

Research Article

Impact of Adopting Artificial Intelligence in Education System

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A B S T R A C T

Artificial Intelligence (AI) is becoming more prevalent in several educational fields, which has altered its nature and application. The objective of this paper is to describe how the field of education can and is using artificial intelligence. It is crucial to realize that the purpose of AI is to improve education for our kids, not to take the role of instructors. In order to improve children's educational experiences, students, and teachers AI helps us to rethink the whole education system with visualization techniques. we must use more hybrid models where we get the best AI-enabled systems so that when students spend time with their children they should learn about creativity. AI has been used in education for decades. Recently with improving and open source AI, the topic is highly prevalent and somewhat controversial. The application of AI and its effects on teaching, learning, and administration was the exclusive focus of the study. The goal of the study was successfully realized with the help of a qualitative research strategy that made appropriate use of the literature review as a research design and methodology. However, Each student's needs have been catered for in the curriculum and materials since the systems leverage adaptability and machine learning. This has improved the learning process and the Caliber of instruction overall by promoting uptake and retention. In this paper, explain to outline a particular approach to creating an AI-powered learning platform and the consequences of AI in education.

Introduction

The broad discipline of computer science known as artificial intelligence (AI) aims to create intelligent machines that are able to do activities that typically require human intelligence.. Examples of artificial intelligence (AI) include Siri, Alexa, self-driving cars, Robo-advisors, conversational bots, and email spam filters (Stanford Encyclopaedia of Philosophy, 2020). The COVID-19 pandemic has highlighted the increasing effectiveness of artificial intelligence (AI), making it the newest trend in the world (Vaishya et al., 2020). AI aided in the fight against the virus and saved employment and educational systems around the world

(UNESCO, 2020). Therefore, it is critical to clarify how man-made reasoning (simulated intelligence) will influence advanced education, one of life's major circles. In view of earlier examination as well as member encounters, sentiments, and gauges, this study analyzes the impacts of simulated intelligence on advanced education.

Literature Review

Computer based intelligence is presently a fundamental part of the virtual world. Beyond a shadow of a doubt, computer based intelligence essentially affects both advanced education and general instruction (Edtech, 2020).

As a delineation, consider how successfully any advanced education foundation in the globe could channel messages, ads, applications, YouTube, and remote helpers like Google, computerized libraries, Google Researcher, and other computerized research motors (García-Vélez et al., 2021). However, Ma & Siau (2018) claim that Aloth is both robust and weak. Put differently, Ma and Siau (2018) characterize AI as delicate when it comes to small, constrained, and organized tasks like data collection.

Artificial Intelligence Influence on the Learning and Educating Process

Managing that effect of artificial intelligence on learning and showing in advanced education, it is apparent that simulated intelligence will affect advanced education in numerous ways and basically in two central regions: enlistment and educational plan. For example, Mama (2018) keep up with that man-made intelligence will speed consistency and exactness in educational program and enrolment. Besides, as indicated by Mama and Siau (2018), human sciences and aesthetic sciences majors will turn out to be more well known in light of the fact that these areas of study are less helpless against the field of simulated intelligence than different regions, like bookkeeping and money (Mama and Siau, 2018). Albeit this study is fundamental for a heap of data because of simulated intelligence on advanced education, it tends to be censured for not handling the issue really, as the effect is significantly more significant. To be sure, zeroing in on the learning and showing process, nobody would question that man-made intelligence is supplanting the teacher or guide in numerous ways, for example, blended learning and e-learning. The presence of an e-learning speaker is restricted as the student interfaces with a virtual homeroom, whether on Board, Moodle, Turnitin or some other stage (Jlu and Laurie A, 2018). Similarly, Teacher Roland T Jawline from Hong Kong Baptist College accepts that computer based intelligence is intended to change how we learn, educate, work, live, decide, and be prepared for the man-made intelligence period. In this manner, artificial intelligence isn't just about its shallow impact, however about extremist changes in the educating and growing experience top to bottom.

Impact of Ai on the Assessment and Classification Process

Computer based intelligence doesn't affect just the learning and showing process yet additionally the surveying and reviewing process. For example, computer based intelligence checks tasks and exploration projects through programming like Turnitin against billions of assets right away. Thus, similitudes are effectively produced to decide whether the student copied. Essentially, online rubrics and reviewing structures are added to tasks with models

and scales, and last grades are naturally added to the submitted work with practically no issue (Mahana et al., 2012). Besides, man-made intelligence offers intelligent approaches to giving helpful criticism to the student, simple access in a casual way whenever and anyplace, with more protection and independence. Also, the educator can set up or account input to work with and further develop gaining from blunders.

However, the above examinations are important according to alternate points of view in tending to the job of computer-based intelligence in evaluating and surveying the student and working with the job of the educator, a basic mastermind couldn't neglect to suggest the accompanying conversation starters: What might be said about predisposition in stamping reports? Who might ensure that simulated intelligence is fair and goal? What might be said about the human side of the educational experience and evaluation? Will man-made intelligence consider the brain science of students evaluating or surveying a paper?

