

# A Year of Generative AI: Observations from a Survey among University Students in Estonia

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## Abstract

The article presents results from a survey about the academic writing practices among the students of the University of Tartu (Estonia). We analyse how the use of generative artificial intelligence (AI) changed over the course of a year from 2023 to 2024. Our data shows that there has been a small increase in the percentage of students who have used the help of AI while writing: in 2023, 44% of the students reported using or having used AI, while in 2024 it was 52%. AI is most popular among students of science and technology and least popular among students of the humanities. In 2023, using AI was more common among undergraduates than master's students, but by 2024 this situation had reversed. Among the activities that students use AI for, gathering ideas was most popular in both years. The biggest change over the year was that the number of students using AI for summaries and overviews has nearly tripled. We discuss possible reasons for these tendencies, as well as some relevant implications for learning and teaching (academic) writing.

## Introduction

Writing has a central role in formal education – both in learning to write as well as in learning through writing. Generative artificial intelligence (henceforth AI) and commercial tools based on it have, in recent years, greatly influenced how we as a society think and talk about writing. It is inevitable that given the intertwined relationship between writing and education, AI is also profoundly changing the way writing is learned and taught. This change is evidenced by an increasing amount of research related to the integration of AI-based tools into teaching writing (see Van Dis et al., 2023, p. 226 for an overview). It is important for educators to keep up with the opportunities as well as the risks of AI, as these technological advances will shape the future (including the labour market) for which education must prepare the students.

In order to consciously shape the use of AI in education, it is also necessary to keep track of the students' own experiences, habits and beliefs regarding writing and AI. In this article we give an overview of one such study which, among other writing-related topics, addresses the

change in the usage of AI-based tools among the students of the University of Tartu (Estonia) over the course of a year from 2023 to 2024. In particular we are interested in how the number of AI users and the ways of using it have changed. Given the widespread public attention that the advances in generative AI have received internationally as well as domestically, it is important to investigate whether the students' actual uptake of such new opportunities matches the educators' concerns about it.

AI tools have been widespread for a couple of years, so some studies have already been conducted to capture the students' and educators' experiences and subsequent stances towards AI, e.g. Barrett & Pack (2023) who analysed teachers' and students' opinions about the use of AI in different stages of the writing process; as well as Chan & Hu (2023), Țală et al. (2024) and Bedington et al. (2024) who looked into the students' and teachers' perceptions about using AI in higher education. Our study supplements the existing literature with data from Estonia and adds a temporal dimension, as we have had the chance to observe how the usage habits have changed in one year.

It is necessary to stress that we are not trying to make any claims about the actual capabilities of any AI tool but focus solely on students' experiences and beliefs and the possible implications on student development, the teaching of writing, and academic discourse.

In the next section, we give an overview of conducting the survey among the students of University of Tartu and analysing the gathered data. In the section after that, we present the results on the number of students who have used AI in writing and the activities that they have used it for. We conclude with discussion of the key findings of our analysis.

## Data and Method

Our research team conducted a series of surveys for Estonian high school students and teachers as well as the students and teaching staff of the University of Tartu, the biggest university in Estonia. Our goal was to map what and how Estonian students are taught to write and what are the students' and the educators' attitudes towards writing and learning/teaching writing. In addition to empirical research, we also had practical aims for conducting the survey: to use the gathered data as an input for creating novel study materials for writing contemporary academic texts. In this article, we only look at the responses from the students of the University of Tartu (see Käpp & Miilman, 2024, for an analysis of the high school students' responses).

The questions in the survey concerned different aspects regarding writing and learning writing, e.g. what types of texts are written in courses, how are different writing activities taught (e.g. drafting), what are the difficulties in writing, what type of feedback is given to students, and what study materials are available. The questions were partially inspired by an earlier study at the University of Tartu (Leijen et al., 2015), as one of our aims was to look for potential changes in the students' and educators' attitudes towards writing. One of the new additions was a question targeting the use of generative AI in written assignments: *How or for what reason specifically have you used artificial intelligence (e.g. ChatGPT) while writing?* It is important to note that unlike most other studies about the use of AI among students (e.g. Barrett & Pack, 2023; Chan & Hu, 2023; Țală et al., 2024), our study did not focus solely on AI but on writing practices in general. We therefore did not include more detailed questions about using AI (e.g. frequency), because we did not want to give this topic too much attention in the survey as a whole. On the other hand, because the previous questions had prompted the students to analyse different aspects of their experiences with (academic) writing, they were better prepared to contextualise the role of AI in their education.

