Ai-Powered Creativity: Smarter English Learning Through Blended Pedagogies: Case-Study

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ABSTRACT

This paper examines the integration of Artificial Intelligence (AI) in education, aligning with Oman Vision 2040's emphasis on technology, innovation, and knowledge. It investigates AI usage among Foundation and Engineering students at one of Oman's higher education institutions, through Turnitin data and faculty consultations. The Communication Skills Team aims to support students, faculty, and the administration team in identifying challenges and tracking AI use in academic work. Key outcomes include enhanced creativity, interaction, practicality, cultural sensitivity, and faculty-student rapport. Admin and faculty perspectives varied. Some opposed the widespread use of AI, while others recognised its value in supporting student understanding and faculty teaching pedagogy development. After institutional approval of AI use, a range of AI tools and pedagogical strategies were adopted to improve instructional efficiency and reduce workload. The study highlights AI's transformative role in enhancing operational efficiency, cultivating soft skills, and stimulating innovation and academic engagement within higher education environments.

KEYWORDS

Artificial Intelligence (AI), Virtual Reality (VR), Pedagogical Innovation, Similarity and AI Detectors.

1. INTRODUCTION

1.1. SIGNIFICANCE OF THE CASE STUDY

This case study emphasises the impact of AI Tools usage in education and industry, which enhances efficiency, accuracy, creativity, and innovation. It presents real-life examples illustrating AI's role in gaining a competitive advantage. The evidence-based analysis below supports informed decisions and demonstrates the extent of AI integration and adaptation at the targeted institution.

1.2. PURPOSE OF THE CASE STUDY AND RESEARCH QUESTIONS

The study mainly investigates how AI Tools at the institution were introduced to enhance students' learning, efficiency, creativity, and innovation. It presented different practical examples that demonstrate AI's contribution to academic outcomes and decision-making, guiding educators and learners to integrate these AI tools effectively into educational contexts. It also aims to spread awareness among students, educators, decision makers, and admin members.

1.3. METHOD

Researchers assessed the quality of artefacts and reports submitted to Turnitin, analysing similarity and AI detection feedback and percentages for FPD and Engineering Foundation students across

departments. They also participated in meetings and discussions with staff and students over the last two years. Data was gathered via Moodle's non-editing teacher role permitted to the Communication Skills Team members, and submissions from coordinators, instructors, and students as well. Some instructors also provided Turnitin feedback reports for some of the students' assessed projects. Data collection and preliminary analysis were discussed with students, instructors, and module coordinators.

1.4. Research Context

This paper is an extension of another paper entitled "AI-Driven Innovation, Knowledge and Creativity at GFP". It was under the stream: "Nurturing Creativity, Innovation, and Implementation of Knowledge with AI in the General Foundation Department (GFP) in Oman AI-Poweredunder the ISBN 978-93-48719-23-2.

The essential research context is to investigate how college students applied different AI tools to their projects and how these tools were implemented, enhanced and tailored to match their needs. Examples were presented to discuss the practices of students, and the reactions of instructors and module coordinators in different departments, to overcome challenges encountered and resolve issues.

2. Literature Review

2.1. Overview of Oman Vision 2024 and The Institution Vision, Mission and Values

Oman Vision 2040 promotes a sustainable, innovation-driven economy through integrated frameworks, dynamic leadership, and adaptable labour markets. Aligning with this, the College strives for academic and technological excellence through accredited programs in the different community sectors. The Institution's vision is to become globally recognised as a research-active institution that educates qualified, skilled degree holders. Its core values are the pursuit of Excellence and Lifelong Learning, driven by knowledge to emphasise perseverance and continuous development, and equip students with critical and creative thinking skills to meet future challenges. [1] [2] [3] [8]

2.2. AI Usage History at The Institution

The Communication Skills Team at the college started updating materials in 2018 to align with the institution's Mission and Oman Vision 2040, ensuring they meet 21st-century skills. Early AI use at this institution was limited to Microsoft Word tools. At that time, the Google Translate app was considered plagiarism, and apps like Quillbot were restricted. By 2021, AI tools had become popular among students, prompting the Communication Skills Team to consult Heads of Departments and staff and provide guidance. The Exam Department began drafting a simple AI policy. Materials were revised to raise awareness and improve digital literacy skills. In 2022, with support from the IT Team, students downloaded Grammarly and Ginger and started using them to review and edit their projects. Following departmental meetings, the college launched its AI Usage Policy in 2023, allowing broader use of AI tools under clear guidelines.

