Artificial Intelligence on Learning Experience: An Outlook

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Abstract

New technology and tools multiply daily in that digital age. The rise of Artificial Intelligence has sparked with new wave of advancements with its features becoming more and more integrated into our everyday lives. Artificial Intelligence in education enhances individualized learning, permits to progress at their own pace, facilitates collaboration easy access to wide range of resources, empowers students to explore deep understanding beyond the traditional classroom. Challenges faced by the students such as it leads to passive learning, requires digital skills to use the features. The broad objective of the study is to examine the benefits and challenges of Artificial Intelligence in learning experiences. Higher Education Students from under graduate, Post graduate and Ph.D scholars from Government, Government aided, Self-Finance colleges were chosen for the study by Stratified random sampling technique. A set of survey questionnaire with 40 items comprised of benefits and challenges faced through in learning experiences with a 5 point Likert scale with each statement rated strongly agree (5), agree (4), neutral (3), disagree (2), strongly disagree (1). The study revealed that students agreed that the benefits are great to the extent and challenges are at modest. Practical contributions to organize adequate training programmes regarding potential benefits and ethical considerations of using Artificial Intelligence. Continuous learning support is desirable and changes in guidelines, curriculum design and assessment ensures exploiting the benefits of Artificial Intelligence in learning experiences.

Keywords: Artificial Intelligence, Continuous Learning, Learning Experiences, Passive Learning, Personalized Learning, AI Ethics

Introduction

Artificial Intelligence (AI) technologies are designed to cater the student's individual needs with higher level of personalization. Artificial Intelligence in education enhances students educational journey with multifaceted. Numerous recompenses that improve students' learning experiences are carried out by the incorporating artificial intelligence (AI) into education. Through Personalized learning, students are motivated, engaged, complete learning outcomes are improved and can advance at their own pace. Students can identify areas for improvement and acknowledge their strengths and weaknesses. With the abundance of educational resources at their disposal, students can delve deeper into subjects, broaden their knowledge, and interact with materials outside of the traditional classroom setting. By using AI technologies, educators can create dynamic and engaging learning environments that cater to students' individual needs and preferences which leads to better learning outcomes and greater student success. AI developers and educational institutions need to set up strong security procedures and policies to safeguard student privacy and stopover illegal access to private information.

Need and Significance of the Study

Learners' preferences, learning styles, and knowledge gaps can all be identified with the help of AI-powered educational platforms. Artificial Intelligence supports to upkeep continuous learning through virtual learning among students get to access the resources round-the-clock. Artificial intelligence promotes student cooperation by allowing them to exchange ideas, learn from one another, and hone critical teamwork skills, problem-solving, critical thinking, and active engagement. Striking a balance between human interaction and AI-driven education is crucial. There is an increasing need for educators and students to acquire the skills required to use and communicate with AI systems in an efficient manner. The integration of artificial intelligence (AI) in higher education is transforming teaching and learning processes, offering both opportunities and challenges. AI enhances personalized learning, streamlines administrative tasks, and fosters innovative educational practices, yet it also raises ethical concerns and questions about the irreplaceability of human educators. Hence, the topic was selected to investigate and entitled "Artificial Intelligence on Learning Experience – An Outlook"

Review of Related Literature

(Shimpi) found that AI applications in higher education enhance teaching, learning, and research, promote equity, and provide personalized experiences, and faced challenges related to integration and implementation.

(Sallu et al.) showed that AI enhances operational efficiency and improves the learning experience in higher education, as evidenced by its implementation in universities in Kolaka, Southeast Sulawesi.

(Anjali and Sreerekha) observed that AI revolutionizes higher education by enabling personalized learning, automating tasks, and enhancing teaching support, while also raising concerns about equity, privacy, and the evolving role of educators.

(Yuan) revealed that AI enhances higher education through personalized learning, intelligent tutoring systems, virtual labs, and course content development, while also addressing challenges like technology access, data privacy, and educational quality.

Objectives of the Study

To examine the welfares and defies of Artificial Intelligence on learning experiences.

Hypotheses of the Study

The hypotheses of the study are enlisted below

- Welfares of Artificial Intelligence on Learning Experiences is high.
- Defies of Artificial Intelligence on Learning Experiences is modest.

Methodology of the Study

- Type of the Study: Survey Technique
- Sampling Method of the Study: Stratified Random Sampling Technique. Stratification was done by Under Graduate and Post Graduate and Arts, Science and Teacher Education Discipline Higher Education Students.
- Sample Size: 234 Higher Education Students.

Research Instrument used in the Present Study

The following research instrument was used in the present study to collect the data:

- General information schedule
- A set of survey questionnaire with 27 items comprised with Welfares of Artificial Intelligence on Learning Experiences with Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1).

