



## THE IMPACT OF ARTIFICIAL INTELLIGENCE (AI) ON HIGHER EDUCATION : A CRITICAL STUDY

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### **Abstract**

*Researcher has been presented this research paper, the impact of Artificial Intelligence on Higher Education system. Basically researcher has been focused the learning-teaching skills, student performance, assessment, evaluation etc. Artificial intelligence (AI) has been a topic of growing interest and investigation in various fields, including higher education. This research article explores the impact of AI on higher education by examining its effects on teaching and learning, assessment, ethics, required skills, and future careers. The aim of this study is to analyse the influence of AI on higher education, investigate its impact on the teaching and learning process, examine its effect on assessment and grading, and predict its influence on graduates' future careers. The results of this study demonstrate the crucial role of AI in the future of higher education. The findings highlight the effectiveness and efficiency of AI in equipping graduates with new skills for their future careers. The study reveals that higher education institutions need to integrate AI more extensively in their programs to prepare graduates for the future workforce.*

**Keywords** – AI, Higher Education, Impact, Teaching-Learning Skills, Evaluation & Assessment

### **Introduction**

AI has the potential to revolutionize education by personalizing teaching methods to suit individual student needs, providing prompt feedback, and automating administrative tasks. It can also assist in grading and assessment, freeing educators to focus on developing curriculum and providing quality instruction. The study findings suggest that AI has a positive impact on the learning experience by facilitating the acquisition of new knowledge and skills. This research provides insights into the potential of AI to transform higher education and contribute to the development of new skills for graduates. It has important implications for educators, policy-makers, and other stakeholders in the higher education sector. The study findings suggest that AI should be more extensively integrated into higher education curricula, and that institutions need to consider the ethical implications of AI in the development and implementation of their programs. By doing so, they can better prepare graduates for the demands of the future workforce. One of the greatest advantages of AI in education is its ability to personalize learning according to each student's individual needs. AI systems can analyze student data, such as strengths, weaknesses, and learning preferences, to offer tailored educational content.



## **Review of Literature**

This literature review examines the impact of artificial intelligence (AI) on higher education. It explores the potential benefits of integrating AI into education, such as improving education quality and introducing innovative teaching methods. However, it also highlights critical perspectives and ethical considerations. The review covers various aspects of AI's impact on education, including its effects on learning and teaching, assessment, future careers, and ethical implications. It emphasises the need for fair and ethical use of AI, evaluation of AI integration, and sustainable governance. The review acknowledges the challenges posed by AI in the fourth industrial revolution and calls for further research to fully understand and address the ethical implications of AI in education.

Currently, AI has become a vital part of the virtual world. Unquestionably, AI plays an important role in general education and higher education (Edtech, 2020). For example, the efficient uses of filtering emails, advertising, applications, YouTube, and virtual assistants such as Google, digital libraries, Google Scholar, and other digital research engines in any higher institution worldwide (García-Vélez et al., 2021). The latter researchers AI as sharp and robust when performing most or all cognitive tasks are typically human (Beight & Reddell, 2005). AI plays a vital role currently, the researchers mentioned above consider AI a threat to human civilisation and support their argument with what experts in the field think about AI, such as Bill Gates, Elon Musk and Stephen Hawking (Ma & Siau, 2018).

## **Objectives of Research Study**

The objectives of present research study are as follows –

1. To study the impact of AI on higher education.
2. Investigate the impact of AI on the learning and teaching process.
3. To study AI impact on the assessments and grading process
4. To predict the impact of AI on future careers of graduates

## **Hypothesis of Research Study**

The present research study has focused following hypothesis –

1. Artificial intelligence (AI) can impact higher education in many ways, including improving the quality of education and teaching-learning skills.

## **Research Methodology**

For the present research study the data pertaining to the above objectives was collected and reviewed the literature on the topic concerned. The literature was thus collected by visiting various libraries. The secondary data is also collected from various websites.

Present research study focuses on primary and secondary data. The primary data has been collected from respondents regarding the field of higher education that is 100 under-graduate and post-graduate students, teachers, and administrative staff. The Secondary Data is collected from various reference books related to Higher Education in India, Artificial Intelligence, Computing Education, AI and Robots on Higher Education, AI related literature review etc. For said

research study secondary data is also collected from the National and International Research Journals which are related to Artificial Intelligence.

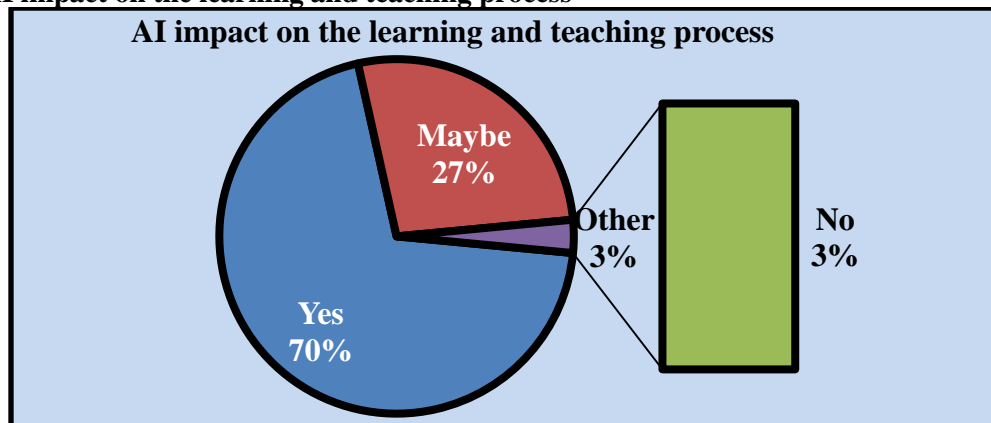
### Impact of AI in Higher Education System

