

Manuela Schmidt
Jönköping University

Supervisors' and PhD students' experiences of Artificial Intelligence (AI) in PhD education

Abstract for Research paper presentation

Supervisors' and PhD students' experiences of Artificial Intelligence (AI) in PhD education

Manuela Schmidta*, Sofia Kjellströma, and Maria Henricsonb

^a Department of Quality Improvement and Leadership, Jönköping Academy for Improvement of Health and Welfare, School of Health and Welfare, Jönköping University, Sweden;

^b Department of Caring Sciences, University of Borås, Borås, Sweden

* Manuela Schmidt, Jönköping University, Manuela.Schmidt@ju.se, +46 36 101296

Background:

AI's role in academic context has been debated for some years. Controversial aspects include student examination processes, effective utilization of AI as a learning tool without de-skilling, and defining legitimate research when AI handles fundamental scientific tasks (Lodge, Thompson and Corrin, 2023). Consensus in these questions is still lacking. Specifically, regarding research and PhD education, AI can be seen as revolutionary when it comes to writing manuscripts, conducting searches (Zou and Huang, 2023a), transcribing and analyzing data (Zou and Huang, 2023b) and eventually scientific journals' processes concerning publishing and peer-reviewing, all those aiming to increase the quality of research. But at the same time, if a computer makes all these tasks, what are the tasks that a PhD student needs to master to become a researcher?

Purpose:

A first step handling these challenges is to explore doctoral students' and supervisors' experiences of using AI in PhD education.

Methods:

An online survey was sent out in April 2024 to all PhD students and their supervisors who are registered at a research school within health science at a University of Southern Sweden. The survey consisted of mainly qualitative, open-ended questions concerning the experiences, perceived advantages and disadvantages of using AI and its impact on learning. Additional demographic background information (gender, age, experience of supervision and stage of PhD education respectively) were also collected. In total, 59 PhD students and 129 supervisors received the survey of which 17 answered within a week. However, the data collection is ongoing, and we are planning to include additional research schools at different universities. Qualitative data were analyzed using thematic analysis for short open answers in questionnaires (Robinson, 2022).

Preliminary results:

Our results show that both supervisors and PhD students use AI differently ranging from never to daily (mean=3,5; 1, 5). When AI is being used, it almost always concerns the improvement of the language and text production, such as translation, correction, proof-reading, summarizing, and hybrid-writing. PhD students and supervisors are mostly positive to the use of AI in PhD education yet point out the lack of guidelines to use it in a correct, transparent, and ethical way. Most of them are also concerned about the negative impact it might have

on learning leading to a trap of non-reflective and non-creative processes. Many of them have not at all or very briefly discussed the use of AI during supervision meetings leaving the PhD students without proper guidance in how to navigate correctly in this new landscape of research.

References:

- Lodge, J. M., Thompson, K., & Corrin, L. (2023). Mapping out a research agenda for generative artificial intelligence in tertiary education. *Australasian Journal of Educational Technology*, 39(1), 1-8.
- Robinson, O. C. (2022). Conducting thematic analysis on brief texts: The structured tabular approach. *Qualitative Psychology*, 9(2), 194.
- Zou, M., & Huang, L. (2023a). To use or not to use? Understanding doctoral students' acceptance of ChatGPT in writing through technology acceptance model. *Frontiers in Psychology*, 14, 1259531.
- Zou, M., & Huang, L. (2023b). The impact of *ChatGPT* on L2 writing and expected responses: Voice from doctoral students. *Education and Information Technologies*, 1-19.