

ChatGPT and the Death of an Author

Al Karim Datto

Sukkur IBA University, Pakistan

Kamran Akhtar Siddiqui

Sukkur IBA University, Pakistan

Abstract

This article seeks to critically explore the pedagogical implications of ChatGPT, especially on students' capacities to author a text. The article argues that increased reliance on ChatGPT may provide short-term solutions to produce a text, but in the long term, it is likely to lead to the 'death of an author.' Here the usage of the phrase is a twist to the earlier usage by Barthes, who refers to the 'death of an author' to imply that once the text is written, it gets re-created in readers' reception and through interpretive act and imagination. The overarching argument of this article emphasizes that technology is not neutral, especially in a context where its opacity has raised concerns about surveillance, control, and manipulation of human behavior, and therefore its infiltration in education begs critical questioning and sensitive evaluation. The rise of AI in education should not be embraced uncritically, rather it should be critically scrutinized, debated, and scaffolded through critical, theoretical, pedagogical, and ethical references to counter its hegemony and dehumanization of learning. For the empirical part, the analysis draws upon reflections generated through a focus group discussion with four undergraduate students enrolled in a Bachelor's degree in Computer Science, who employed ChatGPT to prepare their speeches in the context of a humanities course. The students found ChatGPT useful in terms of composing a text/speech and saving time and effort. However, they realized that its use caused them a loss of authentic learning, imagination, and identity or voice. Based on the analysis, the piece shares further insights into pedagogic implications, and suggest (suggests) a pedagogical scaffolding using critical pedagogical references of the relationship between technology and human/learners' values, the distinction between information, knowledge, and wisdom, application and experiential learning references, and praxis in learning.

Al Karim Datto is an Assistant Professor in the Department of Education at Sukkur IBA University. He is a sociologist of education and a trained educational ethnographer. He holds PhD in Sociology of Education from McGill University, Canada. His academic and professional practice (including international educational consultancy work) revolves around domains of policy sociology (analyzing education policy through a lens of SDG-4), educational evaluation, curriculum development (primary, secondary and tertiary levels), and teacher education in the global south.

Kamran Akhtar Siddiqui is a lecturer in English at Sukkur IBA University. He holds an M.Phil. in Education from Sukkur IBA University and an MA in English Literature from Shah Abdul Latif University, Khairpur. Based on his interest and specialization in Academic English: Writing from the University of California, USA, he mainly teaches writing courses on campus. His research interests include writing and English as a medium of instruction.

INTRODUCTION

The rise of AI in society in general and education, in particular, should not go unchecked nor be approached uncritically. This is, by no means, a resistance to technology as it is acknowledged that technology has a great potential to benefit society and humanity at large. Nevertheless, it has often been the case that technology over time gains dominance and control over human behaviors and actions. Set in the context of higher education, this paper offers a critical look at the increasing use of the ChatGPT. The paper invites a critical reflection by asking - is the use of ChatGPT in educational contexts likely to lead to a slow death of the author?

This rise in the role of Artificial Intelligence (AI) in education is seen as a continuation of the use of technology dating back to the first-generation computers. The term "Artificial Intelligence" (AI) was first introduced by John McCarthy in 1955.¹ In plain terms, AI is all about creating smart

machines or machines that act cleverly, almost like a human would.² One such AI machine is called a Chatbot. It is a computer program that talks to people by answering questions.³ Chatbots use Natural Language Processing (NLP) technology which helps a computer understand, study, and make sense of human languages, just like how people talk and write.⁴ In November 2022, OpenAI, a research institution specializing in the field of AI, introduced a conversational AI system named ChatGPT (Generative Pre-trained Transformer). In contrast to previous conversational AI models, ChatGPT is founded upon advanced GPT-3 architecture, which encompasses increased scale, substantially enlarged datasets, refined fine-tuning procedures, and the capacity to generate text output that is closely similar to human language.⁵

Research studies suggest that students in various fields use ChatGPT for collecting and summarizing information,⁶ research,

¹ Tufan Adiguzel, Mehmet Haldun Kaya, and Fatih Kürşat Cansu. "Revolutionizing Education with Ai: Exploring the Transformative Potential of Chatgpt." *Contemporary Educational Technology* 15, no. 3 (2023): ep429.

² John McCarthy. "From Here to Human-Level Ai." *Artificial Intelligence* 171, no. 18 (2007): 1174-82.

³ Fabio Clarizia, Francesco Colace, Marco Lombardi, Francesco Pascale, and Domenico Santaniello. "Chatbot: An Education Support System for Student." Paper presented at the *Cyberspace Safety and Security: 10th International Symposium, CSS 2018, Amalfi, Italy, October 29–31, 2018, Proceedings* 10, 2018.

⁴ Moneerh Aleedy, Eric Atwell, and Souham Meshoul. "Using Ai Chatbots in Education: Recent Advances

Challenges and Use Case." *Artificial Intelligence and Sustainable Computing: Proceedings of ICSISCET 2021* (2022): 661-75.

