International Journal of Scientific Research in Engineering and Management (IJSREM)
Volume: 08 Issue: 03 | March - 2024 SJIF Rating: 8.176 ISSN: 2582-3930

An Investigation on Students Learnings & Mental Health Influenced by Artificial Intelligence

Sakshi Vyas, Universal Business School
Chittorgarh, India
sakshi.vyas@ubs.org.in

Isha Chaurasia, Universal Business School
Banaras, India
isha.chaurasia@ubs.org.in

Yash Sharma, Universal Business School
Vidisha, India
yash.sharma@ubs.org.in

Shreya Sarkar, Universal Business School
West Bengal, India
shreya.sarkar@ubs.org.in

ABSTRACT: -

Artificial intelligence has impacted student's social, emotional, and physical well-being. It has resulted in how a person thinks and reacts to a particular situation. The Purpose of this investigation is to test the effectiveness of learning patterns on our mental health. It can affect a student's energy level, concentration, dependability, and mental ability. On the other hand, AI can automate the process of grading assignments and providing feedback to students, which can save teachers a lot of time and can focus more on student interaction. It is essential to ensure that AI systems used in education are unbiased and fair. We read articles about the connection between artificial intelligence and mental health that use mood rating scales and classified them into the pros and cons of artificial intelligence. In our college, we will also carry out a poll that shows how Artificial intelligence has harmed and benefited the students. Therefore, it is crucial to carefully examine the benefits and risks of AI in education and implement appropriate safeguards to ensure that it is used ethically and responsibly.

Public mental health based on artificial intelligence engineering has a wide range of application and development prospects in enhancing the effectiveness of instruction, achieving high efficiency and intelligence, and enhancing specialized education. The use of artificial intelligence-based public mental health in business administration teaching effects has highly favorable importance for precisely determining the mental health and teaching effects of business administration students. We develop a method for the influence of public mental health on the teaching effect of the business administration profession based on artificial intelligence engineering to improve the teaching-learning effect of the business administration major.

(Keywords:- Learnings, Mental Health, and Artificial Intelligence)

LITERATURE REVIEW:-

Yixia and **Zhiguo (2022)** in their study **'The Influence of Public Mental Health Based on Artificial Intelligence Technology on the Teaching Effect of Business Administration Major'** Public mental health based on artificial intelligence has a wide range of applications and development possibilities in increasing the effectiveness of instruction, realizing high efficiency and intelligence, and enhancing good education. We demonstrate via our findings that the approach we propose can use AI to assess the impact of student learning majors' instruction from the standpoint of mental health and subsequently produce positive experimental outcomes. An important technique in the field of mental health assessment is public mental health based on artificial intelligence technology. Data mining and sorting techniques using artificial intelligence might increase the smoothness and accuracy of mental health assessments and prevent them altogether.

Stefan and **Sheron (2017)** in their **study 'Exploring the Impact of Artificial Intelligence on Teaching and Learning in Higher Education'** Today as increasing the role of artificial intelligence in teaching and learning in higher education. today technological advancement and the increasing use of new technologies in education are explored to predict the future nature of higher education in a world where artificial intelligence is part of the education system. Some challenges are in student learning in the adoption of these technologies teaching, learning, student support, and administration.

Mostafa and **Scott (2022)** in their study **'Artificial intelligence-based analytics for impacts of COVID-19 and online learning on college students' mental health'** The impact of artificial intelligence during the COVID-19 pandemic impacted not only student life but also their residential life. The majority of the students Reported High food intake, Poor hygiene, less exercise, anxiety issues, depression, etc. Classroom learning was transformed into virtual learning not the same as in-person interaction on the other hand it had a positive impact as it helped in identifying the financial conditions, living environment moreover, and related information. Machine learning as a tool of artificial intelligence was also used to predict mental health concerning Covid 19.

