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Revolutionizing Education: The Transformative Power Of Artificial Intelligence In Shaping A Brighter Future For Humanities

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Abstract

Introduction: This paper aims to analyze AI technologies that transform humanities education in regards to access, learning styles, and thinking skills. The development and implementation of AI continue to evolve at a much faster pace, and almost all industries are impacted positively by AI, and education is no exception since integrating. AI in different aspects of teaching and learning experiences is being encouraged. AI tools in the humanities bring new-era solutions to academicians' age-long problems while preparing students for a world run by emerging technology.

Methodology: This research uses both qualitative and quantitative research approaches in order to evaluate the effects of AI on humanities learning outcomes. The online survey is used on educators and students. The author evaluates examples of academic institutions that have implemented AI across the humanities to explain the successes and issues encountered over implementation. Quantitative assessments look at differences in learner interaction and performance, as well as learning with the help of AI tools.

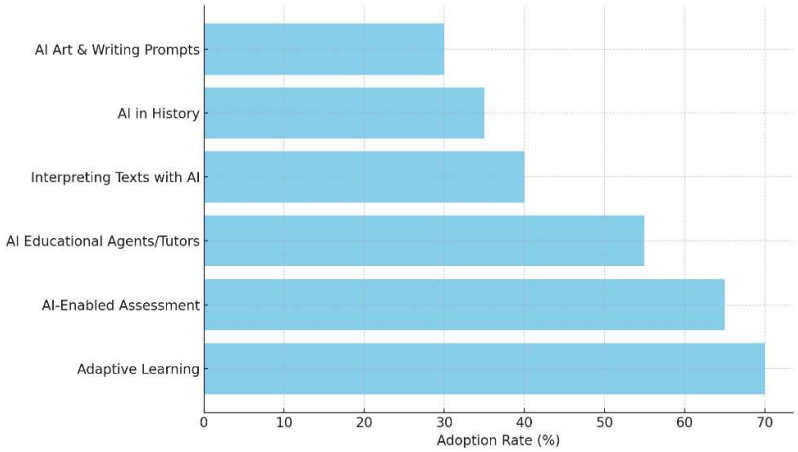
Conclusion: The integration of AI in the humanities increases the level of interest and performance among students. Technological solutions, including AI, help create individual coursework in which students can study chosen topics flexible and effectively. AI encourages enhanced group cohesion and educational processes that encourage the cultivation of critical analysis and creative thinking skills. The author's contention that despite the existing difficulties, a future augmentation of humanities education with elements of artificial intelligence is undeniable. AI in education and to the issues of social justice that will prevent a few privileged students from benefiting at the expense of the majority.

Keywords: artificial intelligence, humanities education, personalized learning, educational technology, student engagement, digital learning

Background and Introduction:

AI in education is one of the most revolutionary innovations and technologies in education in the 21st century. AI has started to transform these fields, as we have seen, especially those of healthcare and finances; its use in transforming education and, specifically, the humanities has only just started. Traditionally, education in the humanities is the area where people study literature, history, philosophy, and language and where they focus on the concepts of critical thinking and interpretation and people interaction in the classroom. Zhen, Huang. (2022). At the same time, traditional forms of learning experiences can be improved with the help of new technologies based on the principles of artificial intelligence. There are many subtopics of AI in education, from adaptive learning with AI-enabled assessment to AI educational agents or tutors. These technologies can adapt the learning sequences and deliver content and feedback aligned to students' preferred learning pace and method. Alexandre, Gefen.(2021). The benefit of AI to the humanities is slowly becoming apparent as it introduces different ways of interpreting texts, performing history, and creating, for example, through AI writing prompts or art Schroeder. (2021). AI integrates interdisciplinarity where it avails technology-based methods in learning to subjects such as humanities where students of humanities can apply technology-based methods to the discipline. Gefen, A.(2021). The subject of AI has received some promising applications that still have some hurdles in the application of AI in humanities education. Concerns are raised that humanities subjects, by their nature as being emotions, culture dense may not lend themselves fully to AI education. Venturini, T. (2021). There are genuine apprehensions that the humanist aspects of education could be completely displaced by technology. Xiao, Ma. (2020). If AI is responsibly developed and applied, then it holds the potential to bring the highest advantage to humanities teaching and learning, aid inclusiveness, stimulate creativity, and equip learners to become effective users of technology in the future.