Simulated Intelligence Effect on Future Vocations of Graduates

Man-made intelligence influences the universe of schooling, however, it likewise appears to be limited to this area and follows the student even after graduation. For example, as per Wang and Siau (2017), computer-based intelligence will influence the future work market of required ranges of abilities. It will supplant numerous different investigations that include routine undertakings and designs that are not difficult to computerize rather than unstructured disciplines that require complex mental impedance (Wang and Siau, 2017). Man-made intelligence or PC evaluation isn't restricted to reviewing papers however can be the doorway to a future vocation. For example, a human may not understand CVs but rather be screened by a calculation worked in competitor shortlisting. For instance, in an article by a Financial expert named "How calculations might choose your vocation: finding a new line of work implies moving beyond the PC", it is accounted for that the biggest firms are presently utilizing PC projects or calculations to choose competitors with a candidate global positioning framework (ATS) which can dismiss up to 75% of applicants. The above strategy pushed candidates to utilize watchwords to amplify screening interests (Brad Rose Counselling, 2019).

Likewise, comparable exploration directed by Mama and Siau of Oxford College contends that in the following decades, around 47 percentage of occupations in the US of America and practically 54 percentage in Europe are in danger because of artificial intelligence (Mama and Siau, 2018). Furthermore, the last specialists at Oxford College conjecture that computer-based intelligence will compose secondary school expositions by 2026, compose top-of-the-

line books by 2049, interpret dialects by 2024, and carry out procedures by 2053. Jawline (2018) from Hong Kong College contends that there is disregarded computer-based intelligence, Albeit every one of the qualities expressed above about how computer-based intelligence is crawling into the vocational world, Mama and Siau (2018) censure these perspectives contending that about delicate abilities, for example, compassion, correspondence, cooperation, development, decisive reasoning, critical thinking, and initiative, man-made intelligence isn't so powerful as human mental capacity (Mama and Siau, 2018). The two scientists support their perspectives by proposing that higher establishments ought to give delicate and hard abilities like maths, IT, and design while at the same time preparing understudies. They figure computer-based intelligence may not be fit for managing the cost of these abilities for future business vocations (Mama and Siau, 2018). Even though PC-driven screening is accepted to keep away from predispositions in the customary enlistment process, simulated intelligence isn't sans predisposition. That calculation can incline toward competitors with time and cash to consistently re-instrument their resumes (Brad Rose Counselling, 2019).

Information Assortment We involved the Favoured Revealing Things for Methodical Survey and Meta-Examinations (PRISMA) to extensively sum up past investigations distributed. The PRISMA rules incorporate three stages: recognizable proof, screening, and consideration (Page et al. Citation 2021). Figure 1 shows the article determination process. Article looking and information assortment were acted in April 2022 from the Scopus data set. Scopus is a complete and broadly involved vault for bibliometric investigation. The underlying inquiry string included choosing articles zeroed in on simulated intelligence and

This prompted the avoidance of 60 articles, leaving 405 articles. Articles not written in English were barred, and this left 38 articles. The leftover 389 articles and the edited compositions were traded to MS Succeed for investigation. Distributions not connected with HE were taken out, leaving 304 articles that were dissected. The article choice cycle is displayed in Figure 1. We downloaded information on 300 articles from the Scopus data set in xls Succeed design. The edited compositions, catchphrases, references, and bibliographic data were traded to viewer, a free bibliometric device with perception and text-mining capacities. WOSviewer gives network perceptions and thickness maps. The Local business calculation was run on Python 3 utilizing Jupyter Scratch pad. Quantitative techniques were utilized to investigate the information and make sense of the distributions' arising subjects.

Information Pre-Handling

We pre-handled the information for investigation utilizing the LDA calculation. The 300 digests from the chosen distributions were tokenized into units of words. Unique characters, for example, accentuation marks, stop words, and action words were taken out from the information before examination. The Local calculation was utilized to distinguish the 10 most prevailing points and the best 33 most notable terms.

Information Examination

The installed logical capabilities for reference, subject, and h-file examination given by the Scopus data set help the immediate commodity of information into WOS viewer and succeed. WOS viewer is utilized to foster organization representations and thickness maps. We broke down the information utilizing quantitative techniques to lay out key and arising subjects from the distributions.

Results

The report and the quantity of articles recovered are displayed in the given Table. Gathering procedures represent over portion of all articles examined, trailed by diary articles representing 37%. The way that gathering procedures papers rule can be ascribed to the rising interest

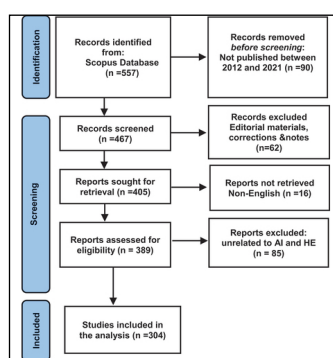


Figure 1. Article choice cycle

HE. We then limited our hunt to titles and digests containing “man-made brainpower” and “advanced education.”

The outcomes were sifted to incorporate articles distributed from 2013 to 2023 - leaving 460 articles. We then refined the articles by type to incorporate meeting procedures, diary articles, book sections, books, and survey articles.