Mengmei and **Co-authors (2011)** in their study **'Research on Strategies of Applying Artificial Intelligence to Psychology Teaching in Colleges and Universities'** Mental Health is the essence for college students. This is the starting point where they acquire practical knowledge and enhance their skills. The traditional teaching mode which relies solely on textbook learning has affected the knowledge grasping power of the students. They become book kid. They are unable to adapt their creative skills sects whereas artificial intelligence tools can help college student to adapt their creativity. Artificial Intelligence technology can improve the mental health of college students and enhance their psychological power. Summing up all artificial intelligence plays a vital role in psychology education

Tuomi and **IlkkAI** in their study **'The impact of artificial intelligence, on learning teaching and education'** will have an impact on all of the education platforms, student learning, and teaching. The technological impact is very fast. In the middle of self-driving vehicles, talking robots, and the stream of "AI miracles," it may be simple to believe that AI is quickly developing super intelligence and acquiring all the good abilities accorded to it in popular culture. The technical, social, scientific, and conceptual limitations of present AI systems significantly restrict what they are capable of. The presence of AI in our culture and economy is growing. Technology and tools have the power to alter not only how we think, but also our brains themselves. The question of how the structure of human brains is altered by the employment of AI technology in learning could therefore be raised. Artificial intelligence (AI) can lessen the need for human knowledge, experience, and talent while highlighting the value of behavioral repertoires. Because of this, humans are no longer required to acquire the domain-specific information that was previously necessary for competent behavior.

Sarah and **their Co-authors (2019)** in their study **'Artificial Intelligence for Mental Health and Mental Illnesses'** Artificial intelligence is rapidly becoming a part of our daily lives and it has the potential to greatly impact the field of education AI can impact by analyzing student performance, by providing real-time feedback, by automated grading and data entry. However Artificial intelligence is not always a solution to the problem but also a drawback to using it in education. Perhaps there is also a concern that AI will replace human educators and dehumanize the learning

experience; therefore it is better to balance between the benefits and the drawbacks of AI and to make sure it is used to support human education rather than replacing them.

Bavly and **Andrew (2022)** in their study '**Role of Artificial Intelligence in Mental Wellbeing: Opportunities and Challenges'** Artificial intelligence is being employed more and more frequently in medicine for applications relating to physical health, but its adoption in the field of mental health has been delayed. Mental health professionals rely more on "softer" skills like establishing connections with patients and closely observing patient behaviors and emotions in their clinical practice than the majority of non-psychiatric professionals do. Clinical information in the field of mental health typically takes the form of verbal and written notes as well as subjective and qualitative patient comments. AI makes it possible to diagnose mental diseases early when therapies may be more successful, and to tailor treatments to each patient's specific needs. However, caution is required to avoid over-interpreting preliminary results, and more work is required to close the gap between mental health clinical care and AI research.

Sijia, Jingping, and their **Co-authors (2022)** in their study **'Application of Artificial Intelligence on Psychological Interventions and Diagnosis: An Overview'** AI-based technologies can be used to analyze complex data sets predict outcomes, and identify patterns. Artificial Intelligence can also be used in medical terms to find data from electronic medical records, genetic tests, and other sources to diagnose properly and get accurate treatment plans for patients. AI can identify patterns in patient data, identify the risk of certain conditions, and recommend treatments based on the patient individual characteristics. Overall, the application of AI in psychology has the potential to greatly improve the accuracy and effectiveness of mental health treatments, as well as make them more accessible to individuals.

Yelena (2022) in their study **'The Big Promise AI Holds for Mental Health'** Though AI is fully replacing traditional therapy in the future, the use of artificial intelligence in mental health care has huge promise. Clinical practice is already seeing an increase in the use of AI for mental health. Just like Chabot's are popular, and some users even feel an emotional connection to them. We're not discussing the uncomfortable things that formed between a lonely guy and an AI operating system in the film Her; rather, we're discussing people's willingness to open up to an AI friend. People frequently think that robots can instantly respond to health-related queries, are impartial, and don't pass judgment. Also, the benefits of AI are that it is affordable, accessible, efficient, private, and easy to use. The possibility for bias in AI systems, which can result from inadequate databases, is one of the major obstacles to applying AI to mental illness. Concerns regarding data security and privacy have also been raised because AI systems frequently need a lot of delicate patient data to work successfully. Despite its enormous potential, AI is extremely complex.

