

## AWARENESS AND UTILIZATION OF AI TOOLS AMONG UNDERGRADUATE COLLEGE STUDENTS OF DOMBIVLI

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### **Abstract:**

*AI tools are software applications that use algorithms to understand text, images, or speech and then generate helpful outputs such as explanations, summaries, or practice questions.*

*AI tools help students learn faster, stay organized, and improve their writing and understanding of difficult concepts when used properly and ethically. They act like on-demand tutors, writing assistants, and study planners that support—not replace—real learning.*

*Students must have the skills to understand and utilize AI tools for learning and educational purposes. This research paper seeks to understand students' awareness of and use of AI tools for learning. AI is deemed to be the future-shaping industry and business. There are various tools available at the disposal of students, like chatbot tutors, writing and grammar, revision and summarizing, project assistant, problem solving and analytical tools and many more. This research Paper tries to find out to what extent students are aware of and using these tools in daily learning. The research methodology includes primary and secondary data analysis.*

**Keywords:** *AI, students, learning, education, awareness, utilization*

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### **Introduction:**

AI is no longer merely a futuristic idea. We now include it in our everyday routines. AI is now everywhere, from self-checkout kiosks in supermarkets to smart assistants in homes.

Education has undergone one of the most interesting developments. Colleges and universities are quickly using AI. Classrooms, online learning environments, and even administrative duties exhibit this change.

This shift is also being welcomed in India. In India, the application of AI in education is expanding quickly. It is influencing how institutions operate, how professors instruct, and how students learn.

### **The Role of Artificial Intelligence in Indian Education:**

Artificial intelligence is playing an increasingly important role in education in India. Here's how it's having an impact:

#### **1. Smart Content Creation**

AI can generate quizzes, flashcards, and study notes in seconds. This saves teachers time and offers pupils more resources.

#### **2. Personalized Learning Paths**

AI monitors students' behaviour, learning pace, and performance. It then generates unique study plans. This makes learning more efficient and pleasant.

#### **3. Automation of administrative tasks**

Routine tasks such as assignment grading, attendance tracking, and scheduling can be automated using artificial intelligence. This enables teachers to concentrate more on teaching.

The use of artificial intelligence in education in India is changing classrooms into smarter environments.

**Benefits of AI in Education:**

Artificial intelligence offers numerous educational benefits. This includes:

- Personalized Learning: AI tailors teaching to each student's needs. This promotes comprehension and keeps students motivated.
- 24/7 Tutoring: AI-powered apps and chatbots are available at any time. Students can get assistance whenever they need it.
- Efficient Assessment: Teachers can save time by using automated grading and progress tracking.
- Curriculum Planning: AI assists in constructing syllabi based on student performance and interests.

**Disadvantages of using AI in education:**
**Technological dependency:**

With the integration of AI, there is a risk that both educators and students will become too dependent on technology, affecting the development of what we know today as power skills.

**Privacy issues:**

When using AI-based platforms, student data may be at risk if not properly managed.

**Depersonalization:**

While AI can personalize learning, it can also cause the educational process to become mechanized and unnatural.

**Memory weakening:**

Previously, students were forced to memorize all types of data, such as historical dates, authors, philosophical currents, etc. The Internet has made knowledge ubiquitous and easily accessible, and the ability and habit of memorization have decreased as the Internet advanced. This process of “collective forgetting” will increase exponentially with AI.

The Indian government's education vision for Viksit Bharat 2047 aims to offer a high-quality, inclusive education system for life skills and skill development. Over 8.5 million primary and secondary instructors, 1.5 million schools, and over 260 million students are

enrolled in India's educational system each year. Approximately 40 million students enroll in over 1000 universities and 42,000 other institutions each year. Static testing methods, outdated delivery systems, and strict curricula are characteristics of the Indian educational system. As a result, there is now a big disconnect between education and modern work skills. But things have changed since artificial intelligence was introduced. It facilitates the system's shift from standardization to individualization, increasing its current relevance and effectiveness.

