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AI IN HIGHER EDUCATION

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1.1 INTRODUCTION

A lot of industries are changing quickly due to artificial intelligence (AI), and education is no exception. In recent years, AI has made significant inroads into Higher Education, offering a wide range of advantages that improve students' educational experiences and simplify administrative duties for educators. Education is the cornerstone of human progress, shaping societies and individuals alike. In an era defined by rapid technological advancement, the integration of Artificial Intelligence (AI) into Higher Education has emerged as a transformative force. AI holds the potential to revolutionize how students learn, teachers instruct, and educational institutions operate. This essay explores the multifaceted introduction of AI in Higher Education, delving into its promises and challenges, its impact on learners and educators, and its potential to reshape the landscape of education for the future. Virtual reality is one new educational innovation that is being used for anything from teaching history to assisting pupils with their math skills. Virtual Reality is a three-dimensional an interactive, computer-generated environment that users can explore. By inventing fresh approaches to incorporate experiential learning into the classroom, VR educators are genuinely influencing the experience of being a student. VR is a fantastic tool for fostering a sense of community among students. Using the same virtual reality program in various classrooms allows them to safely communicate despite their physical separation. Students can investigate topics using virtual reality that they might not otherwise have the chance to observe or learn about. Teachers are in the same boat. There are far more interesting ways for teachers to instruct their students. Anybody who has tried Virtual Reality will know that it feels much more immersive compared to staring at a screen or being in an environment created by a computer. Just two advantages for both teachers and students are deeper comprehension and increased involvement. One type of AI educational software that students may soon use is chatbots. These are being used more and more in schools as students utilize computers or iPads to communicate with bots designed to help them understand specific topics such as math or reading comprehension. It’s possible chatbot tutors could do more than just help students learn new concepts; they may even come whenever the analysis is needed. Chatbots are the future of all technical roots. It shortens the teachers' duty rotation cycle. Chatbots used in classrooms could also replace email communication between parents and teachers during parent-teacher conferences.

Learning Management System (LMS)

One of the most crucial things in our technological age is keeping up with educational breakthroughs. One of these advancements is the use of Learning Management Systems. A learning management system provides a centralized, intuitive system for managing all of a school’s online activities.

Assign coursework:

- Communicate with students and parents
- Track student progress
- Generate reports on student performance

This introduction provides an overview of the role of AI in Higher Education and highlights some key aspects of its implementation.

What is Artificial Intelligence (AI) in Education?

The creation of computer systems with artificial intelligence (AI) capabilities, such as learning, reasoning, problem-solving, and decision-making, is referred to as AI. In the context of Higher Education, AI technologies aim to create intelligent systems that can assist both educators and students in various aspects of teaching and learning.

One of Personalized learning is one of AI's greatest contributions to education. AI algorithms analyze individual student data, including their learning pace, strengths, weaknesses, and preferences. Based on this analysis, AI-powered educational platforms can deliver customized content, adaptive assessments, and recommendations to cater to each student's unique needs. This promotes more effective learning and better academic outcomes. Intelligent Tutoring Systems (ITS) are AI-driven educational tools designed to provide real-time, one-on-one tutoring to students. These systems can assess a student's understanding of a topic, identify areas of difficulty, and offer personalized explanations and exercises to help the student master the subject matter. AI can automate administrative tasks for educators and Higher administrators. Chatbots and virtual assistants can handle routine inquiries, scheduling, and paperwork, allowing educators to focus more on teaching. AI-driven systems can also analyze data to improve Higher operations, resource allocation, and student performance monitoring. AI-powered tools can enhance accessibility in education by providing support for students with disabilities. Text-to-speech and speech-to-text technologies, for instance, can assist students with visual or hearing impairments, ensuring they have equal access to educational content.

AI can help educators gain deeper insights into student performance and behavior. By analyzing large datasets, AI can identify trends, predict student outcomes, and provide early intervention recommendations. This data-driven approach allows schools to implement more effective teaching strategies and support systems. While AI in education offers numerous advantages, it also raises important ethical and privacy concerns. Safeguarding student data, ensuring unbiased AI algorithms, and addressing concerns related to privacy and security are crucial aspects of AI implementation in schools.

1.2 STATEMENT OF THE PROBLEM:

The problem with Artificial Intelligence (AI) in Higher Education revolves around the challenge of effectively integrating AI technologies into educational systems to enhance learning outcomes while addressing various associated concerns and barriers. Do rural students engage in the use of AI in higher education? Are they aware of the sources of AI? Where do they get the guidance of the tools of AI?

1.3 OBJECTIVE OF THE STUDY:

1. To study the sociology economic factors of respondents

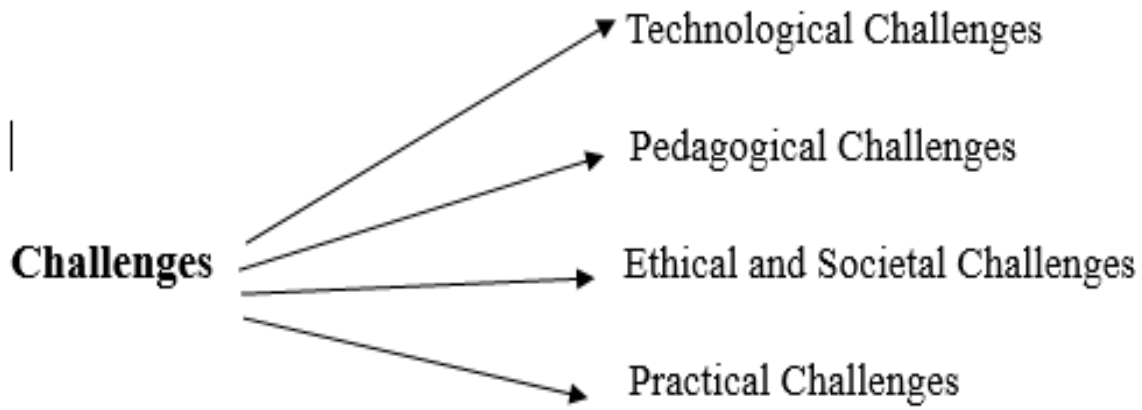
2. To analyze the need for AI in education

3. To offer suggestions based on findings

Artificial Intelligence in Higher Education: A Complex Challenge

Education is one area where artificial intelligence (AI) has had a profound impact on industry transformation. In recent years, there has been a growing interest in harnessing AI's potential to revolutionize teaching and learning processes in Higher Education. However, as with any innovative technology, the integration of AI in education presents both promises and challenges.

The primary issue in AI's application in Higher Education lies in striking the right balance between leveraging AI's capabilities to enhance teaching and learning experiences and addressing the potential drawbacks and concerns associated with its implementation. This multifaceted problem encompasses various dimensions, including technological, pedagogical, ethical, and practical considerations.



