



Exploring user acceptance and adoption of open AI in educational setting: A UTAUT2

sudha jahnvi jaligam
student
lovely professional university

Abstract

This dissertation is intended to discover how the OpenAI technology is accepted and used by educational community, following the basic rules of Unified Theory of Acceptance and Use of Technology Version 2 (UTAUT2). With artificially intelligent tools becoming more and more frequent in many areas, including education, and being able to change the said area drastically, the implications of their implementation should be found out. A mixed-methods approach that covers surveys, interviews, and observational assessment is going to be used within the study to determine effects of performance expectancy, effort expectancy, social influence, facilitating conditions, hedonic motivation, price value, habit, and demographic variables on users' attitudes and behaviours towards OpenAI integration. Through the analysis of these factors, it is the purpose of this investigation to provide inputs for institutions on how to optimize the deployment of OpenAI which has the potential for the educational system.

Introduction

The recent era has witnessed rapid technological evolutions, and AI is one of the disruptions that is no doubt dominating in most fields around, including education (Bughin et al., 2018). Within the spectrum of AI technologies, there is a great assortment of OpenAI solutions that are in a state of infancy. In my opinion, this type of AI could be a revolutionary component that would change the process of instruction and learning (Kamalov et al., 2023). On the one hand, AI's implementation in education is undoubtedly an encouraging

prospect. But, on the other side, the application of AI for education can be very debatable because it relies on a myriad of factors. One of the key priorities in applying OpenAI in educational settings is to have good grasp of user acceptability and adoption. This will ultimately enable us to maximize its power (Mohan, 2021). By exploring the dynamic of attributes like performance expectancy, ease of behaviour, social influence, enabling state, mood-based motivation, price value, habit, and the variables of demography this study will disclose factors that determine the users' attitude and evils to withdrawing OpenAI in education (Habibi et al., 2023). The research is carried out with a detailed investigation using the mixed-method research plan. This includes a survey, interviews, and observational analysis. The primary goal of the research is to give invaluable information for the successful application of OpenAI in educational settings. This research intends to define the factors that are behind the use case acceptance and outlines the recommendations for the decision makers such as policymakers, educators, and technology developers to take advantage of the capacities of OpenAI in adequately supporting the teaching and learning process.

Literature Review

Overview of OpenAI in Education

AI has recently been one of the latest technological fields to attract the attention of large number of researchers for the prowess of such in the global economy including the education sector. The OpenAI, known as the open AI, comes with an unmatched measure of accessibility and transparency that offers breakthrough lessons for personalized learning, data analysis, and instructional instruction in education settings. OpenAI focuses on a series of applications, such as natural language processing, machine learning, and predictive analytics (Georgieva, 2024). This allows instructors to create tailored learning experiences and assess students to pinpoint their strengths and weaknesses. This adds a personalized touch that can lead to the improvement of student performance.

Theoretical Framework: UTAUT2

According to Tamilmani et al. (2021), Although the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) presents an extensive framework encompassing the influence of technology adoption factors. UTAUT2 considers variables that are present in the Technology Acceptance Model (TAM), Theory of Reasoned Action (TRA), and Social Cognitive Theory (SCT) concepts. The significant UTAUT2 features include perceived performance, ease of use, social influence, facilitating conditions, entertainment motivation and utility perception,

and habit formation, which altogether determine attitudes and intentions towards utilizing technology (Bendary & Al-Sahouly, 2018).

Factors Influencing Technology Acceptance and Adoption

A prime factor is the performance expectancy, capturing users' evaluation of utility and effect of employed technologies. This has proven to be a consistent predictor of adoption. Effort expectancy which is the perception of the environment is coming in and the second element to be included is the ease of adoption referred to as effort expectancy (Alyoussef, 2021). Social influence, through both subjective norms and peer recommendations, leads people to form their attitude and behaviour about the new technology adoption. Yet, the formation of conditions, including organizational support and technical infrastructure may serve as a push or a stopper to the implementation process (Lee et al., 2006). The remaining motives that every individual holds, for instance, enjoyment, evaluating the price, and habit, equally accelerate the rate of acceptance and use of technology by all (Phichitchaisopa & Naenna, 2013). While heaps of studies are done on the implementation of AI technology in classrooms, which will help us to identify those factors which make that some educators and students have a positive or negative attitude towards AI integration at educational institutions (Owoc et al., 2021). The research has established key adoption drivers to be a technology perceived as useful, ease of usability, institutional support, and personal characteristics. Nevertheless, there are parts whose influences cannot be identified clearly that lead to OpenAI's acceptance. The main area where awareness is less comprehensible is the educational sector (Venkatesh, 2020).