Xi Zhang (2022) in his study **'Application of Artificial Intelligence in Academic Mental Health and Employment Evaluation'** With the power of increasing science and technology the dependency on the internet has influenced the fresh blood cells. It was found that students who are pursuing or are graduates had more anxiety issues for their jobs. AI tools can help identify and treat mental health disorders leading to better outcomes for individuals both at personal and professional levels. It can also identify where professional development is needed including skill gaps or performance issues. Artificial intelligence tools can also help in recruitment retention strategies thereby ensuring institutions hire enthusiastic individuals in the long run. AI has enormous potential to improve mental health care and employment evaluation in institutions.

Roberto Tornero-Costa and their **(2022)** co-authors in their study **'Methodological and Quality Flaws in the Use of Artificial Intelligence in Mental Health Research'** The field of medicine and health care is transforming because of artificial intelligence (AI). In many nations, mental health issues are very common, and the COVID-19 pandemic has raised the possibility of additional decline in population mental health. More and more, strategies and tools for better disease diagnosis and treatment are being developed using artificial intelligence (AI). AI is described as the replication of human-like pattern recognition and problem-solving abilities.

Keith Kirkpatrick (2022) in his study '**Artificial Intelligence and Mental Health**' Artificial Intelligence plays a vital role in better diagnosing, treating, and preventing mental health conditions. Artificial intelligence tools identify the patients who are at risk for developing certain mental health conditions. It can help monitor the number of patients

at the same time allowing clinicians to adjust treatment plans as needed based on individual patient responses it can also be useful for patients with complex mental health conditions. AI can be used to help advance our understanding of mental health conditions through research. AI has immense potential to improve mental health care by assisting in diagnosis, treatment, and research.

Gabriella Mazza (2022) in his study **'AI and the Future of Mental Health'** The Usage of AI to Address a Wide Range of Mental Health Issues'. It is also used in monitoring symptoms and tracking processes. A patient's treatment plan may be changed based on their symptoms and progress as a result of therapy using artificial intelligence (AI). AI not only helps with treatment, but therapists also use ML to automate transcripts in counseling sessions and verify patient improvement by comparing patient remarks to data sets. The Use of AI in the Treatment of Many Mental Health Problems like depression and anxiety, the connection between physical and mental health, and addiction also uses Artificial Intelligence to expand access to mental health care. Patients with mild anxiety and/or depressive symptoms can learn problem-solving techniques using an Alexa-like voice-activated app. AI is used to assist therapists.

Abhishek Pratap (2021) and their co–authors in their study **'An Interprofessional Perspective on Implications for Geriatric Mental Health Research and Care'** AI technologies can help to support healthcare providers in improving the quality of care delivered to geriatric patients with mental health disorders. AI in geriatric mental healthcare can help in the prevention, treatment, and management of mental health disorders to recognize correlations between various factors that may cause or contribute to geriatric mental health disorders. For instance, analyzing electronic health records will reveal patterns The use of AI in research will also aid in identifying geriatric mental health patients. AI will significantly impact the geriatric mental healthcare of the future. AI technologies can help to support healthcare providers in improving the quality of care delivered to geriatric patients with mental health disorders.

Kyoung won Seo (2021) and their co-authors in their study **"The impact of artificial intelligence on learner–instructor interaction in Online learning" Kyoung Seo and their co-authors(2021) in their study "The Impact of Artificial Intelligence on Learner–instructor Interaction in Online Learning"** Artificial intelligence (AI) has the potential to significantly impact learner-instructor interaction in online learning. Artificial learners result in a more personalized and engaging experience. It helps in creating a gamified engaging experience that engages with the content and works toward their learning goals, which helps learners to be motivated and interested and make a data-driven decision about how to improve their teaching. Overall, the impact of AI on learner-instructor interaction in online learning has the potential to be transformative, improving the quality and effectiveness of online courses and helping learners achieve their educational goals.

