Navigating the Digital Age: ChatGPT and Indian Media Education

Dr. Aravind Prasad Research Scholar Vishwakarma University

Dr. Chen Chou Research Guide Vishwakarma University

Abstract

Artificial Intelligence (AI) has rapidly transformed all sectors. Education is considered a sector and AI has entered into it. Open AI has developed ChatGPT with Large Language Models (LLMs). It has gained significant popularity for its potential. In the education sector, it has revolutionized learning and teaching. This development in AI offers immense potential to enhance media education in India. As a diverse country, India has a rich cultural heritage and a diverse media landscape.

Traditional methods of teaching which are used in India for undergraduate media studies have limitations in their ability to engage students. Due to their limitation, they cannot provide personalized learning experiences. AI tools like ChatGPT have the potential to address these limitations. The integration of ChatGPT can enhance the overall quality of media education. Students who perform the assignment and wait for their personalized feedback can now get their feedback on writing assignments. It is a reality that now ChatGPT provides creative writing prompts. Some researchers are engaged in research activities and ChatGPT can assist in research. It can even guide you in discussions on complex media topics. Some researchers have raised ethical and pedagogical concerns over this AI development. There are issues which raised th alarm, such as bias, privacy, and the potential for misuse of AI tools must be carefully considered. Therefore, the research on this topic remain an important task for students, teacher, and researchers. It is note mentioning that while ChatGPT offers exciting possibilities, it is essential to approach its implementation with a critical and nuanced perspective.

This review paper aims to explore the potential of ChatGPT as a tool for enhancing media education in India. The study of specific benefits and challenges of using ChatGPT in Indian media institutions. The researcher will also study the ethical implications of AI in education. The research also provides recommendations for integrating ChatGPT effectively into media curricula (Whig, 2024).

Keywords - Education, Media Studies, Communication, Critical Thinking, Teaching, Learning

Introduction

Artificial Intelligence (AI) has rapidly transformed various sectors. The education sector is also a part of it. OpenAI has developed Large Language Models (LLMs) like ChatGPT. It has gained significant attention for its potential. It has revolutionized learning and teaching (Gill, 2023). It offers immense potential to enhance media education in India, a country with a rich cultural heritage and a diverse media landscape (Kumar, 2024).

Traditional methods of teaching media studies have limited their ability to engage students and personalized learning experiences (Bhutoria, 2022). AI tools like ChatGPT have the potential to overcome these limitations and enhance the overall quality of media education. ChatGPT can be used to generate personalized feedback for writing assignments. It further provides creative writing prompts and assists in research. It facilitates discussions on complex media topics (Steiss, 2024).

This review paper aims to explore the potential of ChatGPT as a tool. It is noteworthy to study how it enhances media education in India. The research will further explore the specific benefits and challenges of using ChatGPT in Indian media institutions. The research further finds the ethical implications of AI in education, and provides recommendations for integrating ChatGPT effectively into media institutes (Ray, 2023).

Objectives of the Review Paper:

- 1. To explore the potential of ChatGPT as a tool for enhance the educational experience.
- 2. To identify the Teaching, Learning and assessment of using ChatGPT in Indian academia
- 3. To provide recommendations for integrating ChatGPT effectively into media curricula.

Research Methodology

The researcher has chosen the qualitative review based on the research done in last 3 years. The researcher has short-listed the research papers that investigate on how ChatGPT can be used into academia. The researcher has further divided them into the categories of SLR, Review Papers, Imperial Research and Case Studies. This approach helps to find how the researcher is conducted at different locations and what are the results of it.

Since using generative AI into academics is an challenging issue the review papers finds the how and where it is used with what potential. The SLR offers us the exact challenges faced. The case study research offers use the insight into when it is applied on sample of one age group and at one location what is the out come and challenges. It also offers the scope to integrate for media studies. The empirical study offers us the comparison made on more than one sample. How the results differ when the age group or faculty of academics changes.

This research is an attempt to find how ChatGPT can be used into teaching learning for media studies. This research focus on the aspect of Teaching, Learning and Assessment. The researcher has studied this aspect with the selected research papers.

