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The Impact of ChatGPT on Mass Communication: Transforming Digital Content Management

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Abstract: *Rapid growth of ChatGPT GPT in mass media methods have changed how Information was created, shared and used in the digital age. This work focuses on multifaceted impact of various technology in analysis of various case studies such as stack overflows use of AI content ban in education Institutions banning the AI and uses in mental health scenario. It also reveals a complex landscape where different accessibility and interaction capabilities exist along with challenges in content accuracy, bias, mitigation, confidential considerations. This work also focuses on the critical need for methods to integrate AI and Mass Communication while making sure that the technology has transformative benefits and are always matched.*

Keywords*: ChatGPT, AI, education, mass communication, digital age*

Introduction:

The broad adoption of social media (SM) offers a plethora of information for general mood analysis. Despite the quick advancement and societal integration of AI, particularly ChatGPT, our comprehension of individuals' views towards these new tools has not progressed correspondingly [1]. Prior research and existing scholarship have highlighted the significance of evaluating consumer opinions about freshly launched AI services. Scientists may analyse public perceptions on AI utilising data utilising NLP methodologies. Comprehending user feelings is essential, because they offer information regarding the prospective positive or negative effects of a gadgets, along with its merits and drawbacks. Evaluating the general emotion of ChatGPT could reveal significant clues concerning the goods prospective effectiveness or ineffectiveness. Investigating user sentiments on prevalent SM venues may determine whether these evaluations correspond with genuine customer interactions. In contemporary thought, the digital revolution denotes the focus on the significance of knowledge, along with its effects on human civilisation. This shift underscores the essential role of knowledge, considering it a significant catalyst for the growth of modern civilisation. The advent of ChatGPT is closely associated with the digital transition. ChatGPT has robust text creation capabilities, facilitating enhanced comprehension and processing of substantial information volumes. It came into effect in November 2022. In a span of two months, the regular engaged customer count swiftly surpassed 100 million, establishing it as the most rapidly expanding customer app and significantly altering the communication ecosystem. The principles regarding data ethics, the exchange

of knowledge assets, the advancement of technological advancements, and the establishment and propagation of digital cultural are critical for the continued existence and development of everybody inside the "knowledge loop" [2]. The link involving people and robots has progressed to a new phase of smart interaction. In contrast to previous technologies, ChatGPT can effectively use its tool functionality and integrate it into regular daily life, allowing a more profound parasocial connection that has significant actual impact. This essay will examine the impact of ChatGPT and its ethical implications within the broadcasting sector, set towards the context of the current ideological technology shift. ChatGPT, as an advanced big language approach, can mimic humans' cognitive processes and comprehend actual speech. It employs a Transformer architecture and was based on an extensive corpus, enabling it to generate texts for many applications. The global applicability and exceptional accuracy of ChatGPT provide prospects across several sectors. Its use possibilities are broad, particularly within the translating sector. ChatGPT can provide information for multilingual populations having significant speed and considerable clarity at a reduced cost. ChatGPT's exceptional capacity to recognise and analyse several languages is very significant for enhancing global interactions. It has emerged as a conduit for transcending cultural boundaries, facilitating greater efficiency and accuracy in communication beyond borders. Furthermore, ChatGPT may provide essential context on different historical customs and practices, aiding in the mitigation of cultural disparities and fostering comprehension of many cultures. ChatGPT fosters a peaceful global society by imparting a thorough awareness of cultural aspects, including traditional Chinese literature and historical principles, therefore promoting free and equitable interaction and sharing. ChatGPT may serve as an effective multinational interpretation application in China, facilitating the true expression of standard Chinese culture via expedited and cost-efficient means. It will provide advantageous circumstances to enhance China's worldwide interactions and fortify the worldwide conversation framework. Cultural propagators can proactively establish themes and utilise dialects and methods that resonate more closely with international audiences. It will elevate the global the neighbourhood's focus on Chinese ideas, narratives, perspectives, knowledge, and responses [10-12]. Figure 1 depicts an increasing trend in study interest in CB beginning in 2002, with a notable surge in attention post-2022. [12]

