

GENERATIVE AI READINESS AMONG COMMERCE STUDENTS: THE ROLE OF AI LITERACY, DIGITAL COMPETENCE AND ETHICAL AWARENESS

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ABSTRACT

In the recent days' usage of Artificial Intelligence among the Commerce students for learning, preparing assignments, presentations and develop business related skills has seen a rapid emergence. Even GenAI is transforming higher education and reshaping the skills that are required for future employment. This study examines the role of AI literacy, digital competence and ethical awareness among commerce students. Data is collected from commerce students through structured questionnaire. The findings may help college and teachers to develop AI training/digital learning activities suitable for students and guidelines for ethical AI usage.

Keywords: Artificial Intelligence, Commerce students, AI literacy, Digital competence, Future readiness

I. INTRODUCTION

Artificial Intelligence (AI) is a computerised tool or a machine software that is developed to perform various tasks that are typically done by humans such as their skills and ability to learn, solve, reason, research and reflect various perspectives and aspects. AI is a series of concepts that have been developed over the ages.

From Artificial Intelligence that is Human intelligence exhibited by machines,

- Machine learning – AI systems that learn from historical data,
- Deep learning – Machine learning models that mimic human brain function and the current model Generative AI – Deep learning models that create original and modified contents.

II. HISTORY OF AI

The 1950s mark the beginning of Artificial Intelligence as a formal field of study, driven by early ideas in computation and automation.

In 1950, Alan Turing a pioneering English mathematician, computer scientist and cryptanalyst. He was widely regarded as the father of modern computer science and artificial intelligence; he introduced the concept of machine intelligence in his paper “Computing Machinery and Intelligence” and proposed the Turing Test as a way to evaluate it.

American computer scientist John McCarthy is widely hailed as the father of artificial intelligence. He coined the term “Artificial Intelligence” in 1956 and organized the historic Dartmouth Conference, which established AI as a formal academic discipline.

Why is AI mostly used by students?

“I not only use all the brains that I have, but all that I can borrow.” — Woodrow Wilson

Generative AI is used by students for better understanding, problem-solving, personalised learning, planning and generating new ideas, while also saving time. Real-life platforms such as ChatGPT and Google Gemini are examples of Generative AI tools that students can use for learning, explaining difficult concepts, brainstorming ideas, preparing study materials and planning academic tasks. It helps students understand concepts according to their needs and gives them an opportunity to explore wider knowledge through examples and explanations. The evolution from traditional learning to digital learning and now AI-assisted learning has changed not only how students access knowledge, but also how they understand, evaluate and apply it. Students also use Generative AI for productivity and time management as it is quicker and easier. However, frequent use of AI may make students dependent on it, especially when they search for information without considering whether it is reliable or accurate. Therefore, simply knowing how to use an AI platform does not mean that a student has achieved AI readiness. It requires good digital skills, proper knowledge, ethical ways of thinking, and the ability to use AI effectively and responsibly.

III. NEED FOR THE STUDY

Generative AI is becoming an important part of students’ learning. It helps students understand difficult concepts more easily. It also supports problem-solving, research, and idea generation. AI can save time and provide personalised learning support. However, excessive use may affect students’ thinking and learning habits. Therefore, it is important to study its benefits and challenges. This study helps understand how AI can be used effectively in education.

IV. OBJECTIVES

- To assess the level of generative AI readiness among Commerce students.
- To examine the influence of AI literacy on generative AI readiness.
- To examine the influence of digital competence on generative AI readiness.
- To examine the influence of ethical awareness on generative AI readiness.

V. REVIEW OF LITERATURE

Delcker et al. (2024) found that students' AI knowledge, skills and attitudes influence their use of AI tools for learning. The study highlights the importance of developing AI competence among university students.

Chen et al. (2025) found that Generative AI literacy includes using AI tools, interacting with AI, evaluating AI-generated information and understanding ethical issues.

O'Dea et al. (2026) examined Generative AI literacy among university students and highlighted the need for proper AI education and training to improve students' ability to use AI effectively.

AI literacy research (2024) suggests that students can improve their AI knowledge through meaningful interaction with AI tools and by learning to critically evaluate AI-generated information.

VI. RESEARCH METHODOLOGY

Sample size & Techniques used – Sample size is 100 and sampling technique used is convenience sampling.

Research Design – The study uses both primary and secondary data., Primary data is collected through Questionnaire via G-Form. The questionnaire consists of Four constructs, the responses of which are measured using Likert scale. Secondary data is collected through sources such as journals, websites and books.

Significant Level – p value = 0.05

Tools used – Cronbach Alpha Reliability Test, Independent Sample t-Test and Pearson Correlation are the SPSS statistical tools used.