INTRODUCTION: -

In several industries, including education, artificial intelligence (AI) has gained popularity. AI is being implemented into educational settings to improve student learning experiences as a result of its rapid growth. To customize learning, offer rapid feedback, and simplify administrative work, AI-powered solutions are being employed, such as intelligent tutoring systems, virtual learning environments, and automated grading systems. Although AI has great educational promise, there are also worries about how technology may affect student learning and mental health.
The purpose of the research paper is to investigate how AI affects student learning and mental health in educational environments. We will specifically look at the potential good and negative effects of using AI in education on student learning results and mental health. We will examine the literature and research that has already been done on the subject, evaluate the results, and make judgments in light of the available data.
Research papers in the area show that artificial intelligence (AI) has the potential to have a substantial impact on student learning and mental health, both favorably and unfavorably. Some potential risks and challenges need to be addressed. Some of the points are Personalised Learning, adaptive assessments, virtual mentors, Mental health monitoring, Technological dependence, and Emotional connection. The ongoing development of artificial intelligence has helped the fusion. of the fields of engineering and business, created a vast number of AI models, and altered human productivity and way of life. The era of intelligence has quickly consumed society, and many areas, including education, have undergone enormous changes. The content, form, and evaluation of education are all

continually evolving. The advancement of new technologies and the computing power of the new intelligent machines are fundamentally tied to the future of higher education. In this discipline, developments in artificial intelligence present new opportunities and challenges for teaching and learning that can significantly change how higher education institutions are governed and organized inside.

1.1 Impacts on Student Learning: -

AI has the potential to enhance student learning in a variety of ways. Secondly, by adjusting to each student's needs, preferences, and progress, AI-powered solutions may personalize learning. Because students receive individualized instruction and feedback based on their particular learning styles and aptitudes, this can result in more efficient and effective learning experiences. Additionally, AI can offer immediate feedback, assisting students in identifying their areas of strength and weakness and enabling them to enhance their performance.

AI can also make it easier for people to access a wealth of data and resources, giving pupils the chance to learn and explore on their own. For instance, AI-driven virtual assistants can help students with research work, offer pertinent reading materials, and answer queries, enhancing their learning experiences, AI can enable adaptive learning pathways, where the curriculum is dynamically adjusted based on students' performance and progress, promoting deeper understanding and retention of the material.

1.2 Impacts on Mental Health: -

Although AI has the potential to enhance student learning results, there are worries about how it may affect the mental health of pupils. The possibility of increasing stress and anxiety linked to AI use in education is one of the main worries. For instance, using automated grading systems might put pressure on pupils to do well on tests as algorithms rather than human teachers deciding on their grades. As a result, students may experience increased tension and worry because they may believe that a machine is continually evaluating their performance. The possibility of lessened engagement and social contact in society is another worry. The opportunities for face-to-face interaction and human connection, which are essential for students' social and emotional development, may be reduced by the usage of AI-powered tools in education. For instance, virtual learning environments that mainly rely on AI for education might lack the interpersonal interactions that take place in conventional classroom settings, possibly causing students to feel alone and isolated.

Artificial intelligence is essential for improving mental health condition detection, treatment, and prevention. The use of artificial intelligence can identify patients who are sensitive to specific mental health conditions. It can be useful for patients with complex mental health issues as well as for clinicians to monitor a large number of patients at once and alter treatment plans as necessary based on each patient's reaction. Through research, AI can help us better understand mental health conditions.