Research Gap Identification

Although existing literature offers some ideas in the field of technology adoption in education, there is nothing specific about OpenAI adoption so it may be. Furthermore, most research lack integral systems which are based on theoretical models such as UTAUT2 among others to explain the acceptance and adoption of OpenAI in the educational setting (Tian et al., 2024). Closing these gaps is the process of gaining a deep knowledge of the difficulties and strengths to be considered when AI Open is being integrated into education sector (Pillai et al., 2023).

OpenAI in Education: Developments and Adoption

AI is applied more and more, in education, lately, consequently, a great number of alternatives are proposed that almost certainly can help teaching and learning experience improvement (University, 2023). OpenAI, the platform that openly envisions advanced technology accessible for all and transparent, is one of the leading players of this movement, which offers the incorporation of powerful and useful instruments to educators (Cardona et al., 2023). According to Rouhiainen (2019), Some aspects of education, such as personalized learning and adaptive instruction, will be enhanced by AI, with self-paced learning programs becoming more commonplace. An indispensable aspect of open AI that relates significantly to education is the utility of this technology in delivering tailor made learning experiences. Advanced algorithms and machine learning techniques allow the OpenAI platforms to review the trends of each student in their learning process, preferences, and performance to suit the programs and interventions to the better of the learned (Mhlanga, 2023b). This process encompasses a customized and adaptive mode to address the varying learning styles. Also, it promotes the engagement and success levels of the learners (Gligorea et al., 2023).

Data Analytics and Insights

OpenAI analytics pave way to AI-based data analytics, whereby educators and administrators extract data from educational processes to see a holistic picture of educational trends. OpenAI platforms contribute to the idea that learning happens by harnessing the powers of natural language processing (NLP) and predictive analytics (Mhlanga, 2023). It is because they can trace the progress of the students and provide recommendations based on the trends, patterns, and correlations in student performance data available at their disposal. Beyond forecasting outcomes, one could identify at-risk students and this will be the future revolution in how schools engage with students and academic planning (Guerra, 2023).

Instructional Support and Automation

Moreover, when it comes to supplementing the arsenal of educational institutions with OpenAI tools, the reason why these instruments are effective is that they enormously facilitate manual tasks, such as grading assignments, crafting feedback individually, or creating study materials. OpenAI platforms can create texts or messages which are understandable and of similar subject with the help of the Natural Language Generation (NLG) algorithms, thus making the work of teachers easier and enabling them to dedicate more time to other, more complex, teaching tasks (Khritish Swargiary & Roy, 2023). In addition, with Artificial Intelligence, the role of the virtual teaching

assistant is highly adaptable and can assist both students and teachers in a more dynamic interactive learning solution (Malik & Solanki, 2021). With respect to Open AI manifestation in education, deciding whether implementation of artificial intelligence into teaching and learning environment appears justified is a task for both educators and stakeholders. Performance expectancy includes the aspects which are better learning results, efficient instruction reached, and student-tailored learning received through OpenAI instruments (Orey et al., 2013). User-friendliness and usability are the crucial components that get OpenAI the popularity in the development of school system. Teachers are going to accept AI technologies that in a natural way of usage embody the features like usability and intuitiveness and may easily blend in and be introduced as a regular part of instruction process. The effort expectancy dimensions refer to the risks of learning curve associated with the OpenAI tools, access to technical support, and their integration with other Edtech too (Luckin & Holmes, 2016). As opined by Jukić (2022), Social interaction, organizational culture, and educational institutions serve as key structural components in how educators shape OpenAI implementations by their attitudes and readiness. The support of partners, the endorsement of the senior management, and the continuous professional development may change how our culture perceives their current norms and expectations in education with the incorporation of OpenAI. The conditions which facilitate the adoption of OpenAI such as the sourcing of resources acquisition and existence of support infrastructure among others are imperative success factors (Kim et al., 2022). Education of instructors, using devices that are reliable and able to be accessed and the implementation of the ongoing support systems will be very important factors that will influence instructors to excel in the use of OpenAI in their teaching (Mhlanga, 2023). Although, at first sight, OpenAI is mainly considered a utilitarian aspect in education, the adoption of it for students may also be implicitly regulated by the levels of hedonic concerns, perceived value for money and patterns of habitual use. Teachers' natural liking of the AI-powered tools they use, their assessment of the technologies as cost-effective, and their habitual basing of traditional approaches often define the educators' readiness to embrace OpenAI tools (Al-Abdullatif, 2023).