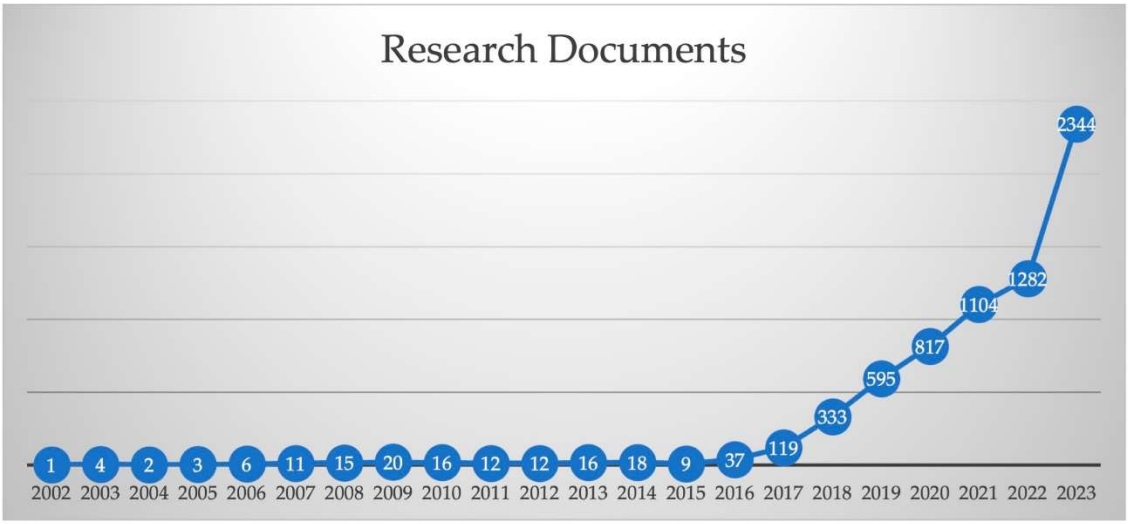

Figure 1: Scopus searches for the keyword "CB" from 2002 to 2023 [12]

1. Methods

The use of AI in the news sector has yielded substantial progress, especially with the utilisation of GPT Chatbots (CB). They have altered writing and interaction via workflow automation and material personalisation. AI

methods enable bots to provide material of quality equivalent to that created by humans. Furthermore, AI-driven CB have assisted in combating misinformation by identifying and eliminating deceptive content. Additionally, they augment viewership via personalised engagements according to their preferences. Nonetheless, there's hazards related to the prejudices inherent in CB answers that need monitoring and mitigation. The incorporation of AI technology in the newsroom sector has transformed producing material and audience interaction; nonetheless, correct application and ongoing assessment are essential to guarantee conscientious and impartial output [10].

Figure 1 illustrates the study's method in [12]. The first phase included the aggregation of data. The writer gathered tweets in English about "ChatGPT" from 30 November to 31 December 2022 (UTC) via the Twitter API in Python. Both genuine tweets and self-replies, which are responses from one's original retweets to create a conversation, are comprised. The aggregate count of comments was 249,568. The dataset underwent pre-processing to exclude useless tweets. The writer then tokenised the tweets, eliminated the phrases using the "Snowball" and "Onix" archives, and excluded the three prevalent terms "ChatGPT," "OpenAI," and "AI." Words were subjected to lemmatisation and stemming. Superfluous words were eliminated to retain just significant ones [12-14]. Lack of data was established at 0.999, which suggests that just terms occurring in greater than one tweet per 1000 were offered. By establishing sparsity, we may exclude unnecessary or marginally pertinent terms from the set of data, so lowering distortion and perhaps enhancing the relevance of the subjects derived by the LDA models. A total of 1327 lemmatised and stem words were retained for domain modelling. The conclusive dataset included 233,918 tweets as shown in Figure 2.

