

# **EVALUATION OF AI IN EDUCATION**

**BY**

**Afsana Mim Anika**

**ID: 221-25-098**

This Report Presented in Partial Fulfillment of the Requirements for the Degree of Master of Computer science and Engineering (major in data science)

Supervised By

**Abdus Sattar**

Assistant Professor

Department of CSE

Daffodil International University



**DAFFODIL INTERNATIONAL UNIVERSITY**

**DHAKA, BANGLADESH**

**JANUARY 2023**

## APPROVAL

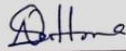
This Project/Thesis titled "EVALUATION OF AI IN EDUCATION", submitted by Afsana Mim Anika, ID No: 221-25-098 to the Department of Computer Science and Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of M.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation has been held on 17-01-2023.

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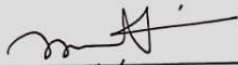
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I hereby declare that, this project has been done by us under the supervision of **Abdus Sattar Assistant Professor, Dept. of CSE**, Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

### Supervised by:



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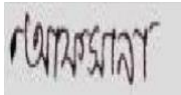
**Abdus sattar**

Assistant Professor

Department of Computer Science and Engineering

Daffodil International University

### Submitted by:



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**Afsana Mim Anika**

ID: 221-25-098

Department of Computer Science and Engineering

Daffodil International University

## ACKNOWLEDGEMENT

And first foremost, we offer our heartfelt appreciation and gratitude to Almighty God for His divine gift, which has enabled us to successfully finish the final year proposal.

I really grateful and wish our profound our indebtedness to **Abdus Sattar, Assistant Professor**, Department of CSE Daffodil International University, Dhaka. Our supervisor has extensive knowledge and a great interest in the subject of Computer Networks, Cryptography and Information Security. Honey pots will be used to complete this project. His unending patience, scholarly guidance, constant encouragement, constant and energetic supervision, constructive criticism, valuable advice, reading many inferior drafts and correcting them at all stages, and reading many inferior drafts and correcting them at all stages enabled us to complete this project.

We would like to express our heartiest gratitude to Prof. Mr. Abdus Sattar and Head, Department of CSE, for his kind help to finish our project and also to other faculty member and the staff of CSE department of Daffodil International University.

We would like to thank everyone of our Daffodil International University classmates who participated in this discussion while completing their course work.

## **ABSTRACT**

International Artificial Intelligence in Education Society is a multidisciplinary organization at the forefront of computer science, education, and psychology (IAIED). It encourages thorough investigation and the creation of engaging learning environments for students of all ages and expertise levels. We examined 35 papers from the Journal of AIED's thirteen-year publication history from 2010–2022, in order to identify the focus areas and typical conditions that define the subject of AIED. After reviewing those 35 publications I have noticed that the effects of AI in educational sectors has been shown differently in almost every paper. So depending on those work, I have come to propose an application which can help student, teacher and educational institution at a time.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

Innovation has forever been essential to instruction. Yet, because of the expanded availability of savvy gadgets and online educational programs, its utilization is presently more normal than at any other time. Various ways man-made consciousness is being applied in schooling to help understudies learn. The most important thing to remember in this technological age is to keep an eye out for instructive forward leaps. One of these advancements is the acceptance of mastering the executive frameworks. Understanding the executive's framework provides a focused, simple solution for the management of all internet-based activities at a school. These LMS with AI software allow for the learning of a wide range of subjects. An AI-powered intelligent digital teacher can assist a learner by giving them the solution to their problem as well as assistance with their problems. Man-made consciousness might be utilized to make learning the executive's frameworks that can investigate understudy perspectives and further develop understudy learning. At the point when man-made reasoning is referenced, a supercomputer rings a bell. A supercomputer is a PC with colossal handling power, a versatile way of behaving, and different capacities that empower it to have human-like discernment and useful capacities, and that work on the supercomputer's collaboration with people. The turn of events, spread, and presentation of innovation — and specifically, computerized reasoning — has simplified it for instructors to complete their obligations all the more successfully and proficiently. Other academic fields have also been impacted by these technological advancements, boosting efficacy and efficiency. To be sure, man-made reasoning has been integrated into a few offices inside instructive foundations as well as the schooling area. The utilization of man-made brainpower in training has had a critical impact, including expanded viability, customized learning, worldwide learning, more brilliant substance, and better organization of schooling, among other things. As per different examinations, electronic and online schooling has developed from basically giving materials on the web or on the web for understudies to just download, review, and complete tasks to simply pass, to incorporate smart and versatile electronic frameworks that learn teacher and student conduct and change as needs be to enhance the instructive

experience. By this paper we want to propose an application which can help teacher, help in classroom, students and also educational institutions at a time.

## **1.2 Motivation**

- It'll give a clear overview of AI for education.
- It enables educational institutions to create individualized learning opportunities for pupils.
- Will know about the evaluation of AI in Education.
- It'll help in classroom, teacher, students and educational institution at a time.

## **1.3 Research Question**

- How AI is used in evaluation?
- How can we use AI in Education?
- What'll be the Effectiveness of The AI?
- Can we implement it to see the importance of AI?
- Will it really help in education system?
- Can we get the importance of it?

## **1.4 Objective**

- To know the AI in evaluating
- Be aware of using AI in education
- To see the importance of AI.

## **1.5 Report Layout**

This report varied in a total of six different chapters. Which are capable of extending a comprehension of "AI in education" more briefly. In the first chapter, we'll mention introduction, motivation, rational study, research questions and the anticipated result is the final one. The second chapter contains, we'll brief about some related works, which types of challenges that we had faced and about the research summary. In the third chapter, we'll talk about our research subject and instrumentation, workflow of the

model, how we've made .In the fourth chapter, we'll talk about the result that we got, the evaluation of AI in education. In the fifth chapter, we'll explain its effects on our society, the environment, and sustainability. In the sixth chapter, which is our last chapter, we'll mention the conclusion and our future works.

## **CHAPTER 2**

### **BACKGROUND STUDY**

#### **2.1 Introduction**

AI wants to change the debate such that it addresses the present disparities in information access, research, and the variety of cultural manifestations. Everyone being able to benefit from the current technology transformation must be the promise of "AI for all." It intends to foster a common understanding of the educational possibilities and challenges presented by AI as well as the consequences for the fundamental skills required in the AI age. Machine-based AI is increasingly being used in education. The creation of fresh, high-quality test items based on a body of information is a topic of research. The price of evaluation and exam preparation can be reduced with the use of such technologies. According to experts, robots will soon be able to create evaluation questions that are tailored to the interests of each student. The expenses of evaluation are reduced as a result of these efforts on item development. Essay quality may be assessed using natural language processing in ways that strengthen formative assessment.

##### **2.1.1 What is AI?**

The ability of machines, especially computer systems, to carry out activities that call for intelligence is known as artificial intelligence. Speech, machine vision, expert systems, speech recognition, and natural language processing are a few specific uses of AI.

Vendors are rushing to highlight how artificial intelligence is used in their goods and services. The core focuses of AI programming are the three cognitive capacities of learning, reasoning, and self-correction. Among the programming languages, a handful have a particular connection to AI, including Python, R, and Java. Google has established itself as one of the top corporations in a variety of online industries by applying utilizing machine learning to comprehend how customers interact with their services. The CEO of Google, SundarPichai, promised that in 2017, the company would prioritize artificial intelligence (AI).

There are four categories of AI, starting with the job-specific intelligent systems that are now using and moving on to the sentient systems that have not yet developed, according to Arend Hintze. Here are the classifications.