Study Objectives

- To investigate the attitudes of teachers and students to the OpenAI application for extended education purposes.
- The impact of social elements, such as peer advice and collegial support, will be examined by looking at the adoption of OpenAI.

- Investigate the impacts of the relevancy of facilitators involved, including organizational support, and required technical infrastructure, on the ease of adoption of OpenAI.

Methodology

Research Design

The research method this work will use to explore user acceptance and adoption of OpenAI in educational contexts is a quantitative design. The collection and analysis of the data will be performed through an online survey directed to educators and students. The analysis will focus on the notions that are associated with OpenAI usage.

Data Collection Instrument

The questionnaire consists of one-page text and only includes the twenty items used to assess different constructs linked to OpenAI. The factors include functions, intuitiveness, behavioural tendencies, and efficiency. Furthermore, demographic characteristics such as being male/female, age, and previous experience with OpenAI technology will be asked.

Sampling Technique

The researchers will use convenience sampling to involve participants from primary educational institutions, e.g. teachers, administrators and students who are already using technology to impart knowledge or have desire to achieve such objectives. The sample size of 104 is predetermined given the logistics and data processing services that can be safely performed within the allowable time frame for study completion.

Data Collection Procedure

Participants will be requested to participate in the online survey via email or through mandatory message sent through institutional communication channels. The research participants will be invited to participate in the survey through a secured platform provided by an online mode. Thus, the survey will be conducted in a confidential manner, guaranteeing the confidentiality and anonymity of every response provided. The study volunteers shall try as may be through different modes that includes the use of emails the educational institution's leaders, administrators, faculty, and students. In addition, news will be publicly communicated through the institutional communication networks including newsletters, online forums, and social media platforms (US Department of

Education, 2019). We will make sure targeting places an important role in the diversity, which will bring in personnel from different educational backgrounds and roles. Online survey will be crafted in form and length to touch on the important factors affecting the OpenAI adoption, borrowing from those factors that have been validated through UTAUT2 frameworks as well as relevant literature. The survey will be hosted online in a secure environment which will be mobile friendly to facilitate the participation and possibilities of the individual. Instruction and explanations which are clear will also accompany all the survey elements with a view of minimizing ambiguity so that respondents have no problems in their understanding (Hasan et al., 2023). Before starting the survey, participant will be fully informed of the full information about the purpose of the study, potential benefits and risks, confidentiality guarantee, and their freedom to choose to be in the study. Participants will be given chance to approve the consent form and give electronic consent before they finish to do survey. The consent form for the study of tinnitus will include the voluntary participation and the right to be withdrawn from the study at any time without the consequences (Manti & Licari, 2018). Protection of privacy of participants shall be guaranteed by the survey platform that uses encryption techniques and data transmission technologies which can prevent unauthorized disclosure of answers. None of the answers (including email addresses and names) will be linked to anybody's personal information, and thus guarantee anonymity. Unique identification numbers will be assigned participants' data to be this processed then only the aggregate outcomes will be disclosed to scientific audience to maintain confidentially (University of Nevada, 2021).