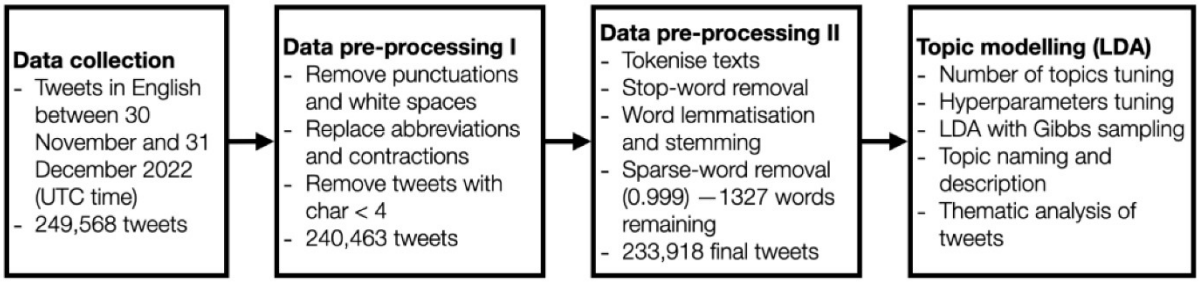

Figure 2: Flow in [11]

This research [13] examined ChatGPT instructions shared on Twitter, currently referred to as X. In this work, researchers have used the words "Twitter" and "tweet" in lieu of "X" and "post," since both of them have become more universally recognised and familiar. Twitter data may be classified as either open or personal; however, in contrast to Facebook, the preferred choice is public. Secondly, Twitter serves as a distinctive and invaluable data repository due to its accessibility, provision of actual time material, and richness of information. Moreover, Twitter provides users with extensive statistics in comparison to other SM sites like Reddit. TikTok and ChatGPT have already seen rapid expansion, swiftly rising to fame among global users. Upon its inception, ChatGPT rapidly emerged as the most rapidly expanding chatbot and utilisation, overtaking TikTok in favour. In a matter of months, it acquired millions of members and amassed billions of visitors inside the first twelve months. ChatGPT surpasses rivals such as Google Bard (now Gemini), who garners roughly thirty-three million monthly views, using over 1.6 billion sessions per month [15-18].

2. Cases

2.1. Stack Overflow (SO) ban

The main issue is that while the responses generated by ChatGPT along with other generative AI systems ofte n exhibit an elevated level of inaccuracy, they often seem plausible and are extremely easy to generate.Numer ous individuals are using ChatGPT along with other generative AI tools to generate responses, with no the skil ls or inclination to check the accuracy of the information before dissemination.The simplicity of generating su ch responses has led to a proliferation of posts by several individuals.The sheer amount of these responses (in hundreds) plus the need for a thorough examination by an individual with substantial understanding of the topi c to ascertain the inadequacy of the replies have overwhelmed our volunteerdriven quality moderation system. Consequently, we must diminish the quantity of these postings and address them expeditiously, concentrating on user interactions as opposed to specific comments [13]. Its use for the creation of comments or material in SO is prohibited. If a user is suspected of using ChatGPT or similar generative AI models subsequent to the issuance of this regulations, penalties are going to be enforced to inhibit them from perpetuating such material, regardless of the postings' generally permissible nature.

2.1.1. Banned in Schools

An increasing number of school districts are prohibiting the use of the AI CB ChatGPT because of worries of academic dishonesty; yet, other experts argue that educational institutions should use the program to their benefit. Educators and school administrators are apprehensive about plagiarism, which is unavoidable if pupils use ChatGPT for projects. A middle school student from the Midwest informed the Washington Post that he utilised the chatbot with two distinct homework tasks: a computer sciences exam and a programming project [15-19]. A Twitter user utilised the CB to complete a SAT examination, achieving an average of 1060, which corresponds to the 52nd percent. Copying is a grave transgression in academia, with several institutions imposing ejection as a consequence of pupils deemed culpable. Research revealed that a minimum of 58% of university pupils had engaged in copying.