⁵ Tom Brown, Benjamin Mann, Nick Ryder, Melanie Subbiah, Jared D Kaplan, Prafulla Dhariwal, Arvind Neelakantan, et al. "Language Models Are Few-Shot Learners." *Advances in neural information processing systems* 33 (2020): 1877-901.

⁶ Noura Abouammoh, Khalid Alhasan, Rupesh Raina, Khalid A Malki, Fadi Aljamaan, Ibraheem Tamimi, Ruaim Muaygil, et al. "Exploring Perceptions and Experiences of Chatgpt in Medical Education: A Qualitative Study among Medical College Faculty and Students in Saudi Arabia." *medRxiv* (2023): 2023.07.13.23292624.

and personalized learning.⁷ Chatbots have also been used for language learning. They engage language learners, develop their language skills, and support them in maintaining their motivation.^{8 9} Specifically, ChatGPT helps writers write more quickly, create outlines, add information, enhance their writing style,¹⁰ and get feedback on grammar, style, and coherence.¹¹ ChatGPT can also be used to help language learners improve their communication abilities.¹² It scaffolds the learning process by acting as a partner in language practice and suggesting tasks for more language use. Despite the fact that ChatGPT can perform various functions such as language translation, text summarization, question answering, and content creation,¹³ its role in academics is debatable.

One concern that the use of ChatGPT in education has raised is that of Digital Divide.

The term "digital divide" refers to the disparity in telecommunications access and Internet usage between people from different socio-economic backgrounds. This divide can be observed at three levels: 1) connection to the internet, 2) use of the technology, and 3) impact of the technology.¹⁴ Since students from low-income or rural backgrounds lack access to technology or internet connectivity, they cannot take full advantage of distance learning¹⁵ powered by AI. Such students also lack motivation and interaction (ibid). So, those learners and workers who have access to the internet and its usage gain value while others who don't may become obsolete as a result of the AI paradigm shift.¹⁶ This resonates with Aldous Huxley's argument in "Science, Liberty and Peace" that science and technology are accelerating disparities and endangering the peace and freedom of human society.¹⁷

⁷ Rehan Ahmed Khan, Masood Jawaaid, Aymen Rehan Khan, and Madiha Sajjad. "Chatgpt-Reshaping Medical Education and Clinical Management." *Pakistan Journal of Medical Sciences* 39, no. 2 (2023): 605.

⁸ Lucas Kohnke. "L2 Learners' Perceptions of a Chatbot as a Potential Independent Language Learning Tool." *International Journal of Mobile Learning and Organisation* 17, no. 1-2 (2023): 214-26.

⁹ Pavel Smutny, and Petra Schreiberova. "Chatbots for Learning: A Review of Educational Chatbots for the Facebook Messenger." *Computers & Education* 151 (2020): 103862.

¹⁰ Jingshan Huang, and Ming Tan. "The Role of Chatgpt in Scientific Communication: Writing Better Scientific Review Articles." *American Journal of Cancer Research* 13, no. 4 (2023): 1148.

¹¹ Mohammad Aljanabi, Mohanad Ghazi, Ahmed Hussein Ali, and Saad Abas Abed. "Chatgpt: Open Possibilities." *Iraqi Journal For Computer Science and Mathematics* 4, no. 1 (2023): 62-64.

¹² Wagdi Rashad Ali Bin-Hady, Abdu Al-Kadi, Abduljalil Hazaea, and Jamal Kaid Mohammed Ali. "Exploring the Dimensions of Chatgpt in English

Language Learning: A Global Perspective." *Library Hi Tech* (2023).

¹³ Tufan Adiguzel, Mehmet Haldun Kaya, and Fatih Kürşat Cansu. "Revolutionizing Education with Ai: Exploring the Transformative Potential of Chatgpt." *Contemporary Educational Technology* 15, no. 3 (2023): ep429.

¹⁴ Al Karim Dattoo. "Digital Divide and Social Inequalities: Sociological Perspectives on Technology and Education." In *Innovative Education Technologies for 21st Century Teaching and Learning*, 191-98: CRC Press, 2021.

¹⁵ David Baidoo-Anu, and Leticia Owusu Ansah. "Education in the Era of Generative Artificial Intelligence (Ai): Understanding the Potential Benefits of Chatgpt in Promoting Teaching and Learning." *Journal of AI* 7, no. 1 (2023): 52-62.

¹⁶ Sunder Ali Khowaja, Parus Khuwaja, and Kapal Dev. "Chatgpt Needs Spade (Sustainability, Privacy, Digital Divide, and Ethics) Evaluation: A Review." *arXiv preprint arXiv:2305.03123* (2023).

¹⁷ Aldous Huxley. "Science, Liberty and Peace." *Chatto & Windus London*, 1947.

