

Retningslinjer for brug af AI i undervisning og vejledning

AAUs strategiske uddannelsesudvalg har besluttet, at brugen af AI som udgangspunkt er tilladt i vore uddannelser og til eksamen, hvis ikke andet er specificeret. Ansvar for tilladelser og særlige regler på området er lagt ud til studienævnene. Instituttet har udarbejdet retningslinjer for digitale stedprøver, som omfatter brugen af AI.

Læring og udvikling

AI er en værdifuld ressource, som kan styrke den studerendes læring og opgaveløsning, men det kræver bevidsthed om både muligheder og begrænsninger. Studienævnet opfordrer de studerende til aktivt at reflektere over, hvordan AI bruges i deres arbejde – både som et redskab til effektivisering og som en kilde til nye perspektiver. Det forventes, at de studerende forholder sig kritisk til AI's output og overvejer, hvordan brugen af teknologien påvirker deres læring og udvikling.

Projektarbejde

Studienævnet anbefaler, at AI anvendes i projektarbejde, når det er relevant og bidrager konstruktivt. Anvendelsen af AI bør dog altid drøftes med vejlederen og de studerende opfordres til at reflektere over både muligheder og potentielle faldgruber. Hvis AI er blevet brugt, skal dette fremgå kort i rapporten. Beskrivelsen kan placeres under materialer og metoder, hvis AI er brugt som en del af arbejdsmetoden, eksempelvis til tjek af programmeringskode eller i et forord, hvis AI primært er anvendt til sprogforbedring.

Kurser

Studienævnet opfordrer kursusholdere til at overveje relevansen af AI i undervisningen. Dette inkluderer brug af AI i forbindelse med opgaveløsning, workshops, flipped classroom og minirapporter. Det bør fremgå tydeligt af kursussiden på Moodle, om AI må anvendes i kurset og i givet fald hvordan og i hvilke sammenhænge, det er tilladt. Hvis brugen af AI er relevant og en del af undervisningen eller, hvis der indgår oplæring i AI, kan dette indarbejdes i kursets læringsmål. Derudover skal kursusholdere tage stilling til, om studerende må bruge AI i eksamenssammenhæng.

Det er dog afgørende, at studerende er opmærksomme på, at eksamenssituationen kan kræve opgaveløsning uden adgang til AI. Derfor bør AI ikke anvendes som en erstatning for egen forståelse, men snarere som et supplement til at styrke læring og problemløsning. Studerende skal sikre sig, at de nødvendige færdigheder og viden kan anvendes uden støtte fra AI. Dette indebærer også øvelse i at løse opgaver og formulere svar uden hjælp fra AI.

AI kan ses i sammenhæng med læringsprincipper og med indflydelse på Blooms taksonomi som anført i flg oplæg fra Oregon State University, Blooms taxonomy revisited

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Bloom's Taxonomy Revisited

Use this table as a reference for evaluating and considering changes to aligned course activities (or, where possible, learning outcomes) that emphasize distinctive human skills and/or integrate generative AI (GenAI) tools as a supplement to the learning process.

All course activities and assessments will benefit from ongoing review given the evolving capabilities of GenAI tools.

Version 2.0 (2024)



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	Distinctive Human Skills	How GenAI Can Supplement Learning*
CREATE	Engage in both creative and cognitive processes that leverage human lived experiences, social-emotional interactions, intuition, reflection, and judgment to formulate original solutions	Support brainstorming processes; suggest a range of alternatives; enumerate potential drawbacks and advantages; describe successful real-world cases; create a tangible deliverable based on human inputs
EVALUATE	Engage in metacognitive reflection; holistically appraise ethical consequences of other courses of action; identify significance or situate within a full historical or disciplinary context	Identify pros and cons of various courses of action; develop and check against evaluation rubrics
ANALYZE	Critically think and reason within the cognitive and affective domains; justify analysis in depth and with clarity	Compare and contrast data, infer trends and themes in a narrowly-defined context; compute; predict; interpret and relate to real-world problems, decisions, and choices
APPLY	Operate, implement, conduct, execute, experiment, and test in the real world; apply human creativity and imagination to idea and solution development	Make use of a process, model, or method to solve a quantitative or qualitative inquiry; assist students in determining where they went wrong while solving a problem
UNDERSTAND	Contextualize answers within emotional, moral, or ethical considerations; select relevant information; explain significance	Accurately describe a concept in different words; recognize a related example; translate to another language
REMEMBER	Recall information in situations where technology is not readily accessible	Retrieve factual information; list possible answers; define a term; construct a basic chronology or timeline

*AI capabilities derived with reference to an analysis of the MAGE framework, based on ChatGPT 4 as of October 2023. See Zaphir, L., Lodge, J. M., Lisec, J., McGrath, D., & Khosravi, H. (2024). How critically can an AI think? A framework for evaluating the quality of thinking of generative artificial intelligence. arXiv preprint arXiv:2406.14769.

Nyttig information om brugen af AI er udarbejdet af AAU og AUB

- AUBs Introduktion og indblik herunder beskrivelse af Microsoft Copilot som officielt AI redskab

<https://www.aub.aau.dk/studerende/generativ-ai/introduktion-og-overblik>



1. GOD AKADEMISK PRAKSIS

Bliv klogere på skik og brug når du anvender generativ AI.

[God akademisk praksis >](#)



2. PAS PÅ DIG SELV, ANDRE OG INDHOLD

Bliv bevidst om hvilken viden og information du bør dele med en platform.