1.4 SCOPE OF THE STUDY

The application of AI in Higher education is an evolving and dynamic field that has the potential to completely transform the way educators and students are taught. It encompasses a wide range of technologies, strategies, and challenges. This study aims to explore the scope of AI in Higher Education, highlighting its significance, potential benefits, and the challenges that must be addressed for successful implementation. Enhancing Learning and Teaching one of the primary aspects within the scope of AI in Higher education is its role in enhancing the learning experience for students and streamlining teaching methods for educators. AI-powered educational tools can adapt to individual learning styles, pace, and preferences, providing personalized learning experiences. Personalized Learning AI algorithms can analyze students' performance data and tailor educational content to their specific needs. This includes adaptive learning platforms that adjust difficulty levels, suggest additional resources, or offer targeted feedback based on a student's progress and understanding of the material. Intelligent Tutoring Systems within the scope of AI in education, Intelligent Tutoring Systems (ITS) are a prominent area of study. These systems utilize AI to provide one-on-one tutoring and guidance to students. They can offer instant feedback, track progress, and identify areas where students may need additional help.

Automating Administrative Tasks AI can also assist in automating administrative tasks, reducing the administrative burden on teachers and Higher staff. Tasks like grading assignments, scheduling, and even basic student inquiries can be handled more efficiently through AI-powered chatbots and software.

1.5 LIMITATIONS

- Uneven access to technology hinders equitable AI adoption.
- AI lacks the empathy and personalized guidance human teachers provide.
- Overreliance on AI may stifle critical thinking and creativity.
- Data privacy concerns can deter students and parents.
- AI may struggle with non-standard or diverse learning styles.
- Educators may resist AI integration due to fear of job displacement.

1.6 RESEARCH GAP:

Despite the growing interest and implementation of AI in Higher Education, there is a notable research gap in understanding the long-term impact of AI on student learning outcomes, the effectiveness of AI-powered pedagogical approaches in diverse educational settings, and the ethical considerations and policies needed to ensure responsible AI integration in education. Additionally, there is limited research on the perceptions and attitudes of educators, students, and parents towards AI in the classroom, hindering our understanding of the social and cultural implications of AI adoption in education. Furthermore, there is a need for more comprehensive studies that examine the scalability and cost-effectiveness of AI solutions in education, especially in resource-constrained environments. Lastly, there is a paucity of research on the role of teacher training and professional development in preparing educators to effectively utilize AI tools and adapt their teaching practices to a rapidly changing educational landscape. Closing these research gaps is essential to inform evidence-based AI implementation strategies and ensure that AI in Higher Education maximizes its potential benefits while addressing potential challenges and ethical concerns.

CHAPTER II

REVIEW OF LITERATURE

An, X., Chai, C. S., Li, Y., Zhou, Y., Shen, X., Zheng, C., & Chen, M. (2022), "Simulating middle school English teachers' behavioral intention to use artificial intelligence" Teachers of English as a foreign language in grades K–12 have new chances to enhance their instruction thanks to artificial intelligence (AI). This study examined EFL teachers' perspectives, knowledge, and behavioral intention to use AI to help English teaching and learning in middle schools in order to address the growing trend of integrating AI into education. In a Chinese AI education demonstration district, a survey was carried out. A 5-point Likert scale was used in this survey; it was created based on prior research and EFL teacher interview transcripts. There were 470 valid replies in all. Eight constructs satisfied the scale's validity and reliability: Expectations for Performance (PE), Effort (EE), Social Influence (SI), and Facilitating Conditions

Ali, S., DiPaola, D., Lee, I., Sindato, V., Kim, G., Blumofe, R., & Breazeal, C. (2021) Children in an AI-driven future as creators, thinkers, and citizens. Artificial Intelligence and Computers in Education In addition to creating new opportunities for digital creation, generative AI approaches also have ethical and societal ramifications, such as

the propagation of false information and the production of Deepfakes, which challenges our understanding of technical AI systems as socio-technical systems. Children use social media platforms frequently, and while they may not be aware of it, they are exposed to a lot of applications and media created by generative AI approaches. The significance of digital media literacy and AI literacy for kids has been emphasized in earlier research. In this study, we emphasize critical conversation 8 while introducing generative AI principles to middle school Higher students as a medium for creation.

Chai, C. S., Wang, X., & Xu, C. (2020). "A comprehensive theory of planned behaviour for simulating Chinese higher education students' aspirations to acquire artificial intelligence" People's lives and jobs are currently altering due to artificial intelligence (AI). Because of its significance, secondary school teachers are already introducing AI to their students. This study looked at the relationships between eight other pertinent psychological characteristics and Chinese secondary higher students' intention to learn AI. To take part in this study, 545 secondary higher students who had finished at least one cycle of AI courses were sought out. Subjective norms, anxiety, and the students' AI literacy were determined as background factors based on the theory of planned behaviour. It was predicted that these contextual elements would affect the students' perceptions of behavioural control, attitudes about AI, and intentions to Relationships between the factors were theoretically illustrated as a model that depicts how students' intention to learn AI was constituted.

Chai, C.S., Lin, P.-Y., Jong, M.S.-Y., Dai, Y., Chiu, T.K., & Qin, J. (2021). "Primary Higher students' perceptions of and behavioural intentions toward learning artificial intelligence." As artificial intelligence (AI) gains popularity, educators are becoming more aware of it. Students that study AI are more equipped to handle new issues in society, technology, and the environment. A survey questionnaire was created for this study, which was based on the theory of planned behaviour (TPB), to gauge primary Higher students' behavioural intention to learn AI. Responses to five TPB parameters were assessed by means of an online questionnaire. The five components were behavioural intention, views of AI's application for societal benefit, self-efficacy 9 in learning AI, and AI readiness. This five-factor survey was validated using an exploratory factor analysis and a later confirmatory factor analysis. Construct validity was found to be good in both analyses.

Guan, C., Mou, J., & Jiang, Z. (2020). "A twenty-year data-driven historical analysis of artificial intelligence innovation in education" The use of advanced technology in education changes throughout time; certain research fields appear to have endured, while others have had ups and downs. The term artificial intelligence (AI), which is frequently used in science fiction, has gained widespread acceptance as it integrates more and more into our everyday lives. Industries like healthcare, transportation, retail, and finance are fast changing as a result of it. Another field where AI technology has enormous potential for use is education. In actuality, artificial intelligence innovation in education has progressed from perfected lab settings to more complicated real-world learning environments. Businesses in the educational technology (EdTech) sector have created individualized learning tools like the Individual Adaptive Learning System and Assisted Teaching Systems.

