FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA, NIGERIA

POLICY ON THE USE OF ARTIFICIAL INTELLIGENCE (AI)

FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

POLICY DOCUMENT GUIDING THE USE OF ARTIFICIAL INTELLIGENCE (AI) IN THE FEDERAL UNIVERSITY OF TECHNOLOGY MINNA

Introduction

The Federal University of Technology Minna (FUTMINNA) has as its Vision "To become a world class and Nigeria's leading University recognised for its excellence in capacity building and service delivery." Its Mission is to train "skilled and innovative workforce that would transform Nigeria's natural resources into goods and services driven by entrepreneurship and Information and Communication Technology (ICT), to positively affect the economy and thus the quality of life of her people". The University being desirous of leveraging the Artificial Intelligence to enhance its research, teaching, and administrative processes hereby prepares this AI policy that will guide the responsible and ethical use of AI technologies in the University. This policy outlines the principles, governance structures, and implementation strategies to ensure AI is leveraged in a manner that aligns with the University's values, enhances its core functions, and benefits the broader community.

This policy applies to all staff, and students within the University

SECTION ONE

INTRODUCTION AND DEFINITIONAL ISSUES

1.1.Definitions

Artificial Intelligence (AI)

Artificial Intelligence (AI) refers to "a technical and scientific field devoted to the engineered system that generates outputs such as content, forecasts, recommendations or decisions for a given set of human-defined objectives (International Organization for Standardization, 2024).

Generative AI

Generative AI refers to a type of artificial intelligence that is capable of generating new, original content, such as images, videos, music, or text. It uses machine learning algorithms to learn

patterns and structures in data and then generate new content that is similar in style and structure (Godfellow *et al*, 2020).

Hallucination

In the context of artificial intelligence, hallucination refers to the phenomenon where a machine learning model, especially a generative model, produces output that is not based on any actual input data or is not grounded in reality. This can occur when a model is overconfident or has not been properly trained or validated (Rosenberg *et al*, 2019).

Assistive AI: Assistive AI refers to a category of artificial intelligence designed to support users in completing tasks by providing information, suggestions, and guidance. It should act as a co-pilot, enhancing human capabilities rather than replacing them.

Plagiarism: In the context of this Policy, this is the act of using AI-generated contents such as text, code, images of ideas without proper attribution or acknowledgement and presenting such as one's own original work.

AI Ethics

AI Ethics refers to the study and application of moral and ethical principles to the development, deployment, and use of artificial intelligence (AI) systems (John *et al,* 2019).

SECTION TWO

PERMISSIBLE USES OF AI FOR CATEGORIES OF STAFF AND STUDENTS

2. Guidelines for Acceptable Uses of AI

It is permissible for staff and students to use AI in the following areas:

a. Academic staff:

Teaching and Learning

i. Generate content for and update lecture notes
ii. Simulate data and content for teaching topics in relevant fields
iii. Check for grammar, structure and syntax errors to improve readability
iv. Generate and evaluate quizzes
v. Assess learning outcomes

Research and Publication

i. Refining research title, research questions and objectives
ii. Relevant literature for research work
iii. Check for grammar, structure and syntax errors to improve readability
iv. Perform calculations and modelling
v. Visualise data

b. **Administrative staff**

i. Record and transcribe Minutes of meetings
ii. Correct grammar, structure, and syntax errors in documents to improve readability
iii. Draft letters or memos
iv. Retrieve, clean and analyse staff and students records for official purposes

c. **Students:**

i. Record and transcribe lectures
ii. Source for relevant academic materials online
iii. Use assistive AI as tutor to learn various aspects of their discipline
iv. Brainstorm research topics
v. Scout for relevant literature for their projects/theses
vi. Organise their references and bibliography in relevant formats
vii. Analyse data
viii. Check for grammar, structure and syntax errors in their reports

2.4. Prohibited Uses

2.4.1 Academic Dishonesty

i. Using AI to write entire essays, research papers, or assignments
ii. Submitting AI-generated work as original student-created content
iii. Using AI to complete take-home exams or assessments
iv. Using AI without attribution

2.4.2 Research Misconduct

i. Using AI to fabricate research data or results
ii. Generating fake citations or references
iii. Creating entirely synthetic research papers or studies
iv. Using AI to plagiarise and paraphrase existing research without proper acknowledgement

2.4.3 Cheating Techniques

i. Having AI solve mathematical problems or provide answers during tests and examinations
ii. Creating sophisticated AI-assisted cheat sheets
iii. Using AI to entirely do test or assignments