By assisting in diagnosis, treatment, and research, AI has the potential to significantly enhance mental health services Also, there are challenges with bias, privacy, and security that are related to the ethical implications of AI in education. A few student groups may be treated unfairly or discriminated against as a result of AI algorithms that maintain pre-existing biases and inequality. Furthermore, given that students' personal data and academic data are saved and processed by machines, the collecting and analysis of enormous volumes of student data by AI-powered applications may generate privacy issues.

OBJECTIVE: -

The objective of mental health in the context of student learning impacted by AI is to promote the well-being of students, enhance their learning experiences, and ensure the responsible and ethical use of AI in education. However, To protect students' well-being, it is crucial to thoroughly weigh the ethical implications and potential risks of implementing AI in education. These goals can only be accomplished through cooperation between educators, mental health specialists, and AI experts. Therefore, the ultimate objective should be to employ AI to improve students' learning outcomes and general well-being while prioritizing ethical issues and responsible AI use. To perfect and enhance the use of AI in educational settings, research and continuing evaluation of the influence of AI on student mental health and learning results must continue. Many businesses employ AI, deep learning, cloud computing, etc. to optimize their organizational structure, increase operational efficiency, promote managerial efficiency, and lower operating expenses in response to an increasingly volatile business environment and strong competition.

Here are a few possible objectives:

- Enhancing Emotional Well-being:- AI may be utilized to create tools and technology that support students' mental health and well-being. For instance, catboats or virtual assistants powered by AI can give students access to tools for coping with stress, anxiety, and other mental health issues. AI can be used to keep track of pupils' emotional states and offer prompt interventions to stop mental health problems from getting worse.

- Personalizing learning Experience: - To provide individualized learning experiences, AI can assess the learning data of each student, including their learning preferences, aptitudes, and deficiencies. Students may become more interested and motivated as a result, which may have a favorable effect on their mental health and general well-being. The development of self-efficacy and confidence in pupils through personalized learning experiences might enhance their academic performance.

- Promoting Digital Literacy and Responsible AI Use: - The pros and drawbacks of AI, as well as how it affects mental health, should be discussed with students. Students can improve their critical thinking abilities, decision-making skills, and ability to negotiate the intricacies of using AI in their educational experiences by encouraging digital literacy and ethical AI use. This can minimize any unfavorable effects on mental health and promote positive interaction between students and AI. And many more.

RELATED WORK: -

2.1 STUDENT LEARNINGS: -

The way pupils study and the overall educational system could be greatly impacted by artificial intelligence (AI). Here are a few ways artificial intelligence may impact students' learning. By assessing students' learning habits and adjusting their teaching methods accordingly, customized learning in this AI can assist teachers in giving students unique learning experiences. For instance, AI-powered systems can suggest educational materials based on a student's academic background, interests, and preferences. This AI can be used to power intelligent tutoring systems that engage with students and offer individualized feedback, assistance, and direction. These tools can support students in learning at their speed and offer extra assistance where it is needed. With the help of an AI, grading can be automated, saving teachers a tonne of time and allowing them to concentrate on other important activities like creating lesson plans and giving feedback to students. By providing assistive technologies like speech-to-text and text-to-speech features, improving accessibility in this area can help make education more accessible to students with disability. This AI's data analytics can assist educators in the analysis of data from many sources, such as students. In the context of artificial intelligence, the teaching of business administration has ushered in new development opportunities and challenges. A near-limitless stream of intelligent technologies has resulted from the ongoing advancement of artificial intelligence engineering, which not only changed human productivity and lifestyle but also had an effect on the educational system. Technology based on artificial intelligence has given rise to fresh concepts for business administration majors' classroom instruction. The main method of instruction for business administration majors is still the traditional educational and teaching model. The first is that it is challenging to achieve the professional objectives of business administration. The demand for high-caliber business management skills is rising in the context of artificial intelligence, yet there are few appropriate testing procedures and technologies for assessing students' capacity for collaboration and mental health. It is far from sufficient to increase students' capacity for cooperation and mental health evaluation through projects as a career since these issues have given rise to more pronounced disagreements between teachers and students. Students who want to develop their innovative skills must be able to connect across borders, acquire more fundamental knowledge, and consistently come up with new ideas. Students must be developed through decision-making and execution assessments to enhance their executive capacity.