VII. LIMITATIONS

1. The sampling technique used is convenience sampling, which may limit the generalisation of the study.
2. The study is limited to only commerce background students.
3. As the technologies are developing rapidly students' usage patterns, knowledge, perceptions and competence with regard to AI may change drastically in future.

VIII. ANALYSIS AND DATA INTERPRETATION

Table 1.1: Respondents' Profile

Characteristic	Category	N	%
Age	Below 18	2	1.98
	18–20	98	97.03
	21–23	1	0.99
Gender	Female	91	90.10
	Male	10	9.90
Year	I Year	10	9.90
	II Year	83	82.18
	III Year	8	7.92

(Source : Primary Data)

The table shows that 98% of the respondents are from the 18 to 20 years age category, 82% of the respondents were pursuing their II year. 90% of the respondents belong to female category.

Table 1.2: Reliability Analysis

Construct	Items	Cronbach's α	Interpretation
AI Literacy	4	.878	Good
Digital Competence	4	.811	Good
Ethical Awareness	4	.887	Good
GenAI Readiness	4	.860	Good

(Source : Primary Data)

From the above table it can be interpreted that the alpha value exceeds .80, therefore the questionnaire has demonstrated good reliability status.

Table 1.3: Descriptive Statistics

Construct	N	Mean	SD
AI Literacy	101	3.606	0.876
Digital Competence	101	3.730	0.814
Ethical Awareness	101	3.725	0.817
GenAI Readiness	101	3.708	0.858

(Source : Primary Data)

The descriptive statistics revealed that Digital Competence had the highest mean value (3.730) while AI Literacy recorded the lowest mean value (3.606)

Table 1.4: Independent Sample t-Test

H0- To examine if there is no significant difference between gender groups and Gen AI readiness.

H1- To examine if there is any significant difference between gender groups and Gen AI readiness.

Independent Sample t-Test was conducted was conducted to find if there is any statistically significant difference between gender groups with reference to Gen AI readiness.

The result	t (99) = -0.842	p = .402
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(Source: Primary Data)

The result was not statistically significant. So, it can be inferred that null hypothesis is accepted there no such significant difference between gender groups and Gen AI readiness.

Table 1.5: Pearson Correlation

H0: To examine if AI Literacy, Digital competence and ethical awareness have no relationship with Gen AI readiness among commerce students

H2: To examine if AI Literacy, Digital competence and ethical awareness have a positive relationship with Gen AI readiness among commerce students.

Variables	r	p
AI Literacy – Digital Competence	.734	< .001
AI Literacy – Ethical Awareness	.740	< .001
AI Literacy – GenAI Readiness	.731	< .001
Digital Competence – Ethical Awareness	.775	< .001
Digital Competence – GenAI Readiness	.784	< .001
Ethical Awareness – GenAI Readiness	.843	< .001

(Source : Primary Data)

From the above Pearson correlation table we can interpret that H2 is accepted and there is a significant positive relationship among all the three with Gen AI Readiness. This strong relationship can be observed for ethical awareness (r value - .784) followed by AI literacy (r value - .731).

IX. FINDINGS

From the study we can find that the commerce students exhibit a positive level of Gen AI Readiness – the mean value of 3.708 suggest that the students perceive themselves as prepared to engage with Gen AI. The correlation value of (r = .731) supports that the students who

understand AI capabilities (AI Literacy) are more likely to feel prepared to use AI. The strongest association between ethical awareness and Gen AI readiness supports the argument that a student who uses Gen-AI enabled academic and professional environment should also understand the transparency, bias, privacy and copyrights related concerns.

X. SUGGESTIONS

Higher education institutions should take a comprehensive approach to enhancing Commerce students' readiness for Generative AI, according to the findings. Regular workshops and hands-on training on generative AI concepts, rapid formulation, information verification, and AI applications in commerce should be offered, as AI Literacy had the relatively lowest mean score. The necessity to incorporate subjects like academic integrity, privacy, copyright, bias, transparency, and responsible AI usage into the curriculum is highlighted by the substantial correlation between Ethical Awareness and GenAI Readiness. Additionally, institutions must to set explicit rules about what constitutes appropriate usage of generative AI in academic settings. Programs for faculty development can help educators assist students in adopting AI in an efficient and responsible manner. Lastly, practical exposure to AI applications in accounting, finance, marketing, business analytics and entrepreneurship can help students develop the competencies required for AI-enabled workplaces.

XI. CONCLUSION

Since Generative AI is the future and is reshaping education as well professional workplace, there is a need for commerce students to understand AI, its output and make ethical decisions. The students are required to be familiar with tools such as ChatGPT, Gemini, Co-pilot and other generative AI applications.

Ultimately: The goal is AI-Based education should enable critical, ethical and responsible AI-enabled commerce professionals.

XII. REFERENCES

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