2.4.4 Unethical Research Practices

i. Using AI to manipulate research outcomes
ii. Generating synthetic research participants or interview responses
iii. Creating false experimental data to support predetermined conclusions
iv. Using AI to inflate research publication metrics artificially

2.4.5 Credential and Identity Fraud

i. Using AI to impersonate students in online courses
ii. Creating fake academic credentials or recommendation letters
iii. Generating synthetic academic transcripts or diplomas
iv. Using AI to pass identity verification processes

2.4.6 Intellectual Property Violations

i. Using AI to generate work that infringes on existing copyrights
ii. Inappropriately using AI to reproduce copyrighted materials
iii. Claiming AI - AI-generated content as original intellectual property

2.4.7 Ethical Violations in Academic Collaboration

i. Using AI to complete group project work with or without team members' knowledge
ii. Generating synthetic peer review comments
iii. Creating false collaborative research contributions

2.4.8 Technological Manipulation

i. Exploiting AI tools to bypass academic integrity systems such as using article spinners or detection bypass tools
ii. Creating sophisticated AI algorithms to evade plagiarism detection
iii. Developing AI scripts to automate academic misconduct

2.4.9 Consent and Privacy Violations

i. Using AI to collect or analyse student data inappropriately
ii. Creating synthetic student profiles without consent
iii. Generating identifiable personal information using AI
iv. Uploading sensitive data online by staff, especially the administrative staff holding sensitive positions
v. Generating offensive, obscene, abusive and inappropriate contents with AI

2.5 Approved AI Tools

2.5.1 Purpose and Scope

The policy aims to ensure that AI tools are used responsibly to enhance learning, research, and academic integrity, while discouraging practices that undermine critical thinking, creativity, and originality.

2.5.2 Guiding Principles

AI tools that fully automate tasks, generate complete reports or research projects without human input, or produce content that may be inaccurate or hallucinated are strictly prohibited. Such tools are deemed incompatible with the academic values of this University, which emphasise critical engagement, intellectual rigor, and the development of independent thought.

2.5.3 Definitions of Approved Areas

i. **Literature Search**: The process of identifying and retrieving scholarly articles, books, and other academic resources relevant to a specific topic or research question.
ii. **Knowledge Search**: The process of gathering, organising, and synthesising information from credible sources to support academic or research objectives.
iii. **Writing Improvement**: The process of enhancing the quality of written work, including grammar, syntax, clarity, and coherence.
iv. **Referencing/Citation**: The process of accurately documenting and formatting sources used in academic work in compliance with established citation styles (e.g., APA, MLA, Chicago).
v. **Personal tutor**: The process of making an AI tool to act as an expert in a field of study with the purpose of teaching and breaking down topics for easy understanding.

2.5.4 Approved AI Tools

The following table provides a list of approved AI tools for each area, along with their respective URLs. These tools have been evaluated and deemed appropriate for use in academic work as of the time of framing this Policy (January 2025).

Area	Approved AI Tool	URL
Literature Search	Elicit	Elicit
	Typset.io (Scispace)	Typset.io (Scispace)
	PubMed	PubMed
	Google Scholar	Google Scholar
	Semantic Scholar	Semantic Scholar
Knowledge Search	Research Rabbit	Research Rabbit
	Litmaps	Litmaps
	Connected Papers	Connected Papers
	Wolfram Alpha	Wolfram Alpha
	IBM Watson	IBM Watson
	NotebookLM	https://notebooklm.google
	Perplexity	https://www.perplexity.ai

Area	Approved AI Tool	URL
Writing Improvement	Grammarly	Grammarly
Referencing/Citation	Mendeley	Mendeley
	Zotero	Zotero
	EndNote	EndNote
	RefWorks	RefWorks
	Paperpile	https://paperpile.com/
	JabRef	https://www.jabref.org/
	CiteULike	http://www.citeulike.org/
	BibMe	https://www.bibme.org/
	EasyBib	https://www.easybib.com/
	Citavi	https://www.citavi.com/
Administration	Otter	https://otter.ai/
	ChatGPT	https://chatgpt.com
	Copilot	https://copilot.microsoft.com/
	Deepseek	https://deepseek.com
	Claude	https://claude.ai
	Copilot	https://copilotai.com
	Gemini	https://gemini.google.com
Tutor	Llama Tutor	llamatutor.together.ai

This list is subject to revision at any time before the time span of this Policy.