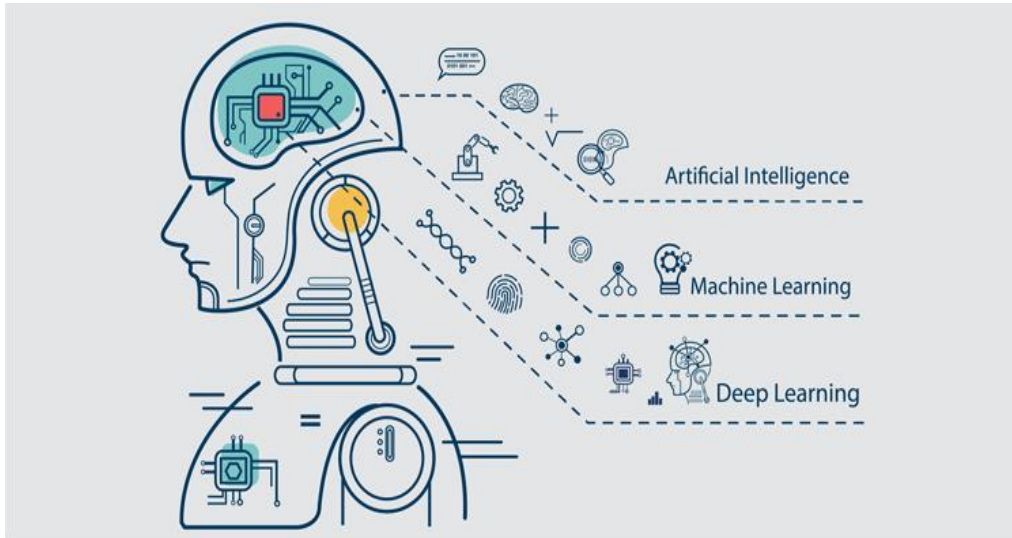


Fig 2.1: Artificial Intelligence.

### 2.1.2 Types of AI

An essay published in 2016 by Arend Hintze, an assistant professor of computer science, engineering, and integrative biology at Michigan State University, established there are four groups into which AI can be divided. These classifications span the spectrum from task-specific intelligent systems, which are widely employed today, to sentient systems, which are still in the developmental stages. The groups listed here:

There are different types of AI:

**Reactive devices:** These AI systems are task-focused and deficient in memories. For instance, in the 1990s, Garry Kasparov was defeated by the IBM Deep Blue chess software. Deep Blue can identify chess pieces and anticipate outcomes, but it lacks memory, making it unable to use its existing knowledge to make future predictions.

**Short-term memory:** These AI programs have memories, which enables them to use the past to educate their current decisions. In self-driving cars, several decision-making procedures are developed in this way.

**Concept of mind:** The term "theory of mind" is used in psychology. When applied to AI, it suggests that the system would be socially capable of identifying emotions. This type

of AI will be able to anticipate actions and infer motives from humans, which is a necessary skill for AI systems to function as vital members of human teams.

Self-awareness: In the sense that they are mindful of who they are, these AI algorithms are self-aware. Self-aware devices are aware of their own conditions. Such AI is still hypothetical.

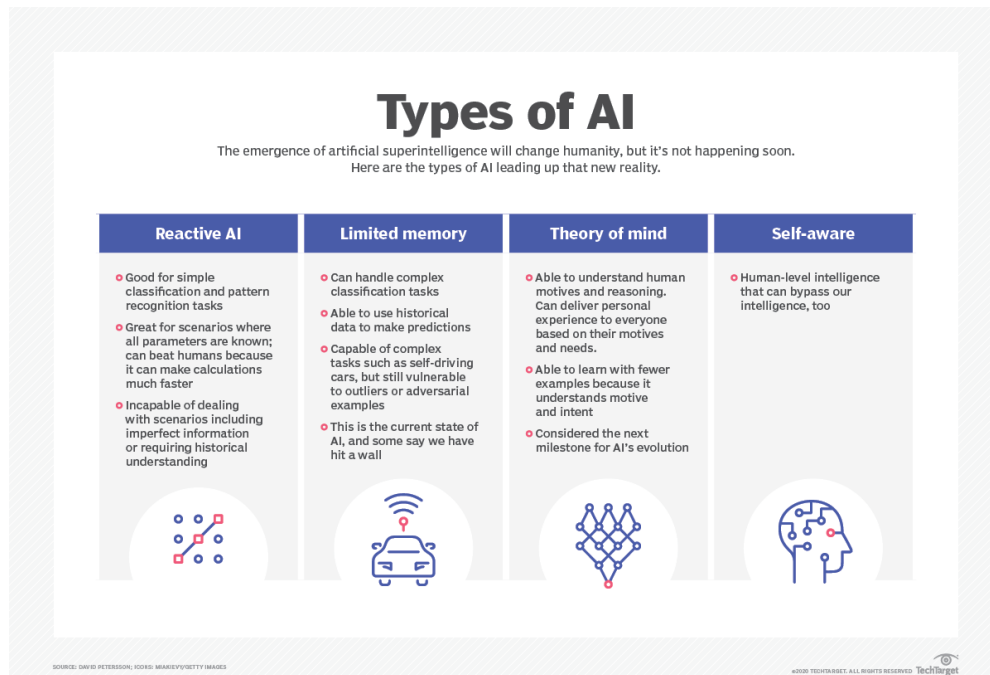


Figure 2.2: Types of Artificial Intelligence

### 2.1.3 AI in Education

Because it changes how quickly we learn, artificial intelligence is increasingly being used in education. What does that mean for children, then? Has the way that AI is used in education for kids altered anything for them? Artificial intelligence has the potential to revolutionize education for all children. Given that numerous schools across the country now use AI, you must comprehend how it can benefit your youngster.

Although it has always been important to use technology into education, this is more common than ever thanks to the increased accessibility of smart devices and online



courses. To support students' learning artificial intelligence is used in education in a number of different contexts. Some AI-based technologies that now and will continue to have an impact on education include the following:

Table 2.1: Tools of Artificial Intelligence

Tools	Description
Gradescope	Students can evaluate each other while giving comments using the Gradescope AI tool, which speeds up work that would otherwise take a long time. Grading is made easier and more effective with Gradescope using a combination of the use of artificial intelligence (AI) and machine learning (ML)
Ivy Chatbot	Ivy is an assortment of chatbot man-made intelligence innovations that were made particularly for schools and colleges. They assist with different parts of the college cycle, including cutoff times, educational cost expenses, enlistment, and application structures. Ivy additionally has the ability to make enrollment drives utilizing the information procured.
DIU BLC	Blended Learning Center is the digital teaching and learning hub of Daffodil International University. At the time of the Covid situation, it helped the students. Through this, the students could contact their teacher very easily.

Altitude Learning	Altitude Learning is an online platform for professional learning that emphasizes learner-centered instruction. Its main objective is to assist pupils in learning through self-directed education.
Cognii	Another Boston-based business, Cognii, creates AI-based educational tools for K–12 and higher education institutions. Additionally, it is used in corporate training settings.
Knowji	Knowji, an audio-visual vocabulary application that makes use of current educational research, is another of the best AI teaching tools available today. For language learners, Knowji employs a variety of techniques and ideas to speed up learning.
Century Tech	Century Tech, a London-based firm, provides an AI platform that builds individualized learning programs for students by combining data analytics and cognitive neuroscience. These individualized plans lessen the workload for teachers, allowing them to concentrate on other things.
Knewton's Alta	It is a comprehensive courseware solution that blends publically available information with adaptive learning technology to create a more individualized learning environment for each student.

## 2.2 Related work

In the digital era we live in, the internet serves as our main source of knowledge, education, and entertainment. The days of going to the library to photocopy some encyclopedia pages for a project in school are long gone. AI should play a significant role in education, 86 percent of instructors surveyed by tech startup Promethean. Many teachers all across the world were compelled to teach remotely, from their homes, or in virtual classrooms as a result of the COVID-19 shutdown. Many researchers have tried to mention how it has helped us. They published many papers. Over the past few years, research in AI has made remarkable progress.

Ng (2017) asserts that this generation's "new electricity" is artificial intelligence [1]. Due to its potential to be a significant driver of economic growth, man-made reasoning is a contender to be addressed as the key part of the Fifth Modern Unrest (see, Golic, 2019) [2]. This might be the reason for China's record-breaking \$40 billion interest in man-made brainpower in 2017. (Mou, 2019) [3]. China is expected to extend its GDP (Gross domestic product) by 26% by 2030, in accordance with its computer-based intelligence incomes. In a similar time period, North America is expected to have a 14.5% addition (PwC, 2017) [4]. These statistics help future economic growth, and in our case, the worldwide effect of artificial intelligence, to be better understood.

As indicated by Karsenti (2019), new types of innovation will possess our lives and enchant our young. Considering this, schools might be compelled to account for them [5]. This study's principal center is around how partners from the fields of regulation, business, instruction, and design perspective this advancement and expect the effect of man-made consciousness on schooling. Considering the perspectives of the members from different areas, this study plans to investigate what involving man-made reasoning in schooling suggests and what suggestions it might have for the fate of training.

