A study of Use of Artificial Intelligence and its implications on learning process with respect to MBA students of Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur

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Abstract:

Artificial intelligence is a branch of computer science where machine intelligence is developed just like human intelligence.AI is known for cognitive abilities, learning, decision making etc. Artificial intelligence is the ability of machine to learn, think and perform task as like human being. Artificial intelligence has entered in every corner of life. It has changed the way to learn, teach and complete the work. The current research project has focus on how artificial intelligence has affected on students learning habits and its implications. Artificial intelligence is increasing with rapid speed. It will effect on society. AI applications have appeared in many domains like education, healthcare, manufacturing sector etc. In every domain the productivity as well as efficiency has been increased with the use of artificial intelligence. With the use of AI in education sector the reengineering of processes becomes a necessity. We need to study the societal impact of AI long run.

Introduction:

Artificial intelligence is the capability of computer system to perform task such as human intelligence like learning, reasoning, problem solving, decision making etc. Traditional teaching learning method is changing day by day with introduction of AI in education sector. AI aided education includes intelligent education, virtual or web base learning etc. AI tools improve the learning values and efficiencies with the help of machine learning technologies. Machine learning, learning analytics and data mining are closely related technologies in education. Machine learning includes decision tree learning, inductive logic programming, clustering, neural N/W etc.

Data mining techniques generates systematic and automated response to learners. Artificial intelligence based educational data mining develops association rules. Regression methods can be used to predict student's future performance. Data mining techniques can be used with pattern discovery and predictive modeling to extract hidden knowledge.

The benefit of artificial intelligence to the student is that student can select their own learning aid as per their requirements. Personalized learning can be possible with the help of AI tools. AI breaks the physical barriers in learning process. Student can access knowledge from any place within the world with the help of AI tools. Language barriers are also removed as language translation capability is present with AI tools. The applications of AI in education sector are content development, teaching method, student's assessment, communication etc.

Review of literature:

Mehrnaz Fahimirad, PhD FHLM- Centre for Research & Innovation in Tourism Taylors University Lakeside Campus No.1, Jalan Taylor's 47500 Subang Jaya, Selangor, Malaysia, in their paper, "A Review on Application of Artificial Intelligence in Teaching and Learning in Educational Contexts" stated as innovative educational technologies have revolutionised the method of teaching learning process. The interaction between human and machine helps students to learn and memorise the information. Different artificial intelligent techniques are used in education

system such as fuzzy logic, neural N/W, decision tree, genetic algorithm etc. Educational goals can be better achieved with the help of AI tools.

LIJIA CHEN1 , PINGPING CHEN 2,4, (Member, IEEE), AND ZHIJIAN LIN 3 , (Member, IEEE) in their research article, "Artificial Intelligence in Education: A Review" studied data mining as a AI tool for learning purpose. Educational data mining tries to generate systematic & automated response to learners. Artificial intelligence based educational data mining aims for developing inherent association rules and offers knowledge objects to students to meet their personal needs. Education sector has a major impact of use of AI. Artificial intelligence applications in education sector are serving various functions has a major impact on students. Quality of learning has been increased with the use of AI applications. AI base learning is considered as educational assistant at early stage.

Kyoungwon Seo1* , Joice Tang2 , Ido Roll3 , Sidney Fels4 and Dongwook Yoon2 in their research article, "The impact of artificial intelligence on learner–instructor interaction in online learning" stated as AI system offers effective support for online learning, teaching includes personalised learning for students.

Gwo-Jen Hwang, Haoran Xie, Benjamin W. Wah, Dragan Gašević in their research article, "Vision, challenges, roles and research issues of Artificial Intelligence in Education" stated as rapid advance ment of computing technologies has facilitated the implementation of AI in heigher education. Using artificial intelligence in education has created new opportunities for designing productive learning activities & developing better technology enhanced learning application or environment.

Research Methodology ->

Statement of Problem –

A study of Use of Artificial Intelligence and its implications on learning process with respect to MBA students of Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur

Objectives:

1. To study effectiveness of AI tools in learning process.
2. To study effect of use of AI tools on natural intelligence of students.
3. To study implications by increasing uses of AI tools.

Universe:

The study area for above research is MBA students from Deshbhakta Ratnappa Kumbhar College of Commerce, Kolhapur.

Number of students in MBA 1: 68

Number of students in MBA 2: 56

Total students: 124

Sampling method:

Simple random sampling method is used to draw sample from universe.

Sample size:

50 % sample from the universe is taken.

Therefor the sample size = 62

Data Collection:

Primary data:

Primary data is collected through questionnaire method.

Secondary data:

Secondary data is collected from websites, books, research article etc.