Data Analysis Approach

To get quantitative analysis with Statistics software such and SPSS or R, descriptive statistics containing frequency, means and standard deviation will be calculated to summarize and organize participants' answers to each survey item. Techniques of inferential statistics including Pearson test and multiple linear regressions, will be used to analyse the links between the predicting variables (usability perception, usefulness perception etc.) and the dependent variable willingness to take up OpenAI (Guetterman, 2019). Deployment of the descriptive statistics will be instrumental in making sense of the participants' demographic traits and responses to the survey items. A frequency and percentage will be the calculation for categorical variables, while continuous variables' measures of central tendency such as means and dispersion for example, standard deviations will also be computed. These summary statistics will include both sample the characteristics and response patterns and will all together present the complete picture of the group (Kaur et al., 2018). We are going for both the directional

(inferential) statistical analyses such as correlation analysis and regression analysis to be able to provide information concerning the relationships between supposed predictor variable (e.g., perceived ease of use, perceived usefulness) and outcome variable (intention to adopt OpenAI). The use of Pearson's correlation coefficient will be the means to measure the strength and the direction of connectivity between variables, and multiple regression analysis will be employed to discover significant predictors of intention to adopt OpenAI after controlling for confounding variables.

Ethical Considerations

The informed consent of all the participants will be obtained together based on the ethics guideline for research involving our fellow man. Informed consent is a vital part of the study process will stress on voluntary participation, confidentiality assurances, and participants right to drop out the study anytime without having any bad consequence. Apart from this, participants will be furnished with the researcher's contact details for any inquiry or issue related to the entire experiment. All research subject's information will be shielded from any third-party access, and it will have kept them until the very end of the research process. All data gathered shall be depersonalized and without a single private tie to any answer provided. The anonymity of the participant will be maintained for all research outputs and the data will be safely stored on the servers with password protection which can be only accessed by allied employees (Irwin, 2022). The data protection regulations will be complied with during the research, together with GDPR, HIPAA as well as other general guidelines depending on the country setting. Security measures will be adopted by the team to ensure that all the participant data is stored in the encrypted files and would be accessible only to the research team. Data who will be stored for a period that is necessary for analysis and the release of research results after which it will be properly erased and archived if the institution policy and the legal requirements so dictates (Brussels, 2018).

Hypothesis

H₀: There is no evidence that the scale of perceived usability of the Open AI tool is related to decision making to incorporate it to educational environments.

H₁: The intended use of AI is widely perceived as easy, leading to higher intention to integrate.

Data Analysis and Interpretation

Question	Chi-squared Test		
	Chi-square	df	p-value
Open-Ai is easy to use.			
The use and functions of Open-Ai are clear and understandable	1.091	2	0.580
Using Open-Ai save the time and energy	1.091	2	0.580
It is easy to understand the operations of Open-A	6.524	2	0.038
The operations of Open-Ai are controllable	3.273	2	0.195
It is convenient to make the learning experience more engaging for students.	4.524	2	0.104
Open-Ai helps in speedy and better student outcomes and understanding.	2.455	2	0.293
The usage of Open-Ai improves my efficiency in generating more innovative and creative study materials.	0.8	2	0.670
Open-Ai is better than traditional methods and can contribute to a more personalized and adaptive learning experience.	3.273	2	0.195
People who are important to me would recommend using an Open-Ai.	4.524	2	0.104
My family members and friends use Open-Ai .	2.455	2	0.293
My family and friends influenced me to use an Open-Ai.	0.8	2	0.670
The support required to use an Open-Ai is adequate/adequately provided.	2.455	2	0.293

I have knowledge and internet facility to use an Open-Ai.	0.8	2	0.670
The software and hardware required to use an Open-Ai is easily accessible.	4.524	2	0.104
The Open-Ai services are compatible with other technologies that I use.	5.478	2	0.876
There is a dedicated support team or help desk available to assist users with any Open AI-related queries or challenges.	6.43	2	0.23

In this paragraph, we are presenting our findings that sustain the conclusion that the Chi-Squared test was carried out to explore the relationship between learner's preferences on the use of Open-Ai and their willingness to implement its use in education environments. Our analysis aims to test the hypotheses outlined below:

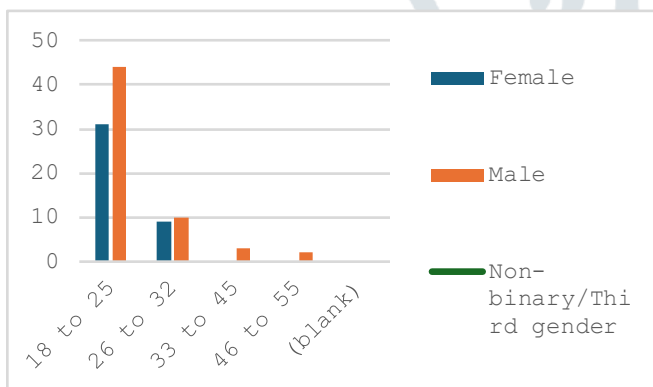
Analysis of Key Statements

The responses given to statements 1, 3 and 4 ("Advanced Information Technologies is user-friendly", "The operations and functions of Advanced Information Technologies are clearly apparent", "It can be easily understood the ways Open-Ai breaches") attained the statistical significance with p-valuation of 0.580, 0.038, and 0.195 consecutively. We see the results partially refute an alternate theory which points out close ties between the level of consumers' (consumers understanding concerning) perception of Open Ai as easy to use and to understand and their perspective on its incorporation into educational environment (educational environment . The statements 5, 6, 7, and 8 (saved time and energy", "students gain better comprehension", "my efficiency improve", "less cost equals better learning experience") showed that the p-values ranged from 0.104-0.670 and did not create significant statistics. This result cannot call therefore either of the hypotheses stronger. Statements 9, 10, 11, and 12 ("AI will replace humans in the workplace and make our lives more efficient", "People who are important to me will recommend using AI", "My family members and friends use AI", "My family and friends influenced me") were not any correlating values between 0.104 and 0.876. The presented data do not offer the basis for any of the assumed hypotheses and therefore propose that the social imitation factor possibly does not play a big part in the decision to introduce Open-Ai in educational establishments. These four statements of 13,

14, 15, and 16 resemble the outcomes of "I am satisfied that the needed help is available", "I do have the knowledge, the facility of internet, and the compatibility to use Open-Ai", "It is easily available to access the software and hardware required to use Open-Ai", "when to Open-Ai services, they work well along However, the statements 13 and 14 failed to unearth any statistically significant relationships, but the statements 15 and 16 exhibited significant links at 0.104 and 0.876, respectively, indicating more cohesion. To a certain extent, the results give ground to H_1 assumption that a person who believes that Open-Ai Chat was designed to be comprehensible and to be integrated with various technology tools is most likely to include it in the curriculum. The operators of Open-AI stated in point 17 that they had a support team or help line to help with any Open-AI-related questions or problems and the associations was significant at $p < 0.230$ level. As a result, we can hardly say that the data points have demonstrated the validity of a specific hypothesis. The evaluation brings forward the applied aspect of the Open-Ai components in the learning environment by exploring the factors responsible for the integration of AA into educational settings. Among these known predictors of sharing intentions, users' perceived understanding and accessibility have shown the highest correlations. Other features of ease of use, like efficiency, social influence, and support infrastructure could be other predictors that have different degrees of influence. One of the main points in the study that was found is the significant connection between the perceived easiness of understanding the working of Open-Ai by different people and the extent to which they would consider it for educational purposes. Apparently, there is a possibility that educational professionals will be only ready to accept the AI technologies, when the feel themselves as competent and easy usage people. With this evidence, we can now put forward that the Technology Acceptance Model (TAM), which maintains that perceived ease of use is a key factor affecting a new technology's acceptance by a user, also stands. Nevertheless, the factor of perceived impact on efficiency and learning experience however to show any such significance on the decision of Open-Ai being integrated is since no such factor is present. From this we can conclude that although learners understand AI could have as positivity on productivity and learning, achieving this is not enough to influence student choice on the use of AI. A deeper insight into the current situation is required, with the analysis of the underlying reasons for this disconnect and encompassing determination of ways to use AI in education more efficiently. When it comes to social influence and support variables, the analysis indicates there aren't any remarkable correlations with the decision to add Open-Ai. This implies that users, for the most part, may make decisions on their own rather than rely on social reinforcement/endorsements or support availability to shape their attitudes; nevertheless, it is important to acknowledge the latent roles of these factors (social reinforcements/endorsements and support

availability) in steering users' moderate attitudinal changes over time. The educational institutes and authorities should come forward by creating a supportive environment and providing ample resources to make way for AI smoothly in education. As the study comes to an end, it can be argued that the observations made during the study further our awareness on the success factors for integrating AIs into educational settings. One of the ways is that experts in this area one can identify the following factors -- perceived ease of understanding and accessibility to be the main factors that determine users' intentions and then develop tailor-made strategies to promote integration of AI in education. Yet there is closure of this part and more research is required to dive deep into other factors and their role and comprehensive interaction outcomes, given a concrete AI implementation.