In addition, the use of ChatGPT in education is influencing human values. Humanity is being re-engineered by technology in a variety of ways, including how it affects human capabilities and how it shapes and forms our shared commitments to values, beliefs, and ideas.¹⁸ According to an ancient Greek myth, the god-like powers of technology (called *Techne*) were stolen from gods who in return punished the perpetrators by sending evil to the earth. It was argued in ancient Greece that one who possessed *Techne* must be socially responsible. This notion of social responsibility bears great significance in the times of ChatGPT as it is quite challenging to discern between texts written by humans and by ChatGPT.¹⁹ Scholars like Yuval Noah Harari believe that “AI has hacked the operating system of human civilization” because it can form intimate relations with its users through conversations. And through that intimacy, it can influence the users’ opinions and viewpoints. Due to this ‘fake intimacy’ with AI, meaningful conversations are lost. Since language is an essential part of our culture, loss of language means loss of conversation and loss of cultural memory. Therefore, there is a great need to regulate AI tools.²⁰

¹⁸ Brett Frischmann, and Evan Selinger. *Re-Engineering Humanity*. Cambridge University Press, 2018.

¹⁹ Mirko Farina, and Andrea Lavazza. "Chatgpt in Society: Emerging Issues." *Frontiers in Artificial Intelligence* 6 (2023): 1130913.

²⁰ Yuval Noah Harari. "Yuval Noah Harari Argues That Ai Has Hacked the Operating System of Human Civilisation." *The Economist*, 2023.

²¹ Sim Monica Ariana. "Some Thoughts on Writing Skills." *Annals of the University of Oradea, Economic Science Series* 19, no. 1 (2010).

But more importantly, ChatGPT poses a threat to authentic learning. Scholars believe that the valuable skill of writing is at risk. Writing clearly is an important goal for all learners because it helps them to become independent, comprehensible, and fluent in their written communication.²¹ Therefore, students in high school and college are given a variety of writing assignments.²² Stephen Marche stated that essay assignments were used to train undergraduates to think critically, and conduct research. This tradition of humanistic pedagogy is “almost disrupted from the ground up”.²³ Likewise, scholars like Noam Chomsky stated that writing with ChatGPT is a “high-tech plagiarism” and “a way of avoiding learning”.²⁴ So, it is not just writing, but also other skills like critical thinking and problem-solving that are at risk.

Since a lot of research is being done to explore and explain the benefits of ChatGPT, very little attention has been paid to the fact that ChatGPT is leading to the death of authorship among students in higher education. As Roland Barthes argues in his essay ‘The Death of the Author,’ once a text is written, the author is dead because the interpretation of the text solely depends

²² Nicholas Hunt-Bull, and Helen M Packey. "Doing Assessment as If Teaching Matters: Changing the Assessment Culture in an Academic Division." *Assessment* update 19, no. 6 (2007): 1.

²³ Stephen Marche. "The College Essay Is Dead." In *The Atlantic*. USA, 2022.

²⁴ Colin Marshall. "Noam Chomsky on Chatgpt: It's 'Basically High-Tech Plagiarism' and 'a Way of Avoiding Learning'." edited by Open Culture, 2023.

upon the reader.²⁵ But what if the text is not written by a human author instead it is reproduced by an AI tool? Therefore, we aim to study how the use of ChatGPT is causing the death of authoring a text among students in higher education in Pakistan.

METHODOLOGY

Context

The present research study is conducted in a public sector university in Pakistan. This research site was chosen mainly for two key reasons. First, the university is a state-of-the-art university with advanced facilities for teachers and students alike. It offers degree programs in various disciplines such as Mathematics, Education, Business Administration, Electrical Engineering, Computer Science and others. Because of the exposure to technological advancement in the world, the students are well aware of new gadgets and tools. Likewise, students' awareness of ChatGPT was a key reason. Therefore, the site provided a solid ground for yielding rich data. Second, the context was chosen because of ease of access for data collection.

Research Design

²⁵ Roland Barthes. "The Death of the Author." In *Readings in the Theory of Religion*, 141-45: Routledge, 2016.

²⁶ Ronald L Jackson, Darlene K Drummond, and Sakile Camara. "What Is Qualitative Research?". *Qualitative research reports in communication* 8, no. 1 (2007): 21-28.

²⁷ Bryan G Cook, and Lysandra Cook. "Research Designs and Special Education Research: Different

Using the interpretive lens, this study adopted a qualitative approach to investigate the death of authorship among the study participants. Since the qualitative approach mainly focuses on comprehending the experiences of human beings using a human-centered and interpretive method,²⁶ this approach is best suited for the purpose of this study. More specifically, a case study method was chosen because it allows researchers to deeply explore a phenomenon using one or more specific instances.²⁷ As described by Robert K. Yin, the case study approach is useful for understanding complicated subjects in their actual environments.²⁸

Sample and sampling technique

Four participants were purposively selected for this study. The participants came from a speech course in which the core aim for students was to write and deliver speeches. These four participants used ChatGPT at different points during the course for speechwriting. Their direct exposure to and interaction with ChatGPT for doing academic tasks made them useful for this study. Therefore, these students were purposively selected for the research with their prior consent. Purposive sampling is used to better match the sample to the objectives of a study.²⁹

Designs Address Different Questions." *Learning Disabilities Research & Practice* 31, no. 4 (2016): 190-98.

²⁸ Robert K Yin. *Case Study Research and Applications*. Sage, 2018.