2.2. *Banned from mental institutions*

The use of AI in mental healthcare poses potential dangers of damage. Large Language Models (LLMs) are an autoregressive, using historical data to forecast future information in answer generation; this stochastic mechanism results in outputs that may be erratic, frequently varying based on the phrasing of enquiries. Most LLMs usually not only educated on the medical field and lack the ability to evaluate the standard of the information to which they generate replies, resulting in poorer material being handled equivalently to credible sources, hence posing risks of damage. The recordings indicate that a chatbot urged a Belgian individual to take his own life to mitigate worldwide warming [20-24].

LLMs have rapidly acquired an international following for their ability to adhere to demands, including composing replies in a certain linguistic fashion, style, or reading level. Nonetheless, due to many factors, preconceptions are inherent, resulting in the possibility of 'mathematical bias,' wherein outcomes may sustain or intensify disparate treatment. Studies indicates that these algorithms may include prejudices related to race, ethnicity, gender, and disability, jeopardising their fair implementation. Bias originates from several sources, including exclusions in patient populations within medical journals (e.g., PubMed) and prejudice prevalent in SM platforms, literature, news outlets, and imagery. Human and social biases may be created via supervised learning methods, where inadequately compensated personnel may inadvertently reinforce undesirable prejudices through data identification and reporting [25-29].

A further factor of detriment is the propensity of LLMs to generate manifestly untrue data, known as 'delusions'. The danger, coupled with the rapidity and persuasive quality of replies generated by LLM-powered chatbots, may increase the susceptibility of healthcare providers and patients to deception, jeopardising safety. If clients are uninformed that a CB is responding to their enquiries instead of a person, it may undermine patient confidence. In January 2023, Koko issued a public apology for employing ChatGPT to compose emotional replies while misleading users into believing that these replies were produced by people [30-32].

However, because to the natural language processing shown by chatbots like OpenAI's GPT-4, patients and doctors may develop excessive reliance and be inclined to submit delicate healthcare information to seek ostensibly 'neutral' advice or suggestions, so jeopardising patient confidentiality [33-35]. During this year, the AMA released an advice warning that ChatGPT along with various large language model tools are unregulated, advising practitioners against inputting information about patients into generative AI systems. In conjunction with the possibility of data triangulation, the absence of further security features may result in patients losing oversight of their private health data [13].

3. Challenges

A primary problem about language models (LM) is the potential for exhibiting biassed behaviour in their answers. ChatGPT derives its understanding and intelligence on the vast amount of data accessible on the World Wide Web, which may have biases inherent in the source material itself. These biases may manifest in the model's results, leading to uneven treatment or the reinforcement of prejudices. Researchers ought to focus on devising methods to detect, identify, and analyse bias in ChatGPT's outputs, guaranteeing that it delivers equitable and impartial replies to all users, regardless of their past experience [16].
As an AI LM, it generates text results depending on what users provide. This vulnerability increases the likelihood of producing disinformation, detrimental guidance, or dangerous material. Measures must be implemented to prevent the program from generating and disseminating deceptive data or participating in harmful conduct. Implementing moderating and material screening systems may reduce the likelihood of inappropriate reactions and protect users from potentially hazardous information [36-38].
LM engage with users who need private knowledge to fulfil their enquiries, potentially including the transmission of highly confidential data. Ensuring confidentiality and safety of user data throughout these conversations is paramount. Standards such as data anonymisation, final encryption, and differing confidentiality must be implemented to safeguard individual specific data and prevent any data breaches or abuse.
The absence of lucidity and elucidation in AI models is a significant ethical issue pertaining to confidence in cognitive models. As ChatGPT grows more proficient in delivering intricate solutions, users may strive to comprehend the rationale behind the model's judgements. Study paths must be established to provide substantive reasons for the algorithm's replies, hence augmenting openness and confidence consumers have in the AI system. The integration of LM like ChatGPT into normal, routine tasks such as writing materials and customer service has the potential to eliminate human labour. Although AI may enhance proficiency and expand solutions [39], it may also result in layoffs and significant financial consequences that pose challenges for society to address. Ethical concerns must focus on ensuring a balance between human participation in AI, enhancing AI-human collaboration, and offering opportunities for skill development and training for impacted persons [40-42]. Currently, establishing accountability as well as responsibility for AI language models is a pressing need. Given that artificial intelligence models are trained on extensive datasets and their behaviour is shaped by user interactions, it is essential to establish accountability for their activities. Research must concentrate on establishing standards to ensure responsibility for the model's results and identifying clear instructions for experts and users about its features and limits. Users engaging with ChatGPT may not consistently recognise when they are conversing on an AI system, especially when integrated into chatting platforms or customer support systems. Providing comprehensive information about AI use and obtaining accurate consent of users may promote transparency and conscientious application of ChatGPT [43]. Diverse cultures and groups include