Kandlhofer, M., Steinbauer, G., Lasnig, J.P., Baumann, W., Plomer, S., Ballagi, A., & Alfoldi, I. (2019). "Bringing robotics and artificial intelligence to schools: enabling the creation of intelligent things" This work-in-progress paper on innovative practices describes a cutting-edge educational initiative that aims to create and execute a professional, standardized, globally recognized system for teaching, higher education students, and young people

about robotics and artificial intelligence (AI). 10 Artificial Intelligence and Robotics have gained significant attention in recent times, affecting not only our daily lives but also the workplace. Thus, a solid understanding of robotics and artificial intelligence ideas and concepts is essential for the twenty-first century. However, there aren't many formal methods that concentrate on instructing K–12 instructors and students in AI/robotics concepts. To take up this task, the European Driving License for Robots and Intelligent Systems is under development. It is based on a number of previously implemented and evaluated projects and comprises teaching curricula and training modules for AI/Robotics, following a competency based, blended learning approach. Additionally, a certification system proves peoples' competencies acquired during the training. By applying this innovative approach - a standardized and widely recognized training and certification system for AI and Robotics at K-12 level for both teachers and students - we envision to foster AI/Robotics literacy on a broad basis.

Kandlhofer, M., & Steinbauer, G. (2021). "AI k-12 education service". Artificial Intelligence (AI) has become a hot topic of conversation after receiving a lot of attention from a variety of areas and sectors. Traditionally, universities have been the primary setting for teaching these AI skills. A number of initiatives that aim to further AI education at the K–12 level have surfaced in recent years. For those who are interested, the list of pertinent scientific venues, journals, initiatives, and resources provided in this article should serve as a recommendation and point of departure. Since this is a constantly developing field, completeness cannot be guaranteed.

D. T. K., Lee, M., Tan, R. J. Y., Hu, X., Downie, J. S., & Chu, S. K. W. (2022). An overview of AI education from 2000 to 2020. Information technologies and education. With the increasing use of AI technologies in our daily lives, scholars have started to talk about a new concept called "AI literacy" in recent years. To provide the academic foundation for AI literate education, there hasn't been enough examination of AI teaching and learning (AITL) over the previous 20 years. The absence of age-appropriate teaching resources for scaffolding support at the time prevented teaching AI from becoming widely adopted in K–12 classrooms. Nonetheless, educators can use the pedagogies they learned from the review to consider how they should currently be teaching students AI literacy. Teachers are using cooperative project-based learning strategies that include exercises

CHAPTER III

APPLICATION FOR AI EDUCATION

3.1 GOOGLE FOR EDUCATION:

Google Classroom is a free blended learning tool designed to make creating, assigning, and grading courses easier for educational institutions. Google Classroom's main goal is to make file sharing between instructors and students easier. About 150 million people were using Google Classroom as of 2021. Google Classroom is a free tool that facilitates communication, teamwork, assignment management, organization, and paperless learning among students and teachers. It was first made available as a feature of Google Apps for Education after its August 12, 2014, release. The person who started Google Classroom is At Google Apps for Education, Jonathan Rochelle serves as the Director of Technology and Engineering. Google Classroom was used by about one in three K–12 pupils in the US. Google Classroom is primarily utilized by businesses with $1–10 million and 50–200 employees.

3.1.1 INVESTMENT AND HISTORY:

Google made announcements in 2015 about a Classroom API and a share button for websites, which let developers and Higher administrators interact with Google Classroom even more. Google integrated Google Calendar into Classroom for scheduling speakers, school trips, and assignment deadlines. Any personal Google user could now enrol in classes and develop and teach classes in Classroom when Google expanded it to those without G Suite for Education accounts in April of the same year. In 2018, Google introduced a major redesign to Classroom. The grading system was updated, a new classwork area was added, classwork from previous classes could be reused, and teachers were given more tools to arrange information according to topics. Google added 78 new graphical themes in 2019 and included the ability to drag and drop assignments and subjects within the classwork section. In 2020 Google added integration with Google Meet so that teachers can have a unique meet link within each class.

Furthermore, a number of features were introduced to Classroom, with Google claiming that "we're adapting our tools to meet the evolving needs of their new educational landscape as educators worldwide have reinvented their practice online.

These updates included:

- 10 additional languages
- Improved assignment creation and distribution via learning management system integration
- Smart correct and auto-compose in Google Docs

A significant surge in the use of Google Classroom was also caused by the COVID-19 outbreak, which forced many schools to switch to remote learning choices. Additionally, certain research projects employed Google Classroom to participate in global authentic learning.

3.1.2 USAGE AND ADVANTAGES

In recent years, Google Classroom has emerged as a transformative platform for educators and students, reshaping the landscape of K-12 and Higher Education through its seamless integration of digital tools, streamlined workflows, and collaborative features. Google Classroom has revolutionized the way teachers manage their classrooms. It offers an intuitive interface for educators to create, distribute, and organize assignments, assessments, and learning materials. With just a few clicks, teachers can share documents, slideshows, videos, and links with their students, eliminating the need for paper-based handouts and fostering a more environmentally friendly learning environment. This paperless approach has not only reduced the administrative burden on teachers but has also encouraged students to embrace digital literacy skills. One of the hallmark features of Google Classroom is its ability to facilitate communication and collaboration. Recent years have witnessed a growing emphasis on collaborative learning, and Google Classroom has risen to the occasion by providing students with a platform to engage in discussions, share ideas, and work on group projects. The "Classroom Stream" acts as a virtual forum where students and teachers can interact, ask questions, and provide feedback, enhancing the sense of community within the digital classroom. Moreover, Google Classroom seamlessly integrates with other G Suite for Education applications like Google Docs, Sheets, and Slides. This integration empowers students to collaborate in real-time on documents, conduct research, and co-create presentations. It has also simplified the process of submitting assignments, as

students can attach their work directly from their Google Drive accounts, ensuring a streamlined workflow for both students and teachers. In recent years, the COVID-19 pandemic underscored the importance of remote and hybrid learning. Google Classroom emerged as a lifeline for educators and students, providing a central hub for online instruction, assignments, and communication. It facilitated synchronous and asynchronous learning, allowing educators to adapt their teaching strategies to the evolving needs of their students. Furthermore, Google Classroom has made it easier for parents to stay informed about their children's education. Through Guardian Summaries, parents can receive regular updates on their child's assignments, due dates, and class announcements, fostering greater parental engagement and support.

3.2 IBM Watson Education:

IBM David Ferrucci, the lead investigator of IBM's Deep QA project, oversaw the development of Watson, a computer system that can respond to inquiries in natural language. Thomas J. Watson, an industrialist, was the first CEO of IBM and the inspiration behind Watson's moniker. The Watson computer system was first created to respond to questions on the game show Jeopardy. In 2011, it participated in Jeopardy against previous winners Brad Rutter and Ken Jennings, taking first place and earning a $1 million USD reward.
IBM declared in February 2013 that utilization management choices related to lung cancer treatment at Memorial Sloan Kettering Cancer Center in New York City will be the first commercial use of Watson.