Understanding ChatGPT

This is a generative AI model built upon the GPT-3.5 architecture. This neural network is designed to process and generate text. It enables us to receive and respond to a wide range of prompts and questions (Garry, 2024). The various features showcase its ability to predict the next word in a sequence, prompt, or context. It has been used to automate language modeling. It has trained upon a massive dataset of text and code. ChatGPT recognizes patterns and generates text that is coherent and relevant. It often indistinguishable from human-written text (Krumrei-Mancuso, 2024).

ChatGPT has proved remarkable versatility. It demonstrates proficiency in a wide range of tasks, including content generation, translation, summarization, and creative writing (Tsao, 2024). This became possible due to an understanding of language, enabling it to generate human-quality text that is both coherent and contextually relevant (Mogavi, 2023).

ChatGPT's also has its limitations. It has susceptibility to generating factually incorrect or misleading information (Hu, 2024). This model heavily relies on the data. It may contain biases or inaccuracies due to its training. ChatGPT's does not have real-world understanding. It can hinder its performance in tasks that require common sense reasoning or knowledge. This model may struggle to answer questions that require an understanding of nuances. The details such as cultural references or social contexts (Shabbir, 2024).

There is another limitation of its sensitivity to input phrasing. The quality of the generated text is significantly impacted by the specific wording of the input prompt (Gopali, 2024). This highlights the importance of specific prompt engineering to receive the desired output.

Despite these limitations, ChatGPT provides a significant advancement in natural language processing. It has proved its potential to revolutionize various industry sectors. Researchers and developers can use their full potential to create even more powerful and beneficial language models (Ray, 2023).

ChatGPT and Media Education in India

ChatGPT is based on the Large Language Model, it has immense potential to revolutionize media education in India. It has so many benefits for teachers and students. It offers personalized learning experiences. It helps students in improving writing and communication skills. This way it enhances their creativity and innovation. It also has potential for research and analysis. This technology can improve student employability. The students will be more effective media consumers and producers (Amarathunga, 2024).

The personalized learning experience is one of the unique features of ChatGPT. All students are unique and have different learning styles. It can offer the response as per individual students' needs and learning styles. ChatGPT can offer targeted feedback and guidance to students and teachers (OpenAI, 2023). This can be of immense help to students to progress at their own pace and develop a deeper understanding of media concepts (Ray., 2024).

Students can develop their writing and communication skills. It can assist them in their writing assignments and also offer constructive feedback on their work. Students' critical thinking abilities

also can be developed. By using he ChatGPT to check their assignment or interacting with it students can further develop their argumentation skills (Menon, 2023).

In the field of creative writing, there are many creative writers. They need inspiration for creative thinking to generate new ideas. They need a person who can suggest them different perspectives. The ChatGPT can help them explore innovative approaches to media production (Ritter et al., 2020). It is a platform where students can do a lot of experimentation and exploration. This practice will help students to develop their creativity and imagination (Hussain, 2023).

The research is an important part of academics and ChatGPT can help students by summarizing complex articles, identifying relevant sources, and providing insights into research methodologies (Peng et al., 2022). This way the students save their time and they can be more efficient researchers and develop their information literacy skills (Ray S. S., 2023).

The development and launch of this app has changed the media industry. While talking about the students and their curriculum ChatGPT can transform media education in India. It can equip students with the skills and knowledge they need to succeed in the digital age.

Teaching

Philippine qualitative study involves the students and teacher finds their view on integration of ChatGPT into education. The study suggest for adaptation. There is a need to design clear guidelines for assessment. Policy advocacy and ethical considerations. There is a need to do further study on ethical considerations and cultural sensitivity (Espartinez, 2024).

A study from UAE suggest there is a need for teachers and policy makers can keep the balance of using ChatGPT into academia. The integration has positive effects on study but they should provide special attention towards critical thinking, originality and integrity among students (Farhi, 2023).

Learning

Imperial Study - This Study was conducted by an hotel provider industry. They conducted a study on customer feedback. The ChatGPT generated the response in efficient and effective way and

saved a lot of time. Customer reviews and queries are the most important part of service business. The feedback from management need to reach out to customer as per their nature of complaint. If Chat GPT is trained then it can work efficiently and effectively. This is the finding (**Koc**, 2023).

A perception study was conducted for Indian and UK medical domain users for the integration of ChatGPT into Machine. Very few users shoulders their opinion on relying the automated radiology reports and they raised their concerns on using it (Iyengar, 2023).