[Pas på dig selv, andre og deres indhold >](#)

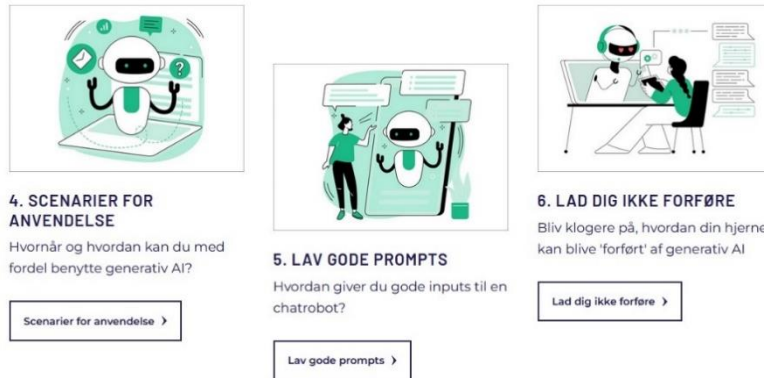


3. EVALUERER AF PLATFORME

Hvilke punkter bør du være opmærksomme på, ift. at kunne evaluere din brug?

[Evaluering af platforme >](#)

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- De studerende kan orientere sig om AAUs holdning og guidelines til brugen her <https://www.studerende.aau.dk/praktisk/it/generativ-ai-pa-aau#>
- Underviserne kan få inspiration til brug af AI i undervisningen her <https://www.iaspbl.aau.dk/staff-development/generative-ai-and-learning/catalogue-of-inspirations-for-usage-of-generative-ai-as-educator-at-aalborg-university>
- AAU micro credential om AI <https://www.micro.aau.dk/available-aau-micros/introduction-to-generative-ai-chatgpt>

Retningslinjerne findes i engelsk oversættelse oversat ved brug af AI vha Microsoft Copilot og valideret af studienævnensformanden

Lars Haastrup Pedersen

Guidelines for the use of AI in teaching and supervision

AAU's Strategic Education Committee has decided that the use of AI is generally allowed in our education programs and exams unless otherwise specified. The responsibility for permissions and specific rules in this area has been delegated to the study boards. The Department of Chemistry and Bioscience has developed guidelines for digital on-site exams, which include the use of AI.

Learning and professional development

AI is a valuable resource that can enhance students' learning and problem-solving, but it requires awareness of both opportunities and limitations. The study board encourages students to actively reflect on how AI is used in their work – both as a tool for efficiency and as a source of inspiration and new perspectives. It is expected that students critically assess AI's output and consider how the use of the technology affects their learning and professional development.

Project work

The study board recommends that AI be used in project work when it is relevant and contributes constructively. The use of AI should always be discussed with the supervisor, and students are encouraged to reflect on both the opportunities and potential pitfalls. If AI has been used, this should be briefly mentioned in the report. The description can be placed under materials and methods if AI is used as part of the work method, for example, to check programming code, or in a preface if AI is primarily used for language improvement.

Courses

The study board encourages course teachers to consider the relevance of AI in teaching. This includes the use of AI in connection with problem-solving, workshops, flipped classroom, and mini-reports. It should be clearly stated on the course page on Moodle whether AI may be used in the course and, if so, how and in what contexts it is permitted. If the use of AI is relevant and part of the teaching or if AI training is included, this can be incorporated into the course's learning objectives. Additionally, course teachers must decide whether students may use AI in exam contexts.

However, it is crucial that students are aware that exam situations may require problem-solving without access to AI. Therefore, AI should not be used as a replacement for personal understanding but rather as a supplement to enhance learning and problem-solving. Students must ensure that the necessary skills and knowledge can be applied without the support of AI. This also involves practicing solving tasks and formulating answers without the assistance of AI.

AI can be seen in the context of learning principles and with influence on Bloom's taxonomy as outlined in the following presentation from Oregon State University, Bloom's Taxonomy Revisited.

Guidelines for the use of AI in teaching and supervision



Bloom's Taxonomy Revisited

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Useful information about the use of AI has been developed by AAU and AUB:

- AUB's Introduction and insights, including a description of Microsoft Copilot as an official AI tool.
<https://www.aub.aau.dk/studerende/generativ-ai/introduktion-og-overblik>



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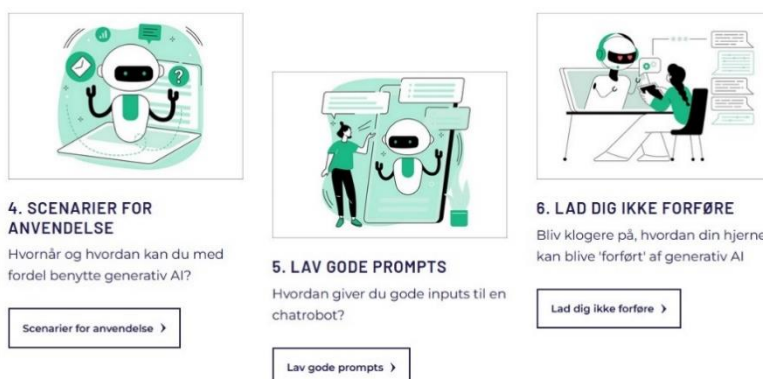


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- Students can familiarize themselves with AAU's policy and guidelines for use here.
<https://www.studerende.aau.dk/praktisk/it/generativ-ai-pa-aau#>
- Teachers and supervisors can find inspiration for the use of AI in teaching here.
<https://www.iaspbl.aau.dk/staff-development/generative-ai-and-learning/catalogue-of-inspirations-for-usage-of-generative-ai-as-educator-at-aalborg-university>
- AAU micro-credential on AI
<https://www.micro.aau.dk/available-aau-micros/introduction-to-generative-ai-chatgpt>

These guidelines were translated from Danish to English using AI by Microsoft Copilot and validated by the study board chairman

Lars Haastrup Pedersen