The data from the students of the University of Tartu was gathered from May to June 2023 and again from March to May 2024, using LimeSurvey with the custom theme of the University of Tartu. The survey was anonymous<sup>1</sup> to encourage students to be honest about their problems

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<sup>1</sup> In the article, we will refer to the responses with the IDs generated by LimeSurvey.

and potential criticisms towards coursework and teaching. The participants were informed of the purpose of the survey and the protection of their identity at the beginning.

The survey was fully completed by 265 students and partially by 433 students. In the present paper we only focus on the question about the use of AI and include all the responses to this question, regardless of whether the whole survey was completed or not. We thus obtained 187 responses from 2023 and 95 responses from 2024, altogether 282 responses. Among the students who completed the full survey, there were 116 students from the Faculty of Arts and Humanities, 78 students from the Faculty of Social Sciences, 48 students from the Faculty of Science and Technology, and 23 students from the Faculty of Medicine. Of the students, 141 were undergraduates, 110 were master's students, and 14 were PhD students.<sup>2</sup> From the comparative analysis we have excluded the responses from the students of the Faculty of Medicine as well as the PhD students, as there were not enough responses for reliable conclusions. The survey could be filled both in Estonian and in English ; there were 258 responses in Estonian and 24 responses in English.<sup>3</sup>

The question about using AI was an open-ended question. Although analysing such responses is more difficult than a Likert scale, for example, the open-ended question gave the students the chance to freely express their thoughts on using AI. The responses were often focusing on different aspects of usage: some only replied whether they had used AI or not, others specified what activities or what assignments they have used it for, some also explained why or why not they have used such tools and what is their opinion of AI's capability and usefulness. Some students also mentioned how often they use AI, but we did not code that as a separate category since there were not enough responses to draw conclusions.

For analysing the responses, we adopted the coding system that we had used to analyse the responses for the same question in the high school students' survey. The responses were first analysed qualitatively to establish categories for coding and then coded accordingly in two steps: first, whether the student had or had not used AI ; and second, how (e.g. gathering ideas, revising the text), why and/or what they had used it for (if they had) or why they had refrained from using it (if they had not). Such coding enabled us to account for all the different aspects that the students had brought up in their responses. For the high school students' question, the coding was done by three people and later unified by looking over each other's work and discussing any disagreements. For the university students' question, the coding was done by one person and later looked over by another. The analysis was performed using Microsoft Excel and R (R Core Team 2023) with the *tidyverse* package (Wickham et al., 2019).

## Results

### ***Have students used AI-based tools?***

In 2023, 44% of the students replied that they have used AI for writing at least once. By 2024, this number had increased to 52% (see table 1). Within a year, the number of students who have used AI has thus risen 8%, which is not a very radical growth. Other studies have also shown that students themselves do not predict that they will rely on AI more in the future than they do currently – for example, Țală et al. (2024) found that most students in their sample were using AI-based tools 'rarely' (42%) or 'sometimes' (37%) and predicted to use them 'rarely' (37%) or 'sometimes' (46%) in the future as well (p. 79).

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<sup>2</sup> In Estonia, undergraduate (or bachelor's) programmes normally last 3 years and master's programmes 2 years. PhD studies normally last 4 years. The programme in Medicine integrates both undergraduate and master's degrees and lasts 6 years.

<sup>3</sup> However, the language of the response does not necessarily reflect the language of study, as some curricula at the University of Tartu are multilingual and some classes even use several languages simultaneously. There are also students whose native language is neither Estonian nor English and who might consequently use AI in some other language and then translate the input to the language of study.