A study was conducted in Czech to find the role of Digital litracy and the use of Chat GPT. Study shows digital literacy plays greater role into in using Chat GPT for its full potential for education. All adaptation will reduce the digital inequality (Bedington, 2024).

Assessment

So far we have discussed its use in assisting students in their creative writing or class assignments. These class assignments and creative writing come with many intricacies of composition, style, and grammar. Every student has different style of writing and thinking for creative assignments. These are the expectations of the teacher as well. It helps analyze students' work, It has the potential to identify areas for improvement, such as grammar, style, and content (Parker, 2024). Students get a chance to refine their writing skills, develop a deeper understanding of the writing process, and improve their overall writing quality.

Feedback is important in the creative industry as the content developed are going to get broadcasted or designed to reach out to many people. It helps you in generating creative writing prompts that are based on specific themes or genres (Urbez, 2024). This way these prompts can stimulate students' imagination, and encourage them to experiment with different writing styles. This is one of the ways to foster creativity and innovation. It is such a platform which provide experimentation and exploration. It helps them especially students to develop their unique voices and writing styles (Gupta A. &.-M., 2024).

Research is one of the most important and critical activity. Students need to search, choose and read various research articles. This platform provides them a service of summarizing complex research papers, identifying key arguments, and suggesting potential research questions. This

student are developed more efficient researchers. It saves their time. Students can now conduct indepth research and produce high-quality work (Bhattacharya, 2024).

Ethical Guidelines for AI in Education

Once we follow these ethical guidelines responsibility y and ethicality can be maintained in the education sector. This way we can leverage the benefits and minimize the risk. These are the different abilities of ChatGPT we have just discussed. It has the potential to transform media education in India. It equipps students with the skills and knowledge which they need to succeed in the digital age.

Transparent and Responsible AI Use: Educators need training and policymakers should be transparent about the use of AI tools and their limitations. It is important to inform students about the potential biases and limitations of AI systems. The discussion and understanding of these limitations, students can critically evaluate the information generated by AI (Fedele, 2024).

Avoiding Overreliance on AI: AI has become a popular and valuable tool but one should avoid overreliance on it. Human judgment and expertise should always play a crucial role in the educational process. Teachers or the institute should make a balance between AI and humans as it there to help and not replace (Bedington, 2024).

Bias and Fairness in AI Algorithms: AI algorithms are trained on massive datasets. They are inadvertently perpetuating biases present in the data. This can lead to biased outputs, particularly in areas like facial recognition and language processing (Wang, 2024). For instance, an AI system trained on a biased dataset might disproportionately favor certain groups or individuals, leading to unfair outcomes.

Privacy Concerns and Data Security: The education sector has a large amount of collection and processing of personal data. There are rising concerns about privacy and data security. It is crucial to implement AI to measures to protect student data and prevent unauthorized access to information. There is a possibility of data breaches and misuse of personal information. It can further lead to identity theft or reputational damage (Kucukkaya, 2024).

The Impact of AI on Human Jobs and Society: As AI has been used in various industries researchers have noted the concerns for the job market. In all types of industries, particular roles involve repetitive tasks and data analysis (Frank, 2024). When AI automation is used for these regular tasks time and energy can be saved. The process can speed up the work. There could be long-term social and economic implications of widespread AI adoption. This problem can be overcome by retraining and upskilling workers to adapt to the changing job market (Saba, 2024).

After discussing these ethical concerns, there is a need for a multi-faceted approach. There is a need to develop transparent, accountable, and fair AI systems. There is a need for implementing robust data privacy and security measures. This way responsible AI development and deployment can be possible (Montag, 2023).

Challenges and Limitations

As one technology has so many advantages it also comes with some drawbacks. It is important to discuss them as well.

The major concern reported by researchers is the dependence of ChatGPT on the quality and accuracy of the data it is trained on (Shabbir, 2024). It is an app developed on LLM and it uses the available information. If the training data is biased or inaccurate, ChatGPT may generate biased or misleading information. This further potentially leads to misinformation and a skewed understanding of complex issues (Rahimi, 2024).