2.5.5. Access to Resources
The University shall maintain subscriptions to relevant databases and provide all staff and students with access to approved AI tools. This ensures equitable access to resources that support academic and research activities.

SECTION THREE

COMPLIANCE AND ACCOUNTABILITY

3.1 Compliance and Accountability
All members of the University community are expected to adhere to this policy. Misuse of AI tools, including using prohibited tools or submitting work generated entirely by AI, will be considered a violation of academic integrity and may result in disciplinary action.

3.2 Required Disclosure of AI Use
3.2.1 Attestation

i. "This study utilised artificial intelligence tools and techniques to support various aspects of the research process, including literature review, data analysis, and data interpretation."
ii. "The authors acknowledge using AI-powered research assistants in this study, specifically [AI tool name], to enhance research efficiency and accuracy."

iii. "AI technology was employed throughout this research project to facilitate data collection, analysis, and interpretation."

3.2.1 Example of Transparency Statement:

"We transparently disclose the use of AI tools in this research to ensure accountability and reproducibility. Specifically, we used [AI tool name] for [specific task], which contributed to [percentage]% of the overall research effort."

Attestation in thesis or projects

"I hereby declare that this thesis titled: 'The Impact of AI on the Critical Thinking of Postgraduate Students' is a collection of my original work, except for using artificial intelligence (AI) tools in the literature review and data analysis and interpretation sections. These AI tools were used to assist with [specific tasks, e.g., data visualization, text analysis, etc.], and the output was reviewed, verified, and validated by me to ensure its accuracy and validity".

3.2.2 Citing AI

Where a student or staff has benefitted from the use of AI, such AI should be cited as follows:

3.2.2.1 **AI Tool or Software**

i. **Named AI tool with version number**
Artificial Intelligence Lab. (2020). AI Writer (Version 1.2). (link)

ii. **Named AI tool without version number**
DeepMind. (n.d.). AlphaGo [Computer software]. (link)

iii. **Generic AI tool**
Generic AI tool [Computer software]. (n.d.). Retrieved from (link)

3.2.2.2 AI Model or Algorithm

i. **Named AI model**
Vaswani, A., Shazeer, N., Parmar, N., Uszkoreit, J., Jones, L., Gomez, A. N., ... & Polosukhin, I. (2017). Attention is all you need. Advances in Neural Information Processing Systems, 30, 5998-6008.

ii. **AI algorithm**
Silver, D., Huang, A., Maddison, C. J., Guez, A., Sifre, L., van den Driessche, G., ... & Dieleman, S. (2016). Mastering the game of Go with deep neural networks and tree search. Nature, 529(7587), 484-489.

3.2.2.3 AI-Generated Content

i. **AI-generated text**
AI Writer. (2022, February 10). The Future of Artificial Intelligence. Retrieved from (link)

ii. **AI-generated image**
AI Art Generator. (2022). AI-Generated Image [Image]. Retrieved from (link)

3.2.2.4 AI Assistant or Chatbot

i. **Named AI assistant**
Chatbot, A. (2022, February 10). [Personal communication].

ii. **Generic AI assistant**
AI Assistant [Chatbot]. (n.d.). [Personal communication].

SECTION FOUR
DETECTION AND MONITORING

4.1. Detection and Monitoring

Approved Detection Tools: The following is a list of tools approved for detecting AI use.

i. **Originality.ai**
Detects AI-generated text from models like GPT-3, GPT-4, and others, with an accuracy rate of approximately 94%. It also offers plagiarism detection and website scanning features.

ii. **Winston AI**
Identifies AI-generated text with up to 99.6% accuracy for models such as ChatGPT, GPT-4, and Bard. It includes a built-in plagiarism checker and supports multiple languages.

iii. **GPTZero**
Analyzes text to detect AI generation by measuring perplexity and burstiness, providing a confidence score for AI-generated content.

iv. **Copyleaks AI Content Detector**
Detects AI-generated content with a 99.1% accuracy rate, even when paraphrased or mixed with human-written text. It supports multiple languages and offers an easy-to-integrate API.

v. **Sapling AI Detector**
Developed by UC Berkeley, Stanford, Meta, and Google researchers, it claims a 97% detection accuracy and is free to use.

vi. **Turnitin**
Primarily known for plagiarism detection, Turnitin has introduced features to detect AI-generated content, though these features' accuracy and reliability have been subject to debate.

vii. Drillbit

A detection tool designed to help educators, researchers, and students maintain academic integrity and originality in their written work. It identifies instances of copied or closely matched text.

viii. **Supervisors' Visual Inspection**: The policy highlights that AI content generation tools are becoming increasingly sophisticated with each passing day. In fact, AI is now capable of humanising content, making it even more difficult to distinguish from human-generated material. Therefore, supervisors must be vigilant and employ robust methods to effectively detect AI-generated written content.