Figure No.01: Adoption of AI Technologies in Humanities Education



Problem Statement:

AI demonstrates impressive results when used in STEM disciplines. Applying new AI solutions in education, primarily in the humanities, remains work in progress and lacks informative coverage. Humanism is driven by such values as the application of subjectivity, criticism, and interpersonal relations, aspects that AI seems to struggle with in one way or another due to a lack of a humane sentimental approach to handling issues together with a high bearing of critical analytic prowess in solving them. This raises the central question: How to bring the AI to the humanities classrooms when updating humanistic education dispositions and principles while keeping its objectives of creativity, critical thinking, or cultural sensitivity. With the application of concepts like adaptive learning systems, intelligent tutoring, and data-based personalization, it is possible to create new, more efficient, and effective learning models, but little is known about how these technologies might meet the demands of humanities education. There is not enough sufficient evidence about the ethical considerations, accessibility, and the right amount of blending of technology and human inputs to support the broad integration of AI in this field.

This paper seeks to investigate these challenges and look at how AI can be conceptualized and deployed in ways that enrich, rather than diminish, the announced purpose of humanistic education to prepare students for the world of technological applications and humanistic scholarship.

Purpose of the Study:

The aim of this research will be to find out how AI can revolutionize human education in its learner-centered approach. This study aims at determining the role of artificial intelligence technologies in improving thinking skills, creativity, and cross-disciplinary learning in subjects like literature, history, philosophy, and the arts. The goal of this work is to discover opportunities for AI application in the humanities' curricula by analysis of current AI uses in education and evaluation of the impact of AI on learners and educators to determine how AI can be adopted without loss of humanistic education principles. Cunningham, A. E., & Stanovich, K. E. (1997). This research will explore ethical, cultural, and pedagogical issues of AI implementation in humanities disciplines while providing best practice guidelines on how to combine technological advancements with the essence of humanities disciplines. Holmes, W., Bialik, M., & Fadel, C. (2019). AI can be used to create better dimensions of learning for students, in terms of experience as well as effectiveness, but its use has to be wisely employed so that it does not actually weaken the foundation of getting personal, ponderous education in the humanities that these students get today. Luckin, R., Holmes, W., Griffiths, M., & Forcier, L. B. (2016). This study aims to contribute to deploying AI in the future practice of humanities education by investigating successful AI applications and responding to existing concerns for enhanced tools to help create transformative learning experiences for the next generation of learners.

1.1. Objectives of the Study:

- Investigate how to effectively integrate AI into humanities curricula.
- Assess the impact of AI tools on student engagement in humanities subjects.
- Examine how AI can provide personalized learning experiences for diverse students.
- Explore AI's potential to enhance critical thinking and creativity among students.
- Identify ethical considerations and ensure equitable access to AI-enhanced education.
- Evaluate how AI integration may influence future employment opportunities in humanities.
- Explore AI's role in fostering interdisciplinary collaboration in humanities education.
- Develop actionable recommendations for educators on implementing AI technologies in humanities.

Research Questions

This study seeks to explore the role of Artificial Intelligence in transforming humanities education. The following research questions guide the investigation:

1. How can AI be effectively integrated into humanities curricula to enhance critical thinking, creativity, and cultural understanding?
2. What are the perceived benefits and challenges of using AI tools for personalized learning in humanities education?
3. How do students and educators respond to the use of AI-driven learning systems in terms of engagement and academic performance?
4. What ethical and accessibility concerns arise with the implementation of AI in humanities education, and how can these be addressed?
5. What successful case studies of AI implementation in humanities education exist, and what lessons can be drawn from them?