3.2.1 INVESTMENT AND HISTORY:

On January 9, 2014, IBM announced it was creating a business unit around Watson, led by senior vice president Michael Rhodin. Silicon Valley in New York will serve as the home base for IBM Watson Group. Alley and will employ 2,000 people. IBM launched the division with a $1 billion investment. The Watson Group is set to create three novel cloud-based services, namely Watson Engagement Advisor, Watson Discovery Advisor, and Watson Explorer. Watson Engagement Advisor will concentrate on self-service applications utilizing insights based on natural language questions posed by business users; Watson Explorer will concentrate on making it easier for enterprise users to find and share data-driven insights based on federated search; and Watson Discovery Advisor will concentrate on research and development projects in the pharmaceutical industry, publishing, and biotechnology. In addition, the business is starting a $100 million venture fund to promote the creation of "cognitive" application apps. IBM CEO Virginia Rometty said she wants Watson to generate $10 billion in annual revenue within ten years. In 2017, IBM and MIT launched a brand-new collaborative artificial intelligence research project. In collaboration with MIT, IBM invested $240 million to establish the MIT–IBM Watson AI Lab, which unites academic and industry researchers to advance AI research. Projects range from natural language processing (NLP) and computer vision to developing novel strategies to ensure the security, reliability, and equity of AI systems. In March 2018, IBM CEO Ginni Rometty proposed "Watson's Law," which would deal with the "use of and application of business, smart cities, consumer applications, and life in general."

3.2.2 PARTNERSHIP:

In collaboration with MIT, IBM invested $240 million to establish the MIT–IBM Watson AI Lab, which unites academic and industrial researchers to promote AI research. Projects range from computer vision and natural language processing to developing novel approaches to guaranteeing the security, fairness, and dependability of AI systems.

IBM Watson Education had partnered with various sectors, including:

1. K–12 Schools: IBM Watson Education collaborated with K–12 schools to offer AI-powered teaching resources and technologies to improve students' learning experiences and support teachers in providing individualized instruction.

2. Higher Education: IBM Watson Education partnered with colleges and universities to develop AI-driven solutions for Higher Education institutions. These partnerships aimed to improve student outcomes, streamline administrative processes, and support data-driven decision-making.

3. EdTech Companies: IBM Watson Education collaborated with educational technology (EdTech) companies to integrate AI and data analytics into their products and services. These partnerships aimed to bring AI-enhanced learning experiences to a broader range of students and educators.

4. Government and Nonprofit Organizations: IBM Watson Education worked with government agencies and nonprofit organizations focused on education to address challenges in education through AI and data-driven solutions. These included initiatives aimed at improving access to quality education and addressing educational disparities.

5. Corporate Training and Development: IBM Watson Education partnered with businesses to provide AI-driven solutions for corporate training and employee development. These partnerships aimed to enhance workforce skills and knowledge using personalized learning approaches.

6. Research Institutions: IBM Watson Education collaborated with research institutions and universities to advance research in the field of education technology, artificial intelligence, and data analytics in education.

3.3 SQUIRREL AI:

Chinese online learning technology provider Squirrel AI focuses on intelligent adaptive learning.
It is among the first businesses in China to provide extensive adaptive education solutions driven by AI. Squirrel uses artificial intelligence to tailor lesson plans to each individual student. The largest student databases in the world, which are used to train AI, are accessible to Chinese researchers. Squirrel AI was founded in 2014 by Derek Li, Jason Zhou, Wei Cui to education the student with the help of AI Education with the guide of teacher. To precisely target learning gaps, Squirrel collaborates with teachers to identify the most granular concepts (also known as "knowledge points") for a certain course.

Like example:
The more than 10,000 points of Middle Higher mathematics include the Pythagorean theorem, rational numbers, and triangle features. A "knowledge graph" is created by connecting each point to items that are connected to it. Practice problems, videos, and examples are provided to address each knowledge topic. A textbook might address 3,000 points, by this the student can be enrich the knowledge as wider by the help of AI in Higher Education

3.3.1 INVESTMENT AND HISTORY:

Squirrel AI Learning is an AI-based tutoring platform for students. They have raised $194 million in funding over three rounds from five investors. Their latest funding round was on July 1, 2021.

Squirrel AI Learning's investors include: SIG, CITIC Securities, NGP. NGP is the top most investor in the Squirrel AI

As the history of Squirrel AI, In March, 2017, The Squirrel AI Intelligent Adaptive Learning System (IALS) was launched. IALS uses artificial intelligence to personalize practice sessions, lesson plans, and assessments for every student.

2018 saw the establishment of a collaborative AI adaptive learning research lab between Squirrel AI and the Chinese Academy of Sciences' Institute of Automation.

By 2019, Squirrel AI had registered over a million students in China and established 2,000 learning facilities across 200 cities.

Squirrel AI and Carnegie Mellon University partnered to build a research lab in 2019.

Squirrel Ai exceeded $1 billion in valuation in 2018 and had raised over $180 million in investment as of 2019.

In collaboration with AAAI, Squirrel AI established the $1 million Squirrel AI Award for Artificial Intelligence for the Benefit of Humanity in 2020. Regina Barzilay received the inaugural prize in recognition of her efforts in creating machine learning models for drug synthesis and early-stage breast cancer diagnostics.

In 2020, Squirrel AI established strategic partnership with Ding Talk, Alibaba Group.

Squirrel AI had assisted more than 60,000 public schools in more than 1200 Chinese cities as of 2021.

CHAPTER IV

ANALYSIS AND INTERPRETATION

TABLE 4.1

Table showing the age of the respondents

AGE	NO. OF RESPONDENTS	PERCENTAGE
18-20	22	53.7
20-25	12	29.3
25-30	7	17.1
TOTAL	**41**	**100**

INTERPRETATION:

In this table it reveals 53.7% of respondents are between 18-20 years, 29.3% of respondents are between 20-25 years, 17.1% of respondents are between 25-30years.

INFERANCE:

Majority of the respondents are between the age of 18-20 years.

CHART - 4.1.1

Chart showing the age of respondents:

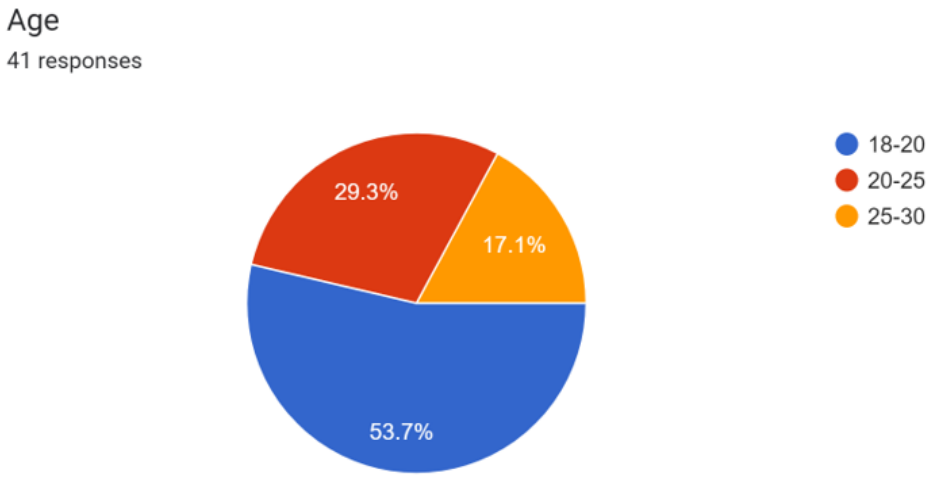


TABLE 4.2

Table showing the gender of the respondents

GENDER	NO. OF RESPONDENTS	PERCENTAGE
MALE	30	73.2
FEMALE	11	26.8
TOTAL	**41**	**100**

INTERPRETATION:

The above table indicate the gender of the respondents. 73.2% of the respondents are male and 26.8% of respondents are female.

