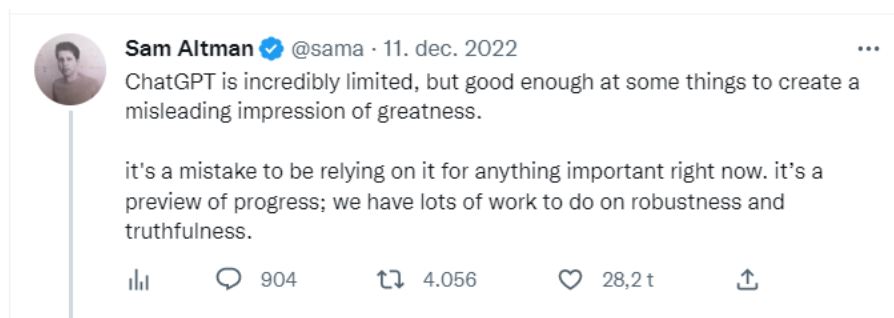Dear students,

With the advancements in AI and natural language processing, language models like ChatGPT are now more accessible and usable than ever before. As such, it is important to reflect on how they can support your work process while writing your thesis and to consider the ethical implications and limitations of using language models like ChatGPT.

First and foremost, it is important to understand that ChatGPT is a tool, not a substitute for your own critical thinking and writing. You should always use your own judgment and expertise when interpreting and incorporating the information and ideas generated by the model. Additionally and in accordance to AU guidelines, you should always properly cite any text generated by ChatGPT, as it is not your original work (https://studerende.au.dk/proever/eksamenssnyd/kend-reglerne-naar-du-skal-til-eksamen).

As you embark on your thesis writing journey, it is crucial to keep in mind the limitations of ChatGPT. While the model is capable of generating a wide range of text, it is not without its faults and may produce errors or inaccuracies, as noted by Sam Altman, the founder of OpenAI (see tweet below). ChatGPT is engineered to produce text that is both coherent and fluent, and as a result, it may exude an aura of assurance that can engender a false sense of reliance on its output. However, it is important to remember that as humans, we are susceptible to being deceived by ChatGPT's perceived proficiency and may inadvertently take its output for granted, which we should not. Additionally, the model is trained on a vast amount of text from the internet, and therefore reflects biases or stereotypes found in that data. It is important to be aware of these limitations and to critically evaluate the output you receive.



This being said, I am personally really excited about language models such as ChatGPT and believe they can support your writing process. In the following, I will therefore showcase three use cases and some prompts of how ChatGPT can be used in the process of conducting your thesis. I have attached some screenshots at the end of the document so you can see the output ChatGPT provides for some of these prompts.

## 1. Copywriter

ChatGPT can provide you with feedback on your writing. For example, you can provide ChatGPT with a section of your writing and prompt it to review and provide feedback on this section. The model can provide feedback on grammar, organization, coherence, clarity, and other elements of writing style.

The *following prompts* can be of help:

"How can I improve the coherence of my introduction/paragraph for my bachelor/master thesis?" (see screenshot 1)

"What suggestions do you have for the organization of my introduction/literature review of my bachelor/master thesis?"

"Which grammatical problems can you pinpoint to in the following text which is the introduction of my bachelor/master thesis?"

As a copywriter, ChatGPT can also help you generate ideas for headlines and headings for your thesis. The *following prompts* can be of help:

"Generate 10 different iterations for a title of a research paper based on the following draft. The title should be short. Do not use a subheading."

"Provide 10 potential titles for a research paper based on the following research question. The title should be catchy while using research language." (see screenshot 2)

## 2. Writer's block

ChatGPT can help with writer's block by providing ideas and inspiration for your writing. By providing a specific prompt or question related to the topic of your writing, the model can generate a wide range of ideas and concepts that can help you get going. Additionally, it can provide a starting point for writing by generating a first sentence, paragraph, or even an outline of a text, which can help to overcome the initial hurdle of getting started. Another way ChatGPT can help with writer's block is by providing suggestions for different ways to approach the topic or organize the information.

The *following prompts* can be of help to provide you with a fresh perspective and help to break through the block:

"Provide two different outlines for an introduction in bullet points" (see screenshot 3)

"Create an outline for organizing the following information"

You might need to follow up on these prompts asking it to expand on its suggestions, asking it to provide you with new ones, asking it to make substantially different once etc. as these prompts in the first attempt often lead to some-what superficial output.