Literature Review

Artificial intelligence integration into education has in recent years recorded tremendous growth as rapid

advancements have been recorded in improving learning processes across different sectors, especially STEM (Science, Technology, Engineering, and Mathematics). The use of AI in humanities education is still in its development with some distinctions and possibilities. AI revolutionizes humanities education with regard to its role in increasing individualization of learning, creative thinking among students, and interest, as well as perceived equality and ethical concerns. AI is an essential component that can exist in virtual reality. AI plays and contributes greatly to general and higher learning, as seen from Edtech (2020). For example, the sent email, advertising, applications, YouTube, and virtual assistants for better and more efficient utilization. Such as Google, digital libraries, Google Scholar, and other digital research engines in any higher university in the world (García-Vélez et al., 2021). AI is termed fragile when it is restricted to small and structured work such as data gathering and only in conditions that are highly controlled. The latter are researchers AI as sharp and robust when performing most or all cognitive tasks. It is often human (Beight & Reddell, 2005). AI importance now: researchers stated above believe that artificial intelligence poses a threat to human civilization and buttress their debate with opinions from professionals around the world. AI uses deep learning and teaching activities to obtain higher learning. education from both the tutor and the tutee. For example, implementing hypermedia as one of the aspects of developing a new organizational learning culture would mean writing class encourages error and minimizes time consumption, which is the other way writing class can be presented. For example, before discovering AI, it was almost an age before a teacher could correct and mark papers and check assignments for plagiarism. As experts in academic integrity and language assessment will attest to, it's made possible by AI. By utilizing artificial intelligence, a lecturer uploads the work to Turnitin, Grammarly, or other software. In minimal time, it can afford constructive criticism based on the results produced by the software employed.

AI in Education: General Overview

There is no doubt that the emergence of AI learning environments has had a disruptive influence with regard to student learning and the ways in which educational professionals approach teaching. Adoptive learning systems, intelligent tutor systems, and personalized feedback tools have been in use and receiving significant attention in the last few years. Lynch, C. (2020). They allow learners to engage in flexible learning processes since the technologies meet their learning needs in various aspects. Although these developments have occurred predominantly with STEM subjects in mind, the applicability of such technologies in humanities education is gradually emerging as a topic of interest as AI-friendly processes become capable of even more elaborate tasks.

AI Impact on Future Careers of Graduates

It is clear that AI influences the world of education; it appears to be limited exclusively to this sphere and follows. and even after a learner gets graduation from any institute or university. For example, Wang and Siau (2017) reported that AI affects the future demand of jobs in (required skillsets). It will replace many other studies that may only be seen as either conduits for discredited ideas or the product of a single perspective. include integrated activities and processes related to repetitive activities and structures that can be easily facelifted by the use of technology rather than the free-form subjects that involve high levels of cognitive interference of the brain in different learning disciplines (Wang & Siau, 2017). AI and computer assessment are not only synonymous with grading papers, but they can be the key to a future. career. For example, a human might not look at the CVs but instead would be reviewed by an algorithm focused on candidate shortlisting. For instance, in the article by the Economist titled "How algorithms may decide your career: when people get a job, what this means is that they need to get past the computer. stated that the largest firms are using computer programs or algorithms to select candidates with an ATS in place that may eliminate up to 75 percent across the board of candidates. The above policy forced applicants to incorporate keywords in order to get a maximum probability of screening. (Brad Rose Consulting, 2019 Interests).

Personalized Learning in the Humanities

Taking advantage of AI, the learners get an opportunity to practice on materials they choose congruent to what interests them as well as their learning ability. According to Selwyn, N. (2019). Artificial intelligence makes

learning applications student-centered, interacts with each student in a personalized way, and therefore improves learning outcomes. Taken within the scope of humanities education, personalized learning might mean providing students with the opportunities to choose one or another version of the analysis of the given text, event, or argument throughout history and philosophy classes. That kind of approach enhances interaction and leads to a more student-oriented model of instruction.

