' 'deeply rooted,' 'diverse richness of humanity,' 'the richness of humanity,' and 'driven by a profound'. See Table 4. Further examples of exaggerated phrases include 'exudes pure joy' (sample 44), 'limitless possibilities' (51), 'unwavering dedication' (sample 58), and 'deepest passions' (sample 70). These examples come from five different universities. The use of stock phrases, like the prevalence of stock words, point to a lack of thoughtfulness in preparing the text and has the effect of making a statement seem hollow.

Table 4: The use of stock phrases in sample 69.

69	capturing the essence
69	complex challenges
69	deeply rooted
69	diverse richness of humanity
69	driven by a profound
69	inviting viewers to reflect
69	the power to transcend
69	the richness of humanity

Excessive Use of Adjectives

The use of adjectives can scarcely be avoided, even in scientific writing. In flagging the use of adjectives across the 93 samples coded for this study, the message is certainly not that these should never be used. Rather, as with stock words and stock phrases, flagging these identified terms highlights for the students, and lecturers, which words would be the most likely to occur, in general, as per the mechanism by which LLMs work. Students can be guided to reflect on whether the term in question is truly apt for the message or information they wish to convey and also guard against the over-use of adjectives in general. Less is more, as the proliferation of effusive of flattering adjectives diminishes the overall credibility of the output.

The total number of adjectives across the samples is 120, which seems to be a reasonable number across 93 artist's statements. However, the occurrence is concentrated in the 12 samples indicated in Table 5. The 12 samples are from four universities in three different countries. Notable samples, as highlighted in pale green, include samples 36, 44, 47, 69 and 70. These highlighted samples are from 3 universities in two countries.

Table 5: The use of adjectives in twelve flagged samples.

Respondent numb	Flagged Word
44	Capturing, whimsical, enchanting, captivating, delightful, magical, wonder and joy, extraordinary, fascinated me endlessly, enormous, wonder, numerous, distant, extraordinary, weightlessly, freely, excitement and joy, exhilaration, imaginative, transformative, boundless, simplest, limitless, passionate, visually captivating
69	Carefully, bold, vibrant, deeply, profound, vibrant, intuitive, boldness, strength, complex, supportive, compassionate, versatile, strong, deeply, profound, diverse
36	Cherished, treasured, intricately, beautiful, transformative, unwavering, Skillfully, masterpiece, captivating, seamlessly, captivating
45	Exquisite, Delightful, striking, unique, elegant, invaluable, creative, successful, versatile,
90	Harmoniously, Profound, Passionate
39	Passionate, ambitious, esteemed, dedicated, excels, constantly, captivating, significant, enriching,
68	profound; imperative; complex; multifaceted; intricate, meticulous, compelling, deliberate
70	Relentless, cherished, once-pristine, dreadful, ceaseless, precious, delicate, powerful, every facet, deepest
92	resilience, bold, ambitious, difficult, dreamlike, laborious, dreamy
47	Talented, renowned, remarkable, passionately, exquisite finesse, unique, significant, prominent, prestigious
48	Unapologetically, Bold, beautiful, magnetic
38	Vibrant, vibrancy, thoughtful, unique, passion, unwavering

It should be noted that most of these adjectives occur in the biographies of the artist's statements, and all the adjectives listed in Figure 5 were used by the candidates to describe themselves or their work. The statements thus constitute descriptions of the artists by 'themselves' – though in reality (as argued here), by software seemingly describing very great artists who have made a history-altering impact in their respective fields. For example, candidate 47 can be seen to describe themselves as talented, renowned and passionate,

and their work as remarkable, unique, significant, prominent and prestigious and demonstrating exquisite finesse. The choice of words and phrases in sample 44 (capturing, whimsical, enchanting, captivating, delightful, magical, extraordinary, wonder and joy, and so on), renders the artist's statement void of substance and meaning. Nothing can be gleaned in terms of the style, image, meaning, content, concept or methodology of the artwork in question. Students should be encouraged to list specific achievements rather than generic flattering terms in their artist's statements, and to discuss the artwork itself as a point of focus. This would include a brief description of the work, and an explanation of the choice of artistic elements and technique/s used, as well as the concepts these were intended to convey. A last observation is that there is a prominent overlap (in vagueness, repetition and unoriginality) between the terms used here and the stock words flagged in category 1. This awkward self-flattery is even more pronounced in the next section which highlights hyperbolic statements.