**Table 1. Number and percentage of students who have used AI**

Answer	2023	2023 (%)	2024	2024 (%)
Yes	82	43.9	49	51.6
No	104	55.6	43	45.3
n/a	1	0.5	3	3.2
sum	187	100	95	100

We also looked at the correlations between the degree level and faculty of study and the usage of AI. In 2023, 46% of undergraduate students and 40% of master's students reported using or having used AI. In 2024, the numbers were 37% for undergraduates and 64% for master's students (see table 2).

**Table 2. Number and percentage of undergraduate students (UG) and master's students (MA) who have used AI**

Year	2023		2024		2023		2024	
Answer	UG	UG (%)	UG	UG (%)	MA	MA (%)	MA	MA (%)
Yes	48	45.7	15	36.6	23	39.7	33	63.5
No	56	53.3	24	58.5	35	60.3	19	36.5
n/a	1	1.0	2	4.9	0	0	0	0.0
sum	105	100	41	100	58	100	52	100

Across the faculties, the students of arts and humanities and social sciences show similar tendencies: among humanities students, the number of reports of using AI raised from 44% to 45% between 2023 and 2024; among social sciences students, there was a slight growth from 45% to 49%. The results from the students of science and technology were more noteworthy: the number of AI users surged from 51% to 73% within the year (see tables 3 and 4).

**Table 3. Number of students from the faculties of arts and humanities (Hum), social sciences (Soc), and science and technology (Sci) who have used AI**

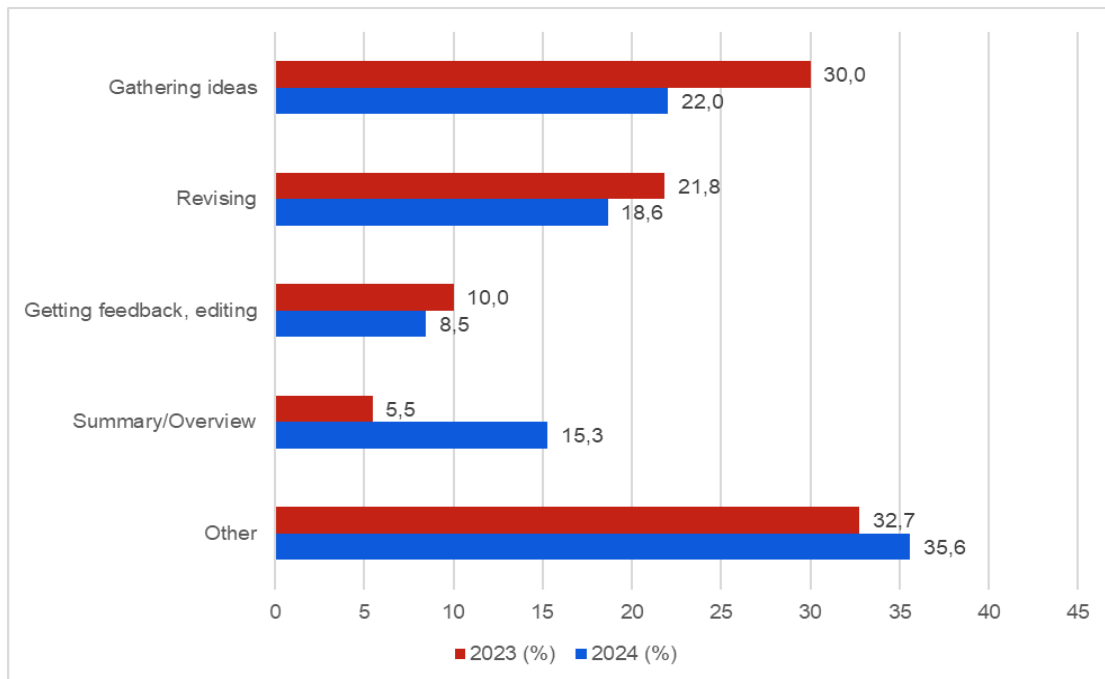
Year	2023			2024		
Answer	Hum	Soc	Sci	Hum	Soc	Sci
Yes	44	17	20	14	23	8
No	56	21	19	16	22	3
n/a	1	0	0	1	2	0
sum	101	38	39	31	47	11

**Table 4. Percentage of students from the faculties of arts and humanities (Hum), social sciences (Soc), and science and technology (Sci) who have used AI**

Year	2023			2024		
Answer (%)	Hum	Soc	Sci	Hum	Soc	Sci
Yes	43.6	44.7	51.3	45.2	48.9	72.7
No	55.4	55.3	48.7	51.6	46.8	27.3
n/a	1.0	0	0	3.2	4.3	0
sum	100	100	100	100	100	100

### ***What do students use AI-based tools for?***

In both years, the most commonly reported way of using AI in writing was to gather ideas, although the percentage dropped between 2023 and 2024 from 30% to 22%, respectively (see figure 1).



