Discussion on the Ethical Issues of AI-Assisted Language Teaching Based on the Framework of Philosophical Theory

Kangxi Li*

School of Foreign Studies, Hefei University of Technology, Hefei, 230601, China richardleo@hfut.edu.cn

Mengting Kong

School of Foreign Studies, Hefei University of Technology, Hefei, 230601, China

Abstract: The use of artificial intelligence has made the work of humans easier than before. It is possible to make faster and better decisions by having more samples and checking different conditions. Maybe in the last decade, it was a strange thing that artificial intelligence could win the world chess championship, but today, a large part of human decisions (both individually and collectively) are made with the help of artificial intelligence. But hasn't artificial intelligence made humans dumber? Now that we no longer have to think for ourselves, have we thought about how much we trust artificial intelligence? Can artificial intelligence be evil? And perhaps most importantly, are human models of thinking all transferable to intelligent robots? Or something human is involved. The more important question is whether human training by artificial intelligence is ethical. This research is done to investigate these issues.

Keywords: Artificial Intelligence, AI-Assisted Language, Ethical Issues, Intelligent Robot

1. INTRODUCTION

Self-driving cars do not drive drunk, and artificial intelligence used in medicine does not recognize fatigue. Given our obvious faults, then what do we humans do better? A five-year-old boy is helping his grandmother cook. He separates the biscuit pieces from the dough that his grandmother has prepared. He has no skills in this. So he instructs their family robot to do it for him, and although that robot has never done it before, it quickly learns how to do it and separates the biscuits from the dough efficiently. The grandmother is quite disappointed because she remembers from the bottom of her heart the days when her son, the same age as her grandson, used to make thin biscuits for her, with fingerprints left on the surface. His grandson will still use their robot to do such things and will grow up without the benefit of manual skills. When the boy's parents come home, she says, "Look, I made these biscuits for you." "Oh, how nice," says one parent. May I take one?" Another silently thinks to himself: "No, you didn't make these yourself, you little cheater!" Artificial intelligence (AI) may have

the potential to transform how we perform our tasks and value things (Davenport & Ronanki, 2018). Using artificial intelligence to think for us may weaken our thinking skills (Acemoglu & Restrepo, 2018; Goldfarb & Trefler, 2019; Puntoni et al., 2021). AI is currently weak and can only do specific and selected tasks (Dunjko & Briegel, 2018; Lu et al., 2018). Even when AI can do certain tasks as well as or better than humans, it does not necessarily achieve the desired results in the way humans do (Holmquist, 2017; Jarrahi, 2018). One of the tasks that AI can handle very well is sifting through masses of data at a very high speed. Using machine learning, an artificial intelligence trained with thousands of images can benefit from the ability to recognize a cat's image (which is a huge success considering how many cat images are flooding the internet). But humans do it in a very different way (Kallianos et al., 2019; Kapoor et al., 2019; Meskó & Görög, 2020). A human child can often identify cats after seeing just one example. Because AI may "think" in a different way than humans, and because of the general tendency to be overwhelmed by AI's charms, its use can transform the way we approach our tasks and the way we make decisions. The seductive charm that surrounds artificial intelligence depicts one of its dangers (Meyer et al., 2023; Schuster & Yamaguchi, 2011). Almost every article written about AI touts its powers, and even those about common AI applications are depicted with killer robots, much to the dismay of those working in the field (Dauvergne, 2022; Horowitz, 2018; Luusua, 2023). The influence of technology on the formation of our values is not a secret. The washing machine didn't just "replace" hand washing, it had a huge impact on the way we think about cleanliness, housework, and even the production of clothes. Since artificial intelligence is designed not only to help us do laundry but also to help us think and make decisions about countless unspecified tasks, we should seriously consider how it might transform our thoughts and behavior. Can artificial intelligence help us in education and is it ethical to use artificial intelligence at all? In some cases, artificial intelligence can help us improve our approach (Gobet & Sala, 2019; Salvagno et al., 2023). But in other cases, it can reduce or weaken our attitude toward important issues. It may even distort the way we think about values. Ignorance of changes and rapid adaptation to technology can mean that we are not fully aware of such transformations in our culture and values (Fitzgerald et al., 2014). For example, our attitudes towards privacy have changed dramatically with the massive technological transformations in how we communicate and how we share and process data. One of the most important things that has led to the advancement of artificial intelligence is the huge amount of data that is now available. Data, most of which is about ourselves and collected during our daily lives. Many people are extremely wary of the organizations that control our data, yet they still post large amounts of their personal information, information that was considered highly private just a few years ago. Research shows that people's concerns about the privacy of their information vary in different situations. This does not mean that technology is "alone" responsible for this happening because there are always other social transformations at work simultaneously. And maybe we are particularly unaware of the effects of some technologies because they strongly affect the way we look at the world (Rosenberg, 2009). The challenging part of AI is that it can act in ways that we are not fully aware of. It is useful to find patterns in how we communicate with each other, how we think, and how we explore the world. This is not an entirely new issue. The technologies related to writing, printing, and telephone have already changed the way we perceive and interact with the world and even our brains. But artificial intelligence can be even more powerful than these words. Algorithms in technologies through which we have access to countless data can shape the information we receive and even how we receive and react. This isn't just an unintended consequence of using AI, it's designed for that purpose. Technology is exploiting human psychology to shape the way we behave, often with the help of artificial intelligence. Mobile phones and social networks are designed based on research done in the field of psychology about creating addictive reactions to their use (Abel et al., 2016; Andreassen et al., 2016; Azizi et al., 2019; Kuss & Griffiths, 2011; Sahin, 2018; Schou Andreassen & Pallesen, 2014). However, it may also bring achievements in the field of education. Artificial intelligence may even create a common language for humans in the future. But it should be noted that it will destroy many jobs, especially language teaching. Artificial intelligence will be examined from the perspective of ethics