AI impacts the learning and teaching processes, on the assessment and classification process and on future careers of graduates are explain as follows -

- 1. AI impact on the learning and teaching process** - Dealing with the impact of AI on learning and teaching in higher education, it is evident that AI will impact higher education in many ways. Although this study is essential for a load of information on the influence of AI on higher education, it can be criticised for not tackling the issue genuinely, as the impact is much more profound. Indeed, focusing on the learning and teaching process, no one would doubt that AI is replacing the lecturer or tutor in many ways, such as blended learning and e-learning. The presence of an e-learning lecturer is limited as the learner interacts with a virtual classroom
- 2. Impact of AI on the assessment and classification process** - AI does not impact only the learning and teaching process but also the assessing and grading process. For instance, AI checks assignments and research projects through software such as Turnitin against billions of resources in no time. Consequently, similarities are easily generated to judge whether the learner plagiarised. Similarly, online rubrics and grading forms are added to assignments with criteria and scales, and final grades are automatically added to the submitted work without any hassle.
- 3. AI Impact on Future Careers of Graduates** - AI affects the world of education, but it also seems restricted to this area and follows the learner even after graduation. AI will impact the future job market of required skillsets. It will replace many other studies that involve routine tasks and structures that are easy to automate instead of unstructured disciplines that require complex cognitive interference. AI or computer assessment is not limited to grading papers but can be the gateway to a future career.

### Analysis, Interpretation and Findings

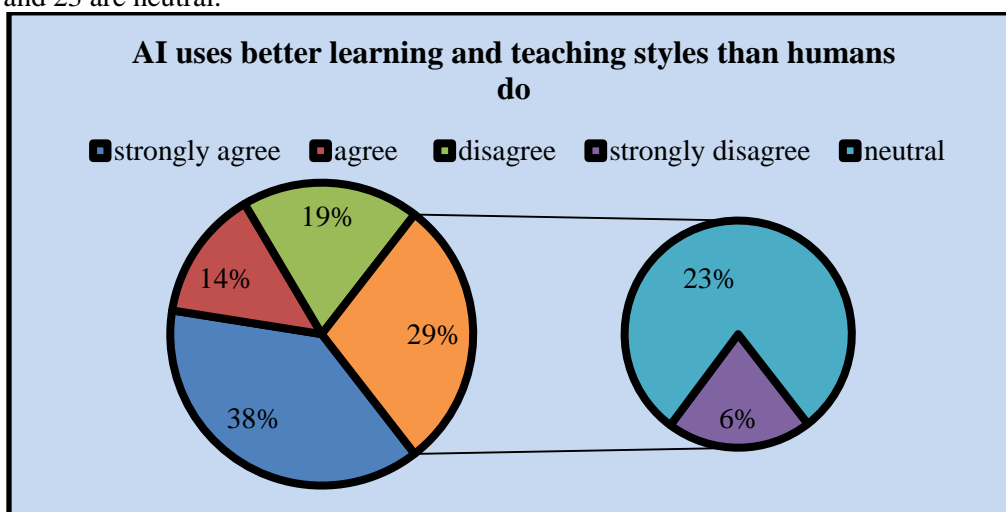
- 1. AI impact on the learning and teaching process**



Researcher studied that AI effects on higher education, the results reveal that most agree with 70 “Yes” that AI affects higher education. However, 27 participants think 'Maybe' and only 3 say 'No' AI will not impact higher education.

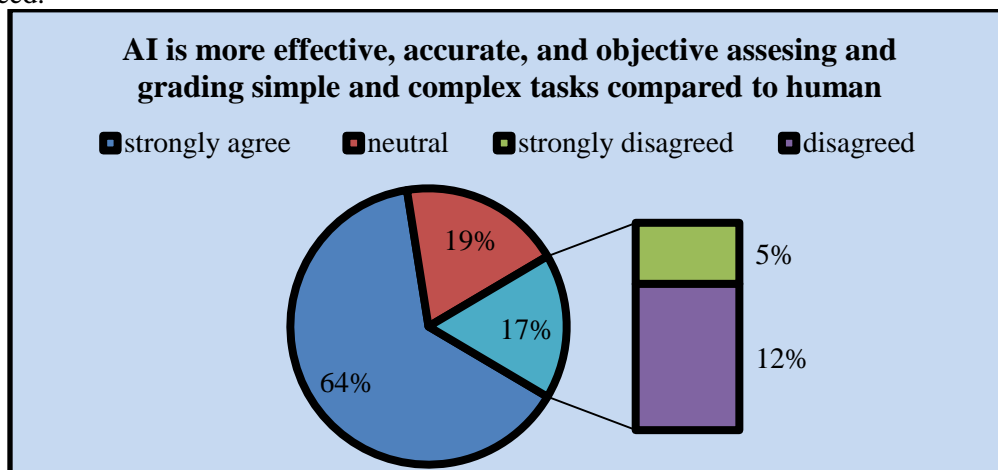
### 2. AI uses better learning and teaching styles than humans do