2.2 Public Mental Health: -

The impact of artificial intelligence (AI) on mental health in general is a big and complex topic that requires careful research. Although AI has the potential to improve mental health issue diagnosis, treatment, and prevention, it may also have a variety of risks and challenges. The capability of AI to process and evaluate huge amounts of information is one of its main advantages for mental health. As a result, more precise diagnoses and personalized treatment programs may be possible. This can assist in identifying patterns and trends in mental health. Moreover, AI-based chatbots and virtual assistants can offer counseling and support for mental health to people who might not otherwise

have access to such services. The ethical and privacy aspects of employing AI in mental health, however, are also a source of worry. For example, AI systems may promote cultural beliefs resulting in incorrect diagnoses or unfair treatment. Also, there is a chance that people's private information will be managed improperly or misused, risking their privacy and confidentiality.

Additionally, there is a chance that AI will make already existent inequities in mental health care worse. For instance, the current gap in mental health treatment across various socioeconomic groups may get worse if AI-based mental health services are not available or cheap to everyone. The expansion and evolution of society have increased the speed of people's lives and most was competitiveness. The individual's mental health has been significantly impacted by these quick changes. Understanding how to carry out a thorough and accurate assessment of mental health is crucial in the setting of today's difficult times. The key challenge is figuring out how to understand people's mental health situations and intervene early. The field of public mental health is now based on artificial intelligence technology due to the rapid development and use of artificial intelligence engineering. Intelligent mental health can address the flaws in conventional approaches and reduce the effectiveness of missed diagnoses and misclassification, which is particularly important for the early detection of mental illness. In conclusion, even though AI has the potential to enhance outcomes for people with mental illnesses, it is crucial to carefully assess the risks and difficulties that come with its use. For AI to be used ethically and fairly, appropriate privacy and ethical safeguards must be in place.

METHODS AND DATA COLLECTION: -

Several methods can be used to collect data on students' learning and mental health impacted by artificial intelligence. Here are some common ones:

We conduct a Survey that we can use to collect quantitative data on students' attitudes, experiences, and perceptions of AI in their learning and mental health. We can conduct surveys online or in person and can include closed-ended or open-ended questions.

We can conduct Interviews to collect qualitative data on students' experiences with AI in their learning and mental health. Interviews can be conducted one-on-one or in focus groups and can provide in-depth insights into students' thoughts and feelings about AI.

Through Observations, We collect Information on how students engage with AI in their learning settings can be gathered. This may involve tracking how students interact with and respond to tools and technology that are powered by AI.

Through Case studies, we gather detailed insights into how AI affects the learning and mental health of certain students. This may entail tracking down specific students over time and recording their AI experiences.

With the help of Analytics, we can compile information on how students interact with tools and technologies that are AI-powered. This can involve monitoring how often students use these resources and looking for patterns and trends in the data these resources produce.

Ultimately, a combination of these approaches can offer a complete picture of how AI affects students' learning and mental health and aid researchers and educators in figuring out how to maximize the use of AI in education while reducing any potential drawbacks.

The primary components of the impact model for public mental health that this study proposes are video and audio collecting and business administration majors. The video and audio collection module primarily gathers and arranges the video and audio of business administration teaching, filters out background noise, and keeps high-fidelity video and audio data; The feature extraction module is primarily split into two categories, audio feature extraction and video feature extraction, which propose the appropriate audio feature vector and video feature vector and then carry out further processing on these feature vectors; The attention mechanism is primarily used in the multimodal fusion process to carry out the tasks of feature extraction within the modality and feature fusion between the modalities.