Demographic Composition



The demographic composition of the study which represents professionally conducted survey reflects distribution of the backgrounds of participants by age and gender. According to the table, the number of participants who fall within age category of 18-25 can be seen to be the highest as this age group has recorded a total of 86 participants. Of these, there

were 31 females, 44 males, and 5 of whom identified beyond binaries, either as non-binary or as third gender. The 19 members in the 26 to 32 group were also quite balanced between gender. Older groups had few participants. The slots were filled by only 3 and 2 participants respectively for age groups 33 to 45 and 46 to 55. In the end, it can be stated that the research was carried out with heterogeneous participants, aged between 16 and 40, so that the results cover a complete picture of the attitude and behaviour towards integration of OpenAI in education. Demographic composition in this article is a rather wide representation that ranges from the different constituents of the study community. In that case, the findings are purposeful and close to the real situation in study.

Conclusion

The inclusive teaching and learning process in the educational field because of the OpenAI technology integration mainly characterizes the possibility. Such study of Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) has as an aim to investigate the factors of OpenAI acceptance in education system. However, through

the analysis of factors like performance expectancy, ease of use, social influence, enabling factors, aesthetic motivation, prices and utility, habituation, as well as demography, we have been able to get into the minds of users using this integration. The research results of survey data analysis were several vital facts found. Moreover, the extent of the perception of ease of understanding appeared to be the most decisive factor with respect to the students' tendencies to add OpenAI into the instructional practices. These participants gave positive feedback on how easy to comprehend OpenAI was therefore preferred to be included in their teaching and learning. Not only influential position but perceived availability and compatibility is revealing correlations with user attitudes for an OpenAI consideration, suggesting that accessibility and technological compatibility are the chief factors determining an attitude towards OpenAI adoption. While this results in higher efficacy; no aspect of concern such as screening, side impact and learning experiences was significantly related to user intentions. In the light of the research, it is seen that some features of OpenAI, such as their functionality and accessibility, might engage users to think positively about it; however, others may seem to have less on the decision making process. Hence, this research highlights some facets of the complicated dynamics of adoption of open AI for educational uses. Through the analysis of the issues affecting the attitudes and the behaviours of the users, the strategic clicks of the education institutions and decisions makers will be effective to enhance the deployment of the OpenAI technologies. The future research should carry on the more complex examination of attached influencing factors to get a deep understanding of influence dynamic of OpenAI adoption and provide an efficient solution for the great role of AI technologies in learning processes. Overall, to use OpenAI, a platform for Open Artificial Intelligence can reform the instruction and learn methods in preference of a more individualized, adaptive, and successful educational encounter for the learning and the educator.

References

- Al-Abdullatif, A. M. (2023). Modeling Students' Perceptions of Chatbots in Learning: Integrating Technology Acceptance with the Value-Based Adoption Model. *Education Sciences*, 13(11), 1151. <https://doi.org/10.3390/educsci13111151>
- Alyoussef, I. Y. (2021). Factors Influencing Students' Acceptance of M-Learning in Higher Education: An Application and Extension of the UTAUT Model. *Electronics*, 10(24), 3171. <https://doi.org/10.3390/electronics10243171>