The teachers and researchers have addressed another big concern students' misuse of ChatGPT to plagiarize or generate content without proper attribution. If this happens then it undermines academic integrity and compromises the value of original thought and creativity (Dwivedi, 2023).

There are technical limitations and accessibility issues that may hinder the widespread adoption of AI tools like ChatGPT, students from rural areas or those with limited technological resources may not be able to access it. It is important to have equitable access to AI tools for all students. The digital divide should be closed (Moravec, 2024).

One thing is important to understand here, it is not a substitute for human judgment and critical thinking. Students also should know not these facts and they need to be encouraged to use AI tools responsibly. The output of ChatGPT should be critically evaluated. The ChatGPT uses a balanced approach that combines the strengths of AI with human expertise. Once we know this face then we can develop the potential of ChatGPT. This will enhance media education while mitigating its risks (Dallari, 2024).

The Integration of ChatGPT into Media Studies

There 4 main components that need to be considered while integrating ChatGPT for Media studies. Teacher, Students, Policy makers and cultural aspects.

Teacher Training

The effective integration of ChatGPT for media education can only be possible after training to teachers. Teachers are the main and important part of the educational system to develop skills and foster a supportive learning environment. They should receive comprehensive training on the effective use of ChatGPT. They will be taught the strengths, limitations, and potential biases of it. The major components of the training should include prompt engineering, evaluating AI-generated content, and addressing ethical considerations (Al-Khresheh, 2024).

All media institutes need to cultivate a culture that encourages innovation and experimentation with new technologies. The trained teachers can develop innovative pedagogical approaches that leverage AI tools. The integration of AI into existing curricula can open further possibilities for developing new AI-enabled courses or fostering collaborative communities. The teachers can share best practices and innovative ideas (Chellappa, 2024).

Teacher training plays a crucial role in the integration of AI in media education. The trained teachers can create a supportive learning environment. This environment will make sure the ChatGPT is used responsibly and effectively. The students are ready to step into the industry. Media studies which cater the courses on creative writing, content writing, technical writing, Chat GPT can be a tool to be explored.

Incorporating ChatGPT into Existing Courses: It can be used in current or ongoing courses as in media studies the courses most of the time depend upon data (Youssef, 2024). In media undergraduates the study of journalism or sociology assignments like essays is common. The long writing assignments. Students need to use their grammar, composition, and style skills. ChatGPT can provide feedback on grammar, style, and content. For the media studies course, Where students need to write news and captions, news articles, or social media posts based on specific prompts, allowing students to analyze the impact of AI-generated content (Kleib, 2024).

Developing New Courses Focused on AI and Digital Media: Media Institutions can develop new courses while considering the integration of AI with the ethical, social, and technical implications (Jin, 2024). These courses can teach and explore topics such as AI ethics, algorithmic bias, and the future of digital media (Saif, 2023). These media programs offer specializations. These specializations equip students with the knowledge and skills needed to navigate the complex and rapidly evolving landscape of AI and digital media. Students can learn to compose prompts for ChatGPT. This way they can refine, and complete the task effectively.

Encouraging Critical Thinking and Digital Literacy: While using AI in academia by students need to know how to evaluate the credibility of the output received by AI. The training of digital literacy will enable students to be more responsible and ethical. Teachers also be trained and developed to use ChatGPT and enhance the learning experience. This will prepare students for the challenges and opportunities of the digital age (Saig, 2024).

Student

Providing Guidance on Ethical AI Use: Students are not aware of the ethical use of AI, they should be educated about it. They need to be taught about issues such as bias, privacy, and the potential for misuse. The academic bodies or educational institutes can organize discussions of AI ethics into various courses, such as philosophy, ethics, and computer science. This will help students to make informed decisions (Espartinez, 2024).

Encouraging Critical Thinking and Fact-Checking: A culture of critical thinking needs to be developed by teachers and institutions. This will help students to develop the skills to identify

biases and evaluate the credibility of sources. The students can check the cross-reference information while solving the activities. Teachers can design activities as per the needs of academics. To suggest a few are fact-checking exercises, discussions on the limitations of AI, and the use of digital literacy tools. (Liang, 2024).

The above-mentioned recommendations can be used by educational institutions. This way they can use the full potential of ChatGPT. It will enhance the quality of media education and prepare students for the challenges and opportunities of the digital age.