If this does not help you getting started with your writing consider some non-AI related ways like simply taking a break, or engage in activities that can help to relax the mind and stimulate creativity, like reading, listening to music, or going for a walk ☺

## 3. Provide a first insight into a topic/theory and how theories relate

ChatGPT can be a valuable tool to gain an introduction to a wide range of topics and theories. As a generative AI system, it has the ability to provide a quick and general overview of various subjects, giving you a starting point for further inquiry.

The *following prompts* can be of help to provide you with first insights:

"Explain xyz in two pragraphs" (see screenshot 4)
"Explain theory xxz so a 10th grader understands it?"
"Explain how x influences y. Give an example to showcase the relation."

It's important to keep in mind that the information provided by ChatGPT using these prompts may not be entirely complete or accurate and should only be considered as a starting point, not a comprehensive resource. Additionally, newer or more niche topics may not be as well-covered by the system, thus you should be aware that the information provided may be limited in scope. Therefore, it is important that you exercise caution when using the tool in this respect, and that you verify any information obtained through additional research and resources.

Generally, to fully realize the potential of ChatGPT in relation to the work you are doing, it is important to develop a proficiency in crafting prompts that are specific and focused. Over time, this will allow you to use the tool more effectively, both during your thesis work and in future endeavours. In this process it is not only important to learn prompts but also to follow-up on the output generated by ChatGPT to improve the quality of the information received. Go back to ChatGPT and ask it to tweak the output so that it gets useful and helpful for you. With a keen understanding of how to prompt the tool and a willingness to refine your approach, ChatGPT can become a valuable asset in your research and professional endeavours.

Let me once again highlight, that while this tool can be a valuable resource for generating ideas and text, it is important to use it responsibly and with integrity. Keep in mind that it is easy for humans to detect if big parts of text are generated by an AI and there are automated tools that are excellent at it. Additionally, ChatGPT does not currently provide references which makes it difficult to use for academic writing, as proper citation is crucial for academic integrity. Additionally, do not use it to perform mathematical calculations, conduct analysis or suggest references, as many people have shown in the last weeks that the output for tasks like this is often inaccurate.

I believe that ChatGPT and other language models can be an invaluable tool for those in need of a creative boost or a helping hand with writing. As with any tool, understanding its capabilities and limitations is key to maximizing its effectiveness. I hope this note helps you in this direction.

I look forward to working with you on your thesis.

Franziska

**Screenshot 1: Copy writer**

how can I improve the coherence in the following research paragraph? Effectuation is a principles-based approach to decision-making and action that is particularly well-suited to situations of uncertainty and ambiguity, such as those often encountered in the early stages of entrepreneurship (Sarasvathy, 2001; Sarasvathy, 2008). Therefore, introducing students in higher education (HE) to effectuation in entrepreneurship education can be a powerful way to help them develop the skills and mindset needed to create and grow new ventures (Günzel-Jensen & Robinson, 2017; Mäkimurto-Koivumaa & Puhakka, 2013; Thrane et al., 2016) as well as to prepare them for the dynamic workplace of today (Peschl et al. 2021). By focusing on what they know and can control, rather than trying to predict and plan for the future, students can learn to be proactive and adaptive in their thinking and actions. They experience moving from thinking to entrepreneurial action to transform social structures. This is what McMullen et al. (2021) would define as achieving entrepreneurial agency

One way to improve the coherence in the research paragraph is to make sure that the ideas and sentences flow smoothly and logically from one to the next. This can be achieved by:

- Using transitional phrases or words, such as "therefore," "in addition," or "as a result," to link related ideas and show the relationship between them.
- Using parallel structure, such as repeating a key phrase or concept, to create a sense of consistency and coherence throughout the paragraph.
- Using specific and concrete examples to illustrate key points, rather than relying solely on abstract concepts.
- Explaining the relationship between effectuation and entrepreneurship education more clearly.
- Adding a clear introduction and conclusion to the paragraph to frame the main idea and summarize the key points.