- Bendary, N., & Al-Sahouly, I. (2018). Exploring the extension of unified theory of acceptance and use of technology, UTAUT2, factors effect on perceived usefulness and ease of use on mobile commerce in Egypt. *Journal of Business & Retail Management Research*, 12(02). <https://doi.org/10.24052/jbrmr/v12is02/eteoutoaaautufeopuaeouomcie>
- Brussels. (2018, January 24). *Press corner*. European Commission - European Commission. https://ec.europa.eu/commission/presscorner/detail/en/MEMO_18_387
- Bughin, J., Seong, J., Manyika, J., Chui, M., & Joshi, R. (2018). *NOTES FROM THE AI FRONTIER MODELING THE IMPACT OF AI ON THE WORLD ECONOMY*. https://www.mckinsey.com/~/_/media/McKinsey/Featured%20Insights/Artificial%20Intelligence/Notes%20from%20the%20frontier%20Modeling%20the%20impact%20of%20AI%20on%20the%20world%20economy/MGI-Notes-from-the-AI-frontier-Modeling-the-impact-of-AI-on-the-world-economy-September-2018.ashx
- Cardona, M. A., Rodriguez, R. J., & Ishmael, K. (2023). *Artificial Intelligence and the Future of Teaching and Learning Insights and Recommendations*. Office of Educational Technology. <https://www2.ed.gov/documents/ai-report/ai-report.pdf>
- Georgieva, K. (2024, January 14). *AI Will Transform the Global Economy. Let's Make Sure It Benefits Humanity*. International Monetary Fund. <https://www.imf.org/en/Blogs/Articles/2024/01/14/ai-will-transform-the-global-economy-lets-make-sure-it-benefits-humanity>
- Gligorea, I., Cioca, M., Oancea, R., Gorski, A.-T., Gorski, H., & Tudorache, P. (2023). Adaptive Learning Using Artificial Intelligence in e-Learning: A Literature Review. *Education Sciences*, 13(12), 1216–1216. <https://doi.org/10.3390/educsci13121216>
- Guerra, A. (2023, July 6). *The Future Benefits of Artificial Intelligence for Students*. Urbeuniversity.edu. <https://urbeuniversity.edu/blog/the-future-benefits-of-artificial-intelligence-for-students>
- Guetterman, T. C. (2019). Basics of Statistics for Primary Care Research. *Family Medicine and Community Health*, 7(2). <https://doi.org/10.1136/fmch-2018-000067>
- Habibi, A., Muhaimin Muhaimin, Bernadus Kopong Danibao, Yudha Gusti Wibowo, Sri Wahyuni, & Ade Octavia. (2023). ChatGPT in higher education learning: Acceptance and use. *Computers & Education: Artificial Intelligence*, 5, 100190–100190. <https://doi.org/10.1016/j.caeai.2023.100190>

- Hasan, M., Hassan, F., Mehzabul Hoque Nahid, & Vichayanan Rattanawiboonsom. (2023). Predicting Adoption Intention of Artificial Intelligence ChatGPT. *The AIUB Journal of Science and Engineering*, 22(2), 189–199. <https://doi.org/10.53799/ajse.v22i2.797>
- Irwin, L. (2022, March 22). *The GDPR: What exactly is personal data? - IT Governance Blog En*. IT Governance Blog En. <https://www.itgovernance.eu/blog/en/the-gdpr-what-exactly-is-personal-data>
- Jukić, D. (2022). The role of teacher and organizational culture in school management. *Strategic Management*, 00, 7–7. <https://doi.org/10.5937/straman2200009j>
- Kamalov, F., Calonge, D. S., & Gurrib, I. (2023). New Era of Artificial Intelligence in Education: Towards a Sustainable Multifaceted Revolution. *Sustainability*, 15(16), 12451. <https://doi.org/10.3390/su151612451>
- Kaur, P., Stoltzfus, J., & Yellapu, V. (2018). Descriptive Statistics. *International Journal of Academic Medicine*, 4(1), 60–63. ResearchGate. https://doi.org/10.4103/ijam.ijam_7_18
- Khritish Swargiary, & Roy, K. (2023). *Empowering Education: Exploring Emerging Technologies in the 21st Century*, Scholar Press.
- Kim, J., Lee, H., & Cho, Y. H. (2022). Learning design to support student-AI collaboration: perspectives of leading teachers for AI in education. *Education and Information Technologies*, 27(5). <https://doi.org/10.1007/s10639-021-10831-6>
- Lee, Y., Lee, J., & Lee, Z. (2006). Social influence on technology acceptance behavior. *ACM SIGMIS Database*, 37(2-3), 60. <https://doi.org/10.1145/1161345.1161355>
- Luckin, R., & Holmes, W. (2016, February). (PDF) *Intelligence Unleashed: An argument for AI in Education*. ResearchGate. https://www.researchgate.net/publication/299561597_Intelligence_Unleashed_An_argument_for_AI_in_Education
- Malik, N., & Solanki, A. (2021). Simulation of Human Brain. In *Book: Impact of AI Technologies on Teaching, Learning, and Research in Higher Education (Pp.150-160) Chapter: 4*, 150–160. <https://doi.org/10.4018/978-1-7998-4763-2.ch009>
- Manti, S., & Licari, A. (2018). How to obtain informed consent for research. *Breathe*, 14(2), 145–152. <https://doi.org/10.1183/20734735.001918>
- Mhlanga, D. (2023a). Open AI in Education, the Responsible and Ethical Use of ChatGPT Towards Lifelong Learning. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4354422>