- A set of survey questionnaire with 13 items comprised with Defies of Artificial Intelligence on Learning Experiences with Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), Strongly Disagree (1).
- Reliability of the Tool : 0.91

Data Analysis and Interpretation

Table 1 Descriptive Analysis of Scores on Welfares and Defies of Artificial Intelligence on Learning Experiences

Variable	N	Mean	SD
Welfares of Artificial Intelligence on Learning Experiences	234	97.51	17.18
Defies of Artificial Intelligence on Learning Experiences	234	48.26	7.10

As Table 1 shows, the mean value of Welfares of Artificial Intelligence on Learning Experiences score was 97.51 with the standard deviation of 17.18. The maximum score of Welfares of Artificial Intelligence on Learning Experiences is 135. Hence, Welfares of Artificial Intelligence on Learning Experiences is high. Therefore, the hypothesis is accepted.

As Table 1 shows, the mean value of Defies of Artificial Intelligence on Learning Experiences score was 48.26 with the standard deviation of 7.10. The maximum score of Defies of Artificial Intelligence on Learning Experiences is 75. Hence, Defies of Artificial Intelligence on Learning Experiences is moderate. Therefore, the hypothesis is accepted.

Table 2 Percentage of Students that belong to Low, Moderate and High Groups with Reference to their Welfares and Defies of Artificial Intelligence on Learning Experiences

Variable	Extent	Range of Scores	No. of Students	Percentage
Welfares of Artificial Intelligence on Learning Experiences	High	Below 89	60	25.6
	Moderate	90-107	108	46.2
	Low	Above 108	66	28.2
Defies of Artificial Intelligence on Learning Experiences	High	Below 89	63	26.9
	Moderate	90-107	81	34.6
	Low	Above 108	90	38.5

Table 2 clearly shows the level of Welfares of Artificial Intelligence on Learning Experiences of students is high with 25.6 %. 46.2 % of students are consuming moderate level of Welfares of Artificial Intelligence on Learning Experiences and 28.2 % students are acquiring low level of Welfares of Artificial Intelligence on Learning Experiences. From this, we can infer that the students are overwhelming with Welfares of Artificial Intelligence on Learning Experiences.

Table 2 clearly shows the level of Defies of Artificial Intelligence on Learning Experiences of students is high with 26.9 %. 34.6. % of students are facing moderate level of Defies of Artificial Intelligence on Learning Experiences and 28.2 % students are fronting Defies of Artificial Intelligence on Learning Experiences from this, we can infer that the students are meeting Defies of Artificial Intelligence on Learning Experiences.

Table 3 Responses of Students on Welfares of Artificial Intelligence on Learning

S. No	Welfares of Artificial Intelligence on Learning Experiences	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	σ
1.	Artificial intelligence educational platform helps to explore students learning styles, preferences and knowledge gaps.	54 (23.1)	117 (50)	42 (17.9)	9 (3.8)	12 (5.1)	3.82	0.99

2.	Artificial intelligence allows students to progress at their own pace.	111 (47.4)	42 (17.9)	15 (6.4)	18 (7.7)	48 (20.5)	3.63	1.06
3.	Artificial intelligence enhances student engagement and focus on areas to get improved.	39 (16.7)	132 (56.4)	45 (19.2)	9 (3.8)	9 (3.8)	3.78	0.90
4.	Artificial intelligence motivates with content and activities which cater the individual needs of students.	39 (16.7)	123 (52.6)	42 (17.9)	15 (6.4)	15 (6.4)	3.67	1.03
5.	Artificial intelligence explores advanced concepts through gamification.	36 (15.4)	126 (53.8)	48 (20.5)	12 (5.1)	12 (5.1)	3.69	0.96
6.	Artificial intelligence empowers the provision of timely and constructive feedback.	33 (14.1)	114 (48.7)	66 (28.2)	15 (6.4)	6 (2.6)	3.65	0.89
7	Artificial intelligence access and deliver feedback on the performance instantly.	36 (15.4)	135 (57.7)	36 (15.4)	12 (5.1)	15 (6.4)	3.71	1.00
8.	Constructive feedback enhances the learning and gives progress more effectively.	48 (20.5)	108 (46.2)	48 (20.5)	12 (5.1)	18 (7.7)	3.67	1.09
9.	Quick feedback facilitates examining the strength and weakness	30 (12.8)	105 (44.9)	63 (26.9)	18 (7.7)	18 (7.7)	3.47	1.06
10.	Quick feedback facilitates examining the strength and weakness	39 (16.7)	132 (56.4)	45 (19.2)	12 (5.1)	6 (2.6)	3.79	0.86
11.	Artificial intelligence facilitates collaborating learning environment.	24 (10.3)	108 (46.2)	78 (33.3)	9 (3.8)	15 (6.4)	3.50	0.95
12.	Artificial intelligence simulate real world scenario.	42 (17.9)	96 (41.0)	69 (29.5)	9 (3.8)	18 (7.7)	3.58	1.07
13.	Using Artificial intelligence tools encourage active participation.	42 (17.9)	117 (50.0)	51 (21.8)	15 (6.4)	9 (3.8)	3.72	0.96
14.	Artificial intelligence tools support critical thinking skill.	36 (15.4)	102 (43.6)	60 (25.6)	24 (10.3)	12 (5.1)	3.54	1.03
15.	Artificial intelligence tools improve problem solving skill.	27 (11.5)	117 (50.0)	42 (17.9)	30 (12.8)	18 (7.7)	3.45	1.09
16.	Artificial intelligence tools help to exchange ideas and activities.	27 (11.5)	123 (52.6)	54 (23.1)	18 (7.7)	12 (5.1)	3.58	0.09
17.	Artificial intelligence develops teamwork skills.	18 (7.7)	93 (39.7)	66 (28.2)	33 (14.1)	24 (10.3)	3.21	1.10
18.	Artificial intelligence technologies overcomes physical barriers in learning environment.	18 (7.7)	129 (55.1)	54 (23.1)	21 (9.0)	12 (5.1)	3.51	0.94
19.	Artificial intelligence platform recommends resources like text books, articles, videos based on individual needs and preferences.	24 (10.3)	123 (52.6)	57 (24.4)	15 (6.4)	15 (6.4)	3.54	0.98
20.	Artificial Intelligence engages with various learning material with diverse topics.	30 (12.8)	132 (56.4)	48 (20.5)	18 (7.7)	6 (2.6)	3.69	0.88
21.	Artificial intelligence provide valuable insights in learning progress through advanced data analytics.	39 (16.7)	117 (50.0)	66 (28.2)	6 (2.6)	6 (2.6)	3.76	0.85
22.	Artificial intelligence helps to identify the targeted instructional strategies.	24 (10.3)	126 (53.8)	60 (25.6)	15 (6.4)	9 (3.8)	3.60	0.89