2.3. AI Adaptive Tools in Learning

Artificial Intelligence adaptive learning tools personalise education by analysing individual learner behaviour, performance, and preferences to tailor content and pace accordingly. These tools utilise technologies like machine learning and natural language processing to provide real-time feedback, targeted support, and dynamic assessments. They enhance student engagement, improve learning outcomes, and help educators identify gaps and adjust instructions effectively. [4]

2.4. TRANSFORMING LANGUAGE TEACHING

Artificial Intelligence is reshaping English language education by enabling personalised, adaptive, and engaging learning experiences. Through technologies such as Natural Language Processing (NLP), Generative AI, and machine learning, AI enhanced grammar correction, developed vocabulary, and generated content with real-time feedback. These tools support a shift from traditional pedagogies to interactive, student-centred approaches, blending conventional methods with modern innovations like Virtual Reality (VR) and data analytics. The integration of AI into teaching practices was mainly to improve learner engagement and outcomes, urging educators and institutions to invest in AI for future-ready education. [5] [6]

2.5. ENHANCING ACADEMIC WRITING

Artificial Intelligence Tools assist in improving academic English writing skills. AI integration in education offers many advantages, while also presenting certain challenges. Some of the learner-side challenges identified like; limited writing fluency, poor organisation, difficulty generating and applying ideas, weak research and source integration, and insufficient support from traditional instructors. Other system-side challenges were encountered, such as; privacy concerns, lack of emotional or interactive teaching, high implementation costs, trust and AI literacy gaps, and over-reliance risk. To resolve these issues, a blended solution was proposed by targeting AI tools that help in grammar or style checkers, semantic literature assistance, and intelligent tutoring systems, in order to deliver personalised feedback and automated assessment aligned with human supervision, teacher training, ethics and data-privacy precautions, AI literacy programs for the students, iterative evaluation through questionnaires or interviews (VIVA), and staged cost-aware arrangements. [5]

3. METHODOLOGY

Researchers examined the quality of artefacts and reports submitted via Turnitin, analysing digital similarity and AI detection feedback reports for students in FPD and the Engineering Foundation level across engineering departments. They also participated in meetings and discussions with staff and students over the past two years. Data was collected using the non-editing teacher role on Moodle and through submissions from module coordinators, instructors, and students.

4. FINDINGS

The Turnitin similarity and AI indication feedback reports resulted in many cases under three main categories:

4.1. HIGH PERCENTAGE OF AI TOOLS USAGE:

Turnitin feedback revealed that many students, particularly lower-level ones, relied heavily on AI tools to complete their projects, assuming this would guarantee high marks. Some

submissions showed 65–70% AI-generated content, with portions clearly paraphrased by AI. (See Figure 1)