For example:

Effectuation is a principles-based approach to decision-making and action that is particularly well-suited to situations of uncertainty and ambiguity, such as those often encountered in the early stages of entrepreneurship (Sarasvathy, 2001; Sarasvathy, 2008). Therefore, as it is a powerful tool for dealing with uncertainty, it is a great way to prepare students for the dynamic workplace of today. To that end, introducing students in higher education (HE) to effectuation in entrepreneurship education can be a powerful way to help them develop the skills and mindset needed to create and grow new ventures (Günzel-Jensen & Robinson, 2017; Mäkimurto-Koivumaa & Puhakka, 2013; Thrane et al., 2016). By focusing on what they know and can control, rather than trying to predict and plan for the future, students can learn to be proactive and adaptive in their thinking and

**Screenshot 2: Generating titles**

Provide 10 potential titles for a research paper based on the following research question. The title should be catchy while using research language: How do student teams engage with tensions encountered in practicing effectuation in order to persevere/progress in an action-based HE entrepreneurship education course?

1. "Navigating Tensions in Action-Based Entrepreneurship Education: An Exploration of Student Team Engagement"
2. "Effectuation in Action: Student Teams and the Management of Tensions in Higher Education"
3. "Persevering Through Tensions: A Study of Student Team Engagement in an Entrepreneurship Education Course"
4. "Tackling Tensions head-on: A Look at Student Team Strategies in Action-Based Entrepreneurship Education"
5. "Effectuation in Practice: Student Teams and the Resolution of Tensions in Higher Education Entrepreneurship"
6. "Advancing Entrepreneurship Education: A Study of Student Team Approaches to Managing Tensions"
7. "Entrepreneurial Progress Through Tension Management: An Analysis of Student Team Engagement in Action-Based Education"
8. "Navigating Obstacles to Success: A Study of Student Team Effectuation Strategies in Higher Education"
9. "Challenges and Solutions: A Look at Student Team Engagement in an Action-Based Entrepreneurship Education Course"
10. "From Tensions to Triumph: An Exploration of Student Team Approaches to Effectuation in Higher Education Entrepreneurship"

**Screenshot 3: Overcoming writer's block**

I need to write an introduction for a research paper that address the following research question" How do student teams engage with tensions encountered in practicing effectuation in order to persevere/progress in an action-based HE entrepreneurship education course?" Provide me with two very different outlines for an introduction in bullet points. The research question should be at the end of the introduction.

Outline 1:

- Start by introducing the field of entrepreneurship education and the importance of providing students with the skills and mindset needed to create and grow new ventures.
- Highlight the importance of effectuation as a principles-based approach to decision-making and action in uncertain environments, particularly in the context of entrepreneurship education and how it is suited to be used in action-based HE entrepreneurship education course.
- Provide an overview of the challenges that student teams may face when implementing effectuation principles in a real-world setting and how it can affect their progress
- Explain the main objective of the research paper, which is to explore how student teams can navigate these challenges and persevere/progress in an action-based HE entrepreneurship education course.
- Outline the research design and methods that will be used to answer the research question
- Present the research question: "How do student teams engage with tensions encountered in practicing effectuation in order to persevere/progress in an action-based HE entrepreneurship education course?"

Outline 2:

- Begin by introducing the concept of entrepreneurship education in Higher Education (HE) and the importance of providing students with hands-on learning opportunities and real-world experiences.
- Explain the significance of effectuation as a tool for decision-making and action in uncertain environments in the context of entrepreneurship education
- Highlight the importance of understanding how student teams engage with tensions encountered in practicing effectuation in order to persevere/progress in an action-based HE entrepreneurship education course
- Provide an overview of the current state of research in this area and the gaps in knowledge that this research aims to fill
- Outline the research design and methods that will be used to answer the research question
- Present the research question: "How do student teams engage with tensions

**Screenshot 4: Introduction to a new topic / theory**

Explain the concept of mission drift and it's effects on organizations in two paragraph

Mission drift refers to the gradual shift in an organization's focus and priorities away from its original mission and goals. This can happen over time as an organization grows, faces new challenges, or is influenced by external factors such as changes in the market or government regulations. Mission drift can have a number of negative effects on an organization, including a loss of focus, decreased efficiency, and a loss of trust and credibility with stakeholders.

When an organization experiences mission drift, it can lead to a lack of alignment between the organization's actions and its stated mission and goals. This can lead to confusion and frustration among employees, who may feel that the organization is no longer fulfilling its purpose or that their work is no longer aligned with the organization's goals. Additionally, mission drift can lead to a loss of trust and credibility with stakeholders, as they may feel that the organization is no longer acting in their best interests. This can also lead to a loss of support and funding from stakeholders. In order to avoid mission drift, organizations must continuously review and refine their mission and goals and ensure that they are being met and aligned with all their activities and decisions.