Hyperbolic Statements

The Merriam-Webster Dictionary defines the term hyperbole as "extravagant exaggeration (such as 'mile-high ice-cream cones')" (Merriam-Webster, n.d.). A total of 84 hyperbolic statements were flagged across the 93 samples, again with a higher concentration in certain examples. As with the use of flattering adjectives discussed above, the hyperbolic statements flagged mostly derive from the biographical sections of the artist's statements. The hyperbolic content flagged is similar to exaggerated stock phrases but consist of longer statements and full sentences.

Examples of hyperbolic statements detected include sentences from sample 11 which shows 14 self-flattering statements that lack accuracy and credibility. Of these, the following statement stands out: "[x's] art has since become a beacon of inspiration for [their] generation of artists, leaving an indelible mark on the world of contemporary art" (see Table 6).

Table 6: Hyperbolic statements in sample 11.

Respondent number	Flagged Phrase
11	[x's] art has since become a beacon of inspiration for [their] generation of artists, leaving an indelible mark on the world of contemporary art
11	adorn spaces with [outputs] that transcend mere aesthetics and leave a lasting impact on those who encounter them
11	art aims to provoke thought, encouraging viewers to contemplate the interplay of past, present, and future while celebrating the resilience and beauty of African traditions.
11	[my exhibition] drew in art enthusiasts and critics alike
11	driven by a profound passion
11	Each [one of my outputs] becomes a portal, offering glimpses into the collective dreams and aspirations of the African diaspora
11	embark on a quest to explore the uncharted territories of [style]
11	evoke emotions and spark curiosity
11	I seek to bring the boundless spirit of Africa into the contemporary world
11	The past and present intertwine in a mesmerising symphony, inviting viewers to contemplate the interconnectedness of time and space
11	they had the honour of displaying [x's] captivating pieces
11	Through [x's] captivating and thought-provoking compositions, [x] continues to challenge the boundaries of artistic expression, fusing the allure of the unknown with a celebration of African heritage
11	Transcend conventional boundaries in this dance of lines
11	using [their] unique talent to inspire others to dream boldly

Sample 33 also stands out for the volume of hyperbolic statements and their improbability (see Table 7). For context, the student is writing about a designed gift bag whilst making the statement: "Its core essence lies in offering women facing challenges a chance to triumph and embrace a brighter future". The product may well be performing this function, however more information about the impact of the item would have to be provided in order for the claim to carry weight. The most notable statement from sample 33 is as

follows: "With their unwavering dedication and craftsmanship passed down through generations, they [the candidate] symbolize the essence of [exhibition theme] profoundly". This statement also veers toward the nonsensical on account of having been artificially engineered to fit the brief, and in this sense functions as both hyperbole and a tortured phrase (see the following section for more detail on how tortured phrases come about)

Table 7: The use of hyperbolic statements in sample 33.

33	a contemporary [product] was born
33	Amidst challenges from mass-produced [item] claiming the [product] name, a creative vision emerged to reclaim the true spirit of the tradition
33	Each step I take fuels my passion and pushes my boundaries, as I leave my mark on the world through the endless possibilities that [discipline] offers
33	Embracing every aspect of the process is crucial to me
33	I dedicated myself to perfecting the [discipline]
33	I firmly believe that valuing and embracing each step of this journey, full of discovery and experimentation, is of utmost importance
33	I possess a strong foundation and extensive knowledge in this field. In addition to my expertise in xxx, I excel as xxx and a xxx using the power of words to create captivating stories and evoke emotions
33	I was determined to make it work.
33	I was immediately drawn to the idea
33	investing my sweat, time, and energy into the project.
33	Its core essence lies in offering women facing challenges a chance to triumph and embrace a brighter future [a gift bag]
33	seamlessly combines style, convenience, and sustainability
33	the creative process is everything
33	This sparked my curiosity
33	With their unwavering dedication and craftsmanship passed down through generations, they symbolize the essence of [exhibition theme] profoundly

