Trust, but Verify:
Students’ Reflections on Using Artificial Intelligence in Written Assignments

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October 10, 2023
The ease of use and growing accessibility of AI chatbots make these applications appealing for students who often struggle with written home assignments.

Theoretical support by works that criticize the opacity and biases in search engines (see Haider & Sundin 2019; 2022) which have immersed into our everyday lives and social practices.

Mixed feelings about the usage of AI chatbots in education activities in universities’ administrations and among faculty members (Lepik 2023).

University of Tartu (UT) introduces its first version of "Guidelines for using AI chatbots in teaching" on April 28, 2023.
A story of information management students (at UT) using AI chatbots this winter*

A short literature review (SLR) in the course „Information Behavior Theories and Practices“

The requirements for the SLR:

• Length: a few pages
• Sources – 3 scholarly publications minimum
• Contents – an overview of one’s topic based on chosen sources
• References – APA style, citing sources with page precision, if necessary (Lepik 2023: 100)

About the condition of the presented SLR:

• The assignment did not need to be complete by the draft deadline
• But, to write the SLR, students needed to use some AI chatbot available at that time
• The assignment presented by the draft deadline needed to involve answers to reflection questions
Reflection questions
(some adapted from a similar intervention by Fyfe (2022))

1. Please name the AI chatbot that you used for this assignment!
2. Describe, what kind of prompts did you use when interacting to the AI chatbot.
3. How easy or not was it to write the SLR with the aid of artificial intelligence?
4. What worked well in your opinion? What seemed problematic when generating a text with the aid of artificial intelligence?
5. How did the AI-generated content affect your thoughts?
6. Considering the principles of information search you have learned so far, what was different when using the AI chatbot to write a SLR? Please explain these differences.
7. Considering the principles of information search you have learned so far, what was similar when using the AI chatbot to write a SLR? Please explain these similarities.
8. To what degree is this paper your writing?
9. Do you expect a reader would notice text produced by the artificial intelligence versus your own – what would help her in this case?
10. Would you use this tool again, and in what circumstances?
Sample and data analysis

Reflective assignments presented by 34 students, but 26 gave their explicit permission to use their assignments for scholarly purposes.

Thematic analysis (relativist perspective):

- Close reading
- Open coding (semantic level)
- Extracting the ‘key’ theme at the semantic level
- Drafting and refining the thematic map
- Writing the report*
Research questions guiding the study -> revised thematic map

How do students reflect upon the usability of AI chatbots in terms of searching, evaluating, and presenting information?

What are, from the point of view of the students, the benefits and problems related to using AI chatbots in the process of writing?
Results: „Trust, but verify“

A Russian proverb well-known in Estonia: even though someone can seem trustworthy, the information received from that person should be ‘taken with a grain of salt’

In current analysis involves the initial encounter, prompting with the AI, then the assessment of resources provided by the AI chatbot, and verification of the content, whereas the affective component during the process of interactions with the AI chatbot cannot be underestimated.
The first impression of most students

- Optimistic
  - As if asking a friend
  - It feels like a lifeline!
- The impression of smooth process
  - Simple user interface – Seems to work smoothly!
  - What worked well, in my opinion, was that the AI took immediate action. It was great to watch the text keep getting more and more added.
- Kratt ‘appears on the stage’
  - Initially, it seemed to me quite simple. ChatCPT seemed like a Kratt – give it a job, it does it.
Cautiousness creeps in, followed by doubts

- Fake references (18 students out of 26 mention hallucinations!)
- Opacity
  - During the experiment, it became clear pretty quickly that even if you give him materials in the form of links, when writing, artificial intelligence still uses the materials that it finds and wants.
  - When feeding it an already existing article, the content provided by the chatbot also might not be 100% true.
- The illusion of high-quality text
  - ... I also read the text more thoroughly and it seemed that this may not be true. I realized that the dangers of producing text with the help of artificial intelligence are complete ignorance of whether the written text is true, where the text was taken from, lack of references, etc.
  - At first, there was even a fairly good impression of the quality of the text, but as I delved into it, the AI claims were still quite superficial, and there seemed to be paradigm differences between the points of view of the treatment of the topic in different sentences.
Cautiousness creeps in, followed by doubts 2

- Danger of writing off the topic, AI chatbot providing very generic thoughts and repetitions
  - *AI was too broad at times and sometimes got very far off topic. Thus, there is a risk of writing off the topic in the summary using AI.*

- Quality of translation
  - *You also need to be extremely attentive to sentence constructions, as they tend to be specific to English.*

- To summarize: *... but to have all the work done and then present it to your own creation without editing it.. well you have to be complete idiot for that...*
Cautiously optimistic – Assessing resources and verifying the content

Cautiousness is needed because
• Little experience and contact with the topic make verifying the content harder
• Relevance is subjective
  • *Would I summarize the same points from the text?*
• Regarding resources – the problems with opacity (and other before-mentioned issues)
• It takes (unexpectedly) a lot of time to double-check
  • *This task seems rather difficult to me, as AI comes up with sources, and distinguishing truth from falsehood is quite complicated or time-consuming. If you feed an existing article, the content may not be 100% true either...*

But there are reasons to be optimistic
• Possibility to prompt in one’s first language
• Time-stressed students can find new ideas, perspectives, or inspiration
• Serendipity – some useful resource recommendation one didn’t think about
• Sense of security – using AI chatbot in the future when getting stuck
What is a *Kratt*?

A creature from the Estonian folklore, made of junk and ‘vivified’ with three drops of blood from its maker.

A treasure-bearer, that needs endless task. Kills the owner when no tasks provided.

A well-known metaphor for AI

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The photo: Kratt depicted on an ENM’s exhibition „The Right Body, The Wrong Body“
Source: private collection, 2023
Some thoughts for the discussion

• AI chatbots could be used, but the user needs better to know its capabilities and have previous knowledge about the topic 'discussed' with the AI chatbot.

• Banning does not help – we all know how sweet can a forbidden fruit be; also, detecting AI-generated content is time-consuming.

• Instead, discovering affordances of AI chatbots could be done in partnership: discussing AI chatbots in seminars, using these for tasks demanding problem-solving skills – could be useful also in instances when over-burdened faculty members feel themselves ‘lagging behind’.

• The interface of AI chatbots looks simple, AI chatbots are easy to use, and you can almost see how it ‘works’. However, the flaws in AI chatbot responses reveal ‘frictions or disturbances’ in the information infrastructure. Critical questions for checking AI-generated references and content from alternative information sources could be a good topic for some seminar or home assignment.

• Cultural aspects related to AI chatbots: Kratt, a creature from the Estonian folklore could be a useful metaphor used in information literacy instruction – maybe in your culture there is also some significant saying, proverb, figure, or creature?

• In addition to this LIS specific course, discussing AI chatbots (including the opacity and quality problems) could be a topic within information literacy instruction in general.
To conclude

• The development of AI chatbots brings exciting new opportunities, including in information search and text creation

• At the same time, we do not know exactly how, for example, an AI chatbot works: how it searches for information, what selects materials based on the formula, how it is biased

• At the moment, we still need to be prepared for mistakes that were not caused by previous information retrieval tools

• Instead of ignoring, it's worth experimenting: AI chatbots "won't go over"
A caricature from a Soviet Estonian satire magazine „Pikker, July 1974“

„S/he promised to teach me swimming.“
Acknowledgements

This work and participation in ECIL2023 Convergence was supported by the Institute of Social Studies, University of Tartu (Estonia).

The author is grateful to all students who were willing to share their reflective assignments for this study.

Last but not least, the author thanks the reviewers for their helpful comments.
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Questions?
Comments?

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