"If I had asked them what they wanted, they would have said faster horses," Henry Ford famously remarked." Roll and Wylie (2016) highlight this statement. On the surface, it appears that schools have transformed into "faster courses" that deliver outcomes more quickly [6]. Will these "quick classes" do so in the twenty-first century or will new ways of thinking be required? Is it adequate to teach students skills, critical thinking, and metacognition as we approach the twenty-first century? Or should we set up brand-new,

hitherto unimagined mechanisms for the modern era? What educational possibilities might artificial intelligence provide that will set individuals apart from robots or intelligent cars and help people maintain their emotional and social aspects? These issues will likely soon dominate the agendas of politicians [7]. Although trials of artificial thinking in schools have recently achieved substantial prominence, the concept of widespread man-made brainpower may be traced back to the fourteenth century. This examination reappeared in 1937 thanks to Alan Turing's endeavors (Humble and Mozelius, 2019) [8]. They are currently turning into a significant center point for insightful writing and coherent circles. As "counterfeit intelligence leadership" has been investigated in the writing, we see more human-made intelligence efforts in authoritative administration (Canbek, 2020) [9]. According to research, persuasive exclusively customized approaches may be implemented with the use of computational reasoning technology and advanced learning environments (Mohammed and Watson, 2019) [10]. Massive changes in the preparation frameworks and their cycles may be normal while automated thinking is utilized progressively in schooling [11]. Sekeroglu, Dimililer, and Tuncal (2019) said that phony knowledge could assist teachers with giving fitted guidance to their understudies considering the survey's discoveries [12]. Automated thinking can give admittance to reasonable and further developed picking up, opening entryways for people and organizations who are banished from doing such, as well as concerning individuals with handicaps, evacuees, dropouts, and individuals who live in isolated networks (Pedro, Subrosa, Rivas, and Valverde, 2019) [13]. The falsely smart evaluation and learning framework known as Appraisal and Learning in Information Spaces (ALEKS) are famous in the USA [14]. Yilmaz (2018) looked at how ALEKS affected middle school pupils' arithmetic proficiency [15]. The analysis's findings demonstrated that ALEKS education improved students' end-of-year maths results in a statistically meaningful way. To assess ALEKS's effect on learning, Tooth, Ren, Hu, and Graesser (2019) played out a meta-investigation [16]. Their discoveries showed that ALEKS was exclusively essentially as effective as conventional homeroom guidance when used for more limited periods instead of longer ones. Educators who utilize the ALEKS gaining framework to help understudy gaining can profit from this exploration more [17].

Learning English has long been a crucial component of schooling. Because of the excessive enrollment, teachers cannot provide one-on-one conversational instruction in English classes [18]. The teaching of English makes extensive use of speech recognition and semantic analysis technologies (Liu, 2020) [19]. It may help teachers and students practice oral communication one-on-one and can also rectify students' incorrect English pronunciation. Through its game mode, Duolingo offers bilingual education with an emphasis on personalized learning. Tsai (2016) found that utilizing Duolingo expanded students' independence concerning self-guideline of picking up, including self-guideline of learning time, self-guideline of advancing consistently, tracking down additional learning materials, assessing one's learning, and changing learning methodologies for more compelling learning [20].

Zou (2017) fostered a stage for training school English and used simulated intelligence to survey understudies' necessities and expertise levels [21]. Using simulated intelligence calculations, this stage might change the substance and speed of guidance. The review's discoveries show that utilizing the stage to learn English works on understudies' English capability and their typical score is more prominent than that of understudies who don't use the stage. To upgrade the type and viability of English guidance, Canister and Mandal (2019) furthermore fostered a school English-helped showing framework in view of artificial intelligence innovation [22].

With the help of pioneers like Andrew Ng, Geoffrey Hinton, and YannLeCun, AI has recently seen a fresh resurgence. They created the framework for in-depth learning [23]. A unique subset of machine learning is deep learning. A group of algorithms known as machine learning learns from data. With deep learning, problems previously thought to be insurmountable become achievable [24].

As well as bringing up test doubts, computer-based intelligence innovation can likewise naturally address tasks and test papers (Rahim, Aziz, Rauf, and Shamsudin, 2018) [25]. (Li et al., 2018). It's not unexpected practice for instructors to address schoolwork tasks and test papers [26]. Educators get worn out rapidly when they invest a ton of energy reexamining schoolwork and test papers. Subsequently, there might be a few errors when test papers are revised inevitably [27]. As indicated by Li, Cao, and Lu (2017), picture acknowledgment innovation liberates educators from the difficult errand of stamping and

rectifying understudy work and has a low error rate. Test paper correction utilizes computerized reasoning innovation, which can likewise distinguish clear sheets and maybe comparable papers, saving teachers time [28].

A man-made intelligence-based undergrad sports independent learning framework was made by Ge, Yin, and Feng (2018) and executed utilizing the program/server framework design, Visual Studio's incorporated open climate, and a SQL Server data set running on the Windows working framework [29]. This stage might help understudies in doing self-evaluation assessments, getting ideal criticism on their picking up, helping undergrads in expanding their movement levels, and facilitating the responsibility on teachers [30].

A games knowledge assessment framework in view of a man-made intelligence master dynamic framework was likewise made by Yong (2018) and is utilized to evaluate sports guidance [31]. The review's discoveries exhibit that the man-made intelligence-based actual instruction appraisal framework offers new ways to deal with the utilization and progression of contemporary games innovation, as well as hypothetical help and heading for the headway of science training innovation [32].

### **2.3 Research Summary**

I learned about the significance of AI in the educational system after reading certain research papers. Robotics or digital computers have the ability to exhibit artificial intelligence operated by a computer to carry out activities frequently taken by intelligent beings (AI). The phrase is widely used to describe the work being done to create artificial intelligence (AI) systems that are able to reason, locate meaning, generalize, and learn through experience. It has been demonstrated that computers can be taught to accomplish incredibly difficult tasks—like, for example, producing proofs for mathematical theorems or playing chess—with startling proficiency ever since the development of the digital computer in the 1940s. There are currently no computer systems that can match human adaptability across a larger range of jobs or those requiring more complicated reasoning, despite continual advancements in memory size and processing speed.

### **2.4 Dimensions of the issue**

I've reviewed some papers & articles. There they mentioned & applied different approaches. Here I've shown the research paper summary and tools of AI and also proposed an application which can help at a time in classroom, students, teachers and educational institutions.

## **2.5 Challenges**

The capabilities of a robot or computer controlled by a computer to perform jobs often performed by intelligent beings was one problem, but artificial intelligence (AI) was another. Initiatives to create artificial intelligence (AI) systems that are able to reason, discern meaning, generalize, and learn from experience are usually referred to by the phrase. Since the development of the digital computer in the 1940s, it has become clear that computers can be taught to perform exceptionally difficult jobs, such as constructing mathematical theorem proofs or playing chess, with surprising skill.

## **CHAPTER 3**

# RESEARCH METHODOLOGY

## 3.1 Introduction

Here, I'll briefly outline the processes I took to complete our study project. This multiplex project analyzes peer-reviewed papers on AI in education critically. To find papers that could undergo comprehensive analysis, multiple-phase searches and selections were made.

## 3.2 Conditions for Inclusion/Exclusion

Table 3.1: Conditions for Inclusion/Exclusion

Conditions for Inclusion	Exclusion
Must entail education about AI	No-AI Education Articles
AI education methods must be used	Articles lacking approaches for teaching AI
English-language works that were published between 2010 and 2022 are required.	English-language articles that have been translated.

## 3.3 Sources of Information and Search Methods

Utilizing databases from the ACM Digital Library, Emerald, Google Scholar, IEEE, ScienceDirect, Springer, Taylor & Francis Online, and Wiley Online Library, researchers were able to find the studies for this systematic review. A search for studies to be included in this systematic review will begin in December 2010. Based on the keywords listed in Table 3.2, search terms were used to find relevant studies. Given that they provide access to relevant publications on [35], the keywords to be included must be carefully considered when choosing the articles to be included in the review. Table 3.3 displays the 1125 items that were discovered in the search results using the previously given keywords together with the 315 duplicate articles that were filtered. 100 articles met the inclusion criteria after the authors examined each study against the 100 papers met the inclusion and exclusion criteria, and were subsequently added to the analytic



process. The search for and filtration of the publications for the current review study adhered to "the preferred reporting elements for systematic reviews and meta-analysis (PRISMA)" [1]. Figure 3.1 shows a flowchart of the PRISMA process.

