

Hochschule Bremen  
City University of Applied Sciences



# Image generation with AI

Tue 18.11.2025 – Mitko Petrov (ZLL), Bettina Gnaß (ZLL)

Welcome



mit KI erstellt

# Agenda

- Introduction to AI
- Text-based image generators
  - Overview of AI tools
  - Prompting
- Hands-On
  - Leonardo AI
  - Dall-E 3 / Open AI
- Questions / Discussion

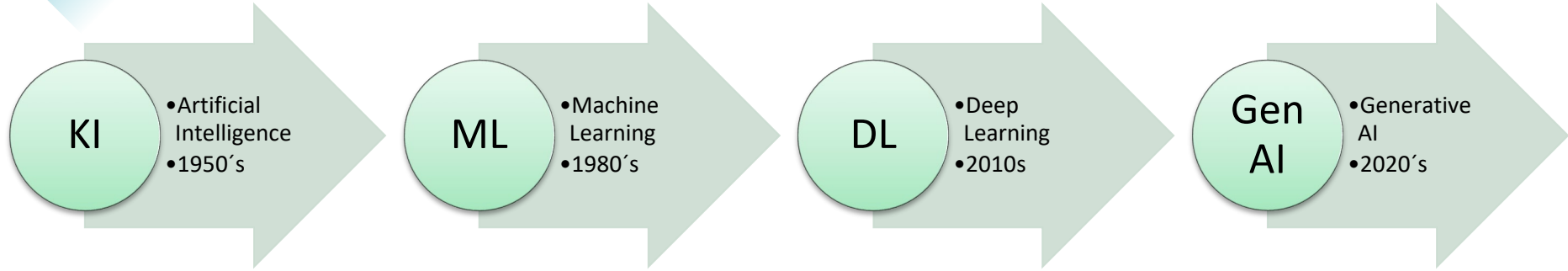


# Introduction to AI

“AI is probably the best or the worst thing that could happen to humanity.”

Stephen Hawking

## Introduction to AI



- It began as an idea to create machines that could think like humans.
- Early systems focused on basic problem solving and rule following.
- Learning patterns from data improved performance over time.
- With faster computers and more data, AI took on complex tasks such as generating language and images.

## Introduction to AI

### Weak AI

- Narrow AI
- Performs specific tasks
- Simulates human life

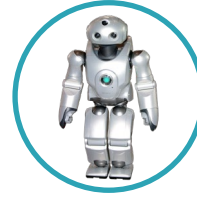
### Strong AI

- AGI – Artificial General Intelligence
- Possesses the ability to understand, learn and apply knowledge
- Surpasses human intelligence

## Human vs. AI



- Thinking
- Understand contexts
- Consciousness
- Reliability?



- Predictions
- Analyse contexts
- No consciousness
- Reliability?



100%



## Responsible use of AI tools

- ❖ Read the 'Terms of Use'
- ❖ Review AI spending
- ❖ Data protection
- ❖ GDPR (General Data Protection Regulation)
- ❖ EU standards
- ❖ Copyright
- ❖ CC licence
- ❖ Ethics & environment

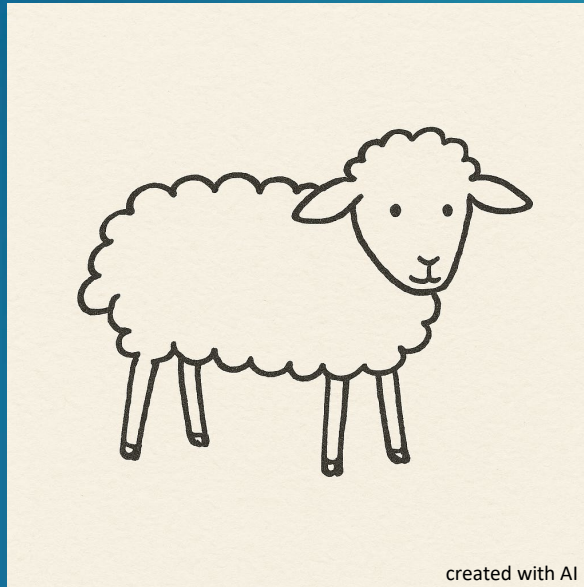


- ❖ More information, e.g. in the prompt workshop for teachers (learning module in AULIS):  
[https://aulis.hs-bremen.de/goto.php/pg/194111\\_2203474](https://aulis.hs-bremen.de/goto.php/pg/194111_2203474)



## Text-based image generators

"Please draw me a sheep."