**Policy-level initiatives for AI inclusion:**

The New Education Policy (NEP) 2020 of the Government of India places a strong emphasis on integrating AI curricula at all educational levels and seeks to give pupils computational thinking, digital literacy, and coding abilities. In addition to introducing AI as a subject for students in grades IX through XII, CBSE and IBM collaborated to create the SkillsBuild Program, which offers generative AI orientation courses. Additionally, CBSE and Intel have created an AI Facilitator Handbook that offers instructors thorough training materials and real-world experiences. The CISCE board added robots and artificial intelligence to its curriculum starting with the 2025–2026 sessions. The best business schools in India, such as the IIMs and ISB, heavily emphasize AI/GenAI in their curricula.

**Literature Review:**

Many researchers have done research on the importance of AI tools in education, especially focusing on India.

According to a research paper (Gaur, Joshi, 2025),<sup>1</sup> cited that: The Government of India is achieving the goal of NEP 2020 by making education tech-enabled. AI plays an important role in advanced education for students in their learning curve. There is a need for policymakers, educators and technology providers to come together to make significant changes in the

education sector. Improving infrastructure and helping tutors to gain new skills in AI is vital.

#### Another research paper: (Roy, 2020)<sup>2</sup>

states that, The awareness of AI is increasing in the student population. The perception of AI across male and female gender is same. The people believe that AI intervention will disrupt the education system of India. The researcher also came across another research paper (Dutt, Kalit, 2024)<sup>3</sup>

Awareness with AI and AI-related courses reveals that 14.5% are not familiar and 15.5% are very familiar with AI and its usage. Very few students have undergone AI-related courses, indicating a potential gap in AI education. Urban students exhibit a significantly higher usage of AI compared to rural students. This study was done in Assam

#### Objectives of the Study:

1. To study the Awareness of AI tools among undergraduate students
2. To study the utilization of AI tools by undergraduate students
3. To study the role of AI in education in India

#### Research Methodology:

1. Research Design: The study adopted a descriptive research and primary research design to examine the level of awareness and utilization of artificial intelligence among undergraduate students. The research paper uses primary findings to conclude the study.
2. Population of the Study: The population of the study is undergraduate students studying in Dombivli city.
3. Sampling: A sample of 99 undergraduate students was selected using random sampling. It included students from First, second and Third year of various courses.
4. Data Sources: The study relied on both primary and secondary data. Primary data were collected through a structured questionnaire, while secondary

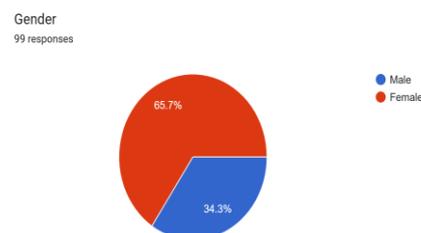
data were obtained from journals, books, and online sources.

5. Research instrument: A structured questionnaire consisting of 17 questions was used. The questionnaire included multiple-choice and five-point Likert scale items.
6. Data analysis tools: The data was analyzed by using percentages and graphical analysis
7. Limitations: The study is limited to Undergraduate students of Dombivli city only

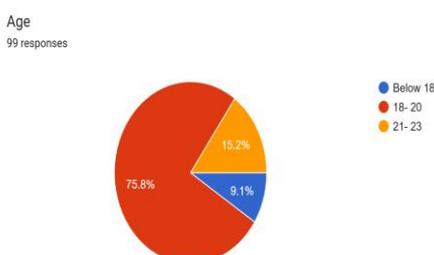
**Data Analysis:** The data Analysis is done by using percentage analysis and graphical representation.