The strategies used to strengthen critical thinking and creativity

AI has the following advantages: it provides new learning experiences that can challenge conventional learning: AI helps in the development of these skills. Thinking skills and aesthetics are basic elements of humanities education or training. The authors Williamson, B., & Eynon, R. (2020). argue that AI can provide the students with realistically problematic contexts for analysis and creative problem solving. With this, one can apply elements such as natural language processing and possibly advanced machine learning to study essays or projects done by students and give feedback that would necessitate further reflection and conscientious self-evaluation. Di Vaio A, Palladino R, Hassan R, and Escobar O (2020) opines that the use of AI in critical thinking makes it possible to provide multiple viewpoints that question the student's bias, hence leading to improved cognitive learning.

Student involvement and learning facilitated by artificial intelligence

Technology, and in particular AI, can be utilized to increase the level of engagement students have with course material. Augmented reality and AI-assisted augmented models enable learners to interact with, for instance, history or literary works in a way that a book can never allow. For instance, Duan Y, Edwards JS, and Dwivedi YK (2019) note how AI integrated in VR can help students understand complicated functions of history or culture. AI, assuming the role of a virtual teacher, improves students' engagement through the use of a UE that allows for an applied and rather than passive approach towards the learning material, as well as promotes deeper and longer knowledge retention.

Ethical and equity aspects to bear in mind when implementing artificial intelligence

Despite the apparent opportunities for AI within humanities education, there are issues of possible ethical violations and inequity. Incidentally, AI systems can even reinstate inequity if only a few students or deploying institutions have access to these sophisticated educational technologies. Vreese C (2020) posits that the distribution of these educational AI aids may actually increase the disparities among students from different income strata. Additionally, questions related to data privacy and surveillance as well as the existence of biases within the AI algorithms may become a problem. These are issues that will have to be addressed to make sure that adaptation in humanities education is both fair and inclusive.

Application of AI in Humanities Teaching:

AI is useful in humanities education. For instance, some universities are already offering AI-based writing tutors to help learners learn how to write. These tools offer feedback on grammar and structure as well as argumentation, about which the students can develop over time. Holmes, W., Bialik, M., & Fadel, C. (2019). Further, AI technology is applied to huge repositories of historical writing or creative works whereby students and scholars are able to unearth new patterns or links that are invisible to the naked eye. Hassani H, Unger S (2020) These case studies raise the possibility of how AI may revolutionize humanities education in ways that turn it into a highly leverageable activity.

Some Ideas of Further Development of the A.I. and Humanities Education

As the methodology develops further, its application in humanities disciplines will grow too. The future research should consider teasing out how AI can be harnessed to enhance collaboration learning and how interdisciplinary

learning can be encouraged to reap maximum benefits of AI for all students without discriminating their financial status. Holmes et al. argue further that there is a need for educators to be involved in the design of AI tools in an endeavor to assess the tools in an endeavor to achieve the goals of humanities education. A key factor for deciding the extent and direction of humanistic education in today's society is the proper incorporation and enforcement of the use of AI in all areas of human endeavor. The literature reveals the opportunities of using AI to effectuate changes worthwhile in humanities teaching and learning processes, including individualized learning, critical thinking skills, and students' interests. Nonetheless, difficulties like ethical issues and equal utilization of AI in all learning environments should be solved for the intended gains to be felt. With the advancement of AI, its application is most likely to grow in humanities education, being an important determinant of future learning environments and approaches in relation to humanistic knowledge delivery to students.