(The Little Prince, Antoine de Saint-Exupéry)

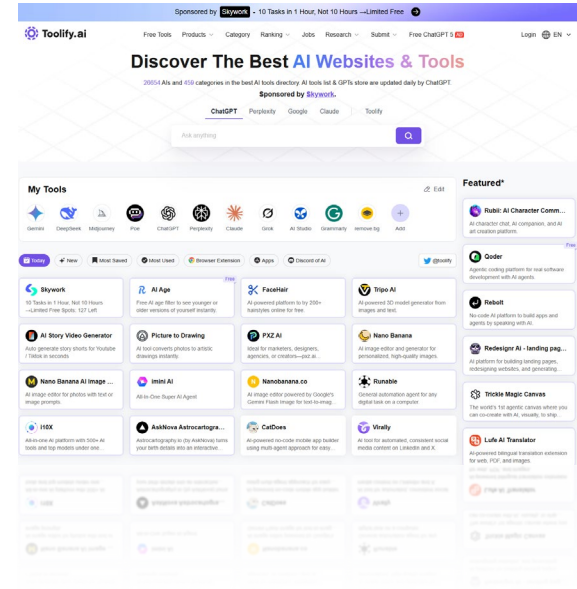
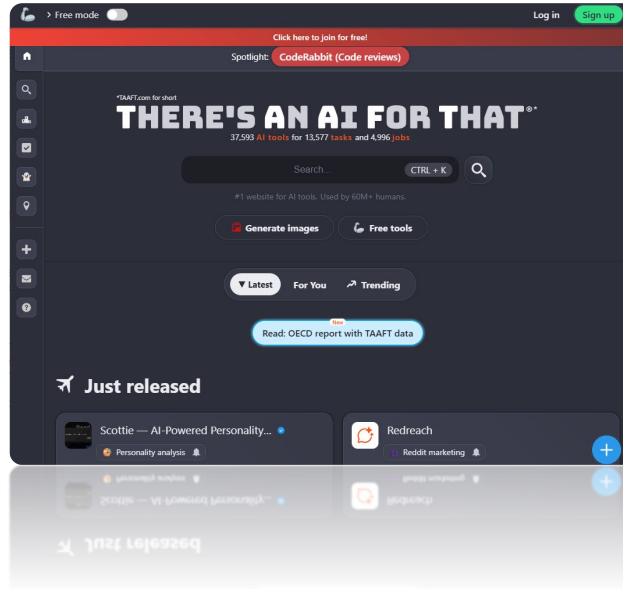
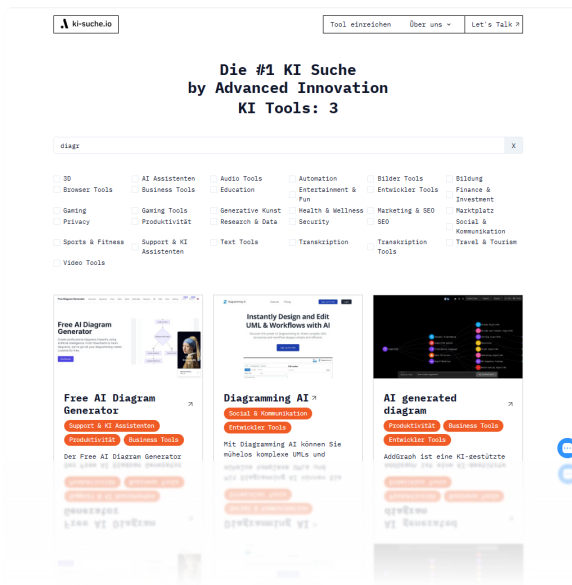
created with AI