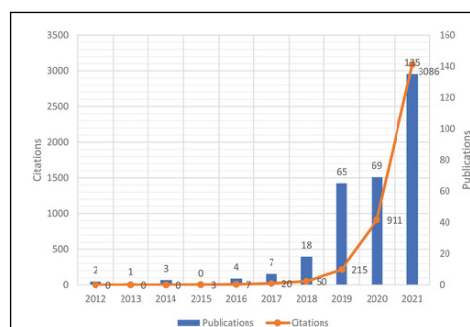


Figure 2. Publications and Citations

in computer-based intelligence in the developing number of arrangements coordinated in the field.

Most Useful Nations Analysts from 61 nations composed the 300 articles broke down, with four articles having their writers indistinct. China overwhelms with 61 articles, trailed by the US with 20 articles, Russia with 31, and the Assembled Realm with 30. Table shows distributions by country. The topographical dissemination of articles shows that interest in research in this field is spread uniformly in the worldwide north and south, albeit the worldwide north overwhelms. There is an eminent distinction in the

Table:- Techniques for Scenarios of AI Education

Scenarios of AI Education	AI- Related Techniques
Assessment of Students and Schools	Adaptive Learning method and personalized learning Approach, Academic Analytics
Grading and Evaluation of paper and exams	Image recognition, Computer-vision, Prediction System
Personalized Intelligent Teaching	Data mining or Bayesian knowledge interference, intelligent teaching systems, Learning Analytics
Smart School	Face Recognition, Speech recognition, Virtual Labs, A/r, v/r, Hearing and sensing technologies
Online and Mobile Remote Education	Edge Computing, virtual personalized assistants, real-time analysis

quantity of articles being composed, with nations from the worldwide north creating more than their partners from the worldwide south.

Different procedures are integrated into man-made intelligence framework for learning investigation, suggestion, information understanding and obtaining, in light of AI, information mining and information model. Simulated intelligence school system by and large comprises of showing items, information and insightful calculation, which can be partitioned into two sections, i.e., framework model (counting student model, showing model, and information model) and wise advancements. As displayed in Fig. 2, model assistance to construct information map is pivotal for further developing realizing, which lays out designs and affiliation rules for gathered instruction

information. The model fills in as a centre in computer-based intelligence framework, with advances giving capacity to the framework.

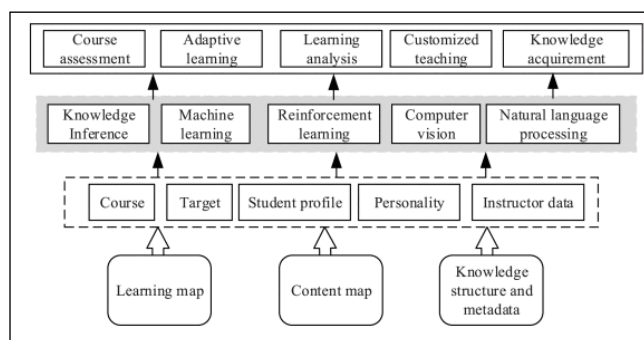


Figure 3. Knowledge Structure and Metadata Conversation of the Outcomes

From the various research papers and studies evaluated, it has been clear that having mechanical developments and headways, PCs and PC related advancements, and different developments have empowered the improvement of man-made consciousness, which has penetrated various areas of the general public, and will possibly altogether influence different endeavors in which it is used. One of these areas in which reenacted knowledge has been applied, and is achieving a tremendous impact, is the tutoring region. As a foundation, and justification for understanding how man-made insight has affected guidance, a definition and portrayal of PC based knowledge was viewed as key. Different standards and traits and the idea of man-made knowledge were assembled from the different definitions from the examinations surveyed.

Ceaseless turns of events and advancements, especially, with the progress of simulated intelligence from PCs just, to incorporate implanted frameworks, as well as on the web and electronic stages, harbingered the turn of events and utilization of simulated intelligence in electronic stages and online stages, and mechanical technology, proved by the turn of events and utilization of human robots, which perform, autonomously or working with human teachers, instructors' obligations, and spread of learning materials to students at different degrees of schooling. Furthermore, from the examination, and the depictions of the stages given in the separate assessed articles, it is evident simulated intelligence features, in schooling, in its various structures, has concurred students a more extravagant and seriously remunerating growth opportunity.

Conclusion

This paper defines the Man-made intelligence in schooling at first appeared as PCs and PC related frameworks, and later, the type of electronic and online training stage. Implanted frameworks have made it conceivable to utilize robots, or human robots as educator partners or free teachers, as well as chatbots to perform educator or teacher like capabilities. The utilization of these stages and devices have empowered or further developed educator viability and effectiveness, bringing about more extravagant or worked on educational quality. Essentially, computer-based intelligence has given understudies further developed opportunities for growth since simulated intelligence has empowered the personalization and customization of learning materials to the requirements and capacities of understudies. Generally, man-made intelligence significantly affects schooling, especially, on the organization, guidance, and learning region of the instruction area or inside the setting of separate learning establishments.

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