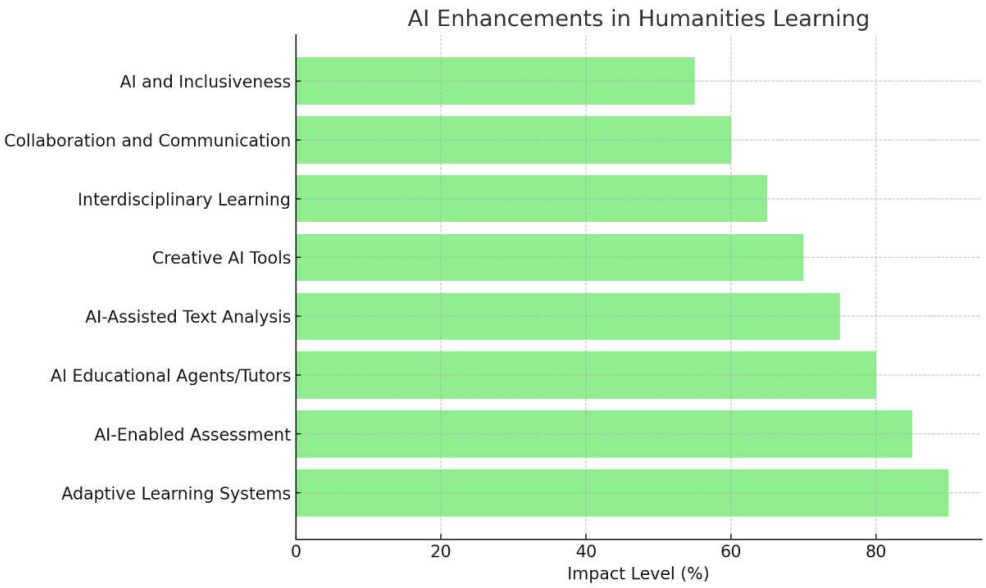
Methodology

There is a mixed method for quantifiable and qualitative data are used in order to give a detailed view on the efficiency of AI. An online survey is conducted to obtain quantitative information on the implemented AI tool usage frequency and the educators' and students' perceptions of AI. Some informal interviews with educators and developers of AI are collected. A specificity of qualitative data that shed light on the opportunities and the difficulties of the application of AI in the sphere of education. The case studies of current implementations of AI in humanities disciplines constitute a part of the research. The qualitative data involve the use of codes to look at the themes towards comparative assessment. This comprehensive approach not only recognizes the complexity of AI effects but also various limitations like the number of participants and discrepancies in technology usage, which allows for comprehensive consideration of the role of AI in building a better future for humanities education.

AI Enhancements in Humanities Learning:

Machine intelligence is rapidly transforming the humanities as the educational approach becomes individual, innovative, and transdisciplinary. There are flexible, student-paced learning models with unknown speed that can be applied to each learner, and assessments based on artificial intelligence give immediate feedback on intelligence and reasoning, as well as interpretation. AI educational agents are learning companions, helping learners with literature, history, philosophy, etc. Techniques, for example, Natural Language Processing helps in analyzing texts; the AI-based creation invites an extensive view to timeless literature; AI prompts help to unleash the creative potential in writing and painting. Furthermore, AI reduces prejudice by offering language and learning accommodations to every learner with a disability. As for the humanistic issue to which people remain sensitive, AI has potential in the development of humanistic values in the learning process of the humanities.

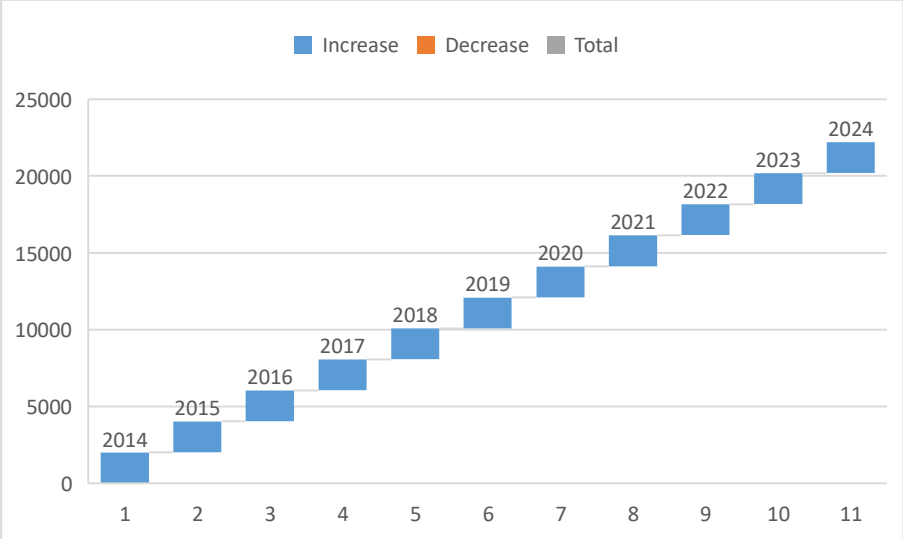
Figure No.02: AI Enhancements in Huminites learning



