

AN ANALYSIS OF ARTS AND SCIENCE COLLEGE STUDENTS AWARENESS LEVEL IN ARTIFICIAL INTELLIGENCE TOOLS (WITH SPECIAL REFERENCE TO CHENNAI CITY)

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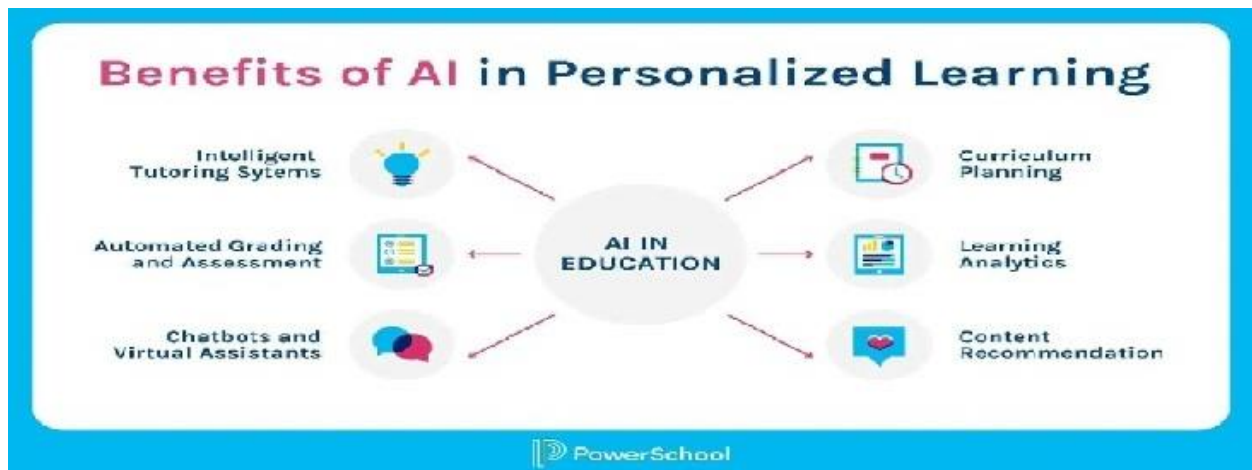
Abstract

As an essential element in many areas of people's lives and work, from manufacturing to services, teaching and so on, artificial intelligence (AI) is indispensable to modern information technology. In the field of education, AI has been playing an increasingly important role in improving teaching quality and optimising the learning process. So research on how students apply and interact with AI tools becomes urgent. With a flourish of new technology comes challenge. This paper puts the hands of art students into real push toward thinking and using AI. Tools Thereby, we hope to offer but one estimation of the degree to which students understand and use AI technology in their learning. With the results from this analysis in hand, it plans to give some detailed measures for optimizing the use of AI in education by contributing towards creating a more efficient and advanced teaching environment.

Keywords: Technology, AI, Interact, Information and Optimizing

Introduction

In recent years, alongside the development of information technology, artificial intelligence (AI) is gaining more relevance in everyday life and education. The application of AI in education should improve students' learning performance, but at the same time, it creates problems and opportunities for educators. Considering the issue of AI in education, this article looks at the awareness of the arts and science college students about AI tools. In total, 250 students from the first to third year of B.Com, BBA, BA, B.Sc, and B.CA courses were surveyed. The article suggests ways to optimize the potential AI tools in academic learning based on the improved quality of education and the collected data.



Statement of the Problem

AI has become a disruptive force in industries by changing how businesses function, simplifying workflows, and improving strategies when it comes to making decisions. For example, the new paradigm of AI has already affected institutions like arts and science colleges. AI is progressively being adopted in teaching learning practices, research, and skill development AI enabled careers. Adoption and usage of AI tools by students of arts and science colleges is, however, disquieting. Considering Chennai as a city, which is well known for educational purposes, it would be important to understand the level of awareness of AI tools among students of arts and science colleges. Non-technical students, like many other non-technical students, may not be aware of their ability to understand and utilize these tools. It is understood that a greater proportion of technical students will be more interested in AI. In fact, a critical mass of students in arts and science may be oblivious of these tools and their possible applications in various disciplines, thus creating a deficit in competence and employability. There appears to be a lack of understanding or sufficient exposure to AI tools which will inhibit students from capitalizing on technology for academic and professional purposes.