2. ADVANTAGES OF ARTIFICIAL INTELLIGENCE

Using artificial intelligence instead of human decisions has many advantages. For example, Paul Newman, an engineer at the Oxford Mobile Robotics Group has pointed out that learning from accidents in human-driven vehicles is a slow and complex process. Other humans cannot learn anything directly from either event, and even the human involved in the accident may learn very little or nothing at all. But when a self-driving car crashes, all the data about it can be immediately shared with all the other self-driving cars and used to reduce the likelihood of future crashes. This

aspect of artificial intelligence, the ability to share information like a collective mind and analyze data quickly and accurately, can be seen as a real improvement in our problem-solving ability. This ability has led to the current prosperity of artificial intelligence. In language teaching, artificial intelligence can solve many educational problems. But doesn't it destroy creativity? Humans fail in various ways to collect and analyze the data needed to make the right decisions and apply them. A self-driving vehicle is never ashamed to admit its mistakes, never stupid enough to refuse to put on its glasses while driving, never insists on driving when tired, and never refuses to take an advanced driving course. Overcoming bias, bias, and irrationality is one way to improve human decision-making, especially when it comes to values. Some of these biases and irrationalities include rejecting relevant information or failing to process it. Therefore, this model of using artificial intelligence to collect data is an advantage that we can use in our decisions. But such a conclusion may be hasty. Not all of our problems can be solved with a purely data-driven approach. Avoiding traffic accidents is good. Where what we do is mostly troubleshooting with the help of technology, it is a safety issue and its success rate is easily measured. The vehicle will either crash or not, and death and injuries can be determined. It is also very simple to measure near-accident events. But for problems that are not purely technical, it is not so obvious that a collective mind approach will always work. For example, consider language teaching, which is one of the most promising areas of artificial intelligence. While this profession is a science, it is also considered an art. In language teaching, science and technology are combined following values: learning values, good relationships with students, and person-centered care. autonomy in education, etc. Here we are not only looking for solving problems with the help of technology. The use of artificial intelligence in the diagnosis of many educational weaknesses can be promising, for example, it helps to interpret educational images by quickly examining a lot of data. The evidence suggests that artificial intelligence can notice subtle differences between images that are hidden from the human eye. But in addition, artificial intelligence can make gross mistakes that a human would never commit. So for now, it seems that combining artificial intelligence with human skills is the best option we have to improve the diagnosis of educational problems. So far, this is very good news.