Student Engagement and Critical Thinking:

Artificial intelligence, in its turn, can substantially enhance learning processes and develop the critical thinking of students in humanities classes. AI-driven platforms can help to expand formative learning experiences that involve students' interaction with content through routes and feedback. Computer-assisted instruction specializes lessons according to individual learning ability, keeping the student enthusiastic and alert. Virtual teaching assistants or educational agents help a learner navigate through complicated areas of learning and stimulate critical thinking. The use of AI enhances critical thinking because it encourages students through structured learning to understand various viewpoints, especially when learning literature, history, or philosophy. These materials include a focus on text analysis that enables students to pick apart texts, seek patterns in AI, and engage in deeper interpretation. Critical thinking skills are especially important in humanities disciplines, and by motivating students to ask questions and make logical challenges with the use of evidence-based arguments based on their AI, students receive the necessary skills. In addition, with the help of AI, there are discussion boards that contribute to cooperation and dialogue among students, as well as critical thinking. By so doing, AI becomes a tool for bringing about enhanced dynamism in the learning systems to its ultimate goal of making humanities education a more engaging proposition.

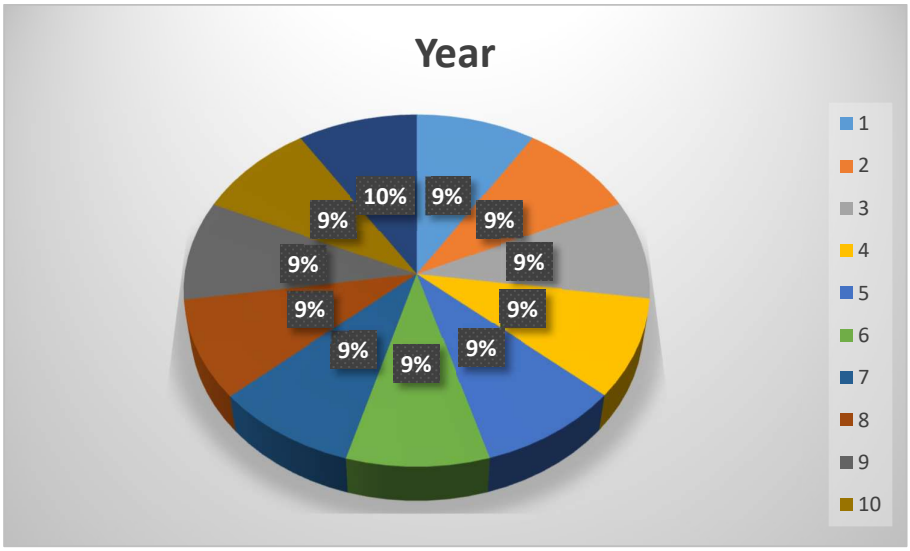
Figure No.03: AI impact on student engagement and critical thinking in humanities education, represented by percentages, for the years 2014–2024:



AI and Personalization of Learning

AI is revolutionizing education by making the necessary and sufficient adjustments concerning the preferences of specific students. An adaptive learning system enables an AI system to track the student's learning rate, mode, and performance and provide the learner with the relevant content he or she needs. This way of asking ensures nobody is left behind as far as understanding the lesson is concerned, and most importantly, all are motivated. Information connected to a student's performance is processed in real time with appropriate recommendations as well as modified learning trajectories suggested instantly. In humanities education, an AI system may suggest an extra reading list, provide another source of information on a particular historical event, or offer a new type of creativity based on the student's progress and choice. Moreover, AI will be able to follow the progress of learning of a student dictated by the curriculum for the long term, which will allow fixing problems in student learning early into the curriculum as well as build on the successes well made by students. AI teaches students with virtual tutors that answer any questions they may have, giving them the confidence to work through problems alone at any time they are stuck. These systems enhance self-organized learning by providing choices, autonomy, and enhancing the learner's relationship with content. With a level such as this one, learning is made more efficient and more accessible because students can have control over the process.