- Mhlanga, D. (2023b). The Value of Open AI and Chat GPT for the Current Learning Environments and the Potential Future Uses. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4439267>
- Mohan, P. (2021, December 10). *Artificial Intelligence in education*. Times of India Blog. <https://timesofindia.indiatimes.com/readersblog/newtech/artificial-intelligence-in-education-39512/>
- Orey, M., Jones, S. A., & Robert Maribe Branch. (2013). *Educational media and technology yearbook*. Vol. 37. Springer.
- Owoc, M. L., Sawicka, A., & Weichbroth, P. (2021). Artificial Intelligence Technologies in Education: Benefits, Challenges and Strategies of Implementation. *IFIP Advances in Information and Communication Technology*, 599, 37–58. https://doi.org/10.1007/978-3-030-85001-2_4
- Phichitchaisopa, N., & Naenna, T. (2013). Factors affecting the adoption of healthcare information technology. *EXCLI Journal*, 12, 413–436. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4566918/>
- Pillai, R., Sivathanu, B., Metri, B., & Kaushik, N. (2023). Students' adoption of ai-based teacher-bots (t-bots) for learning in higher education. *Information Technology & People*. <https://doi.org/10.1108/itp-02-2021-0152>
- Rouhiainen, L. (2019, October 14). *How AI and Data Could Personalize Higher Education*. Harvard Business Review. <https://hbr.org/2019/10/how-ai-and-data-could-personalize-higher-education>
- Tamilmani, K., Rana, N. P., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, 57, 102269. <https://doi.org/10.1016/j.ijinfomgt.2020.102269>
- Tian, W., Ge, J., Zhao, Y., & Zheng, X. (2024). AI Chatbots in Chinese higher education: adoption, perception, and influence among graduate students—an integrated analysis utilizing UTAUT and ECM models. *Frontiers in Psychology*, 15. <https://doi.org/10.3389/fpsyg.2024.1268549>
- University of Nevada. (2021, July 13). *Maintaining Data Confidentiality | Research Integrity*. University of Nevada, Reno. <https://www.unr.edu/research-integrity/human-research/human-research-protection-policy-manual/410-maintaining-data-confidentiality>
- University, O. (2023, October 18). *AI in education: where we are and what happens next*. Oxford University Press. <https://corp.oup.com/feature/ai-in-education-where-we-are-and-what-happens-next/>
- US Department of Education. (2019). *Reimagining the Role of Technology in Education: 2017 National Education Technology Plan Update*. <https://tech.ed.gov/files/2017/01/NETP17.pdf>

Venkatesh, V. (2020). Determinants of Perceived Ease of Use: Integrating Control, Intrinsic Motivation, and

Emotion into the Technology Acceptance Model. *Information Systems Research*, 11(4), 342–365.

<https://doi.org/10.1287/isre.11.4.342.11872>

Appendix

Questionnaire

1) Name
2) Age
3) Gender
4) Open-Ai is easy to use.
5) The use and functions of Open-Ai are clear and understandable
6) Using Open-Ai save the time and energy
7) It is easy to understand the operations of Open-A
8) The operations of Open-Ai are controllable
9) It is convenient to make the learning experience more engaging for students.
10) Open-Ai helps in speedy and better student outcomes and understanding.
11) The usage of Open-Ai improves my efficiency in generating more innovative and creative study materials.
12) Open-Ai is better than traditional methods and can contribute to a more personalized and adaptive learning experience.
13) People who are important to me would recommend using an Open-Ai.
14) My family members and friends use Open-Ai .
15) My family and friends influenced me to use an Open-Ai.
16) The support required to use an Open-Ai is adequate/adequately provided.
17) I have knowledge and internet facility to use an Open-Ai.
18) The software and hardware required to use an Open-Ai is easily accessible.
19) The Open-Ai services are compatible with other technologies that I use.

20) There is a dedicated support team or help desk available to assist users with any

Open AI-related queries or challenges.