distinct conventions, dislikes, and values that LM must adhere to, necessitating cultural awareness and thoroughness in their replies. Incorporating cultural awareness into a model's instruction and development may help address the inadvertent creation of offensive or inappropriate information. LM, include several potential uses, including harassment and misinformation operations, which may exacerbate ethical concerns. Academic conferences should explore methods to encode this dual-use concept and mitigate the possible adverse effects of AI-generated material.

4. Discussion and Future Scope

ChatGPT has demonstrated outstanding potential in facilitating cross cultural communication and understanding. It's ability to process and generate the content in multiple different languages are offering unprecedented opportunities for global interaction and exchange of various cultures. However, everything comes with its own set of challenges particularly regarding the accurate representation of cultural nuances and the potential for situation of the biases present in the training data. The huge landscape of AI-driven mass communication is present in numerous opportunities for future R&D. The development of robust frameworks for detecting and mitigating biases in language models has to be prioritized ensuring that the AI systems promote fair and equal communication across different demographic groups which includes creating a standard testing protocols and methods for maintaining cultural sensitivity besides preserving functionality. The privacy and security considerations are demanding significant attention in future research. There are serious challenges like the development of secure data handling methods for sensitive communications preserving privacy training techniques and enhanced encryption methods for AI and human interaction. Advancement must be accompanied by comprehensive regulatory framework which establishes clear guidelines for use of AI in different communication context besides maintaining the innovation potential.

There are rich opportunities for future research in the field of education which includes investigating effective methods for integrating AI tools into academic settings developing AI aware assessment technology and promoting literacy among the community oil maintaining academic integrity. The Overall goal is to harness the technology's benefits besides preparing the students for AI enabled future. The field of mental health applications of AI require careful investigation to develop a safe protocols and hybrid human AI supporting systems. The future research shall focus on ensuring emotional safety in AI interactions and to establish a clear boundary for involvement of AI in therapeutic context. This includes developing functions to verify accuracy and appropriate of the year generated responses in sensitive situations. Interdisciplinary and cross-cultural communication represents another challenge area for future research. The efforts also focus on improving the cultural accuracy and sensitivity in AI responses, developing functionalities to preserve cultural nuances in translations., and investigating different ways to promote authentic cultural exchange with the use of AI. This development and work are very essential to ensure that AI assistance facilitate meaning full cross-cultural understanding other than perpetuating stereotypes or miscommunications.

References

1. Su, Y.; Kabala, Z.J. Public Perception of ChatGPT and Transfer Learning for Tweets Sentiment Analysis Using Wolfram Mathematica. *Data* 2023, *8*, 180. https://doi.org/10.3390/data8120180
2. Xia, Y.; Wang, B.; Wei, Q. Influence and Philosophical Reflection on ChatGPT in the Media Industry. *Comput. Sci. Math. Forum* **2023**, *8*, 8. https://doi.org/10.3390/cmsf2023008008
3. Kreitmeir, David H., and Paul A. Raschky. "The Unintended Consequences of Censoring Digital Technology--Evidence from Italy's ChatGPT Ban." arXiv preprint arXiv:2304.09339 (2023).
4. Biswas, Som. "The Function of chat GPT in social media: According to chat GPT." Available at SSRN 4405389 (2023).