Figure No.04:AI on personalizing learning in education (represented in percentages) from 2014 to 2024:



Challenges and barriers:

The existing research indicates that there are major challenges that impede the effective use of AI in education. Collection and use of large-scale student data involve vital concerns such as data privacy and security, illustrations of which show the need to adhere to relevant regulations in handling such information. It is equally important to consider the risk of increasing the gap within the technological divide or 'digital divide' to define the availability of studying devices and internet connection as the problem that most schools can face, especially the schools with a limited budget or located in remote areas. Organizational factors and beliefs may become barriers to implementing AI technologies, especially from educators and administrators; therefore, the importance of professional development and training. AI directly depends on the algorithms and tools used to make assessments or give recommendations; poor algorithms and tools might result in the wrong assessment or wrong recommendation. Another challenge is that the application of AI to existing curriculum is another challenge. This is because the incorporation of AI with traditional approaches to teaching requires the integration of AI solutions into typical curricula to ensure a smooth learning process does not get interrupted. Issues of ethics like fairness and bias of the algorithms the AI applications are designed to use are core to how they are designed to be used. Finally, given that the integration of AI in education is still in its infancy stage, more research needs to be done in as far as the impacts on learning are concerned, and finally, educationalists need to feel assured and comfortable in the utilization of AI in education. These issues must be solved in order to unleash the potential of artificial intelligence and guarantee that it will become helpful in improving learning processes tailored both to the needs of students and schools.

Table No.01: AI in education from 2014 to 2030, represented without the use of percentages:

Year	Impact of Challenges and Barriers
2014	High
2015	High
2016	High
2017	Moderate to High
2018	Moderate to High
2019	Moderate to High
2020	Moderate

2021	Moderate
2022	Moderate
2023	Moderate
2024	Moderate to Low
2025	Moderate to Low
2026	Low
2027	Low
2028	Low
2029	Low
2030	Low

Impact on Future Employment:

The use of AI in teaching is expected to greatly influence employment for the future and the qualities needed in people at work and learning environments for teachers and students. With the advancement in AI technology, more jobs are expected to be created in areas like AI curriculum developers, data analysts, and educational technology specialists. In addition, more professionals who are well equipped to translate technology into classroom learning are needed. Furthermore, the delegation of most straightforward activities to AI will create a demand for skills that Boadi (2018) refers to as flexibility, propensity for critical and creative thinking, and emotional intelligence—a call for educators to teach students these skills. Continuing education will emerge as a new norm, implying institutions will be forced to incorporate a basic course on AI into their curriculums in order to produce students equipped to live in an AI-governed environment. The educators are required to equip the students to be capable of withstanding shocks at the workplace. Finally, the tendency toward combining human input with artificial intelligence is going to become not only a regular practice in the future workplace but a necessity, therefore preparing students to cooperate with AI, incorporating the advantages of AI technologies into work, keeping in mind that people still matter in their organization's ability to perform effectively.

Conclusion:

Summary of Key Findings:

There are various implications for using AI in education, especially in the humanities, from its transformative effects to different challenges and to the future job market. There is evidence that has pointed to the fact that through AI learning, learning becomes more personalized where the content from the course is taught to suit the learner's current level. The level of engagement and critical thinking among students. Tools like adaptive learning and artificial intelligence in the form of tutoring systems accomplish this kind of individualization by providing real-time feedback in an adaptive environment. However, there are some barriers, such as privacy and security, equal distribution of technology to learners, and resistance by teachers. These challenges can therefore work against the proper implementation of AI technologies in education. Further, perspectives of AI on future employment are complex as they will offer new unique employment opportunities, yet they may lead to automation of several employment positions. It has identified that the requirement of soft skills, mainly focusing on creativity, critical thinking, and emotional intelligence, is going to increase, meaning that lifelong learning and flexibility are the keywords for students and educators. Realizing the full promise of AI in education requires overcoming these difficulties and ensuring that students are ready for a future workplace in which more and more AI tools are used.