INFERANCE:

Majority of the respondents are between the male and female gender.

CHART - 4.2.1.

Chart showing the gender of the respondents:

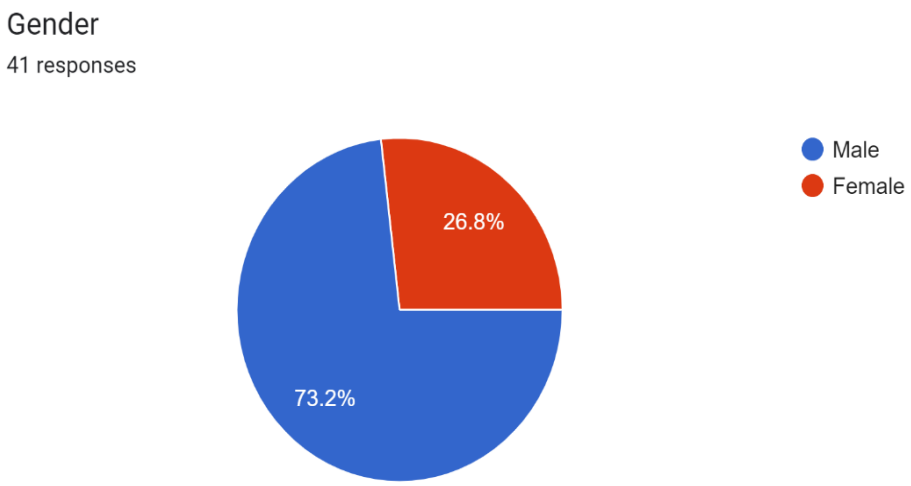


TABLE 4.3

Table showing the occupation of the respondents

OCCUPATION	NO. OF RESPONDENTS	PERCENTAGE
STUDENTS	27	65.9
TEACHERS	3	7.3
OTHERS	11	26.8
TOTAL	**41**	**100**

INTERPRETATION:

In the above table indicate the occupation of the respondents. 65.9% of the respondents are students and 7.3% of the respondents are teachers and 26.8% of the respondents are other.

INFERANCE:

Majority of the respondents are between the occupation like Students, Teachers, and others.

CHART - 4.3.1

Showing the occupation respondents:

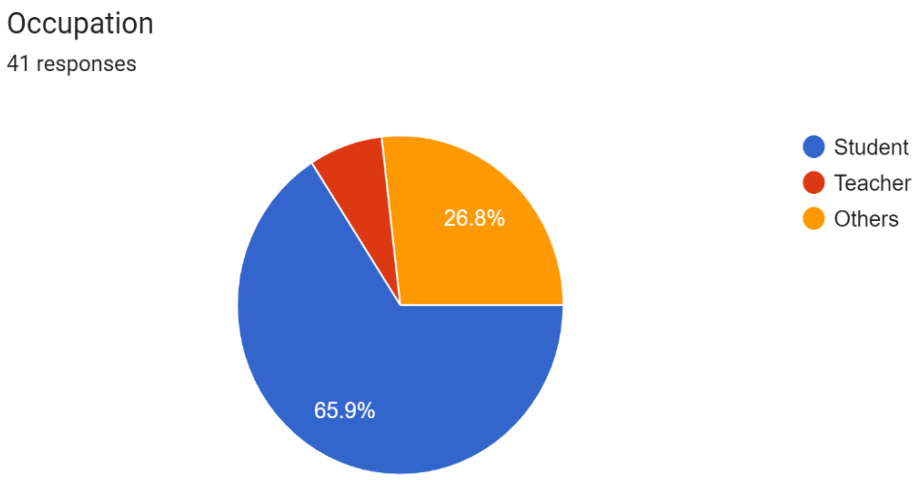


TABLE 4.4

Table showing the respondents of awareness of ai Edu

AWARE OF AI EDU	NO. OF RESPONDENTS	PERCENTAGE
YES	41	100
NO	0	0
TOTAL	**41**	**100**

INTERPRETATION:

In the above table indicate that the 100% of the respondents are aware of AI tools in Higher Education.

INFERANCE:

Majority of the respondents are between the response of Yes there are aware about the AI Edu.

CHART - 4.4.1

Chart showing the awareness of ai edu respondents:

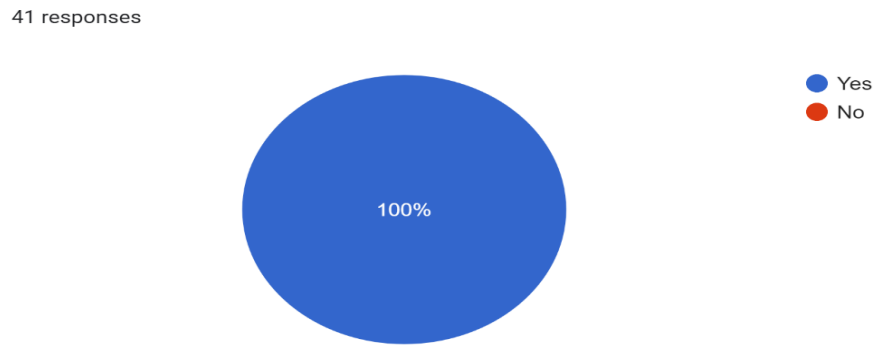


TABLE 4.5

Table showing the AI tools and resources available to educator's respondents

AI TOOLS AND RESOURCES	NO. OF RESPONDENTS	PERCENTAGE
Parent-Teacher Communication	13	31.7%
User-Friendly Interfaces	14	34.1%
Professional Development and Training	11	26.8%
Enhanced Feedback Mechanisms	3	7.3%
TOTAL	**41**	**100%**

INTERPRETATION:

In the above table indicate AI tools and Resources available to Educators' respondents. 31.7% of the respondents are Parent-Teacher Communication. 34.1% of the respondents are User-Friendly Interfaces. 26.8% of the respondents are Professional Development and Training. 7.3% of the respondents are Enhanced Feedback Mechanisms.

INFERANCE:

Majority of the respondents are between the parent-teacher communication, professional development and training, user-friendly interfaces and enhanced feedback mechanisms.