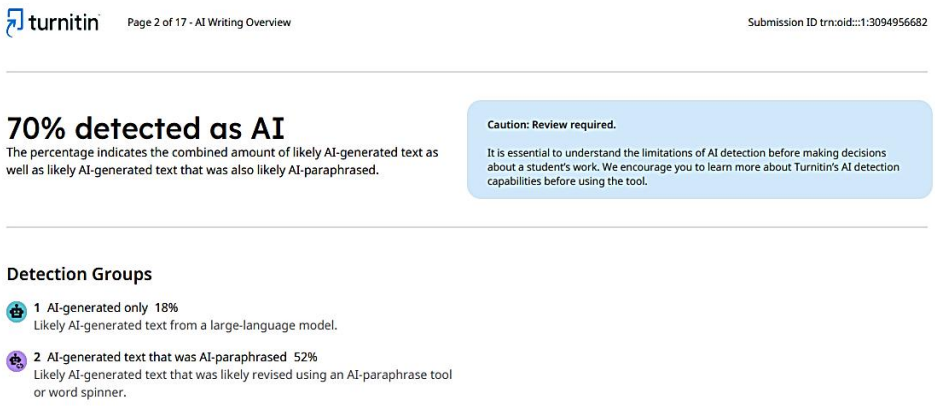


Figure 1High Percentage of AI Usage Indicator

4.2. Medium AI Tool Usage

Several feedback reports showed moderate AI use, ranging between 35–45%. (See Figure 2)

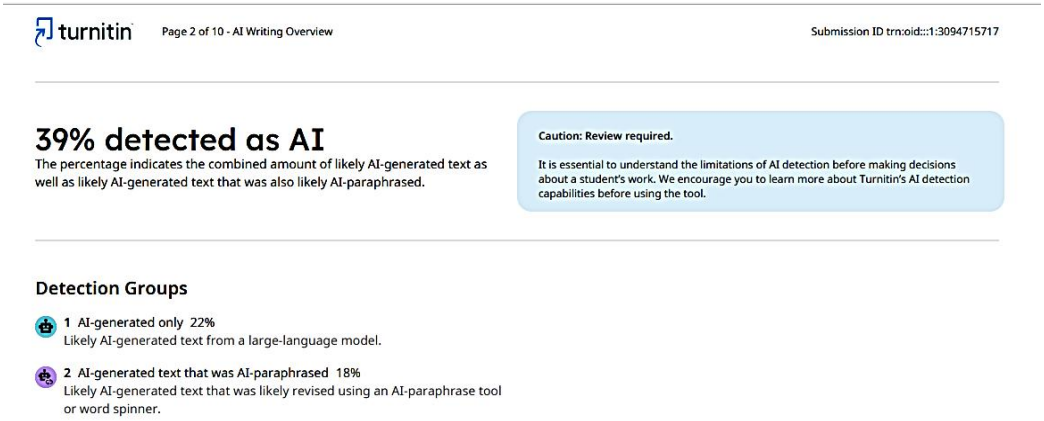


Figure 2 Medium-percentage of AI Usage Indicator

4.3. Low or Zero AI Tool Usage

Some unusual cases showed very low or zero AI detection, prompting researchers to investigate further and analyse the results to understand the underlying reasons. (See Figure 3)

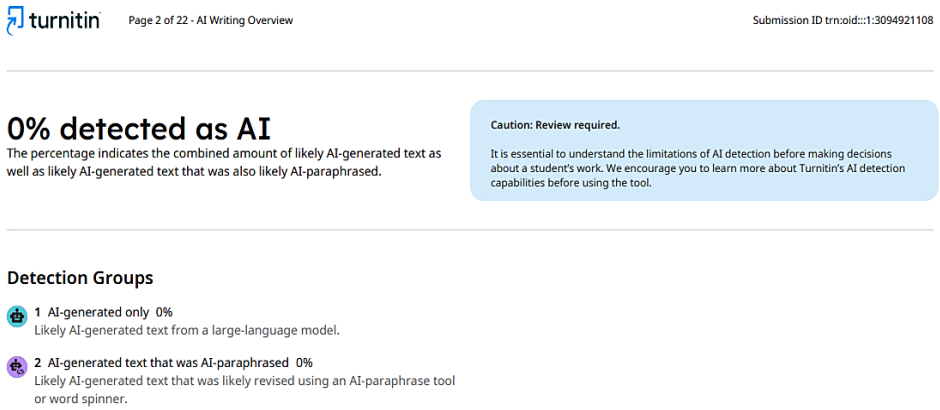


Figure 3 Low or Zero AI Usage Indicator

5. DISCUSSION

5.1 IMPLICATIONS FOR PRACTICE AND BEHAVIOUR IMPROVEMENT

Student practices led to the implementation of the Institution AI Policy, guiding decisions on evaluating and grading submissions. Students received instructions to improve their use of AI tools. (See Figure 4)