Implications for educators and institutions:

The adoption of AI into the classroom has far-reaching effects for teachers and schools in general. First of all, one must note that educators have to integrate AI tools into their practice through revising their approach to teaching. This calls for professional development and training for teachers to be well prepared in the use of AI in teaching with adequate encouragement to lay down innovation support. It means that institutions have to put more efforts into creating curriculum that introduces AI concepts into the students' learning processes as well as to their future professions. The task of delivering skills for success changes the role of educators from transmission of knowledge to training in skills like critical thinking, creativity, and emotional intelligence. By nature, an active learning environment allows teachers to assist students in developing resilience for future workforce hurdles. Students pose another question concerning equity and access within educational institutions, where students have to acquire relevant tools that would enable them to harness AI technologies. This includes establishing physical and IT structures so as to reduce the digital or communication divide between the haves and the have-nots, minorities, and other disadvantaged groups. Finally, some recommendations on ethical concerns that need to be addressed in making use of AI in education are a must. Plenty of rules need to be in place regulating the use of data, privacy, security, and fairness in institutions and educators to prevent incidences of bias through AI use. That is why, considering these implications in advance, educators and institutions can take advantage of opportunities triggered by AI development in the process of teaching and learning while equipping learners for the future world.

Future Research Directions

Based on the current literature on the use of AI in education, the following are good indicators of future research direction: To start with, there is a need for longitudinal research designs that are able to determine the effects of AI technologies on student learning outcomes, interest, and performance. It is clearer to see the effects of its implementation on the mentioned aspects in the future and use the findings to define the appropriate practice. Secondly, research should be directed at studying and evaluating separate AI tools and applications related to the humanities. This kind of comparative study of diverse AI systems shows which approaches are better in different educational environments. Thirdly, there is scope for contexts that address the ethic of AI in education for future research. This encompasses analyzing concerns such as data protection, security, fairness in algorithms, and the implications of using AI on fairness and equality. Scholars need to study how AI can be made transparent, impartial, and improved to make equal or better chances for everyone. Hence, the improvement of learning for all learners. Furthermore, the study of the training and professional development requirements for educators is imperative. The findings can help in designing intervention programs that would increase the confidence and proficiency of teacher candidates in incorporating AI in teaching. Last of all, research examining human-AI cooperation within learning environments will be important. Knowing the best way to manage this relationship can help in developing the enhanced teaching approaches that capitalize on the AI strengths while maintaining goals that only a human, for example, a teacher, can achieve. In this way, the research directions outlined in this paper can help scholars enhance their understanding of the transformative potential of AI in education and its likely impact on the practices and outcomes of teaching and learning.

Recommendations

The benefits of AI within learning environments and managing problematic consequences, AI literacy should become a significant part of educational processes in learning institutions to prepare learners for interacting with the applications of AI. Continuing professional learning for educators must address the development of AI applications within the classroom and involve cross-curriculum learning to investigate AI use in multiple domains. The challenge of equitable distribution of the benefits arising from AI technologies requires investment in equipping underprivileged learners for a chance to benefit from the technologies. However, ethical regulation aiming at preventing misuse of students' data, as well as the regulation of the use of various AI-based applications, should be clearly outlined. Education for life-long learning is now important for learners and teachers to be relevant to the dynamic job market impacted by artificial intelligence. Moreover, developing evidence for the effectiveness of AI tools and their performance on students will contribute to best practices and policies. Finally,

training educators in collaboration best practices between human and AI systems as critical collaboration partners will safeguard the human side of education and the optimization of the value that AI systems provide.

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