3. DISADVANTAGES OF ARTIFICIAL INTELLIGENCE

There are very serious questions regarding the use of artificial intelligence

in language education. Consider medicine as a science. If AI constitutes a "repository for the collective minds of teachers", we must be very cautious before using it in a way that moves language teaching towards integrated professional thinking, as it may inhibit independent thinking and individual experience. Currently, there are different theoretical approaches to language teaching. If we could be certain that AI was merely improving our accuracy, then the integration of educational thought would be fine. But there is a danger that artificial intelligence will prematurely eliminate the options ahead of us or direct us toward certain educational paths. Instead of focusing on what is good for the student, this machine learning can be used to achieve specific goals or interests to reach the desired educational method (even instead of focusing on what is good for language teaching, it can be used to direct the education towards specific goals and interests). Think of language teaching as an art. A teacher must relate to his students as real people who have their own lives. Although artificial intelligence can help us achieve the goal of education in a better way, all things considered, for some students, teaching methods that have a lower chance of success are better choices. A purely data-driven approach cannot tell us this. And we must be careful not to let the power of technology make us too selfabsorbed. Because we already know that free and informed consent is difficult to obtain in practice and educational institutions affect the satisfaction of students. But due to the added attraction of technology and the secrecy of professional agreements, there is a danger that by adding the power of the language teaching profession to the added power of artificial intelligence, such a statement will become a reality that "the computer told me to use this word". The relationship between science and student is at the center of this profession and our understanding of medical ethics. But the use of artificial intelligence can slowly, or even radically, transform this issue. In particular, how we apply the ethically benevolent goals of using AI to improve language teaching requires careful consideration. The ability of artificial intelligence to manipulate and process vast amounts of data may lead us to unnecessarily favor data-driven approaches to solve problems and identify them, or make them the only approaches we have. This can lead to integrated thinking, even when we have reasons to benefit from diverse ways of thinking and approaches. Moreover, it can overshadow other factors and distort not only our way of thinking but also our values. How and by whom a decision is made and how and by whom an action is performed are critical issues in many situations; Especially when values are involved. The parent who was skeptical about whether or not his son made those biscuits himself was right. Maybe if it was a boy who designed and built that robot in the first place, his claim would have been more valid. The importance of these factors, as well as the potential importance of replacing human intelligence or supplementing it with artificial intelligence, varies from case to case. Consider using a jury. We all know that jurors make mistakes and sometimes give wrong answers. Algorithms are already helping US courts make sentencing or parole decisions based on data such as information on recidivism rates that ultimately differ significantly from the original sentence. There is a concern that this will consolidate existing prejudices against certain groups. But suppose we reach a point where putting all the available evidence into the hands of the computer leads to a more accurate verdict than a jury verdict. In such a case, the computer can combine and analyze all the data with speed, accuracy, and efficiency. Contrast this with the way a jury works, where people may have taken different notes about the case, remember different things about it, and even after hours of deliberation, still have different views on the evidence. The power of artificial intelligence in collecting and analyzing data allows us to reach the goal sooner by using many shortcuts. But this example easily shows that we need more than just making things right. Even if we arrive at a more accurate answer using a machine, we still have other reasons to value the different contributions of humans as language teachers or jurors. A critic might say that we only need AI because humans can make mistakes. The teaching profession cannot handle all the work alone, but we need accurate artificial intelligence to solve the problem and maybe over time we will leave our work to machines. But it is completely delusional to think that artificial intelligence does not affect human creativity. How and by whom a decision is made and how and by whom an action is performed are critical issues in many situations; Especially when values are involved. The parent who was skeptical about whether or not his son made those biscuits himself was right. Maybe if it was a boy who designed and built that robot in the first place, his claim would have been more valid. The importance of these factors, as well as the potential importance of replacing human intelligence or supplementing it with artificial intelligence, varies from case to case. Consider using a jury. We all know that jurors make mistakes and sometimes give wrong answers. Algorithms are already helping US courts make sentencing or parole decisions based on data such as information on recidivism rates that ultimately differ significantly from the original sentence. There is a concern that this will consolidate existing prejudices against certain groups. But suppose we reach a point where putting all the available evidence into the hands of the computer leads to a more accurate verdict than a jury verdict. In such a case, the computer can combine and analyze all the data with speed, accuracy, and efficiency. Contrast this with the way a jury works, where people may have taken different notes about the case, remember different things about it, and even after hours of deliberation, still have different views on the evidence. The power of artificial intelligence in collecting and analyzing data allows us to reach the goal sooner by using many shortcuts. But this example easily shows that we need more than just making things right. Even if we arrive at a more accurate answer using a machine, we still have other reasons to value the different contributions of humans as language teachers or jurors. A critic might say that we only need AI because humans can make mistakes. The teaching profession cannot handle all the work alone, but we need accurate artificial intelligence to solve the prover time passage of time we will leave our work to machines. But it is completely delusional to think that artificial intelligence does not affect human creativity.

4. CONCLUSION

The study conducted on the role of artificial intelligence in language education shows that artificial intelligence has many advantages in the field of education, including its special ability to share data to achieve a comprehensive view of things, its ability to help limit human biases, and its speed and efficiency in doing things. Artificial intelligence can increase human capacity in all these cases. But the important thing is that all these benefits must be weighed against our other values. Without this, the power of AI may overwhelm us and allow it to take over the responsibility of determining how we think about some of our most important values and activities.