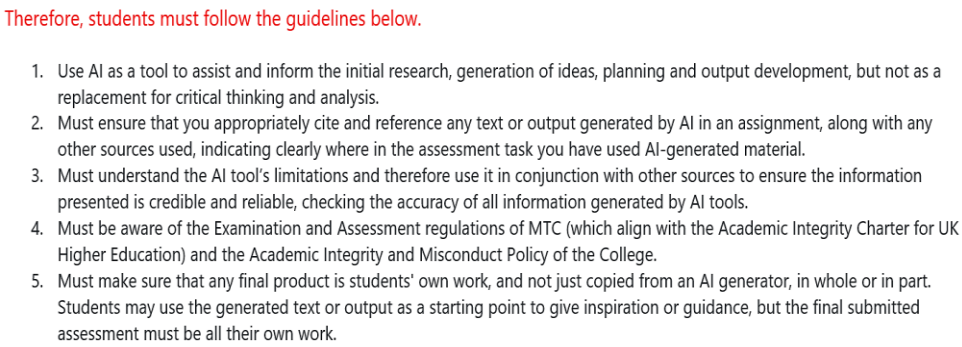
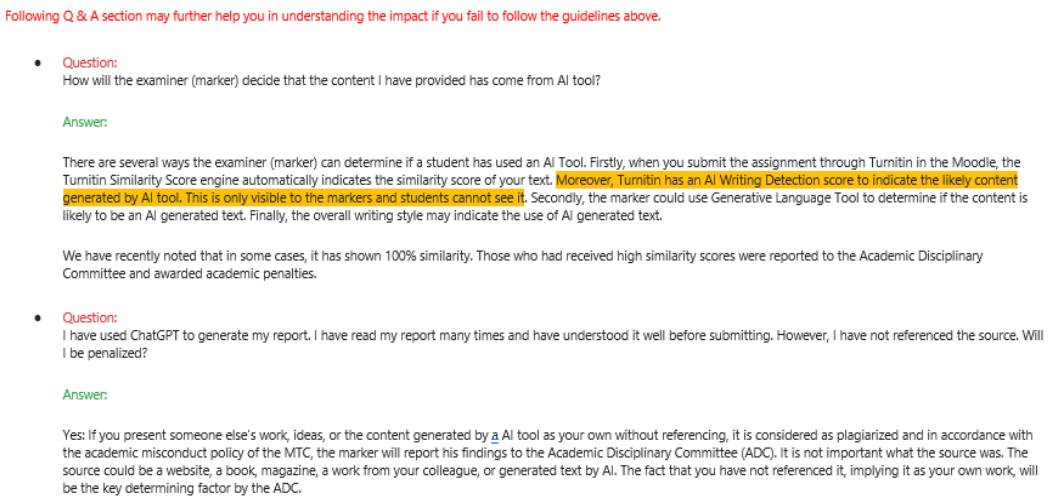


Figure 4 Institution AI Usage Guidelines

5.2 IMPROVING RESPONSE RATE

The institution's decision-makers introduced rules to regulate AI tool usage and enhance student output. The AI Policy was designed to manage overuse and address student concerns. (See Figure 5)



Following Q & A section may further help you in understanding the impact if you fail to follow the guidelines above.

- Question:
  How will the examiner (marker) decide that the content I have provided has come from AI tool?

  Answer:

  There are several ways the examiner (marker) can determine if a student has used an AI Tool. Firstly, when you submit the assignment through Turnitin in the Moodle, the Turnitin Similarity Score engine automatically indicates the similarity score of your text. Moreover, Turnitin has an AI Writing Detection score to indicate the likely content generated by AI tool. This is only visible to the markers and students cannot see it. Secondly, the marker could use Generative Language Tool to determine if the content is likely to be an AI generated text. Finally, the overall writing style may indicate the use of AI generated text.