# AI search engines

**KI-Suche.io**  
<https://ki-suche.io/>  
 In German

**There's an AI for that**  
<https://theresanaiforthat.com/>  
 over 30.000 AI-Tools

**Toolify.ai**  
<https://www.toolify.ai/>  
 over 26.000 AI-Tools



## AI tools for image generation

- [Leonardo.Ai](#) – 150 tokens
- [DALL-E 3](#) (OpenAI) – integrated into ChatGPT
- [RunwayML](#) – 125 credits (one-time)
- [Midjourney](#)
- [Adobe Firefly](#)
- [Bing Image Creator](#)  
(Microsoft account required)
- [Microsoft Designer](#)
- [Canva AI Image Generator](#)
- [Stable Diffusion](#)
- [OpenArt AI Image Generator](#)
- [GammaApp Images](#)



# Mentimeter: Image – AI or non-AI generated



<https://www.menti.com/alg9tefcz1mp>



## Quiz – generated by AI or not

1



2



## Quiz – generated by AI or not

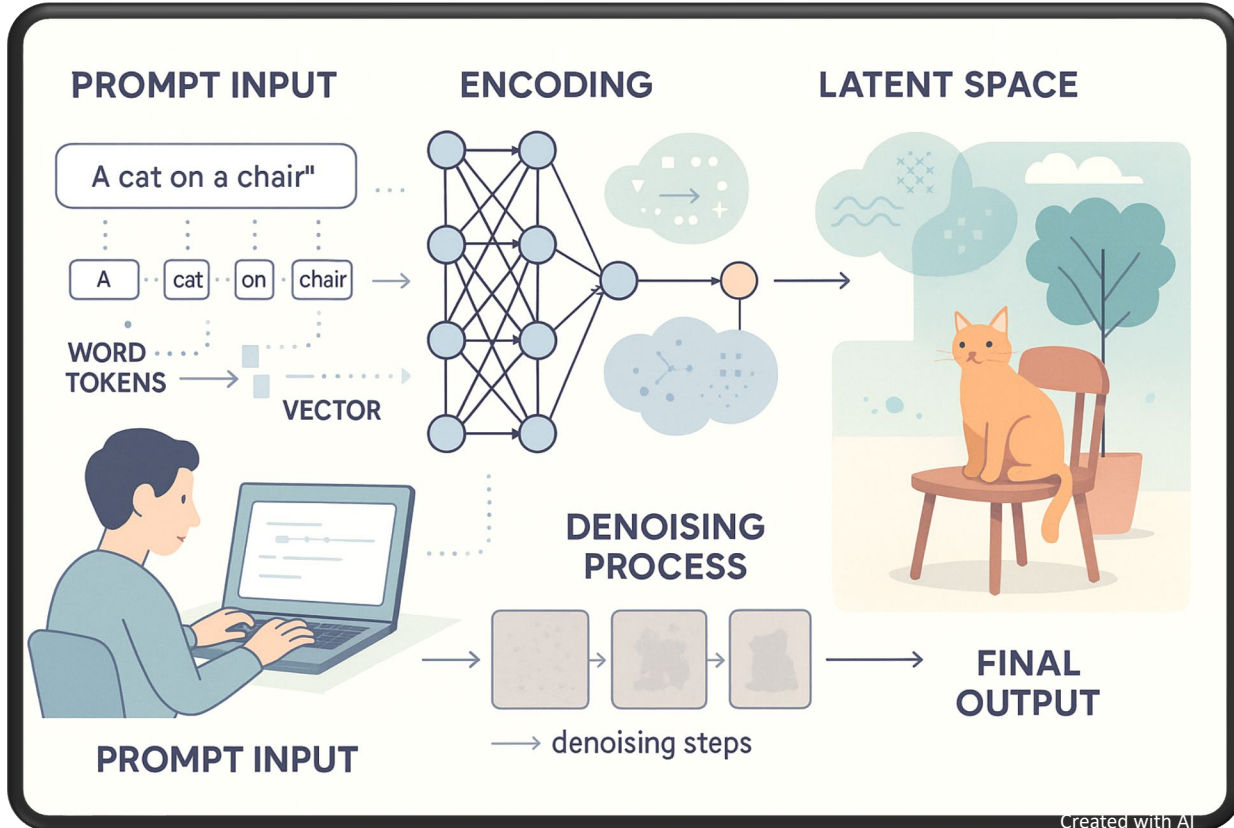
1



2



# Prompting or from words to images



## Prompting – Process



Created with AI



Created with AI



Created with AI



Created with AI

1

A modern university lecture hall with students and a professor.