²⁹ Steve Campbell, Melanie Greenwood, Sarah Prior, Toniele Shearer, Kerrie Walkem, Sarah Young, Danielle Bywaters, and Kim Walker. "Purposive Sampling: Complex or Simple? Research Case Examples." *Journal of research in Nursing* 25, no. 8 (2020): 652-61.

Data collection tools and procedure

Focus group discussion was used as a tool to collect data from the research participants. Focus group discussions are distinguished by an interviewing approach that promotes a range of perspectives on the subject under discussion for the group. A focus group discussion is an organized, facilitated conversation about a particular subject.³⁰ Focus group discussions typically involve gathering four to ten respondents to talk about the research topic in a group setting.³¹

In order to collect data, the participants were contacted separately and in person. They were briefed about the research aims, and after their oral consent, were invited to the interview room the next day. Once again, before the start of the focus group discussion, they were briefed about the research aims and assured of complete confidentiality. Once they felt relaxed after the casual conversation, the discussion was started and it was recorded on a smartphone. The participants were given free choice to share their thoughts in either English or Urdu (national language) or Sindhi (regional language). However, all participants spoke in Urdu with occasional use of English and Sindhi.

Data Analysis

³⁰ Hom Bahadur Basnet, "Focus Group Discussion: A Tool for Qualitative Inquiry." *Researcher: A Research Journal of Culture and Society* 3, no. 3 (2018): 81-88.

³¹ Jane Ritchie, Jane Lewis, Carol McNaughton Nicholls, and Rachel Ormston. *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. sage, 2013.

Since the data was in Urdu, it was translated and transcribed into English. Thematic analysis technique was used to make meaning out of the data. It is the most popular qualitative method for analyzing qualitative data.³² In this regard, iterative steps laid down by Braun and Clarke were followed.³³

(1) Familiarizing with the data (2) Generating codes (3) Constructing themes (4) Reviewing potential themes (5) Defining and naming themes (6) Producing the report.

FINDINGS

The findings of the data revealed that students are using ChatGPT for short-term gains. However, they are aware of the long-term loss due to the frequent use of the AI tool. Specifically, the students found ChatGPT useful because it plays multiple roles and saves time and effort. However, the participants admitted that increased reliance on ChatGPT may lead to de-skilling them to write an original and authentic text in the long run.

Single Tool, Multiple Roles

Although ChatGPT is mostly used to generate texts, students used the tool for a variety of purposes. ChatGPT helped them a great deal right from topic selection to creating the outline and building connections between the ideas. Since students were

³² N Judger. "The Thematic Analysis of Interview Data: An Approach Used to Examine the Influence of the Market on Curricular Provision in Mongolian Higher Education Institutions." *Hillary place papers* 3 (2016).

³³ Virginia Braun, and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative research in psychology* 3, no. 2 (2006): 77-101.

supposed to deliver a structured speech (introduction, body, and conclusion), the first step was creating its outline. Simran, in this regard, stated:

I also asked ChatGPT about the topics I should talk about. It gave me a lot of topics. If I do not like them, I can still ask it to give other topics. I tried it before, but it was not giving me the right topics. Then I told it that I have to do a 5-minute speech, and I have to talk about 3 majors [major points]. So, it was telling me the topics and 3 majors. I was giving it each major and it was telling me about 3 minors [for each major point]. It was also telling me about examples that I should talk about. It also guided me to use anecdotes according to my own experience.

This shows that students used ChatGPT at every step of the process- from topic selection to finding details. Although the responses it produced initially were general, its later responses were customized with clear instructions given by the user.

Apart from using the chatbot as a text-generating tool, students also used ChatGPT as a paraphrasing tool. For example, Simran further added:

I wrote those anecdotes myself and it changed the language for me.

Not only this but also students used the AI tool to create a connection between the

ideas and summarize them at the end of a speech. Habib pointed out:

And transitions, internal summary, internal preview that also if we are not adding [to the speech] right then we were asking it and it was writing all of it.

Students' use of this tool for multifarious purposes is an indication that they have learned to manipulate the tool to their advantage. However, the situation also points out students' growing dependency on the tool for every minor task involved. This poses a risk to their research, language, and organization skills.

ChatGPT as a time-and-effort saver

Another important finding was the students' perception of ChatGPT as a time-and-effort saver. They believed that looking up an answer on the internet takes way more time than ChatGPT, especially when it comes to researching a topic. Usama, for example, said:

If we ask it [ChatGPT], it will tell us in a minute. For example, I had to perform a particular task in a project. I searched a lot on the internet, but I did not find it. Finally, I asked ChatGPT once only and it told me.

On the one hand, the chatbot economizes on time, and on the other hand, it reduces effort to a great extent. Students reported that ChatGPT saved a lot of painstaking work that they needed to do an assigned task. Regarding one of the speech writing tasks, participant Akbar stated:

I would have to research. I would have to ask other people ... who know about the advantages and disadvantages [of social media]. It would be a time-consuming process. I would have to write it down. Like we do in interviews, I would have to ask a lot of people and get a lot of data after doing a lot of research. But I told ChatGPT to give me data according to people's experience, by adding testimonies, [and] it gave me all the data in two minutes, which I think would have taken a day or two to collect.