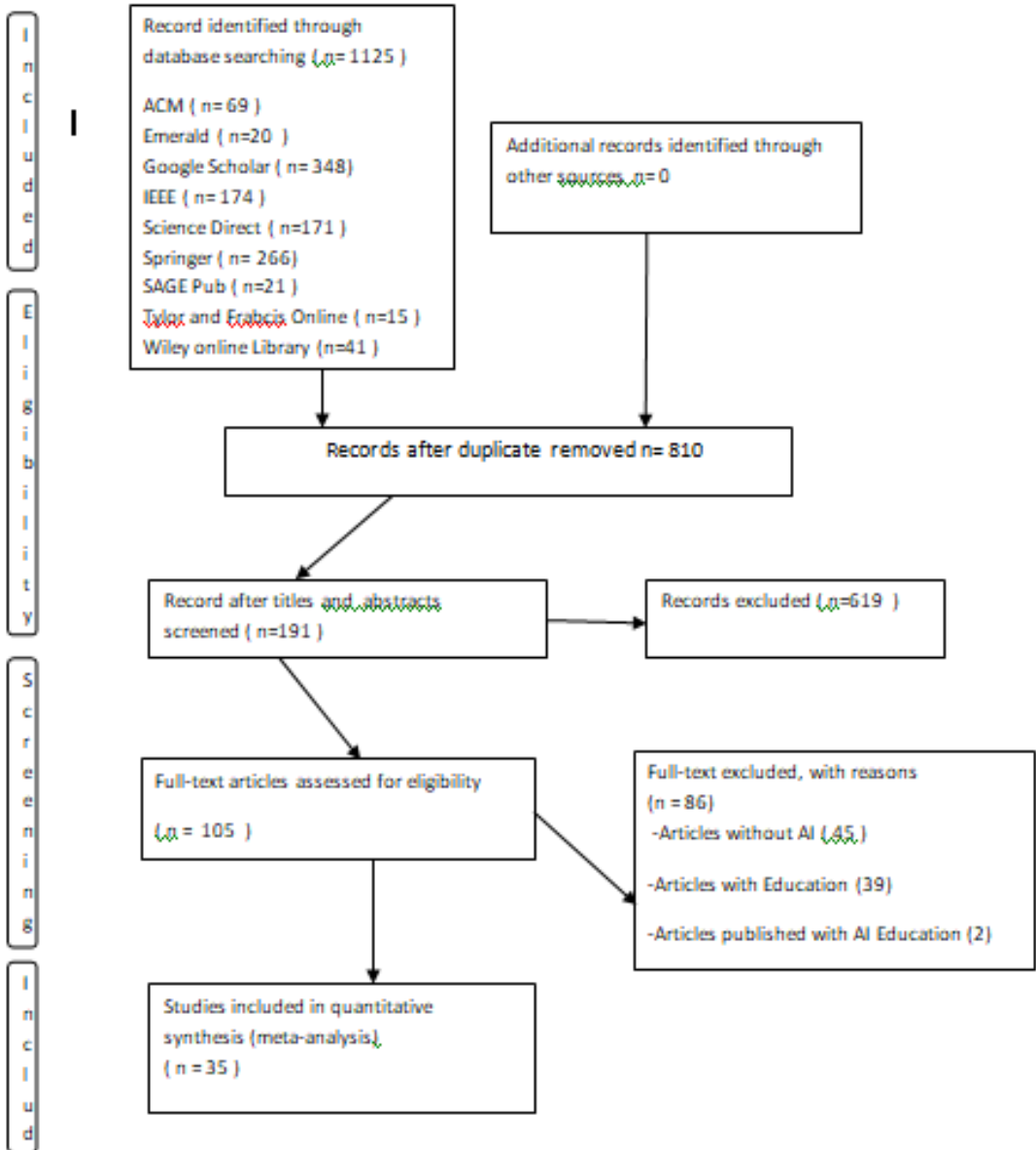


Figure 3.1: Flowchart for PRISMA.

Table 3.2: Keyword Search

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Keyword Search
<p>“Education” or “First-Level Education” or “Education in Secondary” or “Higher Education” &amp; “Computerized Intelligence” &amp; “ Learning Machines” or “Deep Learning” or “Intelligence Tutoring System” or Benefits” &amp; Opportunities”</p>

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Table 3.3: Final Outcomes of Database Searches

No	Data Base	Count
1	Digital Library of ACM	69
2	Google Scholar	20
3	IEEE	174
4	SAGE Pub	21
5	ScienceDirect	171
6	Springer	266
7	Online at Taylor and Francis	15
8	Emerald	20
9	Wiley Online Library	41
	Total	1125

The article assortment was decreased to 35 things in the wake of screening. Every one of the 35 qualified distributions' modified works was analyzed to decide if the papers connected with the subject of the writing audit. A full-text assessment further dense the papers to a sum of 30 articles. From that point forward, distributions were assembled because of the accompanying rules: distribution year, creator name, paper title,

concentration on objective, technique, and geographic extension. The possibilities, benefits, and issues of computer-based intelligence were characterized and introduced during the discussions.

### **3.4 Quality Assessment**

Quality evaluation is a factor that is equally important to inclusion and exclusion criteria [33]. Seven standards for quality evaluation checklist were used to filter out the research papers that would be eligible for additional study (N 35). Figure 3.2 shows the quality evaluation check list. The [18] recommendations were updated for the checklist. A 3-point scale was used to score the questions, with 1 point being given for "Yes," 0 points for "No," and 0.5 points for "Moderately." Any study could be awarded a score between 0 and 7. Depending on the study's total score, it was stated that the study could answer the research questions to a greater or lesser level. The results of each study's quality evaluation are displayed in Appendix Table 3.1, which also suggests that all 35 studies are eligible for inclusion in further analysis because they have met all of the quality assessment criteria.



Figure3. 2: Check for quality evaluation.

## CHAPTER 4 EXPERIMENTAL RESULTS AND DISCUSSION

### 4.1 Experimental Configuration

The capacity for a computer- or robot-controlled system to carry out actions Artificial intelligence (AI) refers to the regular performance of functions by intelligent entities (AI). The expression is widely used to refer to efforts being made to create artificial intelligence (AI) systems that possess cognitive capacities akin to those possessed by people, such as the capacity to reason, find meaning, generalize, and learn from experience. Since the development of the digital computer in the 1940s, it has been demonstrated that computers can be taught to accomplish incredibly difficult tasks, like proving mathematical theorems or playing chess, with astonishing skill. No programs have yet been created that can equal human flexibility over a larger range of jobs or those needing a significant amount of human-like flexibility, despite continual advancements in computer processing speed and memory capacity.

Table 4.1: Evaluation of Results

Year	Author(s)	Title	Summery	Research Purpose	Type
2022	Jiang Nan	<i>Research of Application of Artificial Intelligence in Preschool Education</i>	Technologies Has Changed the lives of people and also the methods of teaching. AI is a great tool for teaching the children and also enhancing their knowledge and helps to broad their logical thinking and pre-school education.	Benefits of AI	Journals

			For further improve the teachers for early education of the kids effectively and stimulating the learning so that they get fun from learning. This paper get an application we-chat remote control, AI which interact with people with voice and makes fun to learn different things with the help of it.		
2022	ZhengRui, Tuyatsetse gBadarch	<i>Research on Applications of Artificial Intelligence in Education</i>	Having a computer science education one can get skilled in different fields of subject by the help of AI learning. There many shortcomings in this process though like natural language understanding knowledge presentation, expert system learning.	Benefits of AI in Education	Journals
2021	KeZhanga AyseBegu mAslan	<i>AI technologies for education: Recent research</i>	The recharge paper methods are multi-phase study to the	AI technologies	Journals