**Figure 1. Types of AI usage ; the percentages reflect how many of the students reported a given activity (students could report different activities)**

In the second place for usage activities is revising text (22% of the students in 2023 and 19% in 2024), followed by asking for feedback and editing text accordingly (10% of the students in 2023 and 9% in 2024). In those activities too, a small drop in popularity can be seen between the two years.

The most notable change between the responses from 2023 and 2024 is that the number of students using AI for summaries and overviews has nearly tripled: from 6% to 15%. The 'other' category consists of types of use which were mentioned less than 15 times in both years together, e.g. looking for sources or examples, structuring the text, and translating.

Of the students that reported not having used AI in written assignments, 26 also explained why they have consciously decided not to do it: either because they do not consider it capable enough (11 responses; example 1), it is not reliable and/or ethical (7 responses; example 2), it hinders their development (3 responses) or other reasons (5 responses), e.g. that they enjoy writing themselves or that they have not had access to any AI-based tool for technical reasons.

Ex. 1: "Only for inspiration and creating a structure. Artificially intelligent software cannot do anything in the human's stead if it's about writing according to requirements or tackling uncommon topics." (ID\_722 ; Hum, BA ; response in Estonian)

Ex. 2: "I don't use it because I had a bad experience when GPT messed everything up and the answers were wrong. I don't trust it." (ID\_711 ; Hum, BA ; response in Estonian)

Similar reasons for refraining from AI in schoolwork were also found by Țală et al. (2024). Moreover, several responses from our data showed strong stances against AI (examples 3 and 4).

Ex. 3: "I am strongly against ChatGPT when it comes to writing. I believe that this will only result in my dependence on AI, halt my improvement and development, and lead to my intellectual inertia. Also, what is the point of presenting something under your name that does not reflect your own effort and thoughts?" (ID\_464 ; Hum, PhD ; response in English)

Ex. 4: "No, because my parents did not raise me to be a weakling." (ID\_428 ; Hum, BA ; response in Estonian).

## Discussion

### ***Variation among students***

As the data have shown, the students' habits and attitudes regarding AI-based tools in education show great variation. In 2023, there was only a small difference between the percentage of undergraduate and master's students who had used AI for writing (46% and 40% respectively). By 2024, the usage among master's students had grown to 64%, while for undergraduate students, the percentage dipped to 37%. It thus seems that AI-based tools are now clearly more popular with master's students than with undergraduates.

AI-based tools also appear to be most popular among the students of the Faculty of Science and Technology, where the growth in usage is most remarkable – by 2024, nearly three quarters of their students who responded to our survey had used or were using AI. One of the reasons for such popularity of AI among science and technology students might lie in the more rigid nature of the texts that are written in many of their courses (e.g. protocols and comments for code). Presumably, AI can cope better with shorter and more formal texts than with longer argumentative essays which are usually assigned at the faculties of humanities and social sciences. Furthermore, some AI tools (like ChatGPT) can also be used for programming and math problems – meaning that the students might not actually use it for writing texts that are intended to be read by humans (example 5).

Ex. 5: "I have not used help for creating texts. I have used help for programming tasks and for explaining logic puzzles." (ID\_491; Hum, MA ; response in Estonian)

There also appears to be some remarkable individual variation in the use of AI. In 2023, AI-based tools were a novelty and students were still trying out how they could be used, but by 2024 most students had gained a better understanding of what the capabilities and limitations of AI are. Consequently, several students were quite critical regarding the capabilities of AI (examples 6 and 7).