CHART 4.5.1

Table showing the AI tools and resources available to educator's respondents

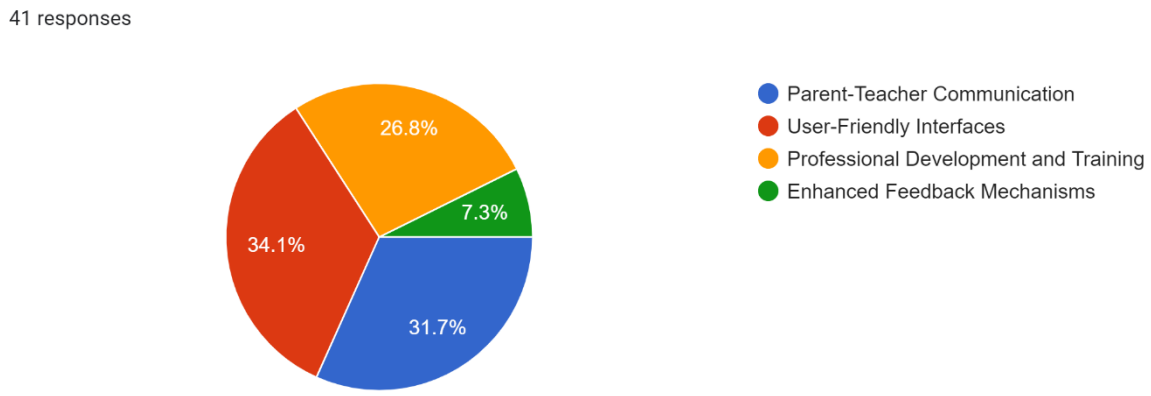


TABLE 4.6

Table showing the usage of ai tools for education respondents

USAGE OF AI TOOLS	NO. OF RESPONDENTS	PERCENTAGE
DAILY	20	48.8%
WEEKLY	12	29.3%
MONTHLY	7	17.1%
RARELY	2	4.9%
NEVER	0	0
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 48.8% of the respondents are daily use AI tool for education. 29.3% of the respondents are weekly use AI Tool for Edu. 17.1% of the respondents are monthly use AI tool for Edu. 4.9% of the respondents are rarely use AI for Edu.

INFERANCE:

Majority of the respondents are between the Daily, Weekly, Monthly, Rarely, and Never.

CHART - 4.6.1

Table showing the usage of ai tools for education respondents:

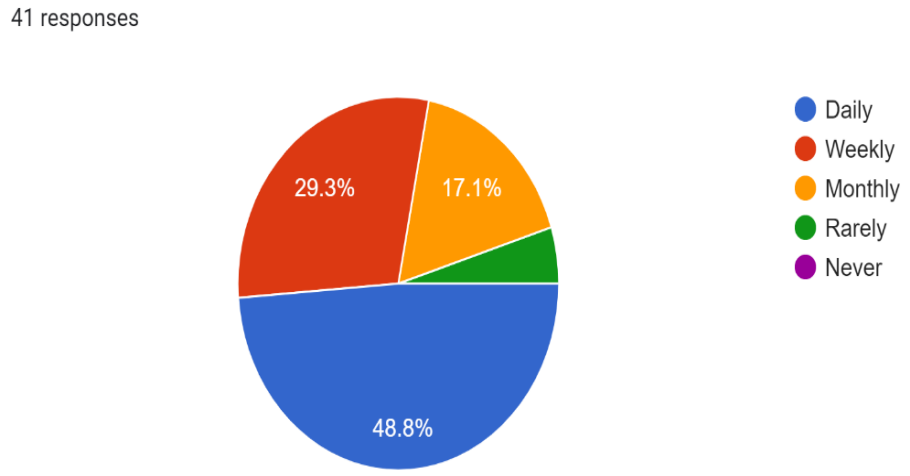


TABLE 4.7

Table showing the usage of ai tools for in higher education respondents

CATEGORY	NO. OF RESPONDENTS	PERCENTAGE
GOOGLE FOR EDUCATION	23	56.1
IBM WASTON For EDUCATION	9	22
SQUIRRE AI	5	12.2
OTHERS	4	9.8
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 56.1% of the respondents opted Google for education. 22% of the respondents opted for Ibm waston for education. 12.2% of the respondents opted For Squirrel AI and Balance 4.9% of the respondents are opted for other AI tools.

INFERANCE:

Majority of the respondents are between the Google for education, IBM waston for education, Squirrel AI and others.

CHART - 4.7.1

Chart showing the usage of ai tools for in higher education:

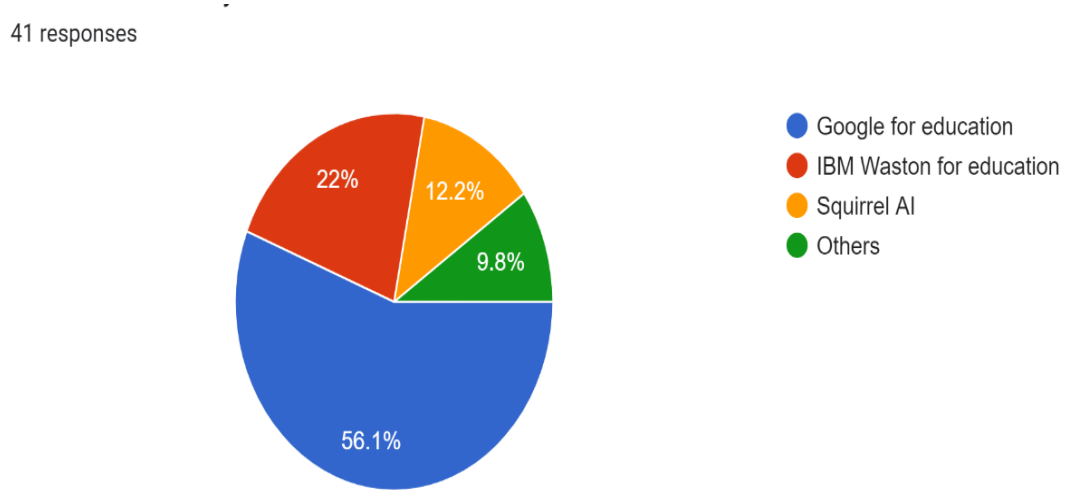


TABLE 4.8

Table showing the knowledge of ai tools in higher education

CATEGORY	NO. OF RESPONDENTS	PARTICULAR
NEWSPAPER	7	17.1
FAMILY AND FRIENDS	20	48.8
INTERNET	9	22
TV	1	2.4
SOCIAL MEDIA	4	9.8
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 17.1% of the respondents has gained knowledge of AI tools through newspaper. 48.8% of the respondents gained knowledge of AI tools through Family and friends. 22% of the respondents has gained knowledge of AI tools through Internet and 2.4% of the respondents gained knowledge of AI tools through TV and 9.8% of the respondents has gained knowledge of AI tools through social media.