		<i>&amp; future directions</i>	refereed published on AI education and choosing the eligible ones for full analyses		
2020	Wayne Holmes, Maya Bialik, Charles Fadel	<i>Artificial Intelligence In Education Promises and Implications for Teaching and Learning</i>	It contains literature review from different research paper published on AI education. How to adapt learning based on affection performance. Three kind of learning system curer implemented in this system to adapt the learning procedure involving performance and mechanism analysis	Benefits of AI	Journals
2020	Close A. Gulz, L. Londos, M. Haake	<i>Preschoolers' understanding of a teachable agent-based game in early mathematics as reflected in their gaze behaviors—an experimental study</i>	This paper contains adapting and acknowledgements of AI learning in Education. Figures and comparison of learning through analysis mechanism performance.	Benefits of AI	Journals



2020	G. Hwang, H. Sung, S. Chang, X. Huang	<i>A fuzzy expert system-based adaptive learning approach to improving students' learning performances by considering affective and cognitive factors</i>	AI has a large impact on education system and on this paper it has been detected about the importance and impact of it. Technical aspects of AI in Education, AI model, the analysis of learning and most importantly the role of AI Education. AI finds the short comings in the system of student's education and help them beforehand.	Benefits of AI for students	Journals
2020	N. Matsuda, W. Weng, N. Wall	<i>The effect of metacognitive scaffolding for learning by teaching a teachable agent</i>	Investigated and contrasted with learning through tutoring was the impact of metacognitive a framework for teaching and learning. Three iterations were used to create a teaching environment for online learning algebraic equations: (1) APLUS offers Allowing interactive	Opportunities of AI in Education	Journals

			<p>instruction of a synthetic peer by pupils while providing them with metacognitive instruction on how to teach with the goal of helping the synthetic peer pass the test. (2) APLUSTUTOR that provides learning scaffolding for metacognition as well as cognitive tutoring, such as rapid feedback and just-in-time hints. The third choice is COGTUTOR+, a traditional cognitive tutoring program that emphasizes mastery learning. 2 school studies included 444 students in all, from sixth to eighth grades. 208 students completed the study, and the analysis used their answers. However, The effectiveness was</p>		
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			<p>identical of the three interventions, and (ii) Learning was facilitated by teaching with metacognitive scaffolding uniformly across a range of student prior competency levels, according to the findings, they demonstrate how using our treatments for four days helped their pupils' equation-solving skills.</p>		
2020	Miao, Fengchun Holmes, Wayne	<i>International Forum on AI and the Futures of Education, developing competencies for the AI Era</i>	The background of the people thoughts and opinion of using a technology for education. It's has been concluded about the future plans of the use ages of AI and also the limitations.	Opportunities of AI in Education	Journals
2019	I. Arpaci	<i>Predicting the adoption of mobile cloud computing services using a hybrid modeling</i>	Here about APLUS (Artificial Learning Environment using Sim student)is uphold which is a teaching process for the	Uses of AI in Education	Journals

		<i>method higher learning</i>	students.		
2019	B. Tärning, A. Silverberg, A. Gulz, M. Haake	<i>Does similarity attract when training a teachable agent with high or low self-efficacy?</i>	The machine learning algorithm, The The gap between native speakers and nonnative speakers opens up at first which is a component of artificial intelligence, outstanding at binary classification when dealing using complicated variables with numerous dimensions. Machine learning approaches come in two flavors: unsupervised(referred to as detailed and supervised at times )known as predictive. Unsupervised learning just uncovers underlying significant patterns in input data, but supervised learning trains a model with labeled to forecast future outputs, combine input	Opportunities of AI in Education	Journals

			and output data. Using machine learning the best feature set for separating ESL students in fourth grade who excel in reading literacy are distinguished from those who do not was found using SVM for the first time.		
2019	Y. Xiao, J. Hu	<i>Artificial intelligence algorithms are used to evaluate the best pedagogical elements for improving the reading literacy of Canadian English language learners.</i>	The purpose of the current study was to investigate reading literacy skills that differentiating successful ESL (English as a Second Language) students primary school children in Canada from low-achieving ones. The International reading proficiency improvement Study (PIRLS) 2016 public database, the gold standard for comprehensive evaluations of reading	Benefits of AI in Education	Journals

			<p>literacy aimed at the fourth-graders, was utilized to choose 203 samples from 128 elementary schools in the fourth grade (167 top performers and 36 bottom performers). In the first study of its kind in the field of ESL, support vector machine (SVM) artificial intelligence methodology was used to examine 41 pedagogical elements simultaneously, including materials for reading, a classroom structure, reading techniques, classroom reading activities, and follow-up exercises.</p>		
2019	Connell, William; Black, Megan Hamlin.	<i>Artificial Intelligence and Legal Education</i>	<p>While AI will never be able to completely replace human teachers, it does have some potential and is fundamentally different from the human brain, which</p>	Challenges of AI in Education	Trade Journals

			<p>frees up the teacher to concentrate on more strategic aspects by delegating more operational responsibilities. An AI-based education may be more important in the future to change the game by reducing bias in everyday questions and interview settings. Consequently, AI has a big future in many sectors.</p>		
2019	Alex Guilherme	<i>AI and education: the significance of teacher-student relationships</i>	<p>In this article, the authors first evaluate the technologicalization of education as it stands and the effects it has had on relationships in the classroom; they then describe finally, they undertake a thought experiment to ascertain if advancements in artificial intelligence (AI) may one day be</p>	AI's advantages for education	Journals

			able to successfully taking over for actual teachers in the classroom. They analyze Buber's I-It and I-Thou interactions and consider the consequences for education.		
2018	Iulia Stanica; Maria-IulianaDas calu; Constanta NicoletaB odea; AlinDrago sBogdan Moldovea nu	<i>Virtual reality and artificial intelligence for education: VR job interview simulator</i>	This paper introduces VR Job, a program that suggests a novel approach to interview preparation. Their application enables an interactive manner to assist software engineers in preparing for their interviews by integrating the benefits of multiple technologies like chatbots and virtual reality. Techniques for emotion recognition are also incorporated, which helps the user receive accurate feedback.	VR Job Interview	Conference Paper
2018	Wang Fei		This research	Visualize	Conference



	and Tao Xinrong	<i>Analyzing Artificial Intelligence's Use in Education Visually</i>	primarily examines analyzing information from the Web of Science between 2014 and 2018 to examine the state of artificial intelligence education at the moment and its hotspots applications. Additionally, it makes advantage of Cite Space's co-occurrence analysis feature to illustrate how the application of artificial intelligence in education, including visualize the time distribution, authors, distribution of keywords, co-cited texts, and more. The final analysis revealed that ITS is being explored more in this sector, and they eventually compiled the five main areas of this research's recent work to act as a resource for the field's	the Applicatio n of AI in Education	Paper
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			researchers.		
2018	MehrnazF ahimirad, SedighehS hakibKota mjani	<i>An examination of artificial intelligence's application in classroom settings</i>	This paper provides a succinct summary of the most recent research on how artificial intelligence is being used in educational settings. It also provides some examples of how these applications have improved teaching and learning in the educational system. However, they were constrained by some technological applications; for example, teachers cannot be replaced by AI.	AI in Education : Benefits	Journals
2018	Lufeng Han	<i>An examination of recent developments in the use of artificial intelligence in education</i>	By analyzing the integration of artificial intelligence technology development tendencies and contemporary education, this study seeks to provide light on the direction in	Opportuni ties of AI in Education	Journals

			<p>which the application of AI in education is moving. This is crucial for creating a high-tech education system that is focused on the future and makes better use of artificial intelligence's advantages.</p>		
2018	Dennis Pierce, Alice Hathaway	<i>Artificial Intelligence: The Benefits (and Drawbacks) of AI in Education</i>	<p>Analysis may be able to foretell the onset of GI disease before symptoms appear, increasing the chance of pre-treatment or prevention. Additionally, computer vision offers the exciting possibility of automatic lesion detection during endoscopy. In this study, the authors provide an overview of recent advances in healthcare-based AI and machine learning and discuss the benefits and drawbacks of using it</p>	Impact on Learning	Journals

			in gastroenterology.		
2018	Po-Hsuan Lin, Walter M. Yuan, Joseph Tao-Yi Wang, and Andrew Wooders	<i>The Gap in Online Education: Artificial Intelligence</i>	We demonstrate how robotic players powered by artificial intelligence (AI) can assist students in online learning by using economics both education and learning as a case study, asynchronous settings may enhance student learning outcomes. By engaging in a market brimming with robotic trading platforms that hunt for Students in particular may learn about competitive marketplaces through every opportunity to arbitrage. When playing the Ultimatum Game, a proposer proposes a specific manner Students could also learn to play against other people by competing against robotic players who have been designed to	Benefits of AI	Journals & Magazines