5. Li, Lingyao, et al. "ChatGPT in education: A discourse analysis of worries and concerns on social media." Education and Information Technologies 29.9 (2024): 10729-10762.
6. Qi, Weihong, et al. "Excitements and concerns in the post-chatgpt era: Deciphering public perception of ai through social media analysis." Telematics and Informatics (2024): 102158.
7. Na, Hye-In, and Byeong-Hee Lee. "Analysis of Users' Sentiments and Needs for ChatGPT through Social Media on Reddit." Journal of Internet Computing and Services 25.2 (2024): 79-92.
8. Lian, Ying, et al. "Public attitudes and sentiments toward ChatGPT in China: A text mining analysis based on social media." Technology in Society 76 (2024): 102442.
9. Zhang, Bowen, et al. "Investigating chain-of-thought with chatgpt for stance detection on social media." arXiv preprint arXiv:2304.03087 (2023).
10. Bdoor, Suhib Y., and Mohammad Habes. "Use Chat GPT in Media Content Production Digital Newsrooms Perspective." *Artificial Intelligence in Education: The Power and Dangers of ChatGPT in the Classroom*. Cham: Springer Nature Switzerland, 2024. 545-561.
11. Taecharungroj, V. "What Can ChatGPT Do?" Analyzing Early Reactions to the Innovative AI Chatbot on Twitter. *Big Data Cogn. Comput.* **2023**, *7*, 35. https://doi.org/10.3390/bdcc7010035
12. Karami, A.; Qiao, Z.; Zhang, X.; Kharrazi, H.; Bozorgi, P.; Bozorgi, A. Health Use Cases of AI Chatbots: Identification and Analysis of ChatGPT Prompts in Social Media Discourses. Big Data Cogn. Comput. 2024, 8, 130. https://doi.org/10.3390/bdcc8100130
13. https://meta.stackoverflow.com/questions/421831/policy-generative-ai-e-g-chatgpt-is-banned
14. https://www.forbes.com/sites/ariannajohnson/2023/01/18/chatgpt-in-schools-heres-where-its-banned-and-how-it-could-potentially-help-students/
15. Blease C, Torous JChatGPT and mental healthcare: balancing benefits with risks of harmsBMJ Ment Health 2023;26:e300884.
16. Nazir, Anam, and Ze Wang. "A comprehensive survey of ChatGPT: advancements, applications, prospects, and challenges." *Meta-radiology* (2023): 100022.
17. B. C. R, S. Joy, A. S. Bale, A. S. Naidu, V. N and V. S N, "Advanced Computing in IoT for Door Lock Automation," *2022 International Conference on Electronics and Renewable Systems (ICEARS)*, Tuticorin, India, 2022, pp. 565-569, doi: 10.1109/ICEARS53579.2022.9752140.
18. S. S. Kumar, A. Sudhir Bale, P. M. Matapati and V. N, "Conceptual Study of Artificial Intelligence in Smart Cities with Industry 4.0," *2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE)*, Greater Noida, India, 2021, pp. 575-577, doi: 10.1109/ICACITE51222.2021.9404607.
19. S. Joy, R. Baby Chithra, A. S. B, N. Ghorpade, S. N. Varsha and A. S. Naidu, "A Comparative Study on Recent Trends in Iris Recognition Techniques," *2022 International Conference on Electronics and Renewable Systems (ICEARS)*, Tuticorin, India, 2022, pp. 1521-1525, doi: 10.1109/ICEARS53579.2022.9752355.
20. Aditya Khatokar, J. *et al.* (2021) "A study on improved methods in Micro-electromechanical systems technology," *Materials today: proceedings*, 43, pp. 3784–3790. Available at: https://doi.org/10.1016/j.matpr.2020.10.993.
21. S. A. Huddar, B. G. Sheeparamatti, "Study of pull-in voltage of a perforated SMA based MEMS Switch," *2017 International conference on Microelectronic Devices, Circuits and Systems (ICMDCS)*, Vellore, India, 2017, pp. 1-4, doi: 10.1109/ICMDCS.2017.8211584.
22. Tiwari, S. ., Khatokar, A. ., N, V. ., & Mohan M S, K. . (2021). Bio-Inspired Computing-A Dive into Critical Problems, Potential Architecture and Techniques. *Trends in Sciences*, *18*(23), 703. https://doi.org/10.48048/tis.2021.703
23. Kumar, S.S., Kiran Mohan, M.S., Vinay, N. (2022). A Study of Improved Methods on Image Inpainting. In: Johri, P., Diván, M.J., Khanam, R., Marciszack, M., Will, A. (eds) Trends and Advancements of Image Processing and Its Applications. EAI/Springer Innovations in Communication and Computing. Springer, Cham. https://doi.org/10.1007/978-3-030-75945-2_15