5. ACKNOWLEDGEMENT

This research is supported by Anhui Provincial Philosophy and Social Sciences Planning Project (Grant No. AHSKY2022D223). Grant Recipient: Li Kangxi

References

Abel, J. P., Buff, C. L., & Burr, S. A. (2016). Social media and the fear of missing out: Scale development and assessment. *Journal of business & economics research*, 14(1). Acemoglu, D., & Restrepo, P. (2018). Artificial intelligence, automation, and work. In *The economics of artificial intelligence: an agenda* (pp. 197-236). University of Chicago

Press.

- Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of addictive behaviors*, 30(2), 252.
- Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between social networking addiction and academic performance in Iranian students of medical sciences: a cross-sectional study. *BMC psychology*, 7, 1-8.
- Dauvergne, P. (2022). Is artificial intelligence greening global supply chains? Exposing the political economy of environmental costs. *Review of International Political Economy*, 29(3), 696-718.
- Davenport, T. H., & Ronanki, R. (2018). Artificial intelligence for the real world. HBR'S 10 MUST, 67.
- Dunjko, V., & Briegel, H. J. (2018). Machine learning & artificial intelligence in the quantum domain: a review of recent progress. Reports on Progress in Physics, 81(7), 074001.
- Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2014). Embracing digital technology: A new strategic imperative. MIT sloan management review, 55(2), 1.
- Gobet, F., & Sala, G. (2019). How artificial intelligence can help us understand human creativity. *Frontiers in psychology*, 10, 1401.
- Goldfarb, A., & Trefler, D. (2019). Artificial intelligence and international trade. *The economics of artificial intelligence: an agenda*, 463-492.
- Holmquist, L. E. (2017). Intelligence on tap: artificial intelligence as a new design material. *interactions*, 24(4), 28-33.
- Horowitz, M. C. (2018). Artificial intelligence, international competition, and the balance of power (May 2018).
- Jarrahi, M. H. (2018). Artificial intelligence and the future of work: Human-AI symbiosis in organizational decision making. *Business horizons*, 61(4), 577-586.
- Kallianos, K., Mongan, J., Antani, S., Henry, T., Taylor, A., Abuya, J., & Kohli, M. (2019). How far have we come? Artificial intelligence for chest radiograph interpretation. *Clinical radiology*, 74(5), 338-345.
- Kapoor, R., Walters, S. P., & Al-Aswad, L. A. (2019). The current state of artificial intelligence in ophthalmology. *Survey of ophthalmology*, 64(2), 233-240.
- Kuss, D. J., & Griffiths, M. D. (2011). Online social networking and addiction—a review of the psychological literature. *International Journal of Environmental Research and Public Health*, 8(9), 3528-3552.
- Lu, H., Li, Y., Chen, M., Kim, H., & Serikawa, S. (2018). Brain intelligence: go beyond artificial intelligence. *Mobile Networks and Applications*, 23, 368-375.
- Luusua, A. (2023). Katherine Crawford: Atlas of AI: Power, Politics, and the Planetary Costs of Artificial Intelligence: Yale University Press (April 6, 2021). Hardcover, 336 pages, ISBN: 9780300209570. In: Springer.
- Meskó, B., & Görög, M. (2020). A short guide for medical professionals in the era of artificial intelligence. NPJ digital medicine, 3(1), 126.
- Meyer, J. J., Mularski, M., Gil-Fuster, E., Mele, A. A., Arzani, F., Wilms, A., & Eisert, J. (2023). Exploiting symmetry in variational quantum machine learning. *PRX quantum*, 4(1), 010328.

- Puntoni, S., Reczek, R. W., Giesler, M., & Botti, S. (2021). Consumers and artificial intelligence: An experiential perspective. *Journal of marketing*, 85(1), 131-151.
- Rosenberg, N. (2009). Uncertainty and technological change. In *The economic impact of knowledge* (pp. 17-34). Routledge.
- Sahin, C. (2018). Social media addiction scale-student form: the reliability and validity study. *Turkish Online Journal of Educational Technology-TOJET*, *17*(1), 169-182.
- Salvagno, M., Taccone, F. S., & Gerli, A. G. (2023). Can artificial intelligence help for scientific writing? *Critical care*, 27(1), 75.
- Schou Andreassen, C., & Pallesen, S. (2014). Social network site addiction-an overview. *Current pharmaceutical design*, 20(25), 4053-4061.
- Schuster, A., & Yamaguchi, Y. (2011). From foundational issues in artificial intelligence to intelligent memristive nano-devices. *International Journal of Machine Learning and Cybernetics*, 2, 75-87.