			<p>mimic human behavior, splitting the pot that the responder can only accept or reject. With the help of historical data from many nations and locations, students can teach robotic players.</p>		
2018	Wei Feng, Guijie Li, and Hang Zhao	<i>Examining Artificial Intelligence's Role in Medical Education</i>	<p>This article draws the conclusion that artificial intelligence can boost medical teaching efficiency, improve visual it can better serve the public through research if it has greater utility and thinks more like a human on the application of AI in virtual inquiry, distance education management, teaching video recording, etc. The benefits of medical education with artificial intelligence, particularly for raising the general caliber of</p>	Opportunities of AI	Conference Paper

			medical students, serve as a significant source of inspiration for such applications.		
2018	Monica Ciolacu Romania's Bucharest University Politehnic a (UPB CETTI); Ali FallahTeh rani; Paul MugurSvasta and Leon Binder	<i>Education 4.0: Early Recognition System with Machine Learning to Support Student Success in Higher Education</i>	Artificial intelligence (AI) techniques are increasingly empowering education 4.0. They saw a steadily rising need for individualized and adaptive education. In this article, they outline a novel strategy for advancing education with AI 4.0. their initial contribution is a higher education system that is self-regulated. supported by wearable technology and smart sensors. The second part of their article describes the initial outcomes of their implementation of didactic Education 4.0 approaches using machine learning	Benefits of AI	Conference Paper

			<p>algorithms and learning analytics.</p> <p>This case study aims to forecast students' ultimate grades prior to their final exam participation.</p>		
2017	Dean Popenici and Sharon Kerr	<i>Investigating how artificial intelligence will affect higher education's teaching and learning</i>	<p>This essay examines the phenomenon of the rise of artificial intelligence in higher education's teaching and learning processes. It explores the impact of modern technologies on educational practices and change as well as how students learn.</p> <p>Recent technological advancements and the increasing use of new technologies are explored in order to foresee the future of higher education in a climate where artificial intelligence is pervasive in our universities.</p>	Impact of AI in Teaching & Learning	Journals

2017	Q. Zheng, W. Zhang, H. Qu, T. Xie	<i>The active video-viewing time in a large-scale e-learning system: modeling and prediction</i>	This work aims to contribute fresh knowledge and lessons on feature subspace building and data analytics to the learning analysts, Researchers in the fields of data mining and artificial intelligence. The size of a massive e-learning system video viewing data is gathered, and to model the departure time, the Cox proportional hazard function is employed. Age segmentation, variable interactions, and non-linearity assumptions are the main components of the models. Finally, they employ effective machine learning techniques to identify the users who are most likely to abandon a course early and	Benefits of E-learning	Journals
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			<p>permanently based on the information obtained from model covariate hazard ratios. They discovered that prediction is a useful tool for identifying user preferences and that Designing can be utilized like a technology for for challenges involving categorization, feature extraction and selection.</p>		
2018	Soyata, T., Behnagh, R. F., and Kim, Y.	<i>Current difficulties and future directions for engineering and education in the development of an emotionally aware AI smart classroom</i>	<p>For their system, they provide a feasibility study. Although most of the system's proposed components have state-of-the-art research that is sufficient to build the system, the key challenge is: 1) incorporating these technologies into a comprehensive system design; 2) Real-time execution is made</p>	Benefits of AI	Journals

			<p>possible by their algorithmic modification; and 3) calculation of reliable educational variables for algorithmic use. For the purpose of implementing the suggested system, they analyze present problems and potential future directions in engineering and education fields in this study.</p>		
2017	Christensen, cf. Freire	<i>AI in education: The significance of relationships between teachers and students</i>	In this piece, they first assess current the effects that instructional technology has had on classroom relationships; second, they describe the I-It and I-Thou relationships in Buber and their implications for education; and finally, they investigate whether Artificial intelligence advancements could	Benefits of Classroom	Journals

			eventually succeed in displacing human teachers in the classroom through a thought experiment.		
2016	Griffiths, M., Luckin, R., Holmes, W., and Forcier, L. B.	<i>Unleashing intelligence: A case for AI in education.</i>	This publication paper provides Open Ideas. They collaborate in order to share their distinctive viewpoints and ideas with a larger audience, we collaborate with some of the brightest minds in education, from educators and technologists to researchers and big thinkers. What motivates them to learn and how do they learn? What information and abilities do students possess will require as we enter the second half of the twenty-first century? How can smart digital technologies be used most effectively to	Facilities of AI Education	Journals

			achieve the goal of more personalized education? They have a brief discussion about these points.		
2019	Holstein, K., Alevan, V., McLaren, B. M.	<i>Real-time classroom orchestration tool co-design to foster complementarity between teachers and AI</i>	They argue that co-designing LA systems necessitates novel prototyping techniques. They present REs, to solve the particular difficulties of co-prototyping data-driven algorithmic systems like LA tools, they used one of their own prototyping techniques.. The first is presented in this work. End-to-end illustration of non-technical stakeholders' ability to engage in the whole design of a sophisticated LA system in the literature, from early creative stages to analytics selection and tweaking to evaluation	Tools which helps teachers	Conference Paper

			in real-world settings. They conclude with a set of methodology recommendations for upcoming LA co-design initiatives.		
2020	Puri, N., and G. Mishra	<i>The need for artificial intelligence (AI) in classrooms is urgent. When Using Artificial Intelligence Techniques to Transform Management</i>	Artificial intelligence has the potential to transform the way the education industry operates and processes data. They explain the concept of artificial intelligence and its importance in higher education through various means and modes in this paper.	Benefits of Classroom	Journals
2021	Kulkarni, A., Gkountouna, O.	<i>showing off REACT, a real-time, AI-powered classroom tool</i>	They give an example of the brand-new Real-time Educational AI called REACT powered Classroom Tool that uses EDM approaches to assist educators in making decisions. Having a graphical user interface, REACT is a data-driven application that is easy	AI Classroom Tools	Conference Paper

			<p>to use. It examines student performance data and offers instructors planning suggestions as well as context-based alarms. Additionally, it integrates model-neutral justifications to improve the decision-making process's explicability and interpretability. This paper explains the architecture and user interface design of our suggested tool and illustrates a use case scenario using a real-world dataset. This example focuses on the agglomerative grouping of students during a classroom activity based on their performance (i.e., incorrect answers and hint usage). By spotting at-risk pupils, forming study groups, or motivating tutoring</p>		
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			between students with diverse strengths, this grouping of students with comparable strengths and weaknesses may assist teachers in improving their course planning.		
2021	Rankovi, M., Martins, O. M., Păun, D., & Mihoreanu, L. Kuleto, V. Ili, M. Dumangiu, M., Rankovi, M., & Păun, D.	<i>Investigating the advantages and disadvantages of artificial intelligence and machine learning in academic settings. Sustainability</i>	The essential problems addressed in this study include general knowledge and research community perspectives on Best practices for using AI and ML in HEI, student knowledge of AI and ML, and AI and ML in HEI, and student attitudes toward AI and ML opportunities and obstacles in HEI. Regression analysis was used to assess the outcomes. The findings showed that AI and ML are crucial technologies that improve learning, particularly through	Student facilities by using AI	Journals

			student abilities, a friendly research atmosphere and collaborative learning in higher education.		
2022	A. Jokhan, A. Chand, A. A. Singh, & K. A. Mamun	<i>Higher education institutions' increased use of digital resources and the influence of artificial intelligence on decisions affecting student performance. Sustainability.</i>	This study describes tool for analytics with AI developed to forecast performance of first-year students in a course at The University of the South Pacific on information technology literacy (USP) (USP). A Matthews correlation coefficient of 94%, an accuracy value of 97.03%, a sensitivity value of 95.26%, a specificity value of 98.8%, a precision value of 98.86%, and an area under the ROC curve value of 99% were obtained from a classification model based on Random Forest that predicted the student's	AI tools	Journals