Cultural Aspect

India is a country with a diverse linguistic and cultural landscape. It presents unique challenges for AI like ChatGPT. This model has become popular and successful as well in some part of the world. When we talk about India it struggles with the nuances of Indian languages. The main 18 languages, regional dialects, and cultural context it becomes difficult for ChatGPT to address queries. There is a need to train language models on diverse datasets that include a wide range of Indian languages and cultural references (Dwivedi, 2023).

Indian languages are just a primary challenge. Each language is different and each language and parole has its unique grammar, syntax, and vocabulary. There is a need for this model to be developed on vast data sets and to study the intricacies of language and grammar. This requires a major effort in data collection, cleaning, and annotation (Chellappa, 2024).

Being a multi-lingual country, India does not have large data sets in all languages available. This is the main reason there is no major data available for training. Which further restricts the development of accurate and robust language models. There is a need to digitize historical texts, create new content, and encourage multilingual content creation (Gill, 2023).

While developing the large language model for India it is important to focus on cultural nuances and context-specific understanding. It is the most important part of effective language processing. The rich and diverse Indian culture has a wide range of customs, traditions, and social norms. Language models need to be trained on data that reflects this diversity to accurately interpret and generate text (Gill, 2023).

These are some of the challenges needs to handle during the development of language models made for Indians. Once these applications are used in education, healthcare and customer service the we can call it an AI efficient society.

Policy Implications

In this rapid development of technology, it is important to design policies to ensure their ethical and responsible use in education. Governments and Policymakers play a crucial role in shaping the ethical use of AI in education. The guidelines and regulations need to plan for data privacy, algorithmic bias, and transparency (Ray., 2024).

These AI systems rely on vast amounts of data. It is necessary to establish robust data protection measures to safeguard student information. The important factors such as developing clear guidelines for data collection, storage, and usage. This will help prevent data breaches (Chellappa, 2024).

The AI algorithms are trained on data. If the data is biased, the algorithms may produce biased outputs. The development of AI systems should be fair, unbiased, and transparent. One can implement regular audits of AI systems to identify and mitigate biases (Ferrara, 2024).

To bring transparency, AI systems can explain their decision-making processes. This will help to build trust in AI. Then the AI will be fair and accountable. This way AI is used ethically and responsibly in education, benefiting students and educators alike (Funa, 2024).

Data Privacy and Security:

Student data is most important for any educational institute. While designing the data security as data collection, storage, and sharing. The authorities of the institute can help limit the amount of data collected and stored. Consent should be obtained from students and parents before collecting and using their data. Encryption and access controls must be implemented to protect student data from unauthorized access and breaches (Bhutoria, 2022).

Algorithmic Bias:

Policymakers should ensure regular audits of AI algorithms to identify and mitigate biases. The use of diverse and representative datasets can help reduce bias in AI models. Transparency should be prioritized. The AI decisions can be understood and challenged (Urman, 2024).

Digital Divide:

There is a huge digital divide in India. Policymakers should ensure equitable access to AI-powered education. There is to be affordable internet access. Some training programs for digital literacy are to be organized. The equitable distribution of AI resources should be monitored Policymakers can ensure that all students. All socioeconomic backgrounds can have the opportunity to benefit from AI-powered education (Iyengar, 2023).

These are the key issues. They can be used for making effective policy frameworks. Policymakers can make sure that AI is used to enhance education. It is not used to increase existing inequalities.

Conclusion

This review paper has explored the different review papers. The review papers focus on the growing use of ChatGPT for personal, professional and academic purpose. It is proven that the use of ChatGPT is growing in India as well as other countries. People from different age group are using it for various purposes. ChatGPT has become popular for its ability to generate human-quality text, translate, and provide personalized feedback. This significant development can enhance the learning experience of media students. The teachers can automate routine tasks, such as grading and providing feedback on some types of assignments.

The imperial study suggests the creative use of ChatGPT into writing assignments and some academic assignments but it has proved the limitations of ChatGPT. As ChatGPT can not do creative writing as human being. It is based upon large language model. It cannot work as a search engine. It always uses the common understanding. It can be helpful to you for your regular mundane work. It can save your time in composing the messages, and day-to-day activities. This study also suggests the concern for the ethical aspects such as bias, privacy and misuse.