Despite the fact that ChatGPT saved a lot of time and effort, it cost students experience of the process of the task, particularly in the case of Akbar. He got the speech without any hassle but missed out on the learning through the process. Moreover, it can be deduced from the quotes above that a student's use of ChatGPT depends on their agency – whether he/she uses the tool merely for research purposes or getting the whole text written.

Shift in students' roles: From writers to command-givers

As a result of the use of ChatGPT, there is a huge shift coming (or has already come) in the students' roles in academia. In the wake of this AI tool, students are turning into command-givers from being actual writers of a text. Sharing his practice, Habib said:

Sir gave us an outline [for speech]...I gave the outline of the topic [to ChatGPT] and told that this is the outline and [also] wrote what I had edited in it. I told it to find errors in the outline and [asked ChatGPT] to fill in all the changes that are required or [fill columns which were] not filled and it filled them all.

The use of certain words such as 'gave' and 'told' is extremely important here. This reflects that the student is commanding the tool to do this or that instead of doing it on his own. Moreover, upon asking him the reason why he resorted to ChatGPT, Habib made a case for 'perfection' in his speech. He said:

In the speeches, I used ChatGPT for perfection. If I had done it all myself, there would have been mistakes for sure. So, I did a little myself such as getting a topic and outline, and then told ChatGPT.

This notion of 'perfection' also indicates that learners were doubtful of their abilities; resultantly, they found in ChatGPT an 'obedient servant' they delegated their work to. This delegation indicates that they were not willing to experience the painful process of becoming writers themselves.

During the focus group discussion, three of the four participants saw increased reliance on ChatGPT as a road to 'de-skilling' them to write an original and authentic text.

Loss of authentic learning

The actual purpose of doing these courses in higher education is learning. However due to the uninformed use of ChatGPT, students are en route loss of authentic learning. Participants themselves admitted that their frequent use of ChatGPT is causing them a gradual loss of some valuable academic and professional skills. Akbar, whose speech was related to social media, said:

I worked on social media and its advantages...if I didn't know about it, I would have to research. I would have to ask other people ... who know about the advantages and disadvantages [of social media]. It would be a time-consuming process. I would have to write it down. Like we do in interviews, I would have to ask a lot of people and get a lot of data after doing a lot of research. But I told ChatGPT to give me data according to people's experience, by adding testimonies, [and] it gave me all the data in two minutes, which I think would have taken a day or two to collect.

But what happened with this is that my capabilities were reduced as a student...My interviewing skills would have increased, my knowledge would have increased. Because when I would do research, it was not

just a specific opinion that I was getting.

It can be deduced from this participant's quote that just because of saving time and effort, he got all things from ChatGPT. Ultimately, he got the product (written speech) but could not get the necessary skills such as socializing, interviewing, managing data, and finally writing. His knowledge remained restricted to the knowledge 'doled out' to him by ChatGPT.

A hedge around imagination

Another important skill at risk is students' imaginative power. Imagination is indispensable for clear writing, and students cannot produce captivating texts without it. Participants of the study highlighted that frequent use of ChatGPT is putting barriers to their imagination. They are unable to think beyond a certain limit. Simran, for example, pointed out:

In the first semester, we were told to write major points in paragraphs. We used to choose the major points ourselves because there was no such thing as ChatGPT. We were trained to write a lot of points and we used to choose the best ones. We used to choose minor [points] on our own. So, when we were taking exams, it was not so difficult. But now that we have ChatGPT...if we are writing about social media...we are directly telling ChatGPT to give us any three advantages. As I said before, it is giving us three advantages. I am not even

thinking about what the advantages could be [beyond those three] ...If I am writing in [exam] paper, it will be very tough for me to write [all] by myself.

Simran's quote shows that previously the students would 'think' or 'brainstorm' ideas without any limit, and then they would choose the best ones from the list for their write-ups. However, after the arrival of the AI chatbot, students - in Simran's words - are 'telling ChatGPT to give ... any three advantages.' This indicates that students are not even 'brainstorming', let alone using imaginative powers. Hence, without imagination, their writing is mere reproduction, not the production of a text. The above findings showed that despite the use of ChatGPT, the participants were critical of its use as they admitted its side effects on their learning in the long-run. Given their ability to think critically, the researchers gave the participants a hypothetical question. The question was: Who would be the best author for writing their life stories - they themselves, ChatGPT or a blend of both? The discussion that follows emerged from the answers to this question.

Lack of Actuality

Responding to the researchers' prompt about personal writing mentioned above, participants shared that the texts produced by ChatGPT cannot represent their 'actual voice filled with pain and empathy'. Simran stated:

It (ChatGPT) won't produce right; it (text generated by

ChatGPT) will not be according to our feelings. It will be less realistic. Even if it is writing, it doesn't look good. The points I want to talk about will be different from the ones it (ChatGPT) talks about.

Hinting at the contextual importance and emotional appeal of a text, Habib said:

Those feelings, that pain will not be there or that location will not be there...the style of telling will make a big difference.