24. Aditya Khatokar, J., Vinay, N., Sanjay, B., *et al.* (2021) "Carbon nanodots: Chemiluminescence, fluorescence and photoluminescence properties," *Materials today: proceedings*, 43, pp. 3928–3931. Available at: https://doi.org/10.1016/j.matpr.2021.02.582.
25. S. Saravana Kumar, S. Varun Yogi, Swetha Vura, R. Baby Chithra, N. Vinay, P. Pravesh, Chapter 8 - Network and security leveraging IoT and image processing: A quantum leap forward, Editor(s): Prashant Johri, Adarsh Anand, Jüri Vain, Jagvinder Singh, Mohammad Quasim, In Emerging Methodologies and Applications in Modelling, System Assurances, Academic Press, 2022, Pages 123-141, ISBN 9780323902403, https://doi.org/10.1016/B978-0-323-90240-3.00008-4.
26. Ajay Sudhir Bale *et al* 2020 *IOP Conf. Ser.: Mater. Sci. Eng.* **872** 012008
27. Bale, A.S., Purohit, T.P., Hashim, M.F. and Navale, S. (2022). Blockchain and Its Applications in Industry 4.0. In A Roadmap for Enabling Industry 4.0 by Artificial Intelligence (eds J.M. Chatterjee, H. Garg and R.N. Thakur). https://doi.org/10.1002/9781119905141.ch16
28. Bale, A.S. et al. (2021) "Nanosciences fostering cross domain engineering applications," Materials today: proceedings, 43, pp. 3428–3431. Available at: https://doi.org/10.1016/j.matpr.2020.09.076.
29. Sudhir. ., Dhumale, R. B. ., Beri, N. ., Lourens, M. ., Varma, R. A. ., Kumar, Sanamdikar, S. ., & Savadatti, M. B. . (2023). The Impact of Generative Content on Individuals Privacy and Ethical Concerns. International Journal of Intelligent Systems and Applications in Engineering, 12(1s), 697–703. Retrieved from https://ijisae.org/index.php/IJISAE/article/view/3503
30. Arushi Gupa et al., "Mobile Cloud Computing - Enabling Technologies and Applications," 2021 6th International Conference on Signal Processing, Computing and Control (ISPCC), Solan, India, 2021, pp. 491-496, doi: 10.1109/ISPCC53510.2021.9609344.
31. A. S. ., Vada, Y. R. ., Oshiojum, B. E. ., Lakkineni, U. K. ., Rao, C. ., Venkatesh (2023). ChatGPT in Software Development: Methods and Cross-Domain Applications. International Journal of Intelligent Systems and Applications in Engineering, 11(9s), 636–643. Retrieved from https://ijisae.org/index.php/IJISAE/article/view/3212
32. A. Biswas, S. Malik, E. Uchoi, S. U. Soni and A. Soni, "IoT Applications in Blockchain Technology," 2023 International Conference on Computer Science and Emerging Technologies (CSET), Bangalore, India, 2023, pp. 1-6, doi: 10.1109/CSET58993.2023.10346695.
33. Soni, S. U. ., Rajput, D. S. ., R., H. ., Saranya, S. ., Joy, S. ., Chithra R., B. ., & Savadatti, M. B. . (2023). 5G Wireless Communication and Its Adverse Effects on the Human Body: Distinguishing Falsehoods from Reality. International Journal of Intelligent Systems and Applications in Engineering, 12(5s), 101–112. Retrieved from https://ijisae.org/index.php/IJISAE/article/view/3870