4.2 Monitoring Procedures: The designated officials will carry out Originality tests for reports, including projects, theses and academic papers for publication. Designated officials are the Departmental and School Turnitin Officers under the supervision of the University Turnitin Administrator.

SECTION FIVE

DISCIPLINE

5.1 Discipline

5.1.1 For Students:

The penalty for violating any section of this Policy may range from failing a grade to expulsion. The normal University disciplinary procedure for students shall apply to student offenders under this Policy.

5.1.2 For Staff

5.1.2.1 Disciplinary Actions:

The penalty for violating any section of this Policy may range from query to dismissal. The normal University disciplinary procedure for staff shall apply

5.2. Policy Review

Regular Updates: This Policy can be reviewed at any time but not later than five years.

SECTION SIX: RESPONSIBILITIES

6.0 Responsibilities

Every staff and student shall be committed to the ethical use of AI as stipulated by this Policy

For staff and students, Deans, Directors, and Heads of Departments/Units shall be responsible for implementing and monitoring the Policy. The Office of the Director of Quality Assurance and Productivity shall oversee the Policy.

SECTION SEVEN

IMPLEMENTATION STRATEGIES

7.1 Communication Plan

7.1.1 Policy Dissemination Methods:

The University Community will be regularly communicated with updates and changes in AI Policy to keep all stakeholders informed.

7.2. Awareness Campaigns

To promote ethical AI use and academic integrity, the following initiatives will be undertaken:

i. **Educational Initiatives**: Launch awareness campaigns and educational initiatives to educate the community on the ethical use of AI.
ii. **Community Engagement**: Engage the academic community in discussions about the ethical implications of AI in research and education, fostering a collaborative environment.
iii. **Training Programmes** for the University Community: The University will provide workshops and training sessions to educate staff and students on the policy, ensuring they are well-equipped to uphold academic integrity.

7.3 Feedback Mechanisms

The University, through the Quality Assurance and Productivity Unit, will serve as the channel for stakeholders to provide feedback on the policy, allowing for continuous improvement and adaptation to new challenges.

SECTION EIGHT: SUPPORT SYSTEM

To ensure the effective implementation of this policy and to promote a culture of academic integrity, the University will undertake the following actions:

8.1. Detection and Enforcement

i. Use plagiarism detection software that can identify AI-generated text to ensure the authenticity of submitted work.
ii. Develop manual review processes to supplement automated tools and verify the originality of academic submissions.

iii. Collaborate with ITS and other relevant Units of the University to implement advanced detection algorithms that keep pace with evolving AI technologies.

8.2. Curriculum Integration

i. Include modules on academic integrity and the ethical use of AI in course materials across all disciplines.
ii. Encourage staff and students to discuss the implications of AI in their respective fields of study.
iii. Promote critical thinking and original research skills through assignments and projects that require independent thought and analysis.

8.3. Training and Best Practices

i. Provide workshops for staff on using, detecting and enforcing AI-generated text.
ii. Share best practices for promoting originality in students' work and addressing challenges related to AI use.
iii. Encourage open communication among staff and students to address concerns and develop solutions collaboratively.

8.4. Investment in Technology

i. Subscription to relevant AI tools for the use of staff and students.
ii. Invest in advanced plagiarism detection tools capable of identifying AI-generated content.
iii. Regularly update and maintain these tools to ensure they remain effective against evolving AI technologies.

8.5. Academic Support Services

The University Library, in collaboration with the General Studies Department, will provide the following resources to support academic integrity and compliance with this policy:

For Students

i. Offer writing centres and tutoring services to assist students with their assignments and improve their writing skills.
ii. Provide access to databases and resources that promote original research and critical engagement with academic materials.
iii. Encourage peer review and collaborative learning to foster a culture of originality and mutual support.

For Staff

i. Provide training and development opportunities for staff to stay informed about AI technologies and their implications for academic integrity.
ii. Share resources and best practices for integrating AI tools responsibly into teaching and research.

Library Services

i. Expand library services to include access to AI tools approved for academic use, such as literature search and citation management tools.
ii. Offer workshops and guidance on using these tools effectively while maintaining academic integrity.

8.6. Informed Consent

Students will be informed about the use of AI technologies in their courses and provided with clear guidelines on their acceptable use.