This indicates that the chatbot, despite its capability to produce huge amounts of texts, cannot produce contextualized texts encompassing 'actual' events.

To expand on the discussion, students were asked another hypothetical question. The question was whether they would be able to think critically (as they were doing then) and produce a text if they had used ChatGPT right from school.

The answer to this question was unanimous and very interesting.

Self's voice

Responding to the question mentioned above, participants reported that they would not have gotten their 'voice' if they had used ChatGPT since childhood. One of the purposes of education is to help students develop their 'voice' by making them think. And their thinking is being limited by the use of ChatGPT, as mentioned above. Students' responses in this regard were short and straightforward.

Habib said: It [voice] would have been suppressed.

Akbar said: It [voice] would not have come out.

Simran said: It [voice] would not have started even.

Students' responses to this question indicate that the participants would not have their 'voice' if they had used the tool since school. They were reflective of their 'voice' under threat.

In addition to these insights from research participants, we got a unique viewpoint during our discussion with the participants. The viewpoint can help the users to use the AI chatbot critically and consciously.

A critical and conscious approach to ChatGPT

Three of the four participants were unanimous in their views about the risk ChatGPT poses to learning. However, one of the four participants advocated the use of ChatGPT as an aide. This idea can help strike a balance between the threats posed by ChatGPT and its effectiveness. Usama said:

I have limited knowledge. I have limited data. [If] I ask ChatGPT to write it, it will write it...but it will be according to the chatbot. It will not be my writing. But if I write with the help of ChatGPT, then what will happen? What I want to write will also be there. And the extended data that it has, that will also be included in it.

Adding further to this point of human limitations and human interventions, Usama added an example. He said:

ChatGPT has vast knowledge. It has more [knowledge] than I have...I have seen a lot of Marvel franchises. When I write [any such work], it will have a lot of favoritism. ChatGPT will not add favoritism. It will be unbiased.

This point is of crucial importance as it acknowledges the strengths of ChatGPT and its threats posed by its overuse. This conscious approach helps to overcome human limitations in writing a text while keeping the 'writer's voice' intact.

Discussion

The above findings reveal several advantages and discontents of the use of ChatGPT in language acquisition and learning; especially learning how to write-becoming a writer/author.

With regard to the seeming benefits of ChatGPT, students found it attractive for search and composition speed, its capacity to organize information, linguistic expressions, style versatility, and so forth. These aspects of produced 'text' seem to have saved efforts, and time, in preparing assignments and assessment tasks. The notion of speed is highly valued. This is perceived as a mark of efficiency in education, often conveyed through the culture of assessment. This desire to produce within a controlled time setting is often perpetuated by technical rationality and ways of assessment. These rhythms of 'productions of text' suit the rhythms of a neo-liberal consumer economy where the speed of production yields both numbers which in turn have implications on profits.

Valuing the speed of producing text, we argue that the space and attitude to reflect on reality, context, and information are compromised even though such space and attitude are highly important for cognitive processing. The learning happens not only on experience/information but on reflection of the experience.³⁴

Such a practice becomes mechanical, and command-centered, resulting in the development of a clerical and patterned mind-set instead of reflective and authentic learners. Act of original writing which is authentic writing faces a blank slate inviting the author to create and write something out of 'nothingness' as it were. This fascinating challenge stimulates a cognitive and imaginative process which then can lead to the articulation of human thought. As shown in the responses, the so-called text production through ChatGPT robs away this authentic encounter that can create a thrill, emotional spark, and intellectual satisfaction. It is therefore purported that, the use of ChatGPT robs away autonomy and agency of the learner-author alienating the very learner from the process of owning and identifying with the written text. The delinking of the self of the learner in the process of creating writing is a great loss for the future of cognitive human development.

The use of ChatGPT, unless tied with pedagogic logic, appears to help with

'remembering' or 'recalling' the archived data. Hence, it creates a gap in applying, analyzing, evaluating, and creating – which, according to Bloom's taxonomy are higher-order thinking skills for the cognitive development of the learner.³⁵

Furthermore, chatbots like ChatGPT use archived information (the language model stores) which is 'memory', the past, and that archived information is de-contextualized from the present situationality of the learner and his/her context. The text thus produced 'belongs to multiple, scattered, 'other' places and spaces' – creating an illusion of discourse about a particular reality or a phenomenon (as it were). Its retrieval source is everywhere- and therefore nowhere (in particular). This is alienation of the context of the learner, and hence double alienation takes place- alienation of the learner, and the context of her learning.

The language model (Chat GPT) retrieves the data from the memory. The memory is about the past of the past, and hence cannot substitute nor address the current lived experiences which form the realities. Therefore, the present-ness of the self and the world, and the self-relationship with the world is fractured, and hence there is a retardation of subjectification- learner-subject relationship with the self and with the world.³⁶ The past becomes the deterministic knowledge grid to 'read' the world. Hence, there is a disconnection

³⁴ John Dewey. *Experience and Nature*. Vol. 471: Courier Corporation, 1958.