Further remarkable examples of hyperbole appear in Table 8. In sample 51 the student describes themselves as having a "keen eye for detail and a profound understanding of the human experience". In sample 58 the student "has significantly impacted the [country's] art scene". In sample 69, the candidate's brushstrokes are shown to have truly exceptional properties. The candidate states the following about their prowess: "Each brushstroke becomes a brush with reality, capturing the essence of my surroundings in textured layers"; "The very temperature of the air, the rhythms of daily life, and the shaded political landscape all find their expression in my work"; "With every stroke of the brush, I aim to crystallize the relationship of people, cultures and the social fabrication". This last statement, similarly, to the statement from sample 33 mentioned above, contains an inadvertent error, where the term social fabric has been changed to 'social fabrication,' resulting in a 'nonsense' or tortured phrase.

Table 8: The use of hyperbolic statements in samples 51, 58 and 69.

51	continues to refine [their] craft and push the boundaries of [their] creativity; hopes to make a lasting impact on the global art scene
51	dedicated [their] life to exploring the limitless possibilities of visual expression
51	keen eye for detail and a profound understanding of the human experience
51	recognized for [their] exceptional talent and passion
51	resulting in captivating and thought-provoking pieces
58	has significantly impacted the [country] art scene
69	Each brushstroke becomes a brush with reality, capturing the essence of my surroundings in textured layers
69	I am driven by a profound intention to project, preserve, highlight, and document the richness of humanity
69	I delve into a world
69	My art becomes a channel for connection, inviting viewers to reflect upon their own experiences, while simultaneously shedding light on the broader social and political narratives that shape our world
69	My creative process is deeply woven with my immediate environment, serving as both muse and mirror
69	The very temperature of the air, the rhythms of daily life, and the shaded political landscape all find their expression in my work
69	With each stroke of the brush, I seek to captivate not only the eyes but also the minds and hearts of those who engage with my work
69	With every stroke of the brush, I aim to crystallize the relationship of people, cultures and the social fabrication

Tortured Phrases

Teixeira da Silva (2023, p. 785) defines tortured phrases as "non-standard derivatives of established technical terms or jargon that may have arisen – among other reasons – from [attempts] to avoid the detection of plagiarism". Such attempts result in meaningless or irrational statements that can seem off or odd, or, in the worst cases, amount to utterly non-sensical sentences that cannot be deciphered. Tortured phrases constitute the most problematic category. The outcome can be the result of an honest (if unsuccessful) attempt to align sourced information with the outcome required by a brief but can also constitute a conscious attempt to obscure the presence of technology assisted writing or plagiarism. I believe that the majority of students simply do not know better than not to use the technology uncritically, but the practice is a slippery slope towards serious misconduct.

The organisation Retraction Watch reported in November 2024 on a published paper that was subsequently flagged for 13 instances of tortured phrases (Kincaid, 2024). Tweaks such as "'Parkinson's illness,' 'Parkinson's infection,' and 'Parkinson's sickness' rather than Parkinson's disease" were picked up by means of screening software but are very apparent to any reader of the work. It is baffling that the scientifically trained author themselves did not pick up on the irrationality of reinventing a neurological disease as an infection, but Kincaid (2024) also flags the concern as to how the mangled phrases "survived proofreading by the coauthors, editors, referees, copy editors, and typesetters". It is clear that the monetisation of publishing has resulted in highly unnatural practices that threaten the integrity of the research enterprise as a whole. The article was published in September 2023 and was cited 11 times before its retraction (Kincaid, 2024). The quality and integrity of the works in which this source has been cited are also diminished, and these 11 publications will in turn be cited by others. This apparent prevalence of scientifically questionable information in the public domain, with a recent study indicating that one in seven research papers is 'fake' (Singh Chawla, 2024), also links plagiarism and fake outputs to the notion of redundancy or 'model collapse' of generative AI, briefly mentioned in the last section of the paper. As academics, we might be witnessing the collapse of the ability to source truthful and accurate information in published scientific outputs.