  We have recently noted that in some cases, it has shown 100% similarity. Those who had received high similarity scores were reported to the Academic Disciplinary Committee and awarded academic penalties.

- Question:
  I have used ChatGPT to generate my report. I have read my report many times and have understood it well before submitting. However, I have not referenced the source. Will I be penalized?

  Answer:

  Yes: If you present someone else's work, ideas, or the content generated by a AI tool as your own without referencing, it is considered as plagiarized and in accordance with the academic misconduct policy of the MTC, the marker will report his findings to the Academic Disciplinary Committee (ADC). It is not important what the source was. The source could be a website, a book, magazine, a work from your colleague, or generated text by AI. The fact that you have not referenced it, implying it as your own work, will be the key determining factor by the ADC.

Figure 5 Sample Question from the Institution AI Policy

5.3 Evaluating Scores and Results

Departmental meetings with HoDs, module coordinators, staff, and students led to alignment with the AI Policy. Instructor 1, 2024, at one of the engineering departments reported one Engineering Foundation artefact with a 40% AI indicator and recommended re-sits for deeper understanding. In contrast, Instructor 2, 2024, in another department, accepted AI use if students grasped their artefact content. Staff questioned Turnitin's reliability and preferred VIVA assessments to better evaluate students' capabilities. Students viewed AI tools as a modern trend, calling their work "SMART" for saving time and effort. (Student 1, 2025)

The study also revealed cultural sensitivities in AI-generated data, especially on environmental disaster tasks. Students avoided sharing real family experiences (e.g., Shaheen Floods), replacing them with inaccurate AI examples and omitting real names (Students, 2024)

Faculty-student rapport has clearly improved as students trusted research confidentiality and disclosed tactics to reduce AI detection, believing tools could still be tricked by human input.

5.4 Post-Implementation of AI Application:

At the beginning of semester 2, 2025, and after the quality assurance team created the AI Policy, the students started to use more AI applications in their projects, which impacted their results and evaluation.

5.4.1. AI CREATIVITY PROSPERING ACROSS THE INSTITUTION

After allowing AI tools, the students highly activated the new AI Apps and used different methods that reflected their creativity. Some students started using different AI tools within the same research paper in order to mislead some AI indicators, as they believed that the use of AI is still new, and it cannot recognise or understand some tricks they used, such as using hidden characters or humanisers to make their projects look more man-made than machine-made. They also learned how to prompt orders to be given to the AI tool to generate ideas to match their exact needs and levels. Some of them also enhanced their critical thinking and creativity in finding solutions to the problems encountered with the AI and resolved them before submitting their projects through Turnitin.

5.4.2. EXAMPLES OF HUMAN-AI CO-CREATION PROJECTS

The following are three main feedback reports that reflected the post-AI Tools usage at this institution, which were generated automatically by Turnitin:

5.4.2.1. SIMILARITY REPORTS

First reports show the Turnitin similarity of the student's work with either online sources or similarity with their own work that was submitted earlier to a different subject, after being modified with AI Tools such as Quillbot paraphrasing tool. (See Fig. 6)