³⁵ Benjamin S Bloom, Max D Engelhart, Edward J Furst, Walker H Hill, and David R Krathwohl. *Taxonomy of Educational Objectives: The Classification of*

Educational Goals. Handbook 1: Cognitive Domain. McKay New York, 1956.

³⁶ Gert Biesta. "Risking Ourselves in Education: Qualification, Socialization, and Subjectification Revisited." *Educational Theory* 70, no. 1 (2020): 89-104.

between the reading the world and reading of the word,³⁷ where the 'word' and 'world' of the learner-reader-author are misaligned.

Given the above implications which point to the loss of learner-author autonomy, agency and the learner's alienation from the very act of writing which is a creation of knowledge, we propose that the use of ChatGPT needs critical pedagogical scrutiny and necessary theoretical companion of praxis. Praxis is a reflection and action³⁸ with the purpose to transform the experience/situation/process of learning (in this case) so that the tool doesn't slave the master (human), but can be regulated by the education system and society³⁹. The participants of this study were university undergraduate students. It could be argued that having reached tertiary education, one could be well-equipped to use the AI or ChatGPT to enhance research resources and some structuring, but critical awareness should be a necessary companion. For this, we propose praxis-information literacy merits policy and pedagogical consideration. In this regard, it is emphasized that praxis (critical reflection and action) can awaken consciousness in students which can help them to distinguish between mechanization/automation in the authoring of a text (as is the case with ChatGPT). In the long run, this consciousness can alleviate the

'authorlessness' caused by the current reliance on technology.

As Elif Shafak remarks 'We live in an age in which there is too much information, less knowledge, and even less wisdom. That ratio needs to be reversed. We definitely need less information, more knowledge, and much more wisdom'.⁴⁰

³⁷ Paulo Freire. "Reading the World and Reading the Word: An Interview with Paulo Freire." *Language arts* 62, no. 1 (1985): 15-21.

³⁸ Freire, Paulo. "Pedagogy of the oppressed (revised)." *New York: Continuum* 356 (1996): 357-358.

³⁹ Ivan Illich and Anne Lang. "Tools for conviviality." (1973).

⁴⁰ Elif Shafak. *How to Stay Sane in an Age of Division: The Powerful, Pocket-Sized Manifesto*. Profile Books, 2020.

References

- Abouammoh, Noura, Khalid Alhasan, Rupesh Raina, Khalid A Malki, Fadi Aljamaan, Ibraheem Tamimi, Ruaim Muaygil, *et al.* "Exploring Perceptions and Experiences of Chatgpt in Medical Education: A Qualitative Study among Medical College Faculty and Students in Saudi Arabia." *medRxiv* (2023): 2023.07.13.23292624.
- Adiguzel, Tufan, Mehmet Haldun Kaya, and Fatih Kürşat Cansu. "Revolutionizing Education with Ai: Exploring the Transformative Potential of Chatgpt." *Contemporary Educational Technology* 15, no. 3 (2023): ep429.
- Aleedy, Moneerh, Eric Atwell, and Souham Meshoul. "Using Ai Chatbots in Education: Recent Advances Challenges and Use Case." *Artificial Intelligence and Sustainable Computing: Proceedings of ICSISCT 2021* (2022): 661-75.
- Aljanabi, Mohammad, Mohanad Ghazi, Ahmed Hussein Ali, and Saad Abas Abed. "Chatgpt: Open Possibilities." *Iraqi Journal For Computer Science and Mathematics* 4, no. 1 (2023): 62-64.
- Ariana, Sim Monica. "Some Thoughts on Writing Skills." *Annals of the University of Oradea, Economic Science Series* 19, no. 1 (2010).
- Baidoo-Anu, David, and Leticia Owusu Ansah. "Education in the Era of Generative Artificial Intelligence (Ai): Understanding the Potential Benefits of Chatgpt in Promoting Teaching and Learning." *Journal of AI* 7, no. 1 (2023): 52-62.
- Barthes, Roland. "The Death of the Author." In *Readings in the Theory of Religion*, 141-45: Routledge, 2016.
- Basnet, Hom Bahadur. "Focus Group Discussion: A Tool for Qualitative Inquiry." *Researcher: A Research Journal of Culture and Society* 3, no. 3 (2018): 81-88.
- Biesta, Gert. "Risking Ourselves in Education: Qualification, Socialization, and Subjectification Revisited." *Educational Theory* 70, no. 1 (2020): 89-104.
- Bin-Hady, Wagdi Rashad Ali, Abdu Al-Kadi, Abduljalil Hazaea, and Jamal Kaid Mohammed Ali. "Exploring the Dimensions of Chatgpt in English Language Learning: A Global Perspective." *Library Hi Tech* (2023).
- Bloom, Benjamin S, Max D Engelhart, Edward J Furst, Walker H Hill, and David R Krathwohl. *Taxonomy of Educational Objectives: The Classification of Educational Goals. Handbook 1: Cognitive Domain.* McKay New York, 1956.
- Braun, Virginia, and Victoria Clarke. "Using Thematic Analysis in Psychology." *Qualitative research in psychology* 3, no. 2 (2006): 77-101.
- Brown, Tom, Benjamin Mann, Nick Ryder, Melanie Subbiah, Jared D Kaplan, Prafulla Dhariwal, Arvind Neelakantan, *et al.* "Language