Examples of tortured phrases in the current research include sentences such as "pushing materials beyond representation" (sample 21) (materials are not innately representational); "I am influenced by the cycles of life and awareness of memories of gender, whether male or female as they pass through life" (sample 67) and "dreamy fighters, referring to the difficult circumstances faced by young people" (sample 92).

The most notable examples of tortured phrases, in effect gibberish, appear in sample 31. See Table 9. Here, an example of a tortured phrase resulting from writing in ill-contextualised synonyms includes "The art *plateau* invites new creative movements, and the deconstruction and reconstruction of a *thick* human history" (emphasis added). It seems that the term 'art plateau,' which has no meaning, was originally a different term such as 'the art niveau' (which would refer to the art 'world' or 'scene'), and that another, more meaningful, term was replaced by 'thick' to arrive at 'thick human history'. Writing in synonyms pre-dates the use of generative AI and can be done 'manually,' which seems to be the case here, or by means of software. It often results in nonsense phrases as synonyms are context specific.

Table 9: The use tortured phrases in sample 31.

31	An ecosystem complacent within itself, safe in absurdity but incompatible with its environment
31	Deconstruction in the grand narrative of humanities politics is the embrace of reconstruction
31	fascinated by the collaboration of different mediums, concepts and forms of expression
31	From the social landscape of the african continent to ecological crisis that have for so long drifted over the eyes of man
31	Meddled with by masculine discourse, Eden becomes immaterial
31	Medium ... instrumental assemblage. [original sentence, no words have been deleted by the researcher]
31	Rather, a tangible discomfort in obnoxious alien-like inhabitants argue with the natural world
31	The art plateau invites new creative movements, and the deconstruction and reconstruction of a thick human history
31	The viewer is lured in by the sensual facade, but begged to examine the vile predators within
31	This carnivorous landscape of women is a battleground bent on resolution through relational aggression - the poetic tragedy of a stigmatized race
31	Ultimately the intersectional dialogue between the divided, mutated, and mutilated deconstructs the complex nature of female antagonism
31	Womankind is warped by the genre of its own species, keen but defensive

Further flagged sentences from sample 31 leave few clues as to their original meaning. These include statements such as "An ecosystem *complacent* within itself, *safe in absurdity* but incompatible with its environment" (emphasis added), which may be referring to a self-contained ecosystem insulated from its surrounding macro-environment, or something else altogether; "From the social landscape of the frican [sic] continent to ecological crisis [sic] that have for so long drifted over the eyes of man," and "Womankind is warped by the genre of its own species, keen but defensive" – a sentence nestled inscrutably within a dense fog of utter indecipherability.

Conclusions and Recommendations

Conclusions

What is apparent from the data set used in the current study and discussion, is, firstly, the surprising repetitiveness of certain words and phrases and, secondly, how widespread the reliance on technology is, occurring in samples from all institutions in the study, across five countries on different continents. As mentioned, the current assumption is that this uniformity and high level of similarity cannot be ascribed to coincidence and the use of generative AI is inferred. As a seemingly global trend, the high incidence of

usage in this case could be ascribed to the fact that generative AI was introduced to the public in late 2022, less than a year before the statements sampled in the current study were written. ChatGPT's novelty and promise of high-quality outputs (which has turned out to be a false promise), may have attracted the students to use it in their work.