			<p>performance in week 6. A system like this is therefore very helpful in forecasting student performance early in courses and enabling early intervention. The suggested prediction model, according to experimental findings, satisfies the requisite accuracy, precision, and recall standards for foreseeing the behavioral components of the COVID-19 epidemic.</p>		
2021	M. Treve	<p><i>Higher education institutions' issues are what COVID-19 has introduced to the educational scene (HEIs). Higher Education Instructional Techniques</i></p>	<p>This study examines the effect of COVID-19, the most recent coronavirus, on higher education, particularly the transition away from in-person instruction and toward online and interactive learning techniques. In the research, challenges with mobility, unfair access to education, digital</p>	Benefits of E-learning	Journals

			<p>learning, and technology connectivity are discussed that higher education institutions encounter when implementing "online pedagogy." The results show that the primary obstacles to a shift to distance learning during COVID-19 are a lack of technical resources and unequal access to education. Although COVID-19 presented difficulties for students, it also provided a venue for useful solutions like digitization, educational collaborations between the public and private sectors as well as AI (AI). According to the findings, institutions should investigate ways to decrease COVID-19's negative</p>		
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			effects while maintaining a dedication to innovation and significant advances in practice.		
2019	Mishra, R.	<i>Utilizing AI and Data Analytics to Ensure Quality Assurance at Higher Education Institutions</i>	This research paper addresses how institutions of higher education (HEIs) may ensure quality assurance by using artificial intelligence and data analysis. Quality control has emerged as a differentiator in the increasingly competitive world of higher education, particularly among private institutions. Concerns regarding the college's internal and external quality or university that they are considering enrolling in are shared by both students and their parents. The evolution of quality assurance	Benefits of AI	Journals

			<p>policies and practices at institutions of higher learning has been driven by an increase in students enrolling in higher education as a percentage, universities' global existence by branch campuses and franchising models of activities, as well as greater knowledge of worldwide rankings and accreditations. Information systems are a crucial part of quality control, which raises student satisfaction and helps higher education institutions grow their businesses. HEIs can ensure compliance, internal program quality, student satisfaction, etc. by utilizing artificial intelligence and data analytics.</p>		
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2018	Holstein, K., Alevan, V., & McLaren, B. M.	<i>Benefits to student learning from a mixed-reality teacher awareness tool in schools using AI</i>	They created a real-time, wearable tool for teacher awareness in this work: mixed-reality smart glasses can warn teachers to circumstances that the ITS may not be able to handle by tuning them in to the rich analytics produced by ITSs. When compared to both business as usual and classroom monitoring support without advanced analytics, a three-condition study with 286 middle school students in 18 classrooms and 8 teachers found that giving teachers real-time analytics about student learning, metacognition, and behavior had a positive impact on student learning. Their research indicates that real-time teacher	Teacher and students relations by AI	Conference Paper
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			<p>analytics can aid in closing the learning outcomes gap between pupils with different prior skills. This is the first study to show that real-time teacher analytics can improve student learning. This study demonstrates the potential of AIED systems that combine intelligence from both humans and machines to promote student learning.</p>		
2020	<p>Van der Vlies, R., Vincent-Lancrin, S.</p>	<p><i>The promise and difficulties of trustworthy artificial intelligence (AI) in education.</i></p>	<p>The purpose of To aid in the G20 AI discussion, this study was conducted. The rise of artificial intelligence (AI) in education has two drawbacks: leveraging AI to enhance educational processes both in the classroom and at the system level, and to equip students with new skill sets in societies and</p>	<p>AI Challenges in Education</p>	<p>Journals</p>

			<p>economy that are becoming more and more automated. This paper discusses how AI can help students with special needs by accelerating personalized learning. Promising system-level applications to decrease dropouts, use predictive analysis, and evaluate new skill sets.</p>		
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## 4.2 Result Discussion

In order to free up more time for critical duties, a substantial percentage of AI's potential in education is focused on reducing the amount of time teachers spend on menial jobs. The goal of AI is not to replace teachers or pose a threat to them; rather, it is to provide our children with a better education. Individualized and differentiated instruction administrative activities are automated assistance and mentoring outside of the classroom all students has access to everything. After review my selected 35 papers, I want to proposed a application where at a time AI can helps in classroom, Teachers, Students and Educational institutions.

### 4.3 Proposed Framework

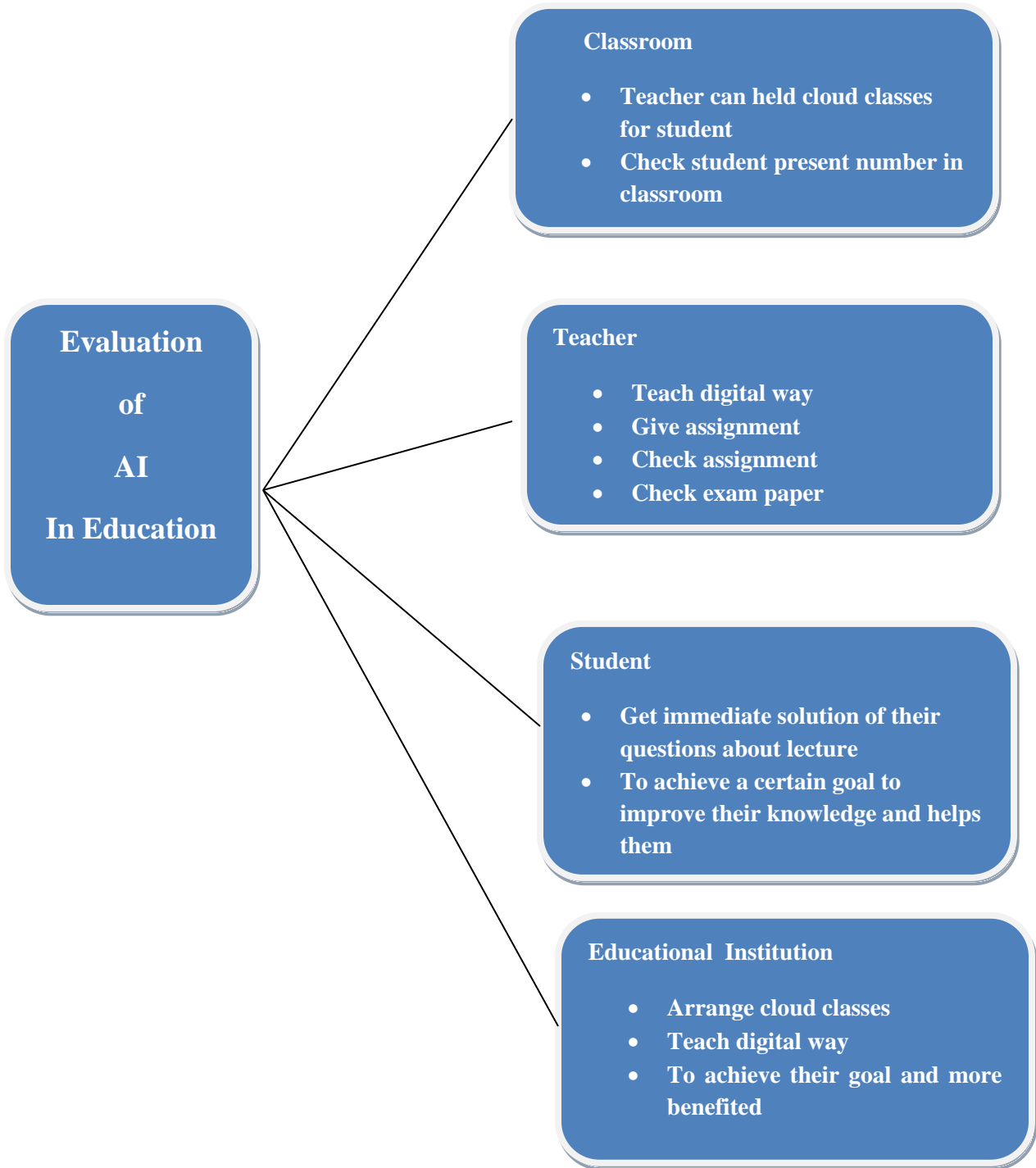


Figure 4.3.1: Proposed Framework Diagram.