OBJECTIVES OF THE STUDY:

- ✓ Analyze the level of awareness and use of artificial intelligence (AI) tools of students in Chennai.
- ✓ Evaluate the learning activities that students use AI to support.
- ✓ Identify the challenges and difficulties students encounter when using AI tools in their learning process.

Research Design

Design of a research study involves the outline and the analytical framework that is prepared to answer the research problem and warrant understanding of the information. For this particular problem, the researcher has opted for a descriptive research design.

Review of Literature

Educators can harness the latest technological advancements, such as natural language processing and machine learning algorithms, to enhance assessment data analysis and provide tailored learning experiences. AI-powered solutions have significantly increased classroom engagement by enabling the delivery of personalized instructional content (Hinojo et al., 2019). Interactive tools, including virtual reality simulations and chatbots, allow students to explore complex subjects without leaving their seats.

The application of artificial intelligence (AI) in education has gained considerable attention in recent years. The 2018 Horizon Report (Educause, 2018) identified AI and adaptive learning technologies as key advancements in educational technology, with a projected adoption period of two to three years. The report predicted a 43% growth in AI in education between 2018 and 2022. The 2019 Horizon Report: Higher Education Edition (Educause, 2019) further emphasized the increasing integration of AI in teaching and learning, reinforcing the idea that AI is becoming an indispensable part of higher education. Similarly, Contact North (2018), a leading non-profit online learning society in Canada, affirmed that AI is “inexorably linked to the future of higher education.”

M. Irfan & Yahya Salman Alqahtani (2023) conducted an in-depth investigation of ethical awareness and considerations among students at the University of Limerick. Their findings revealed varying perceptions of AI tools, with technology and science students expressing greater privacy concerns than their peers.

José-María Romero-Rodríguez, María Soledad Ramírez Montoya, Mariana Buenestado-Fernández, & Fernando Lara-Lara (2023) studied university students' adoption of ChatGPT. Their research suggested that gender is not a determining factor in AI adoption, while key influences include experience, performance expectations, and habitual usage.

Cecilia Ka, Yuk Chan, & Wenjie Hu (2023) found that college students perceive AI positively for personalized learning, writing support, and research. However, concerns remain regarding accuracy, privacy, and ethical implications in higher education.

Thi Hong Nhung Nguyen (2023) explored university students' awareness of Google tools (Google Classroom, Google Forms, Google Meet, Google Sites) at a university in Northern Vietnam. The study revealed that students find these tools effective for online English learning, with first-year female students exhibiting higher awareness levels.

Data Analysis and Interpretation

Table - 1 Demographic Profile of the Respondents

Demographic Profile		Frequency	%	Cumulative Percent
Gender	Male	138	55.2	55.2
	Female	112	44.8	100.0
Year of Study	First Year	68	27.2	27.2
	Second Year	88	35.2	62.4
	Third Year	94	37.6	100.0
Courses	B.Com Courses	50	20	20
	BBA Courses	50	20	40
	BA Courses	50	20	60
	B.Sc Courses	50	20	80
	B.CA Courses	50	20	100.0

Source: Primary data

The above table indicates the demographic profile of arts and science college students out of 250 students 138 respondents are male and 112 female respondents participated in this study. Maximum of 94 third-year students and a minimum of 68 first-year students out of 250 students. This study is based on arts and science college major courses of B.Com, BBA, BA, B.Sc and BCA the sample respondents are evenly each course 50 respondents.