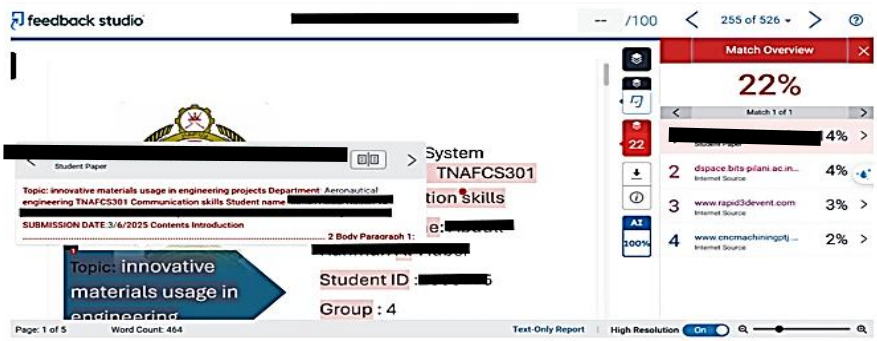


Figure 6 Turnitin Similarity Report

5.4.2.2. AI INDICATOR REPORTS

These represent the Turnitin AI Indicator Reports, which showed clearly that the student worked with some humaniser applications or used some hidden characters to confuse the AI Indicator Tool. Others were less AI professionals, so they either generated the whole document using a large language model or used an AI paraphrasing Tool. (See Fig. 7)

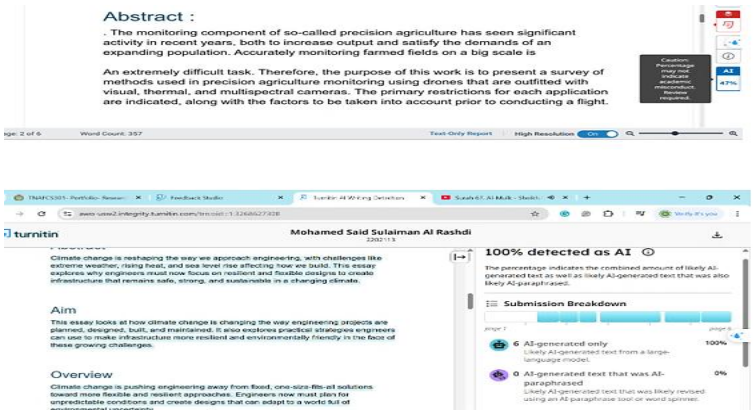


Figure 7 Turnitin AI Indicator Reports

5.4.3. POST AI PERMISSIONS PRACTICES

As a result of AI Apps' usage permissions granted to students, the administrative team and faculty members, post-permission procedures resulted from that, and a variety of AI methods were used to implement different pedagogies to help save time and effort.

5.4.3.1. ON ADMINISTRATIVE LEVEL

Permissions were granted to update the AI-usage Policy, and the green light was given to admin and faculty members to start using AI Tools to help in generating more organised admin files, meeting documents, new academic plans, resolving problems using critical-thinking and problem-solving processes, or reviewing and updating the old files, due to time constraints and limits issues.

5.4.3.2. ON FACULTY LEVEL

For staff members, AI usage was more into creating different teaching materials, creating assessment packs, generating different visual aids to match the class needs and the cultural differences, or providing some ideas on the best teaching methods that can be used for different learning styles and levels. Teachers also started to share their ideas in T-share sessions held weekly to benefit all colleagues.

5.4.3.3. ON GRADUATES AND SENIORS' LEVELS

AI usage was highly involved in final projects and PowerPoint presentations, especially with modules that require thesis or research-based projects. The students implemented many AI Tools to enhance their PPTs and Final Research and Thesis to guarantee better quality and higher marks.

5.4.3.4. AI-USAGE RELATED RECOMMENDATIONS

Implementation of AI Tools led the admin and faculty members to recommend adding more detailed criteria to evaluate the students' work. The admin team required a quick review of the institution's AI Policy to update it, and faculty members started to add the VIVA section for evaluating the students' projects. Besides this, students started to familiarise themselves with more AI techniques to submit their projects with a lower AI Detector percentage and highly efficient work.

6 CONCLUSIONS

In conclusion, Oman's Vision 2040 outlines a diversified and sustainable economy driven by technology, knowledge, creativity, and innovation, which aims to boost competitiveness and ensure financial resilience through dynamic leadership and a responsive labour market, with alignment with educational pedagogies enhancement. College students are expected to pursue accredited vocational and professional education to align with these national priorities. The researchers advise that AI tool usage is to be carefully regulated to promote adaptability in learning and research, to guarantee a more prepared and future-ready workforce.

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