### **4.3.1 AI in Classroom**

This suggested program can turn a classroom into a cloud classroom and make it digital. AI can help instructors create intelligent products that are more fun to utilize during lessons for both them and their students. Paul Barry, a lab report writer for an assignment writing service, claims that AI can help teachers create numerous types of content. Digital lessons: AI may create bite-sized learning, study tools, and digital textbooks within the context of digital learning. Information visualization: There are various methods of seeing information that AI can power, including web-based, visual, and simulation study environments. Updates to educational materials: AI may regularly produce and revise educational materials. The suggested application allows teachers to quickly and easily check the number of students present in the classroom, ensuring that the information is accurate.

### **4.3.2 AI for Teachers**

The teacher shouldn't rely solely on their outdated, lingering expertise when imparting knowledge, for example. They also need to impart these additional data to the children. Not to mention the fact that they only learn and teach within a certain range and that there are still many more topics they can learn. With AI, teachers can access extensive knowledge at their fingertips. As a result, people are able to update their knowledge or learn new things, keeping themselves educated. This will make them more competitive with pupils in the twenty-first century by making them more well-rounded and giving them a deeper knowledge base.[29] This proposal is an interactive teaching solution for the teachers to teach the students in digital way. It saves the time for the teachers in communicating with students, correcting the assignments. This proposal application can manually handle the assignments and correct it in digital way. Teachers can held cloud classes for the students through this and easily manage the classes.

### **4.3.3 AI for Student**

With AI, students can feel at ease making the mistakes essential for learning and receiving the feedback they need for progress [22]. Some students might be reluctant to take chances or hear critical comments in the classroom [6]. If any student can't hear

properly their class due to network problem or any reason they can find their recorded classes in this proposed framework and if they have any confusion about their class lessons they can easily raise question in this place when their teachers will be busy and in that time also they can quick reply about that [32]. Student can submit their assignment and exam's answer script easily. It can help students easily at any time.

#### **4.3.4 AI for Educational Institution**

To match the needs of pupils, lessons can be changed in the moment. Ascertain that the classroom provides excellent learning conditions. Teachers require critical technological assistance. Save time and plan better lessons. Encourage interaction and communication between teachers and students. After covid-19 situation many educational institution continue their most o the teaching work by online so this proposed application can help them to be more benefited and to provide more better teaching way and facilities . Thus way student can be able to achieve a specific objective to advance their knowledge and assist them receive prompt answers to their queries concerning the lecture and also in educational institution student can submit their all documents or assignments easily and institutions can track it easily [1]. This application can reduce their time and coast but helps to make learning and teaching way excellent.

## CHAPTER 5

### IMPACT ON SOCIETY, ENVIRONMENT AND SUSTAINABILITY

#### 5.1 Impact on Society

Every human feeling may be linked to the words we view on a daily basis on various online platforms in the digital world. In this case, it is critical for these platforms to have a mechanism in place to discern which are genuine emotions and which are pre-programmed aggressiveness. This is why I've decided to focus on one of the most fascinating genres of all time, By doing so, we can expect to create a more definitive and diverse digital era.

Artificial intelligence is the capacity of a computer- or robot-controlled system to execute tasks that are typically performed by intelligent beings (AI). The expression is widely used to refer to efforts being made to create systems with artificial intelligence (AI) that possess cognitive capacities akin to those possessed by people, like the ability to think, understand, extrapolate, and gain knowledge from experience. It has been proven that computers can be trained to accomplish incredibly difficult tasks—like discovering proofs for mathematical theorems or playing chess—with extraordinary skill ever since the advent of the digital computer in the 1940s. However, despite constant advancements in memory size and processing speed, no software has yet been created that can match human adaptability to a wider variety of activities or other conditions.

#### 5.2 Impact on Environment

Due to the complexity of the network system of openness, sharing of resources, system, linking the variety, the uneven distribution of the terminal, network agnostic, and other barriers, computer networks continue to exhibit their distinctive benefits. Computer's cause the biggest issue is security, which is one of the numerous issues brought on by the network. Unauthorized access, user impersonation, data integrity destruction, system uptime interference, viruses, malicious attacks, wiretapping, and other safety issues that arise in highly open computer network environments cause significant harm Artificial intelligence (AI) is the ability of a machine or robot to carry out tasks that are typically

performed by intelligent beings. The expression is widely used to refer to efforts to create artificial intelligence (AI) systems with cognitive abilities that are comparable to those of humans, such as the capacity to reason, find meaning, generalize, and learn from experience. It has been proven that computers can be taught to perform exceedingly challenging tasks—like, for example, finding proofs for mathematical theorems or playing chess—with startling proficiency ever since the development of the digital computer in the 1940s. However, there are currently no programs that can match human adaptability over a larger range of jobs or those requiring a higher level of concentration, despite ongoing improvements in memory capacity and processing speed.

### **5.3 Ethical Aspects**

The internet's media outlets have now become accessible to people of all ages. As a result, the conditions of the user limitations are no longer valid. Because there are insufficient security measures to distinguish between moral and social perspectives. One must be able to comprehend the overall context of a notion conveyed through platforms. In many circumstances, this has been shown to be harmful to people's moral ideals.

## **CHAPTER 6**

### **SUMMARY, CONCLUSION AND FUTURE WORK**

#### **6.1 Summary of the Study**

The employment of AI in teaching was the project's main objective. The ability of a robot or digital computer controlled by a computer to carry out tasks frequently accomplished by intelligent beings is known as artificial intelligence (AI). The phrase is frequently used to refer to initiatives to develop artificial intelligence (AI) systems that can reason, derive meaning, extrapolate, and gain knowledge from experience. Since the invention of the digital computer in the 1940s, it has been demonstrated that computers can be taught to perform extremely difficult tasks—such as discovering proofs for mathematical theorems or playing chess—with stunning proficiency. Despite continual advances in memory size and processing speed, there are currently no computer systems that can match human adaptability across a wider range of circumstances.

#### **6.2 Conclusion**

End of the AI is a blessing and in many term in does not changes in many way. Different ways man-made awareness is being connected in tutoring to assist understudies learning. The most fundamental thing to accomplish in this mechanical world is to continue to be aware of teacher progressive leaps. One of these steps forward is the gathering of knowing the executive systems. Understanding the executive's system provides a focused, simple course of action for the management of all internet-based activities at a school. These LMS with AI program permit for the learning of a wide run of subjects. An AI-powered brilliantly computerized educator can help a learner by giving them the arrangement to their issue as well as assistance with their problems. Man-made awareness may well be utilized to form learning the executive's systems that can examine understudy viewpoints and assist create understudy learning. At the point when man-made thinking is referenced, a supercomputer rings a chime. A supercomputer could be a PC with colossal dealing with control, a flexible way of carrying on, and diverse capacities that enable it to have human-like insight and valuable capacities, which work

on the supercomputer's collaboration with individuals. The turn of occasions, spread, and introduction of development — and particularly, computerized thinking — has rearranged it for educates to total their commitments all the more effectively and capably. Other scholarly areas have too been affected by these innovative headways, boosting viability and efficiency. To be beyond any doubt, man-made thinking has been coordinates into some workplaces interior educator establishments as well as the tutoring zone. The utilization of man-made brainpower in preparing has had a basic affect, counting extended practicality, customized learning, around the world learning, more brilliant substance, and way better organization of tutoring, among other things. As per distinctive examinations, electronic and online tutoring has created from fundamentally giving materials on the net or on the internet for understudies to fair download, audit, and total assignments to basically pass, to join shrewd and flexible electronic systems that learn educator and understudy conduct and alter as needs be to improve the educator involvement. In my research paper I've read 35 papers based on AI education and written down a summary on them so that a researcher or a student will be benefited. From this they can understand what kind of work is done on those 35 papers and that'll save their time. From the summary of 35 papers we can see that in education sectors AI works are depicted in different ways and this proposal can solve many problems of class, student, teachers and educational institutions at a time.

### **6.3 Future Work**

I have made a review from 35 papers and proposing a framework of applications where in same time students, teachers and anyone from any educational institution can easily solve their class related problems. This proposal is made by depending on 35 research papers based on AI education system and from those papers we can understand that the possibility of making it in reality is huge. Later based on this proposed framework on my research paper me or anyone can make the application which will benefit her/his work.

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*J. H. H.*  
*16/01/23*

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