Table – 2 State the Awareness level of AI tools in students

Measurement		Frequency	%	Cumulative Percent
Source to Know about AI Tools	Friends	126	50.4	50.4
	Family	21	8.4	58.8
	Media	94	37.6	96.4
	Others	9	3.6	100.0
Purposes of AI Tools Using	Concept clarification	36	14.4	14.4
	Generating ideas	68	27.2	41.6
	Checking grammar	108	43.2	84.8
	Summarizing information	32	12.8	97.6
	immediate feedback on their work	6	2.4	100.0
AI Tools Used by Students	Grammarly	97	38.8	38.8
	QuillBot	36	14.4	53.2
	ChatGPT	104	41.6	94.8
	Other	13	5.2	100.0
Learning Activities Where Students Use AI Tools for Support	Do homework/assignments	22	8.8	8.8
	Prepare for the test	7	2.8	11.6
	Improve soft skills	116	46.4	58
	Write reports/essays	12	4.8	62.8
	Answer questions related to the lesson	41	16.4	79.2
	Search for information/references	52	20.8	100.0
Frequency of AI Tool Usage	Regularly (daily)	31	12.4	12.4
	Occasionally (several times/week)	68	27.2	39.6
	Rarely (several times/month)	139	55.6	95.2
	Extremely rarely	12	4.8	100.0
Benefits of AI Tools in Supporting	Save time	89	35.6	35.6
	Understand the lesson	26	10.4	46

	more easily			
	Do assignments/write reports better	17	6.8	52.8
	Enhance creativity	48	19.2	72
	Helps learn more proactively and actively	19	7.6	79.6
	Search for information more effectively	42	16.8	96.4
	Other	9	3.6	100.0
Challenges Faced by Students	The results are not complete/accurate	91	36.4	36.4
	Complex interface/usage	33	13.2	49.6
	Concerns about plagiarism when using AI writing	45	18	67.6
	Loss of concentration when using AI	39	15.6	83.2
	Difficult to control information quality	41	16.4	99.6
	Others	1	0.4	100.0
Overall Evaluation of the Effectiveness of AI Tools in Supporting Learning	Very ineffective	1	0.4	0.4
	Somewhat ineffective	26	10.4	10.8
	Moderately effective	117	46.8	57.6
	Effective	75	30	87.6
	Very effective	31	12.4	100.0
Students' Suggestions/Recommendations for Enhancing the Application of AI in Learning	Have policies to encourage the use of AI in learning	31	12.4	12.4
	Raise awareness about the benefits and limitations of AI in learning	24	9.6	22
	Develop AI tools that suit students' learning needs	69	27.6	49.6
	Provide guidance and support documents for using AI	42	16.8	66.4
	Instructions on how to use AI effectively in	19	7.6	74

	learning			
	Organize training on using AI for students	63	25.2	99.2
	Others	2	0.8	100.0

Source: Primary data

In the above mentioned table, it has been observed that awareness level of artificial intelligence tools in arts and science college students. Out of 250 students, 126 students know about the AI tools from friends and only 9 students get awareness about AI from other sources. The majority of 108 students are using AI tools for checking the grammar and 6 students using it for immediate feedback of their work. The most frequently used AI tools by students (out of 250 students 104 students) are ChatGPT. As far as learning activities is concerned, out of total students, 116 students use AI tools for Support to improve soft skills and the minority of 7 students uses AI Tools for preparing their test or exams. About the frequency of AI tools usage among the samples students the highest number i.e. 139 students use it rarely and the least, 12 students used AI tools extremely rarely. Benefits of AI tools in supporting to the students, out of 250 students the maximum level of 89 students say that saving time is the most important factor for using AI tools and 9 students say that other purpose of supporting AI tools benefits. The students faced challenges maximum of 91 students say that the result are not complete / accurate and out of 250 students one say that challenges faced by other ways. Overall evaluation of the effectiveness of AI tools in supporting learning is the majority of 117 students say that moderate effective and the least one student say that very ineffective. Students suggestions / recommendations for enhancing the application of AI in learning out of 250 students 69 students suggestion is to develop AI tools which suit students learning needs and the lowest level of 2 students suggestions / recommendations for enhancing the application of AI in learning is others.

Conclusion

Training along with Step by Step guidance will assist students to figure out how to use AI and also the obstacles students face. Solution In order to enhance the learning experience and effectively utilize AI tools used by students, some solutions are mentioned: intelligence (AI) tools in students impacts. The findings reflect how popular it is to use AI in learning, This study has helped to better understand the usage of artificial. Second, developing AI tools that suit students' learning needs will facilitate the use of AI in everyday learning. Third, increasing awareness of the benefits and limitations of AI will help students approach technology more confidently and correctly. Ultimately, developing policies that support and encourage the use of AI in education will create a more advanced and effective learning environment. By promoting the conscious and effective use of AI in learning, universities can take advantage of the technology's potential to improve the quality of education and create learning experiences.

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