Ex. 6: "I have found out for myself that ChatGPT is quite useless. I like coming up with stuff myself and compiling and analysing – especially since ChatGPT cannot be trusted. What it has been a bit useful for is explaining terminology or compiling a list of methods, which can be then used for further Google searches. For example, 'What's the difference between close-reading and biographism'. Then you'll know what to look for from Google. For everything else, Artificial Intelligence is, in my opinion, useless." (ID\_135; Hum and Soc, BA ; response in Estonian).

Ex. 7: "I have once tried ChatGPT to understand the topic a little better before starting to write, but first, it felt unethical, and second, it was no use because the text was very vague and did not contain any facts. Other than that, I have done everything myself." (ID\_177; Soc, BA ; response in Estonian)

It could be speculated that the students' scepticism towards AI might have something to do with the capability of AI tools currently available in Estonian. Our own previous study (Tammepõld et al., 2023) showed that although ChatGPT can generate text in Estonian, the vocabulary is much more limited than that of high school students who completed a similar task. The wording also tends to rely on repeating phrases from the prompt, which occasionally makes the texts sound unnatural and clumsy. As mentioned in footnote 3, we currently cannot say anything about the languages that the students in our survey have used with AI, but it could be assumed that those who have at least tried using ChatGPT or other AI-based tools in Estonian might have a more critical attitude towards the possibilities of AI, because they have seen its faults.

Regardless of whether it depends on the level, field or language of study (or just personal values and principles) the variation in the experiences with AI entails that teaching the use of AI must



also be flexible and respect each student's skills, interests and goals – just like all the other aspects of education are becoming more adaptive to students' individual differences. Although there has been a lot of discussion about the necessity of preparing students for working with AI, we believe it is also ethically important to give students the conscious choice, whether they want to use AI in writing or not. As seen above in examples 3 and 4, some students have clear reasons for refraining from AI use and such principles should be respected by educators.

### ***Variation in usage activities***

Our responses also show that many students have, either by intuition or by trial and error, understood that it is not realistic to expect current AI tools to create a whole text from scratch. Such tools can, however, be effectively used to fulfil smaller and more concrete tasks, e.g. gathering ideas, creating an outline, or polishing style and wording. In those cases the user has the control to edit and improve AI-generated content one step at a time and thus make the most out of the tools. In the context of written assignments, working on the text in steps also increases the learning moment as the students are more involved in the process.

Consequently, teaching writing and making it compatible with advances in AI has a clear connection with the concept of process writing, i.e. seeing writing as consisting of several stages of different activities (Benites et al., 2023 ; Murray, 1972). This approach has many well-researched benefits, like demystifying writing and distributing the cognitive workload more effectively (Kellogg et al., 2013) and it also appears to be a prerequisite to the integration of AI into teaching writing: in order to know when and how to use AI in writing, it is important for students to be aware of the different stages and steps of writing.

Moreover, access to AI-based tools also has the benefit of liberating students from the mundane technical side of writing, like proofreading or formatting of citations. This leaves the students with more time to work on the content of the text. This shift should be reflected in teaching writing as well as guidelines for written assignments, which right now are often excessively concerned with formal aspects (Komissarov et al., 2024). In the future, there is no point in spending time on mechanical activities that AI can also fulfil; the focus should instead be on the substantial benefits of writing, e.g. what is learned by and through writing.

### ***Using AI for gathering ideas***

Despite the variation, the clearly most popular activity for using AI was gathering ideas. This finding is in accordance with the University of Tartu's current central brief for using AI in assignments, where 'brainstorming' and 'overcoming the blank page syndrome' are suggested as acceptable uses of AI (University of Tartu, n.d.). Other studies have also found that both educators and students agree that the earlier stages of the writing process (like brainstorming and outlining) are the most acceptable points in which to use AI for writing (Barrett & Pack, 2023). On a more practical side, this tendency can be associated with the fact that most plagiarism detection software (like Ouriginal or Turnitin) is based on wording, i.e. by evaluating the written text, not the origin of the ideas – so using AI for gathering ideas but then writing the full text independently might not seem so much as academic misconduct as would presenting a text that was actually written by AI.

