

The Use of Artificial Intelligence (AI) in Academic Writing and Publishing Papers

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Background

The discussion about the role of AI (artificial intelligence) in the wider society has been going on for over a decade. In many industry sectors, such as medicine, we have seen that AI programs can automate tasks, manage quality control, and increase efficiency. In academia, AI is becoming popular and is widely used. In social sciences, we have seen arguments that the increased use of AI in society will result in deskilling and job losses. One could argue that AI will increase productivity, perform certain jobs more precisely and faster than humans ever could, and reduce the need for people to do boring, repetitive jobs. In short, the kind of arguments not dissimilar to the ones used at the time of the Industrial Revolution in the United Kingdom in the late eighteenth and early nineteenth century (Mokyr et al. 2015) or the introduction of robots in the industry in the late twentieth century (Dhillon et al., 2002).

More recently, we have seen rapid growth in the capability of AI tools in academia, such as ChatGPT, in the 2020s. This is due to the rapidly increasing capacity of machine learning, particularly Generative AI (GenAI), which is what ChatGPT is. This has increased public, media, and academic interest in the topic. Many non-technical people, including students, have been amazed by the enormous capabilities of ChatGPT to produce text equal to the average human-produced text (Simkhada et al., 2024).

Undoubtedly, the adoption of AI, especially amongst students and pupils, is also advancing rapidly in Nepal. This has been a concern for high school and university teachers. Furthermore, this issue becomes even more crucial in the field of academic writings and journal article publications. We, as editors and editorial board members of the Dhaulagiri Journal of Sociology and Anthropology (DJSA), see potential in the use of AI in research in our field, but at the same time, we do worry about its misuse in academic writing and publishing.

AI's Perception of Its Usefulness in Sociology

As a little experiment, we tested the usefulness of GenAI in sociology by asking for the free version of ChatGPT on August 29, 2024 (<https://chat.chatbotapp.ai/chats>). The following question was asked: 'What is the role of artificial intelligence in sociology?' The full answer we received is listed in Box 1.

The ChatGPT answer on the role of AI in sociology

ChatGPT

Artificial intelligence (AI) plays a significant role in sociology in various ways, enhancing both research and practical applications. Here are some key roles of AI in the field:

1. **Data Analysis and Interpretation:** AI tools can analyze large datasets, enabling sociologists to identify patterns and trends that might not be apparent through traditional analytical methods. This includes analyzing social media data, survey results, and demographic information.
2. **Predictive Modeling:** AI can help in predicting social trends and behaviors by using algorithms that analyze historical data. This can assist in understanding phenomena like migration patterns, crime rates, and public health issues.
3. **Natural Language Processing (NLP):** Sociologists can utilize NLP to analyze texts, interviews, and communication patterns. This helps in studying public opinion, sentiment analysis, and discourse analysis.
4. **Social Network Analysis:** AI algorithms can analyze social networks to uncover relationships and influences among individuals and groups. This is crucial for understanding social dynamics and the spread of information or behaviors.
5. **Surveys and Questionnaires:** AI can automate the design and distribution of surveys and can help in the real-time analysis of responses, leading to more efficient data collection processes.
6. **Simulation and Modeling:** AI can be used to create simulations of social interactions or movements within communities, allowing researchers to explore potential outcomes of social policies or changes.
7. **Ethics and Bias Analysis:** AI can help sociologists study and identify biases in data collection and analysis, fostering discussions about fairness, representation, and the consequences of AI on society.
8. **Enhancing Communication:** AI-powered tools can facilitate better communication and collaboration among researchers, helping to disseminate findings more effectively and engage with communities.

Overall, AI complements sociological research and applications by providing advanced tools for analysis, enhancing the understanding of complex social dynamics, and offering innovative methods to address social issues. However, the ethical considerations of using AI in sociology, including data privacy and algorithmic bias, are also crucial factors that sociologists must address.