The study of Case Study research papers reveals how ChatGPT can be used for different purposes and how they perform but this study also highlights to adopt the balanced and ethical perspective. The responsible use in academic generates a way for teachers to design assignments where students will use their critical thinking. The use of chatGPT should be done to nurture the critical thinking among students.

ChatGPT can be integrated for media studies. The researcher has focused upon Teachers, Students, policy makers and cultural aspect. The research suggest there is need to train teachers to design their carriculumn according this the developing generative AI such as ChatGPT.

There is a large scope for using AI in media education. Further research and collaboration are necessary to take it effectively. More in-depth research is needed to find the impact of AI on student learning outcomes. Guidelines should be developed for ethical AI use in education. There is a potential for further exploration of innovative ways to integrate AI into media education. It is always better to be updated with the latest developments in AI and its applications in education. Educators can effectively use the power of AI to improve teaching and learning.

References

- Al-Khresheh, M. H. (2024). Bridging technology and pedagogy from a global lens: Teachers' perspectives on integrating ChatGPT in English language teaching. *Computers and Education Artificial Intelligence*, 6. doi:https://doi.org/10.1016/j.caeai.2024.100218
- Amarathunga, B. (2024). ChatGPT in education: unveiling frontiers and future directions through systematic literature review and bibliometric analysis. *Asian Education and Development Studies*. doi:https://doi.org/10.1108/aeds-05-2024-0101
- Bedington, A. H. (2024). Writing with generative AI and human-machine teaming: Insights and recommendations from faculty and students. *Computers & Composition/Computers and Composition,*. doi:https://doi.org/10.1016/j.compcom.2024.102833
- Bhattacharya, M. P. (2024). ChatGPT's scorecard after the performance in a series of tests conducted at the multi-country level: A pattern of responses of generative artificial intelligence or large language models. *Current Research in Biotechnology,, 7*. doi:https://doi.org/10.1016/j.crbiot.2024.100194
- Bhutoria, A. (2022). Personalized education and Artificial Intelligence in the United States, China, and India: A systematic review using a Human-In-The-Loop model. *Computers and Education Artificial Intelligence,, 3.* doi:https://doi.org/10.1016/j.caeai.2022.100068

- Chellappa, V. &. (2024). Understanding the Perception of Design Students towards ChatGPT. *Computers and Education Artificial Intelligence,, 7.* doi: https://doi.org/10.1016/j.caeai.2024.100281
- Dallari, V. L. (2024). Republication de : Can ChatGPT be a valuable study tool for ENT residents? *Annales Françaises D Oto-rhino-laryngologie Et De Pathologie Cervico-faciale*,, 182–183. doi:https://doi.org/10.1016/j.aforl.2024.05.002
- Dwivedi, Y. K.-B. (2023). Opinion Paper: "So what if ChatGPT wrote it?" Multidisciplinary perspectives on opportunities, challenges and implications of generative conversational AI for research, practice and policy. *International Journal of Information Management,, 71*. doi:https://doi.org/10.1016/j.ijinfomgt.2023.102642
- Espartinez, A. S. (2024). Exploring student and teacher perceptions of ChatGPT use in higher education: A Q-Methodology study. *Computers and Education Artificial Intelligence,, 7*. doi:https://doi.org/10.1016/j.caeai.2024.100264
- Farhi, F. J.-S. (2023). Analyzing the students' views, concerns, and perceived ethics about chat GPT usage. *Computers and Education Artificial Intelligence,, 5*. doi:https://doi.org/10.1016/j.caeai.2023.100180
- Fedele, A. P. (2024). The ALTAI checklist as a tool to assess ethical and legal implications for a trustworthy AI development in education. *Computer Law & Security Review,, 53*. doi:https://doi.org/10.1016/j.clsr.2024.105986
- Ferrara, E. (2024). The Butterfly Effect in artificial intelligence systems: Implications for AI bias and fairness. *Machine Learning With Applications,, 15*. doi:https://doi.org/10.1016/j.mlwa.2024.100525
- Frank, M. P. (2024). Paradigm shift from AI to XAI of Society 5.0: Machine-centric to human-centric. *Elsevier*, eBooks (pp. 3–28). doi:https://doi.org/10.1016/b978-0-323-95315-3.00002-4
- Funa, A. A. (2024). Policy guidelines and recommendations on AI use in teaching and learning: A metasynthesis study. *Social Sciences & Humanities Open,*. doi:https://doi.org/10.1016/j.ssaho.2024.101221
- Garry, M. C. (2024). Large language models (LLMs) and the institutionalization of misinformation. *Trends in Cognitive Sciences.* doi:https://doi.org/10.1016/j.tics.2024.08.007
- Gill, S. S. (2023). Transformative effects of ChatGPT on modern education: Emerging Era of AI Chatbots. Internet of Things and Cyber-Physical Systems,, 4, 19–23. doi:https://doi.org/10.1016/j.iotcps.2023.06.002
- Gopali, S. S.-N. (2024). The performance of the LSTM-based code generated by Large Language Models (LLMs) in forecasting time series data. *Natural Language Processing Journal*,. doi: https://doi.org/10.1016/j.nlp.2024.100120
- Gupta, A. &.-M. (2024). "Wayfinding" through the AI wilderness: Mapping rhetorics of ChatGPT prompt writing on X (formerly Twitter) to promote critical AI literacies. *Computers & Composition/Computers and Composition,, 74*. doi:https://doi.org/10.1016/j.compcom.2024.102882