DATA ANALYSIS:-

A systematic Examination of reviews, published in 2019, concluded that evidence, although of mainly low to moderate quality, showed an association of screen time with a variety of health problems including: "adiposity, unhealthy diet, depressive symptoms and quality of life". They also concluded that moderate use of digital media may have benefits for young people in terms of social integration, a curvilinear relationship found with both depressive symptoms and overall well-being. A research study done on urban adolescents revealed that more than a

quarter of adolescents were exposed to over 2 hours of screen time per day. They found that screen time and physical activity were independently associated with mental health. Specifically, an increase in screen time and a decrease in physical activity contributed to an additional risk for mental health productivity by increasing depressive anxiety symptoms and life dissatisfaction. Social media can be harmful, especially to pre-teens and teenagers who have little experience with their sense of body image.

Results demonstrate that participants foresee implementing AI systems in online learning can allow personalized student-instructor interaction at scale but at the risk of transgressing social norms. Although AI systems have been praised for increasing communication in both quantity and quality, for giving large-scale settings just-in-time, personalized support, and for enhancing the sense of connection, there have been some worries about accountability, agency, and surveillance issues. These findings have implications for how AI systems should be designed to guarantee explainability, human involvement, and meticulous data gathering and presentation. The study's overall contributions include the design of technically feasible AI system storyboards that positively support learner-instructor interaction, the use of speed dating to gather students' and instructors' concerns about AI systems, and the suggestion of practical implications for maximizing the favorable effects of AI.

DISCUSSION AND CONCLUSION: -

Our research question focused on how learners and teachers viewed the effects of AI systems on learner-instructor interactions in online learning, including things like communication, support, and presence little has been done to understand students' and instructors' concerns about AI systems. Recent research on the use of AI systems in online learning has shown that negligent application can result in privacy and security problems that are uncomfortable for students. In this study, we discovered that instructors and students see the effects of AI systems as having both positive and negative effects. Consequently, there were concerns about responsibility, agency, and security issues, even though AI systems have been positively recognized for improving the quantity and quality of communication, providing just-in-time, personalized support for large-scale students, and improving the feeling of connection. In reality, many of the beneficial aspects of AI systems that students and teachers find problematic originate from them. Artificial intelligence (AI) is entering our daily lives more and more, and its effects on kids' academic performance and mental health are cause for concern. After doing some research on the subject, it is evident that AI affects various facets of student life in both favorable and unfavorable ways. Personalizing learning for particular students is one potential advantage of AI in education. Better academic results may result from the use of AI-powered adaptive learning software that can identify students' areas of strength and weakness and create lesson plans specifically for them. AI can also help teachers grade papers, freeing up time for more individualized instruction and feedback.

instance, while using chatbots powered by AI as mental health tools may increase accessibility, it also raises questions about the standard of treatment given and the possibility of loneliness and injustices. Furthermore, biases and disadvantages may be maintained by AI systems, which could harm minority kids.

In conclusion, there are many different ways that AI might affect how well students learn and how they feel. Even if there may be advantages to using AI in education, it is important to carefully analyze any potential drawbacks and deal with them to make sure that all students can take advantage of this technology. In addition, it's critical to prioritize student privacy and safety while implementing AI in the classroom, as well as to watch out for the reactivation of preconceptions and injustices.

.

ACKNOWLEDGMENT:-

This work would not have been possible without the support of the Dr. Sarwar Ansari Award, I am grateful to all of those with whom I have had the pleasure to work during this and other related projects. Each of the members of my Dissertation Committee has provided me with extensive personal and professional guidance and taught me great help in research on How Artificial intelligence has influenced Student learning and Mental health. I would especially like to thank Dr. Sarwar Ansari. As my teacher and mentor, he has taught me more than I could ever give him credit for here.