Data Analysis and Interpretation:

Table 1: Class

Class	No. of respondents	Percentage
MBA I	30	48.38
MBA 2	32	51.61

For the current research study 48% of MBA I year and 52% of MBA II year students are studied.

Table 2: Use of Artificial intelligence for learning purpose

Use of AI for learning purpose	No. of respondents	Percentage
Yes	50	80.64
No	12	19.35

The above table shows that 81 % of students are using artificial intelligence tools for learning purpose whereas 19 % students are not using AI tools for learning purpose.

Table 3: Effectiveness of Artificial intelligence tools for learning purpose

Effectiveness of AI tools for learning purpose	No. of respondents	Percentage
Not effective	6	9.67
Effective	18	29.03
More effective	23	37.09
Most effective	15	24.19

The above table shows that 37% of students said AI tools are more effective for learning purpose, 29% of students said AI tools are effective, 24 % of students said AI tools are most effective whereas 10% student said AI tools are not effective for learning purpose.

Table 4: Need understanding of slow or average learners

Need understanding of slow or average learners	No. of respondents	Percentage
Yes	34	54.83
No	28	45.16

The above table shows that 55 % students said AI can understands personalized needs of slow learners whereas 45 % of students said AI cannot understands personalized needs of average learners.

Table 5: AI generates random results

AI generates random results	No. of respondents	Percentage
Yes	39	62.90
No	23	37.09

The above table shows that 63% students said artificial intelligent tools generated random results whereas 37% students said AI does not generates random results.

Table 6: Effect of AI on natural & emotional intelligence of students

Effect of AI on natural & emotional intelligence of students	No. of respondents	Percentage
Yes	42	67.74
No	20	32.25

The above table shows that 68 % of students opine as use of AI tools effect of natural and emotional intelligence of students whereas 32 % of students opined as use of AI does not effects on natural and emotional intelligence of students.

Table 7: Rating of effect of AI on natural & emotional intelligence of students

Rating of effect of AI on natural & emotional intelligence of students	No. of respondents	Percentage
Does not affect	9	14.51
Moderately affect	26	41.93
More affect	18	29.03
Mostly affect	9	14.51

The above table shows as 42% of students said use of AI moderately effect on students natural intelligence. 29% of students said use of AI tools affects more on natural intelligence of students whereas 15 % of students sais as use of AI mostly effects on natural intelligence of students.

Table 8: Need expert advice while using AI tools

Need expert advice while using AI tools	No. of respondents	Percentage
Yes	43	69.35
No	19	30.64

The above table shows as 69 % of students need experts' advice while using AI tools whereas 31% of students does not need experts' advice while using AI tools.

Table 9: Implications of uses of AI

Implications of uses of AI	No. of respondents	Percentage
Loosing job	19	30.64
Loosing humanity	21	33.87
Loosing natural intelligence	11	17.74
Loosing trustworthiness	11	17.74

The above table shows as 34% of students said with the use of AI we can lose humanity, 31% students said job may get affected, 18 % students said it will effects on natural intelligence of students.

Table 10: AI increases the quality of learning process

AI increases the quality of learning process	No. of respondents	Percentage
Yes	50	80.64
No	12	19.35

The above table shows that 81% of students said AI can increase the quality of learning process whereas 19 % students said AI does not increases quality of learning process.

Table 11: Trustworthiness of contents generated from AI

Trustworthiness of contents generated from AI	No. of respondents	Percentage
Not trustworthy	7	11.29
Trustworthy	42	67.74
More trustworthy	7	11.29
Most trustworthy	6	9.67

The above table shows as 68 % of students said as contents generated from AI are trustworthy whereas 11 % of students said the contents generated from AI are not trustworthy.

Findings & Suggestions:

Findings:

1. 81% of students are using AI tools for learning purpose. (Ref. Table No. 2)
2. 37% of students said as AI tools are more effective for learning purpose. (Table Ref. No. 3)
3. 55% of students said as AI understands personalized needs of students. (Ref. Table No. 4)
4. 63% of students said as AI generates random results. (Reference Table No. 5)
5. 68% of students said as the use of artificial intelligence tools may affect natural and emotional intelligence of students. (Reference Table No. 6)
6. 42% of students said as use of AI may moderately effect on natural and emotional intelligence of students. (Ref. Table No. 7)
7. 69% of students said as they needs experts' advice while using AI tools. (Ref. Table No. 8)
8. 31% of students said as the job may get affected by use of AI tools. (Ref. Table No. 9)
9. 81% of students said as AI can increase the quality of learning process. (Ref. table No. 10)
10. 68% of students said as contents generated from AI tools are trustworthy. (Ref. Table No. 11)

Suggestions:

1. Students should train technically for the effective use of artificial intelligence tools.
2. Students should inform about the changing nature of job with the increasing use of AI tools.

References:

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