- Models Are Few-Shot Learners." *Advances in neural information processing systems* 33 (2020): 1877-901.
- Campbell, Steve, Melanie Greenwood, Sarah Prior, Toniele Shearer, Kerrie Walkem, Sarah Young, Danielle Bywaters, and Kim Walker. "Purposive Sampling: Complex or Simple? Research Case Examples." *Journal of research in Nursing* 25, no. 8 (2020): 652-61.
- Clarizia, Fabio, Francesco Colace, Marco Lombardi, Francesco Pascale, and Domenico Santaniello. "Chatbot: An Education Support System for Student." Paper presented at the Cyberspace Safety and Security: 10th International Symposium, CSS 2018, Amalfi, Italy, October 29-31, 2018, Proceedings 10, 2018.
- Cook, Bryan G, and Lysandra Cook. "Research Designs and Special Education Research: Different Designs Address Different Questions." *Learning Disabilities Research & Practice* 31, no. 4 (2016): 190-98.
- Datoo, Al Karim. "Digital Divide and Social Inequalities: Sociological Perspectives on Technology and Education." In *Innovative Education Technologies for 21st Century Teaching and Learning*, 191-98: CRC Press, 2021.
- Dewey, John. *Experience and Nature*. Vol. 471: Courier Corporation, 1958.
- Farina, Mirko, and Andrea Lavazza. "Chatgpt in Society: Emerging Issues." *Frontiers in Artificial Intelligence* 6 (2023): 1130913.
- Freire, Paulo. "Reading the World and Reading the Word: An Interview with Paulo Freire." *Language arts* 62, no. 1 (1985): 15-21.
- Freire, Paulo. "Pedagogy of the oppressed (revised)." *New York: Continuum* 356 (1996): 357-358.
- Frischmann, Brett, and Evan Selinger. *Re-Engineering Humanity*. Cambridge University Press, 2018.
- Harari, Yuval Noah. "Yuval Noah Harari Argues That Ai Has Hacked the Operating System of Human Civilisation." *The Economist*, 2023.
- Huang, Jingshan, and Ming Tan. "The Role of Chatgpt in Scientific Communication: Writing Better Scientific Review Articles." *American Journal of Cancer Research* 13, no. 4 (2023): 1148.
- Hunt-Bull, Nicholas, and Helen M Packey. "Doing Assessment as If Teaching Matters: Changing the Assessment Culture in an Academic Division." *Assessment update* 19, no. 6 (2007): 1.
- Huxley, Aldous. "Science, Liberty and Peace." Chatto & Windus London, 1947.
- Illich, Ivan. "Deschooling Society." London, UK: Marion Boyars Publishers, Ltd., (1971).
- Illich, Ivan, and Anne Lang. "Tools for conviviality." (1973).
- Jackson, Ronald L, Darlene K Drummond, and Sakile Camara. "What Is Qualitative Research?". *Qualitative*

- research reports in communication 8, no. 1 (2007): 21-28.
- Judger, N. "The Thematic Analysis of Interview Data: An Approach Used to Examine the Influence of the Market on Curricular Provision in Mongolian Higher Education Institutions." *Hillary place papers* 3 (2016).
- Khan, Rehan Ahmed, Masood Jawaid, Aymen Rehan Khan, and Madiha Sajjad. "Chatgpt-Reshaping Medical Education and Clinical Management." *Pakistan Journal of Medical Sciences* 39, no. 2 (2023): 605.
- Khowaja, Sunder Ali, Parus Khuwaja, and Kapal Dev. "Chatgpt Needs Spade (Sustainability, Privacy, Digital Divide, and Ethics) Evaluation: A Review." *arXiv preprint arXiv:2305.03123* (2023).
- Kohnke, Lucas. "L2 Learners' Perceptions of a Chatbot as a Potential Independent Language Learning Tool." *International Journal of Mobile Learning and Organisation* 17, no. 1-2 (2023): 214-26.
- Marche, Stephen. "The College Essay Is Dead." In *The Atlantic*. USA, 2022.
- Marshall, Colin. "Noam Chomsky on Chatgpt: It's "Basically High-Tech Plagiarism" and "a Way of Avoiding Learning"." edited by Open Culture, 2023.
- McCarthy, John. "From Here to Human-Level Ai." *Artificial Intelligence* 171, no. 18 (2007): 1174-82.
- Ritchie, Jane, Jane Lewis, Carol McNaughton Nicholls, and Rachel Ormston. *Qualitative Research Practice: A Guide for Social Science Students and Researchers*. sage, 2013.
- Shafak, Elif. *How to Stay Sane in an Age of Division: The Powerful, Pocket-Sized Manifesto*. Profile Books, 2020.
- Smutny, Pavel, and Petra Schreiberova. "Chatbots for Learning: A Review of Educational Chatbots for the Facebook Messenger." *Computers & Education* 151 (2020): 103862.
- Yin, Robert K. *Case Study Research and Applications*. Sage, 2018.