Another reason why students seem to rely the most on AI at the early stages of the writing process could be the lack of other support. In our previous study about writing guidelines in Estonian high schools and universities (Komissarov et al., 2024) we showed that guidelines for written assignments are mostly concerned with the formal aspects of writing (e.g. language editing and formatting), not the content of the writing or the writing process. The prewriting stage (including gathering ideas) was mentioned only in 14 of the 60 guidelines that made up that sample (Komissarov et al., 2024). It is thus understandable that if guidelines do not offer students adequate support for prewriting, they will look for it elsewhere.

### ***Using AI for summaries***

A noteworthy – and possibly worrying – finding was the growing trend that instead of reading materials on their own, students read AI-generated adaptations or use AI as a search engine.

For example, students have reported that they have used AI to:

- (1) 'quickly create summaries of articles that are difficult to read' (ID\_384 ; Sci-tech, BA ; response in Estonian) ; and
- (2) 'let ChatGPT create a summary so that I would know whether there is a point for me to read the certain text to find information'. (ID\_601 ; Soc, MA ; response in Estonian)

Compared to other types of use, the fundamental problem with using AI for summaries is that the correctness and relevance of the output are hard to evaluate, as judging a summary requires a good grasp of the source material – which obviously cannot develop unless the original material is thoroughly read. For example, papers on empirical studies often require very careful close reading in order to understand and assess the analysis. A summary might give an overview of the results, but it does not guide the students to analyse how those results were achieved and whether they are valid. Reading original sources is a crucial part of many courses, since it develops the students' understanding of the methods and discourse of the given subject, as well as their overall critical reading abilities. If students settle for AI-generated summaries, they might lose a valuable aspect of their education.

A further implication of students using AI for summaries or as a search engine is that the information passes through a bottleneck which includes a deal of randomness – meaning that the choice over what is important and relevant is not made by the reader, because what they see has already been filtered (and in most cases we do not exactly know how). Moreover, this is not a neutral filter but also includes whatever censorship and ideological biases that have been programmed into the system by its developers (Ray, 2023).

Thus, the tendency to use AI for generating summaries of texts has several pedagogical and ethical caveats. Further research is needed for a better understanding of how and why students do this and what are their beliefs about the reliability of the outcome.

## **Conclusion**

The article reports a survey about writing practices among students of the University of Tartu, focusing on the students' experiences with using AI in writing. Our data was collected in 2023 and again in 2024, enabling us to analyse the changes that have taken place during the first year where powerful AI-based writing tools like ChatGPT have been publicly accessible. Our data reveals that the students' uptake of these new opportunities has in general been moderate: in 2023, 44% of the students reported having used AI for writing, while in 2024 this number had only risen to 52%.

There were some more notable changes in the activities that students reported using AI for. In the responses from both years, the most common use for AI in academic writing was gathering ideas, although that saw a drop in prevalence from 30% in 2023 to 22% in 2024. The number of students using AI for revising text or asking for feedback also declined, whereas the number of students who generate summaries or overviews with AI has nearly tripled (from 6% in 2023 to 15% in 2024). Given that by 2024 students had had a longer time to experiment with AI-based tools and see their advantages and limitations, we can expect that the 2024 data about different types of usage reflects more accurately what students believe that AI can be successfully used for. We also argue that the concept of writing as a process becomes even more central than before, because understanding the different stages and activities of the writing process also helps in using AI more efficiently.

Our results also reveal a quite remarkable variation in what students used AI for and how highly they evaluated the capabilities and trustworthiness of such tools. Many students pointed out the lacklustre and unreliable nature of texts generated by AI. Some also voiced concerns about ethical issues related to AI, as well as its negative impact on their (academic) development. From this, we can conclude that an important role in AI usage is played by students' individual beliefs and attitudes, including how highly they esteem



learning to write and writing through learning. In the long run, students' motivations and values will probably become the watershed that differentiates their AI-usage habits. On the one hand, it is a chance for schools and universities to shape students' beliefs and teach them how and when to use AI efficiently and responsibly. On the other hand, it is also our responsibility as educators to respect each student's individual preferences and goals.