Researcher shows that, AI uses better learning styles and teaching methods in higher education than humans. The responses reveal that 38 participants strongly agree, 14 agree that AI uses better learning styles and teaching methods than humans, compared to 19 participants who disagree, 6 strongly disagree, and 23 are neutral.



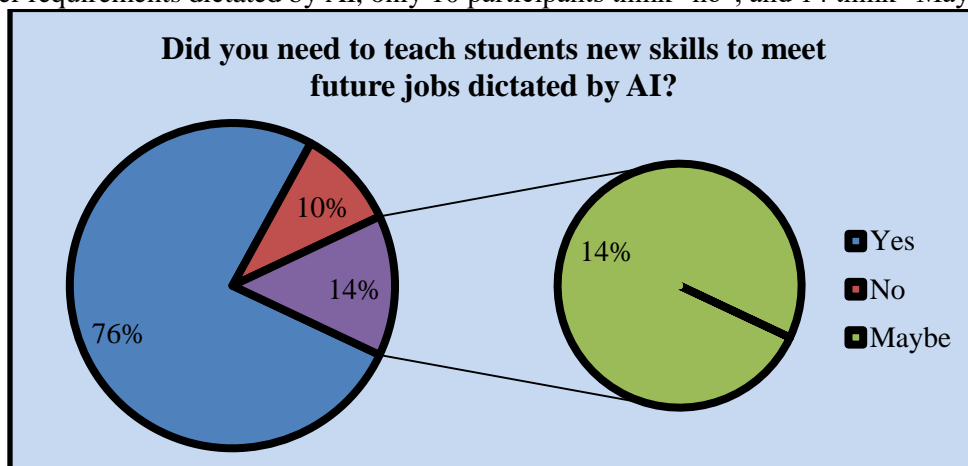
### 3. Impact of AI on the assessment and classification process

Concerning the effects of AI on assessments and classification, the vast majority of participants, 64, strongly agree that AI is more effective, accurate, and objective in evaluating and grading complex and straightforward tasks than humans. However, 19 participants were neutral, 5 strongly disagreed, and 12 disagreed.



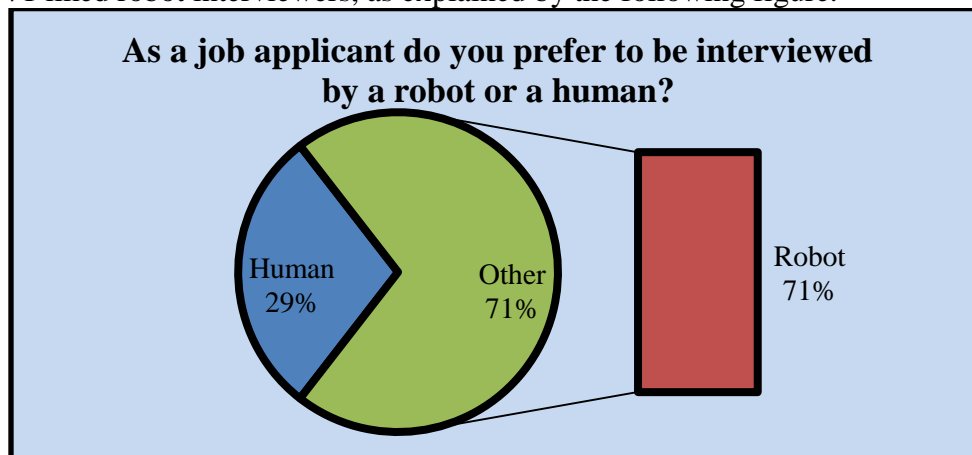
**4. Did you need to teach students new skills to meet future jobs dictated by AI?**

Researcher has results reveal that 76 think “Yes” we need to teach students new skills to meet future career requirements dictated by AI, only 10 participants think “no”, and 14 think “Maybe”.



**5. As a job applicant do you prefer to be interviewed by a robot or a human?**

Researcher shows that, 29 participants preferred to be interviewed by human rather than robots, of 71 liked robot interviewers, as explained by the following figure.



**Recommendation**

Based on the findings and issues raised in this research paper, the researcher recommends that applying AI in higher education is a requirement for all higher institutions. However, AI appliance suggests that academic staff should be well trained in using AI to equip learners with the required skills to face future care challenges. Similarly, the researcher recommends highlighting ethics and humanity first when teaching AI, as it threatens humankind without these values.



## **Conclusion**

This research paper investigated the impact of AI on higher education. Therefore, it stressed AI's human, ethical and cognitive impacts on the future of humanity in general and students and their future careers. Consequently, AI affects the learning and teaching process.

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