A second driver behind the adoption of AI (the first being AI's novelty value), is that students are understandably insecure about their writing. Only a small minority of students would have been writing in their home language in the current study. To reiterate, when it comes to technology assisted writing, although the intention might not be consciously unethical, such strategies can find their way into the professional practice of a graduate with harmful consequences. This would include for instance: (a) Using ChatGPT to generate a CV with the same kind of implausible exaggeration flagged above. A hiring committee would most certainly shy away from such misrepresentation; (b) Creating artist's statements that transcend credibility and lack substance or any scientific information about the artist and work; (c) Or, if graduates embark on an academic career, eventually damaging their reputations and standing among their peers through flawed publication outputs.

There are multiple risks and ethical challenges relating to AI such as environmental damage, non-consensual harvesting of data, social engineering and the deepening of social inequality and bias that I discuss in greater detail elsewhere. However, the last risk I wish to flag here as relevant to academia and higher education is that students relying on technology for assistance with text-based assignments get caught in a cycle where they never improve their language skills. Solutions include going back to the drawing board on basic language skills up to and including at university level. The challenges relating to language skills are created long before students enrol for their studies and lack of resources and funding in primary education have a lasting impact on post-school education, as tertiary educators are aware. These need to be more proactively addressed at university level, while at the same time pressure should be exerted on governments to ensure adequate support for primary education.

Recommendations

Recommendations in response to the probable causes of the challenges identified include the following: (a) Students should be conscientised about the negative impact and risks of using technology for their text-based assignments (ranging from nil educative value being derived from completing assignments to exposing themselves to serious disciplinary consequences); (b) Students should be informed about the fallacies of the accuracy and validity of generative AI output. Generative AI can fabricate non-existent facts, a phenomenon referred to as hallucination (Pavlik, 2023) which has resulted in financial and reputational damage for corporations and private individuals (McCarthy et al., 2024); (c) It is recommended that students be made aware of the remarkable uniformity of generated output which they most probably underestimate; (d) Educators could liaise and form interest groups to address the seemingly global deterioration of reading and writing skills, including in the mother tongue. Such interest groups could be pan-national, as I believe the challenges are not isolated to specific regions; (e) Lastly, educators should strive to design assignments (assessment tools) that are geared to the authentic assessment of the achievement of learning outcomes. Authentic assessment might have to completely avoid text-based assignments that can be generated on a computer but needn't be as drastic as this to avoid generic responses. Here, the humanities and particularly arts education have the edge. An artist's statement, like a work of art or a design, can never be generic and still fulfil its sociocultural function.

Final recommendations include that the critical importance of ethical conduct as a social good needs to be continually flagged in ways that capture students' attention on the level of deep learning. In other words, *ethics* should not be conflated with *compliance*. This could be achieved by investing greater resources to address graduate attributes, such as critical citizenship and critical thinking, at tertiary level over and above addressing discipline specific knowledge. Lastly, students should be encouraged to conduct research and write in their mother tongues in order to break the monopoly of the languages of Empire.

In closing, when students (and academics) deliver outputs based on the most used words and phrases captured as big data, these outputs perpetuate and intensify the sameness and soulless generic nature of AI output, and of the world at large. The self-perpetuating trend of citing fake research to generate further fake research mentioned above also comes to mind, the net result being outputs that are not only repetitive but also banal and valueless. Pavlik (2023) flags the interesting possibility that the voluminous perpetuation of that which is already prevalent by AI (and by us, when we use it), might lead to 'model collapse'. This collapse will make generative AI redundant once the balance tips toward re-generating incorrect information generated by AI itself, in a kind of parallel hallucinated universe. (In other words, the 'big data' fed to AI will by and large consist of false information dreamed up by AI itself). Investors in advanced technology will no doubt find a way to monetise even this strange echo chamber but for research purposes the tool will have become utterly redundant (as opposed to merely highly dubious, which I argue to be the case currently).

It is hoped that the visualisation of data captured for the current research might impact on students' understanding of the low value of generative AI output in terms of both originality *and* accuracy. As much as it is possible to critique generative AI, when we use it we perpetuate it along with its flaws. It is we ourselves who have the agency to increase the diversity and quality of information on the world-wide-web through the creation of thoughtful, accurate and original, self-generated and critically reflected upon, content.

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