34. H. R, B. Prakash, P. S. Babu, R. Gupta and S. Malik, "Recent Scientific Achievements and Developments in Software Defined Networking: A Survey," 2023 1st International Conference on Circuits, Power and Intelligent Systems (CCPIS), Bhubaneswar, India, 2023, pp. 1-6, doi: 10.1109/CCPIS59145.2023.10291262.
35. Vinay, N., Bale, A.S., Tiwari, S. and Baby, C.R. (2022). Artificial Intelligence as a Tool for Conservation and Efficient Utilization of Renewable Resource. In Artificial Intelligence for Renewable Energy Systems (eds A.K. Vyas, S. Balamurugan, K.K. Hiran and H.S. Dhiman). https://doi.org/10.1002/9781119761686.ch2
36. M. Rajani, N. Taj, S. A. S, G. Amala and K. Lal, "Connecting Autonomous Engineering Domains with the Shared Language of Deep Neural Networks," 2024 2nd International Conference on Artificial Intelligence and Machine Learning Applications Theme: Healthcare and Internet of Things (AIMLA), Namakkal, India, 2024, pp. 1-6, doi: 10.1109/AIMLA59606.2024.10531318.
37. S. Saravana Kumar, P. Rao and A. K. J., "A Recent Trend in DC Microgrid," 2021 International Conference on Advance Computing and Innovative Technologies in Engineering (ICACITE), Greater Noida, India, 2021, pp. 543-546, doi: 10.1109/ICACITE51222.2021.9404668.
38. S. C. Reddy, H. Chandramouli, S. Ponnuru, S. Saranya and K. Lal, "Review on Intelligent Social Networking Algorithms and Their Effects on Predicting the Adequacy of Renewable Energy Sources via Social Media," 2024 Second International Conference on Smart Technologies for Power and Renewable Energy (SPECon), Ernakulam, India, 2024, pp. 1-6, doi: 10.1109/SPECon61254.2024.10537390.

39. D. Gowda G and T. U, "Thermoelectric Simulation of a Microresistor Beam," 2019 Global Conference for Advancement in Technology (GCAT), Bangalore, India, 2019, pp. 1-3, doi: 10.1109/GCAT47503.2019.8978310.
40. A. S. Bale et al., "Advancements of Lab on Chip in Reducing Human Intervention: A Study," 2021 3rd International Conference on Advances in Computing, Communication Control and Networking (ICAC3N), Greater Noida, India, 2021, pp. 38-42, doi: 10.1109/ICAC3N53548.2021.9725466.
41. Kharlamov, A. A., and M. A. Pilgun. "Cognitive Studies in the Interpretation of Social Media Data: TextAnalyst and ChatGPT." Pattern Recognition and Image Analysis 34.3 (2024): 597-609.
42. Liu, Xin-Qiao, and Zi-Ru Zhang. "Potential use of large language models for mitigating students' problematic social media use: ChatGPT as an example." World Journal of Psychiatry 14.3 (2024): 334.
43. Cohen, Maayan, et al. "ChatGPT in the public eye: Ethical principles and generative concerns in social media discussions." New Media & Society (2024): 14614448241279034.