The following are some of the important questions asked of the respondents:

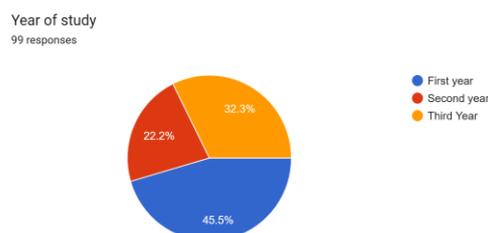
#### Q.1 Gender Analysis



#### Q. 2 Age metrics



#### Q. 3 Year of the study:

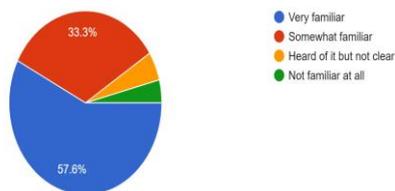


The majority of the student respondents are studying in their first year of graduation.

**Questions related to awareness of AI tools.**

Q.1 How familiar are you with the concept of Artificial Intelligence (AI)?

How familiar are you with the concept of Artificial Intelligence (AI)?  
99 responses

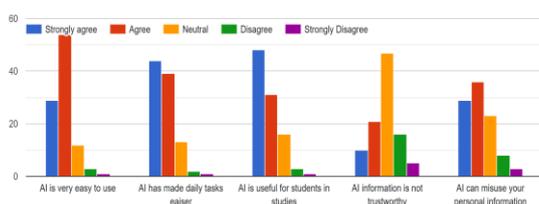


**Interpretation:**

Most students are familiar with the AI tools used in today's era. There are 58% students aware.

Q.2

Read the statement and give your opinion:



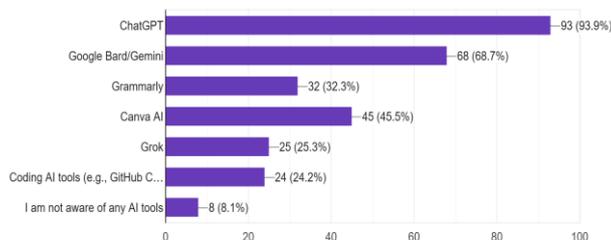
**Interpretations:**

Most students believe-

AI is easy to use. AI makes daily tasks easier. But they are not sure if AI information is trustworthy.

Q.3

Which of the following AI tools are you aware of? (Multiple responses allowed)  
99 responses



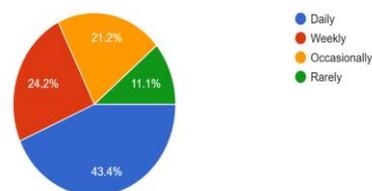
**Interpretation:**

Most of the students know ChatGPT and Gemini.

**Questions related to the utilization of AI tools.**

1.

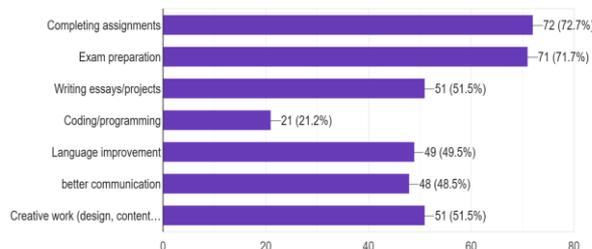
How often do you use AI tools  
99 responses



Many students use AI tools daily.

2.

For what purposes do you mainly use AI tools? (Multiple responses allowed)  
99 responses

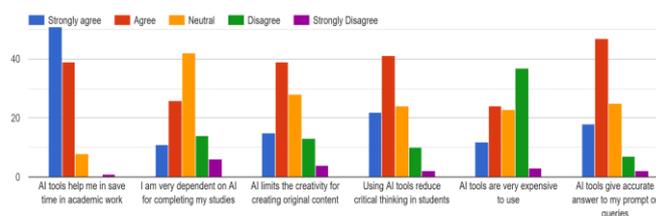


**Interpretation:**

The majority of students use AI tools to complete assignments and prepare for exams.

3.

Read the statement and provide your opinion



**Students believe:**

AI tools help in saving time. AI reduces creativity and critical thinking. They also seem to believe that AI gives accurate answers.