Our first observation is how good the text in Box 1 looks regarding technical content, grammar, and style. In this editorial, we shall focus on point 8 ‘Enhancing Communication’ in Box 1. AI-powered tools can help write ‘better’ or clearer messages and do that faster than most humans can do so. Szandi (2024), in a blog promoting AI tools for journalists, refers to a program called Jasper, which she claims “can generate high-quality articles, reports, and summaries based on specific inputs, avoiding repetition, and adapt to tone and style instructions”. She argues that Jasper can help journalists produce content faster, hence “allowing them to focus on more complex investigative work” (Szandi, 2024). The equivalent argument in sociology and anthropology would be that an AI-writing tool would free up time for academics to do more thinking. Academics are known to use AI to improve their work's presentation rather than improving its academic content. It is not uncommon for non-native English speakers to draft the text they want to use and subsequently ask AI to ‘polish’ or improve the text into academic English. For example, the AI tool ‘Grammarly’ used to be a simple program to check your English grammar and style; however, with its AI-makeover it claims it can make your writing ‘more convincing’.

For journal editors, all this raises the question: “to what extent is the manuscript submitted by the author(s) their own work?” This is a question about plagiarism, portraying the work of others as your own. Our Dhawalagiri Journal of Sociology and Anthropology website makes it clear that “The Editor-in-Chief initially screens all manuscripts and checks for plagiarism through software (<https://plagiarismcheckerx.com> and <https://app.ithenticate.com/>) and at the very beginning and before online publication.” At the same time, DJSA checks the use of AI using premium GPTZero (<https://app.gptzero.me/app/ai-scan>). It shows percentages and the AI-generated text. DJSA provides a report to the author and if the report shows a high rate, we reject the paper. We have rejected two papers due to this reason. In academic publishing, the answer to the question ‘To what

extent can authors use AI?’ is unclear. One could rephrase this as a simple question: “Does using academic text generated by AI constitute academic misconduct?”; the more sophisticated question is likely to be: “Considering the widespread use of AI-writing tools, when is its use no longer appropriate?”

There are, of course, much larger societal issues related to the future of AI. In many ways, the AI devil is out of the box, raising serious questions for our future society. As Leslie and Meng (2024) put the following question: “Has the commercial race to bring generative AI tools to market (... OpenAI, Microsoft, Meta, and Google, among others) exposed a perilous gap between the accelerating pace of present-day technological expansion and the development of novel sociotechnical, ethical, legal, and regulatory vocabularies, which are sufficient to provide adequate responses to the basic practical questions that this expansion raises for the society of tomorrow?”

The Future of AI in Academic Publishing

This editorial is only the beginning of a debate that won’t be over soon. We need to remember that AI brings several advantages to social sciences in general and academic writing and publishing in particular. It also raises concerns about ethical access, and calls have been made to delconise AI (Adams 2021). It also requires everyone, authors and editors alike, to be constantly alert to the concept of plagiarism. Tools such as ChatGPT can also, as Omodan and Marongwe (2024) highlight, “be a transformative tool for inclusivity in publication spaces”. They also explore its potential to help further a delconised academic landscape for non-English native speakers whilst noting the challenges this presents. Some academic publishers are beginning to ask authors whether they have used AI tools in their writing. For example, the international publishing house Elsevier (2024) advises that “Authors should disclose in their manuscript the use of generative AI and AI-assisted technologies and a statement will appear in the published work. Declaring the use of these technologies supports transparency and trust between authors, readers, reviewers, editors, and contributors and facilitates compliance with the terms of use of the relevant tool or technology.” Elsevier (2024) adds further that “Authors should not list generative AI and AI-assisted technologies as an author or co-author, nor cite AI as an author. Authorship implies responsibilities and tasks that can only be attributed to and performed by humans.” Whilst the American Psychological Association (APA) considers AI as a transformative force. The results of a ChatGPT “chat” are not retrievable and hence cause challenges for verification and reproducibility. According to APA guidelines, data generated by AI models like ChatGPT doesn’t qualify as personal communication. However, the use of AI in research papers must be disclosed in the methods section and cited (APA, 2024).

In this editorial, we have made it very clear that the complete text in Box 1 is generated by AI. As the focus of this editorial is on questions raised by the potential use of academic writing, we feel this is appropriate. However, we would not be happy to see a text completely or largely produced by AI tools. AI should be used skillfully and with consideration to avoid misuse. Any use of AI should be done transparently, ethically, and professionally, and the authors should take full responsibility for the accuracy of the information.

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