INFERANCE:

Majority of the respondents are between the Newspaper, Internet, TV, Social media.

CHART - 4.8.1

Chart showing the knowledge of ai tools in higher education:

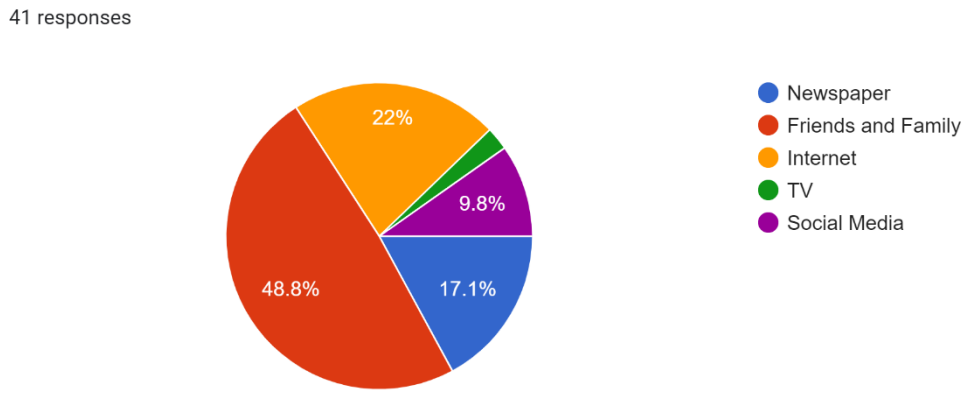


TABLE 4.9

Table showing the traditional method of usage response

CATEGORY	NO. OF RESPONDENTS	PARTICULAR
ACCEPTED	37	90.2
NOT ACCEPTED	4	9.8
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 90.2% of the respondents accepted that the AI tool can be supplemented for traditional method of Higher Education and the rest 9.8% of the respondents does not accept the view that AI tool education can replace the traditional method of the education.

INFERANCE:

Majority of the respondents are between the Accepted and Not accepted.

CHART - 4.9.1

Chart showing the traditional method respondents:

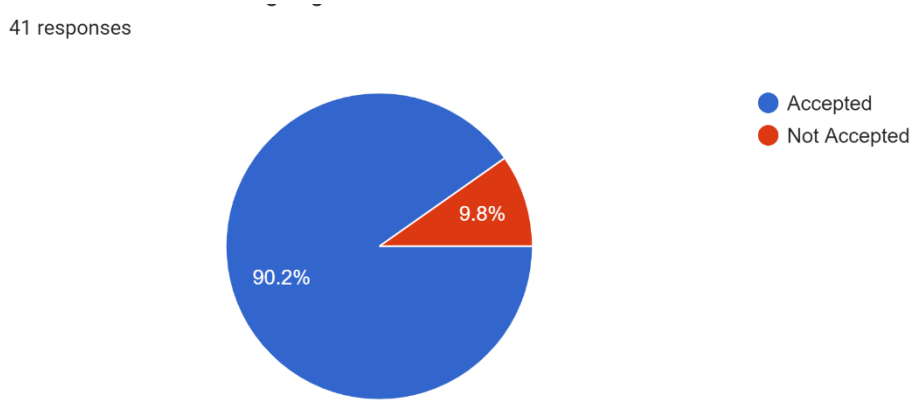


TABLE 4.10

Table showing the problem-solving tendency response

CATEGORY	NO. OF RESPONDENTS	PARTICULAR
ACCEPTED	25	61
NEUTRAL	13	31.7
NOT ACCEPTED	3	7.3
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 61% of the respondents has accepted that AI tools has problem solving tendency, 31.7% of the respondents been neutral for the problem-solving tendency. 7.3% of the respondents has not accepted AI tools for problem solving tendency.

INFERANCE:

Majority of the respondents are between the Accepted and Not accepted and Neutral.

CHART - 4.10.1

Chart showing the problem-solving tendency respondents:

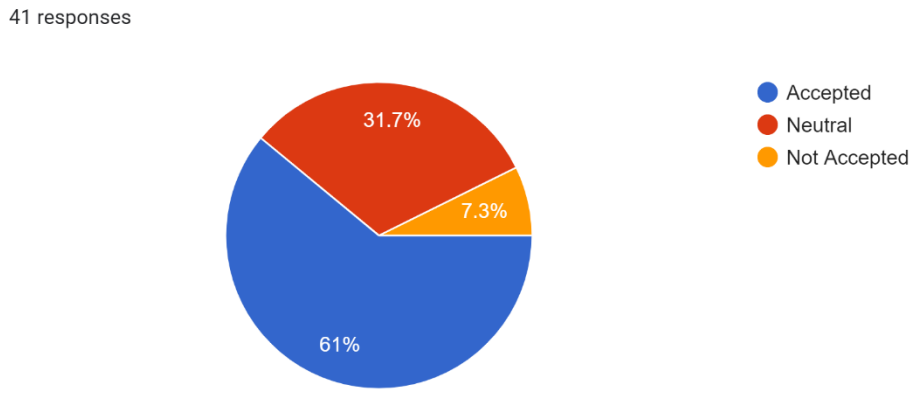


TABLE 4.11

Table showing the benefit of ai tools for government higher student's respondents

CATEGORY	NO. OF RESPONDENTS	PARTICULAR
AGREE	35	85.4
DISAGREE	6	14.6
TOTAL	**41**	**100**

INTERPRETATION:

In the above table, 85.4% of the respondents has agreed the benefit of AI tool for government Higher students 14.6% of the respondents did not agree disagree the benefit of AI Tool for government Higher students.

INFERANCE:

Majority of the respondents are between the Agree and Disagree.

CHART - 4.11.1

Chart showing the benefit of ai tools for government higher student's responents:

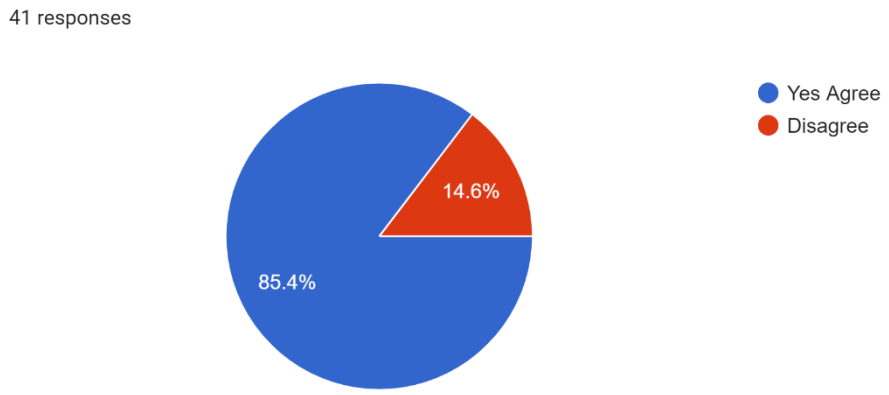


TABLE 4.12

Table showing the satisfaction of ai in higher education response

CATEGORY	NO. OF RESPONDENTS	PARTICULAR
HIGHLY SATISFIED	20	48.8
SATISFIED	16	39
NEUTRAL	5	12.2
DISSATISFIED	0	0
TOTAL	**41**	**100**