**Conclusions:** As per the objectives of the research, the researchers intend to find out the awareness and utilization of AI tools. The respondents surveyed in the research are undergraduate students. Major conclusions drawn from the research are:

1. Awareness of AI tools among undergraduate students: 57.6% of students are aware of the AI tools. They are aware of AI tools like ChatGPT and Gemini. It helps them to understand concepts better. However, they also believe that their personal information is misused by AI.
2. Utilization of AI tools by undergraduate students: The majority of students use AI tools on a daily or weekly basis. It makes their academic assignments easier for them. It also helps them to prepare for their exams. The AI tools reduce creativity in students. The quality of research, learning, knowledge acquisition, and retention is devolving due to AI tools. Critical thinking and logical reasoning are deteriorating in students due extensive use of AI tools.
3. The role of AI in education in India: The government of India believes in the integration of AI in the education sector. The New Education Policy (NEP 2020) has a roadmap for the integration of AI curriculum at all educational levels and aims to equip students with skills like digital literacy, coding, and computational thinking. Prominent Indian institutions for higher studies, like IIM and ISB are providing their students with courses to enhance their skills in A.I

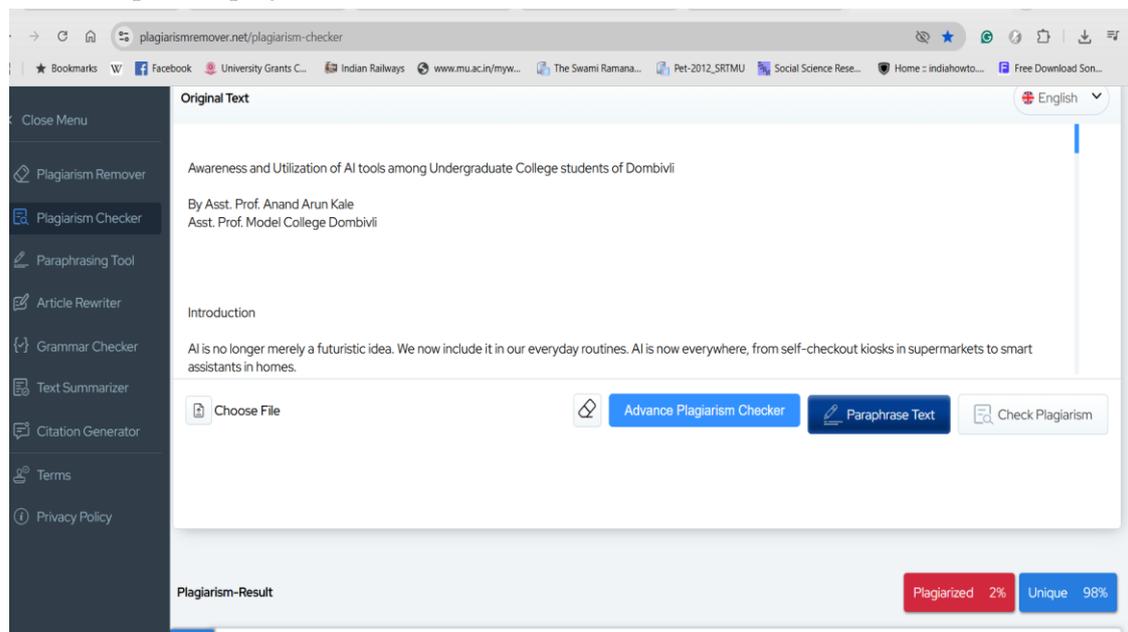
In conclusion, All the facts and research have proved that students are very well aware of the AI tools and utilize them for their academic purposes. The government is also framing policies for the integration and implementation of AI in the paradigm of the Indian education sector.

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AI is no longer merely a futuristic idea. We now include it in our everyday routines. AI is now everywhere, from self-checkout kiosks in supermarkets to smart assistants in homes.

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