- Hu, C. L. (2024). Knowledge-Prompted ChatGPT: Enhancing drug trafficking detection on social Media. *Information & Management,, 61*(6). doi:https://doi.org/10.1016/j.im.2024.104010
- Hussain, K. K. (2023). Exploring audience engagement with ChatGPT-related content on YouTube: Implications for content creators and AI tool developers. *Digital Business,, 4*(1). doi:https://doi.org/10.1016/j.digbus.2023.100071
- Iyengar, K. P. (2023). Perception of Chat Generative Pre-trained Transformer (Chat-GPT) AI tool amongst MSK clinicians. *Journal of Clinical Orthopaedics and Trauma,, 44*. doi:https://doi.org/10.1016/j.jcot.2023.102253
- Jin, S. V. (2024). Unraveling the dynamics of digital equality and trust in AI-empowered metaverses and AI-VR-convergence. *Technological Forecasting and Social Change,, 210.* doi:https://doi.org/10.1016/j.techfore.2024.123877
- Kleib, M. D. (2024). Current trends and future implications in the utilization of ChATGPT in Nursing: A Rapid review. *International Journal of Nursing Studies Advances,*, 7. doi:https://doi.org/10.1016/j.ijnsa.2024.100252
- Koc, E. H. (2023). Houston, we have a problem!: The use of ChatGPT in responding to customer complaints. *Technology in Society,*, 74. doi:https://doi.org/10.1016/j.techsoc.2023.102333
- Krumrei-Mancuso, E. J. (2024). Toward an understanding of collective intellectual humility. *Trends in Cognitive Sciences*. doi:https://doi.org/10.1016/j.tics.2024.09.006
- Kucukkaya, A. A. (2024). Unlocking ChatGPT's potential and challenges in intensive care nursing education and practice: A systematic review with narrative synthesis. *Nursing Outlook,, 72*(6). doi:https://doi.org/10.1016/j.outlook.2024.102287
- Kumar, S. R. (2024). Will artificial intelligence drive the advancements in higher education? A tri-phased exploration. *Technological Forecasting and Social Change*,. doi:https://doi.org/10.1016/j.techfore.2024.123258
- Liang, W. &. (2024). Exploring the Use of ChatGPT to Foster EFL Learners' Critical Thinking Skills from a Post-Humanist Perspective. *Thinking Skills and Creativity,*. doi:https://doi.org/10.1016/j.tsc.2024.101645
- Menon, D. &. (2023). "Chatting with ChatGPT": Analyzing the factors influencing users' intention to Use the Open Al's ChatGPT using the UTAUT model. *Heliyon,*, 9(11), e20962. doi:https://doi.org/10.1016/j.heliyon.2023.e20962
- Mogavi, R. H. (2023). ChatGPT in education: A blessing or a curse? A qualitative study exploring early adopters' utilization and perceptions. *Computers in Human Behavior Artificial Humans,, 2*(1). doi:https://doi.org/10.1016/j.chbah.2023.100027
- Montag, C. N. (2023). Considering the IMPACT framework to understand the Al-well-being-complex from an interdisciplinary perspective. *Telematics and Informatics Reports*,. doi:https://doi.org/10.1016/j.teler.2023.100112