23.	Artificial intelligence enhances effective decision making skill.	24 (10.3)	99 (42.3)	69 (29.5)	24 (10.3)	18 (7.7)	3.37	1.05
24.	Artificial intelligence boost learning experience efficacy.	36 (15.4)	141 (60.3)	36 (15.4)	15 (6.4)	6 (2.6)	3.79	0.86
25.	Artificial intelligence reinforces confidence in learning process.	33 (14.1)	108 (46.2)	63 (26.9)	21 (9.0)	9 (3.8)	3.58	0.97
26.	Artificial intelligence supports continuously in learning process.	21 (9.0)	132 (56.4)	51 (21.8)	21 (9.0)	9 (3.8)	3.58	0.91
27.	Artificial intelligence makes learning more enjoyable.	27 (11.5)	132 (56.4)	51 (21.8)	12 (5.1)	12 (5.1)	3.64	0.93

Note: N=234; SA-Strongly Agree, A-Agree, N-Neutral; D-Disagree; SD- Strongly Disagree; Weighted Average: 3.61

Table 3 shows that Majority of the respondents felt that the following are prominently coincided that students learning style preferences and knowledge gap star explode throw artificial intelligence educational platforms. Artificial Intelligence boost learning experience efficacy. Feedback from artificial intelligence helps to identify the areas to get improve and take steps to get progress. Artificial intelligence enhances student engagement and focus on area to get improved. Artificial intelligence provides valuable insight in learning through Data Analytics. Artificial intelligence tools encourage active participation among student's. Instant feedback on performance were delivered. Artificial intelligence engages student with various learning material with diverse topics. Advanced concepts were exploded through gamification. Artificial intelligence motivates and caters individual needs with content and activities. Constructive feedback enhances a learning and give progress more effectively. Artificial intelligence makes a learning journey more enjoyable. Artificial intelligence empowers the provision of timely and constructive feedback. Artificial intelligence allows students to get progress at their own pace.

The following statements are primitively coincided that Artificial intelligence helps to identify target instructional strategies and reinforces confidence which supports continuous learning process to exchange their ideas and activities. Artificial Intelligence simulate real world scenario which supports critical thinking skill. Artificial intelligence overcomes physical barrier in learning environment. Quick feedback facilities examine the strength and weakness which improves problem solving skills. Artificial intelligence enhances effective decision making skill. Finally, Artificial intelligence develops team work skills.