INTERPRETATION:

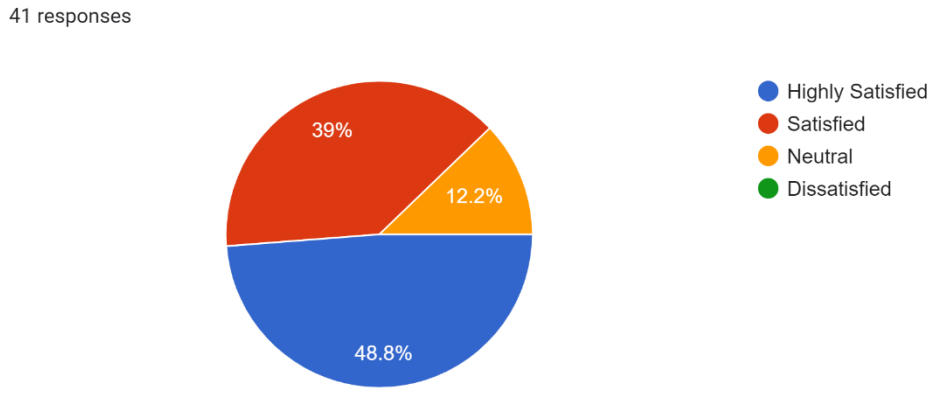
In the above table, 48.8% are highly satisfied, 39% are satisfied, 12.2% are neutral in the satisfaction of AI in Higher education.

INFERANCE:

Majority of the respondents are between the Highly satisfied and Satisfied and Neutral.

CHART - 4.12.1

Chart showing the satisfaction of ai in higher education respondents:



Chi Square Analysis

Null Hypothesis:

There is a significant relationship between Age and Satisfaction with AI in Higher Education.

TABLE 1.1

Contingency Tables

	Are you satisfied with Ai in Higher Education?			
Age	Highly Satisfied	Neutral	Satisfied	Total
18-20	11	3	8	22
20-25	5	1	6	12
25-30	4	1	2	7
Total	20	5	16	41

Chi-Squared Tests

	Value	df	p
X^2	1.047	4	0.903
N	41		

INTERPRETATION:

Calculated value is greater than the critical value 0.5, so Null hypothesis is rejected, because the value of chi-square is above as P value- 0.903 and X^2 value 1.047 and degree value is 4.

TABLE 1.2

Null hypothesis:

There is a significant relationship between Gender and Satisfaction with AI in Higher Education.

Contingency Tables

	Are you satisfied with Ai in Higher Education?			
Gender	**Highly Satisfied**	**Neutral**	**Satisfied**	**Total**
Female	6	2	3	11
Male	14	3	13	30
Total	20	5	16	41

Chi-Squared Tests

	Value	df	p
X^2	1.076	2	0.584
N	41		

INTERPRETATION:

Calculated value is greater than the critical value 0.5, so Null hypothesis is rejected, because the value of chi-square is above as P value- 0.584 and X^2 value 1.076 and degree value is 2.

TABLE 1.3

Null hypothesis:

There is a significant relationship between Age and AI Tools & AI in Higher education variable.

Contingency Tables

Age	How did you come to know about AI Tools and AI in Higher Education?					
	Friends and Family	Internet	Newspaper	Social Media	TV	Total
18-20	10	3	6	2	1	22
20-25	6	3	1	2	0	12
25-30	4	3	0	0	0	7
Total	20	9	7	4	1	41

Chi-Squared Tests

	Value	df	p
X^2	7.508	8	0.483
N	41		

INTERPRETATION:

Calculated value is greater than the critical value 0.5, so Null hypothesis is rejected, because the value of chi-square is above as P value- 0.483 and X^2 value 7.508 and degree value is 8.

TABLE 1.4

Null hypothesis:

There is a significant relationship between Gender and AI Tools & AI in Higher education variable.

Contingency Tables

	How did you come to know about AI Tools and AI in Higher Education?					
Gender	Friends and Family	Internet	Newspaper	Social Media	TV	Total
Female	7	2	0	2	0	11
Male	13	7	7	2	1	30
Total	20	9	7	4	1	41

Chi-Squared Tests

	Value	df	p
X^2	4.805	4	0.308
N	41		

INTERPRETATION:

Calculated value is greater than the critical value 0.5, so Null hypothesis is rejected, because the value of chi-square is above as P value- 0.308 and X^2 value 4.805 and degree value is 4.

CHAPTER V

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS:

- 53.7% of respondents are between 18-20 years.
- 73.2% of the respondents are male.
- 65.9% of the respondents are students.
- 100% of the respondents are aware of AI tools in Higher Education.
- 31.7% of the respondents are Parent-Teacher Communication.
- 48.8% of the respondents using AI tools in Higher Education daily.
- 56.1% of the respondents opted GOOGLE FOR EDUCATION as AI tool.
- 17.1% of the respondents has gained knowledge of AI tools from newspaper.
- 90.2% of the respondents accepted that the AI tool can be supplemented for traditional method of Higher Education.
- 61% of the respondents has accepted that AI tools has problem solving tendency.
- 85.4% of the respondents has agreed that the government Higher students would be benefitted from the AI tool.
- 48.8% of the respondents has highly satisfied with AI tools in Higher Education.
- 68.3% of the respondents thinks that AI is necessary in Higher Education.

5.2 SUGGESTIONS:

- AI can be improved to assist the teachers and Higher administrators in managing administrative tasks more efficiently.
- By automation processes like enrollment, record-keeping, and scheduling the education system can be improved.
- Automation of administrative work, feedback provision, improved material distribution, and collaborative enhancement can simplify education compared to traditional methods.

- AI can be improved to help teachers grade assignments, monitor student progress, customize curriculum, and identify learning gaps.

5.3 CONCLUSION:

The study shows about the AI tools in Higher Education. AI tools for Higher education is being developing in the India. The results indicate the development AI tools in Higher Education. AI tools in Higher Education is being popular in the among the students. Google Education can is the leading AI tools opted by the students for the Higher Education. We can understand that the AI tool is a key tool for the Higher Education among the students. The integration of AI in Higher Education in India has the potential to revolutionize learning and address some of the longstanding challenges in the education system. However, careful planning, investment in infrastructure, and a focus on inclusivity are essential to maximize the benefits of AI while minimizing its drawbacks. The effective implementation of AI in education should be a collaborative effort involving educators, policymakers, technology providers, and the community, with a primary focus on improving learning outcomes for all students.