REFERENCES: -

[1]. Bajaj, M., & Li, J. (2020). Students and faculty express concerns about online exam invigilation amidst the COVID-19 outbreak. Retrieved February 8, 2021, from https://www.ubyssey.ca/news/Students-express-concerns-about-online-exams/

[2]. Baker, R. S. (2016). Stupid tutoring systems, intelligent humans. International Journal of Artificial Intelligence in Education, 26(2), 600–614.
Article Google Scholar

[3]. Martin, F., Wang, C., & Sadaf, A. (2018). Student perception of helpfulness of facilitation strategies that enhance instructor presence, connectedness, engagement, and learning in online courses. The Internet and Higher Education, 37, 52–65. Article Google Scholar

[4]. Luria, M., Zheng, R., Huffman, B., Huang, S., Zimmerman, J., & Forlizzi, J. (2020). Social boundaries for personal agents in the interpersonal space of the home. In: Proceedings of the 2020 CHI conference on human factors in computing systems (pp. 1–12).Nguyen, T. D., Cannata, M., & Miller, J. (2018). Understanding student behavioral engagement: Importance of student interaction with peers and teachers. *The Journal of Educational Research, 111*(2), 163–174.

[5]. Popenici, S. A., & Kerr, S. (2017). Exploring the impact of artificial intelligence on teaching and learning in higher education. *Research and Practice in Technology Enhanced Learning, 12*(1), 22.

[6]. Richardson, J. C., Maeda, Y., Lv, J., & Caskurlu, S. (2017). Social presence about students' satisfaction and learning in the online environment: A meta-analysis. *Computers in Human Behavior, 71*, 402–417.

[7]. Zhang Z., Shi Q., He T., et al. Artificial intelligence of toilet (AI-Toilet) for an integrated health monitoring system (IHMS) using smart triboelectric pressure sensors and image sensors. *Nano Energy*. 2021;**90**:p. 106517. doi: 10.1016/j.nanoen.2021.106517. [CrossRef] [Google Scholar]

[8]. Bressa N., Korsgaard H., Tabard A., Houben S., Vermeulen J. What's the situation with situated visualization? A survey and perspectives on situatedness. *IEEE Transactions on Visualization and Computer Graphics*. 2022;**28**(1):107–117. doi: 10.1109/TVCG.2021.3114835. [PubMed] [CrossRef] [Google Scholar]

[9]. Zhong S., Zhang K., Bagheri M., et al. Machine learning: new ideas and tools in Environmental Science and Engineering. *Environmental Science & Technology*. 2021;**55**(19):12741–12754. doi: 10.1021/acs.est.1c01339.

[10]. Kochkov D., Smith J. A., Alieva A., Wang Q., Brenner M. P., Hoyer S. Machine learning–accelerated computational fluid dynamics. *Proceedings of the National Academy of Sciences*. 2021;**118**(21, article e2101784118) doi: 10.1073/pnas.2101784118.

[11]. Verma S., Sharma R., Deb S., Maitra D. Artificial intelligence in marketing: systematic review and future research direction. *International Journal of Information Management Data Insights*. 2021;**1**(1):p. 100002. doi: 10.1016/j.jjimei.2020.100002.

[12]. Yang Z., Talha M. A coordinated and optimized mechanism of artificial intelligence for student management by college counselors based on big data. *Computational and Mathematical Methods in Medicine*. 2021;**2021**:11. doi: 10.1155/2021/1725490.1725490

[13]. Lin S., Döngül E. S., Uygun S. V., Öztürk M. B., Huy D. T. N., Tuan P. V. Exploring the relationship between abusive management, self-efficacy, and organizational performance in the context of human–machine interaction technology and artificial intelligence with the effect of ergonomics.

[14]. Klos M. C., Escoredo M., Joerin A., Lemos V. N., Rauws M., Bunge E. L. Artificial intelligence–based chatbot for anxiety and depression in university students: pilot randomized controlled trial. *JMIR Formative Research*. 2021;**5**(8, article e20678) doi: 10.2196/20678.

[15]. Lin Q., Li T., Shakeel P. M., Samuel R. D. J. Advanced artificial intelligence in heart rate and blood pressure monitoring for stress management. *Journal of Ambient Intelligence and Humanized Computing*. 2021;**12**(3):3329–3340. doi: 10.1007/s12652-020-02650-3