## References

- Barrett, A., & Pack, A. (2023). Not quite eye to A.I.: Student and teacher perspectives on the use of generative artificial intelligence in the writing process. *International Journal of Educational Technology in Higher Education*, 20, Article 59. <https://doi.org/10.1186/s41239-023-00427-0>
- Bedington, A, Halcomb, E.F., McKee, H. A., Sargent, T., Smith, A. (2024). Writing with generative AI and human-machine teaming: Insights and recommendations from faculty and students. *Computers and Composition*, 71, Article 102833. <https://doi.org/10.1016/j.compcom.2024.102833>
- Benites, F., Benites, A. D., & Anson, C. M. (2023). Automated text generation and summarization for academic writing. In O. Kruse, C. Rapp, C. M. Anson, K. Benetos, E. Cotos, A. Devitt & A. Shibani (Eds.), *Digital Writing Technologies in Higher Education* (pp. 279-301). Springer. [https://doi.org/10.1007/978-3-031-36033-6\\_18](https://doi.org/10.1007/978-3-031-36033-6_18)
- Chan, C. K. Y., & Hu, W. (2023). Students' voices on generative AI: Perceptions, benefits, and challenges in higher education. *International Journal of Educational Technology in Higher Education*, 20, Article 43. <https://doi.org/10.1186/s41239-023-00411-8>
- Kellogg, R.T., Whiteford, A.P., Turner, C.E., Cahill, M., & Mertens, A. (2013). Working memory in written composition: A progress report. *The Journal of Writing Research*, 5(2). <https://doi.org/10.17239/jowr-2013.05.02.1>
- Komissarov, L.-M., Lemendik, H., Miilman E., Novek, N., Peterson, B. M., Roos, R., Tammepõld, M.-M., Teiva, N. K., & Tragel, I. (2024). Akadeemilise teksti kirjutamise juhend: TNR, 12, 1,5 ja valmis? [TNR 12, 1.5, justified: Breaking the habits of academic writing guidelines]. *Eesti Rakenduslingvistika Ühingu Aastaraamat / Estonian Papers in Applied Linguistics*, 20. <https://doi.org/10.5128/ERYa20.04>
- Käpp, K., & Miilman E. (2024). Using peer review to create communication situations in teaching writing. *INTED2024 Proceedings*. <https://doi.org/10.21125/inted.2024.1362>
- Leijen, D., Jürine, A., & Tragel, I. (2015). University Teachers and Students' Perspectives on Academic Writing: a Case From a University in Estonia. *EDULEARN15 Proceedings*, 7768–7776.
- Murray, D. (1972). Teach writing as a process not product. *The Leaflet*, 71(3), 11–14.
- Ray, P. P. (2023). ChatGPT: A comprehensive review on background, applications, key challenges, bias, ethics, limitations and future scope. *Internet of Things and Cyber-Physical Systems*, 3. <https://doi.org/10.1016/j.iotcps.2023.04.003>
- Țală, M. L., Müller, C. N., Năstase, I. A., State, O., & Gheorghe, G. (2024). Exploring university students' perceptions of generative artificial intelligence in education. *Amfiteatru Economic*, 26(65). <https://doi.org/10.24818/EA/2024/65/71>
- Tammepõld, M.-M., Kepp, M., Sarapuu, J., Tragel, I., Miilman, E., & Teiva, N. K. (2023, November 30). *Inimese ja roboti genereeritud tekstide erinevused ja sarnasused: teekond otsingute tuultes* [The differences and similarities between texts generated by humans and robots: A journey through the winds of change. Presentation]. Tekstipäev 2023, Tartu, Estonia. [https://tekstiloome.ilonatragel.ut.ee/wp-content/uploads/2024/01/30.11\\_Tekstipaeva-esitlus.pdf](https://tekstiloome.ilonatragel.ut.ee/wp-content/uploads/2024/01/30.11_Tekstipaeva-esitlus.pdf)
- University of Tartu. (n.d.). *University of Tartu guidelines for using AI chatbots for teaching and studies*. <https://ut.ee/en/node/151731>
- Van Dis, E. A. V., Bollen, J., Zuidema, W., Van Rooij, R., & Bockting, C. (2023). ChatGPT: Five priorities for research. *Nature*, 614. <https://doi.org/10.1038/d41586-023-00288-7>