Table 4 Responses of Students on Defies of Artificial Intelligence on Learning Experiences

S. No	Defies of Artificial Intelligence on Learning Experiences	SA (%)	A (%)	N (%)	D (%)	SD (%)	Mean	σ
1.	Artificial intelligence requires strict adherence to data protection standards and the security of personal data.	27 (11.5)	99 (42.3)	72 (30.8)	27 (11.5)	9 (3.8)	3.46	0.97
2.	Security measures and protocols to protect student privacy to be developed in artificial intelligence.	45 (19.2)	117 (50.0)	51 (21.8)	15 (6.4)	6 (2.6)	3.77	0.92
3.	Artificial intelligence requires protecting sensitive data from unauthorized access.	30 (12.8)	126 (53.8)	57 (24.4)	12 (5.1)	9 (3.8)	3.67	0.90
4.	Artificial intelligence leads to a passive learning experience.	42 (17.9)	135 (57.7)	45 (19.2)	6 (2.6)	6 (2.6)	3.86	0.83
5.	To respect ethical norms, artificial intelligence must provide transparency and accountability.	36 (15.4)	114 (48.7)	66 (28.2)	15 (6.4)	3 (1.3)	3.71	0.85

6.	Artificial intelligence ensures to prevent discomfort of inequalities in accessing resources.	33 (14.1)	123 (52.6)	66 (28.2)	9 (3.8)	3 (1.3)	3.74	0.79
7	Student must be equipped with digital skills to use and interact with AI system	51 (21.8)	123 (52.6)	48 (20.5)	6 (2.6)	6 (2.6)	3.88	0.86
8.	To promote meaningful learning experiences, artificial intelligence and human instruction must be balanced.	42 (17.9)	117 (50.0)	51 (21.8)	9 (3.8)	15 (6.4)	3.69	1.01
9.	Students must be proficient with digital skills to navigate to artificial intelligence driven education landscape.	39 (16.7)	117 (50.0)	51 (21.8)	12 (5.1)	15 (6.4)	3.65	1.02
10.	Educators need professional training to integrated artificial intelligence technology in teaching practice effectively.	42 (17.9)	138 (59.0)	36 (15.4)	12 (5.1)	6 (2.6)	3.85	0.86
11.	Artificial intelligence implementation requires significant cost to build Technology-enabled environment.	30 (12.8)	126 (53.8)	57 (24.4)	18 (7.7)	3 (1.3)	3.69	0.83
12.	To integrate artificial intelligence technology into the teaching process, adequate training is necessary.	30 (12.8)	123 (52.6)	54 (23.1)	15 (6.4)	12 (5.1)	3.62	0.96
13.	Changes in policies , curriculum design and assessment ensures maximizing the benefits of an artificial intelligence in education.	36 (15.4)	117 (50.0)	60 (25.6)	9 (3.8)	12 (5.1)	3.67	0.95

Note: N=234; SA-Strongly Agree, A-Agree, N-Neutral; D-Disagree; SD-Strongly Disagree; Weighted Average: 3.71

Table 4 shows that Majority of the respondents felt that the following are prominently coincided that, to use and interact with artificial intelligence systems students to be equipped with digital skills. Sometimes AI leads to passive learning experience. Educational instructors require professional training to implement effective teaching practices. Security measures and protocols to protect student's privacy. Artificial Intelligence ensures to prevent this comfort of inequality in accessing resources. Transparency and accountability to be provided to respect ethical norms.

Majority of the respondents are primitively coincided with Human instruction and artificial intelligence should be balanced. Artificial intelligence entails significant cost to build Techno-enabled environment. Artificial intelligence defending on sensitive data from unauthorized access. Student should be proficient with digital skills to navigate to AI driven education space. Ample training should be provided to educators to enrich their AI skills. Artificial intelligence adherence to protect standards and security of personal data.

Conclusion

Incorporating artificial intelligence in education encourages personalized learning and ensures enhance to learning among students. Constructive feedback helps to identify the areas for improvement and take steps to get progress integrating artificial intelligence in education makes learning more enjoyable. Artificial intelligence in education creates richer learning experience with a plenty of learning resources with individual needs and preferences to get progress at their own pace. Students to be proficient with digital skills to navigate to AI driven education land space. Artificial intelligence and human instructions to be balanced to promote effective learning experience. While AI presents significant advancements in higher education, the human element remains irreplaceable, highlighting the need for a balanced approach to technology integration. Continuous learning support is desirable and changes in guidelines, curriculum design and assessment ensures exploiting the benefits of Artificial Intelligence in learning experiences. Adequate fund to be allocated to

build technological enabled environment. Educators should support the students to get progress by providing continuous learning environment. Student should access learning resources which caters their needs and preferences.

Suggestions

To Institution

- Strict policies and standard to be maintained to protect personal data.
- Security measures and protocols to be developed to protect the sensitive data from unauthorized access.
- Adequate fund to be allocated to build technological enabled environment.

To Educators

- Educator should undergo professional training to integrate artificial intelligence into teaching process.
- Educator should engage students with unforgettable learning environment.
- Educators should support the students to get progress by providing continuous learning environment.

To Students

- Student should access learning resources which caters their needs and preferences.
- Students should explore advanced concepts through gamification.
- Students to be equipped with critical problem solving decision making and digital skills.

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