- Moravec, V. H. (2024). Who uses it and for what purpose? The role of digital literacy in ChatGPT adoption and utilisation. *Journal of Innovation & Knowledge,, 9*(4). doi:https://doi.org/10.1016/j.jik.2024.100602
- Parker, L. C. (2024). Graduate instructors navigating the AI frontier: The role of ChatGPT in higher education. *Computers and Education Open,*, *6*. doi: https://doi.org/10.1016/j.caeo.2024.100166
- Rahimi, A. R.-P. (2024). The Role of ChatGPT Readiness in Shaping Language Teachers' Innovation and Meeting Accountability: A bisymmetric approach. *Computers and Education Artificial Intelligence*, doi: https://doi.org/10.1016/j.caeai.2024.100258
- Ray, P. P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems,, 3*, 121–154. doi:https://doi.org/10.1016/j.iotcps.2023.04.003
- Ray, S. S. (2023). Leveraging ChatGPT and Bard: What does it convey for water treatment/desalination and harvesting sectors? *Desalination*, *570*. doi:https://doi.org/10.1016/j.desal.2023.117085
- Ray., P. P. (2024). A deep introspection into the role of ChatGPT for transforming hospitality, leisure, sport, and tourism education. *Journal of Hospitality Leisure Sport & Tourism Education,, 35*. doi:https://doi.org/10.1016/j.jhlste.2024.100504
- Saba, C. S. (2024). The impact of artificial intelligence (AI) investment on human well-being in G-7 countries: Does the moderating role of governance matter? *Sustainable Futures*,. doi:https://doi.org/10.1016/j.sftr.2024.100156
- Saif, N. K. (2023). Chat-GPT; validating Technology Acceptance Model (TAM) in education sector via ubiquitous learning mechanism. *Computers in Human Behavior.*, 154. doi:https://doi.org/10.1016/j.chb.2023.108097
- Saig, R. &. (2024). Expanding Digital Literacies Beyond the Digital: Infusing Computational Thinking into Unplugged Pedagogical Tools Two Case Studies from Mathematics Education. *International Journal of Child-Computer Interaction*, doi:https://doi.org/10.1016/j.ijcci.2024.100703
- Shabbir, A. R. (2024). Beyond boundaries: Navigating the positive potential of ChatGPT, empowering education in underdeveloped corners of the world. *Heliyon,, 10*(6), e35845. doi:https://doi.org/10.1016/j.heliyon.2024.e35845
- Steiss, J. T. (2024). Comparing the quality of human and ChatGPT feedback of students' writing. *Learning and Instruction,*, *9*1. doi:https://doi.org/10.1016/j.learninstruc.2024.101894
- Tsao, J. &. (2024). Beyond the author: Artificial intelligence, creative writing and intellectual emancipation. *Poetics.*, *102*. doi:https://doi.org/10.1016/j.poetic.2024.101865
- Urbez, M. D. (2024). ChatGPT improves creative problem-solving performance in university students: An experimental study. *Computers & Education,, 215*. doi:https://doi.org/10.1016/j.compedu.2024.105031

- Urman, A. &. (2024). The silence of the LLMs: Cross-lingual analysis of guardrail-related political bias and false information prevalence in ChatGPT, Google Bard (Gemini), and Bing Chat. *Telematics and Informatics*, doi:https://doi.org/10.1016/j.tele.2024.102211
- Wang, H. D. (2024). Generative AI in Higher Education: Seeing CHATGPT through universities' policies, resources, and guidelines. *Computers and Education Artificial Intelligence*, doi:https://doi.org/10.1016/j.caeai.2024.100326
- Whig, P. S. (2024). Artificial intelligence and machine learning for sustainable development. *CRC Press eBooks*. doi:https://doi.org/10.1201/9781003497189
- Youssef, E. M. (2024). Examining the effect of ChatGPT usage on students' academic learning and achievement: a survey-based study in Ajman, UAE. *Computers and Education Artificial Intelligence*, doi:https://doi.org/10.1016/j.caeai.2024.100316