2

A modern university lecture hall filled with international students and a professor at the front

3

A bright, modern university lecture hall filled with diverse students attentively listening to a professor explaining a concept at the front. Sunlight streams through large windows, educational posters on the walls, desks arranged in rows. Realistic style, clean and sharp details.

4

A bright, modern university lecture hall filled with diverse students. The professor stands at the front, explaining a concept on a large digital whiteboard. Sunlight streams through tall windows, casting soft, natural light across the room. The background shows rows of desks, educational posters, and green plants. The camera angle is wide, from the back of the hall, capturing both the students and the professor. The atmosphere is energetic and inspiring. Realistic style, sharp details, vivid colors. Prompting Enhance: NO. Negative Prompting: blurry, dark, empty seats, cartoon style.



## Prompting

A modern university lecture hall with students and a professor.



A bright, modern university lecture hall filled with diverse students. The professor stands at the front, explaining a concept on a large digital whiteboard. Sunlight streams through tall windows, casting soft, natural light across the room. The background shows rows of desks, educational posters, and green plants. The camera angle is wide, from the back of the hall, capturing both the students and the professor. The atmosphere is energetic and inspiring. Realistic style, sharp details, vivid colors. Size 16:9. Prompting Enhance: NO. Negative Prompting: blurry, dark, empty seats, cartoon style.

## Prompting

- A bright, modern university lecture hall filled with diverse students.
- The professor stands at the front, explaining a concept on a large digital whiteboard.
- Sunlight streams through tall windows, casting soft, natural light across the room.
- The background shows rows of desks, educational posters, and green plants.
- The camera angle is wide, from the back of the hall, capturing both the students and the professor.
- The atmosphere is energetic and inspiring.
- Realistic style, sharp details, vivid colors.
- Prompting Enhance: yes/no.
- Negative Prompting: blurry, dark, empty seats, cartoon style.



Created with AI

A bright, modern university lecture hall filled with diverse students. The professor stands at the front, explaining a concept on a large digital whiteboard. Sunlight streams through tall windows, casting soft, natural light across the room. The background shows rows of desks, educational posters, and green plants. The camera angle is wide, from the back of the hall, capturing both the students and the professor. The atmosphere is energetic and inspiring. Realistic style, sharp details, vivid colors. Prompting Enhance: NO. Negative Prompting: blurry, dark, empty seats, cartoon style.

## Prompting

- A bright, modern university lecture hall filled with diverse students.  
**DESCRIPTION - Setting**
  - The professor stands at the front, explaining a concept on a large digital whiteboard. **ACTION**
  - Sunlight streams through tall windows, casting soft, natural light across the room. **LIGHT**
  - The background shows rows of desks, educational posters, and green plants. **BACKGROUND**
  - The camera angle is wide, from the back of the hall, capturing both the students and the professor. **CAMERA POSITION/PERSPECTIVE**
  - The atmosphere is energetic and inspiring. **FEELING/ATMOSPHERE**
  - Realistic style, sharp details, vivid colors. **STYLE**
- 
- Prompting Enhance: yes/no. **PROMPT-ENHANCEMENT**
  - Negative Prompting: blurry, dark, empty seats, cartoon style.  
**NEGATIVE PROMPTING**



A bright, modern university lecture hall filled with diverse students. The professor stands at the front, explaining a concept on a large digital whiteboard. Sunlight streams through tall windows, casting soft, natural light across the room. The background shows rows of desks, educational posters, and green plants. The camera angle is wide, from the back of the hall, capturing both the students and the professor. The atmosphere is energetic and inspiring. Realistic style, sharp details, vivid colors. Prompting Enhance: NO. Negative Prompting: blurry, dark, empty seats, cartoon style.

# Prompting

## 1. MAINDESCRIPTION

*Enter the brief scene or motif here.*

[DESCRIPTION – Environment]

Describe the scene clearly and simply. Use precise words (colour, material, shape). Avoid vague terms.

## 2. ACTION

*What is happening in the image?*

[ACTION]

Specify exactly what is happening. Use clear verbs and unambiguous movements.

## 3. LIGHT

*Describe lighting and light sources.*

[LIGHT]

Define the light source and mood (soft, hard, warm, cold, direction).

## 4. BACKGROUND

*What is visible in the background?*

[BACKGROUND]

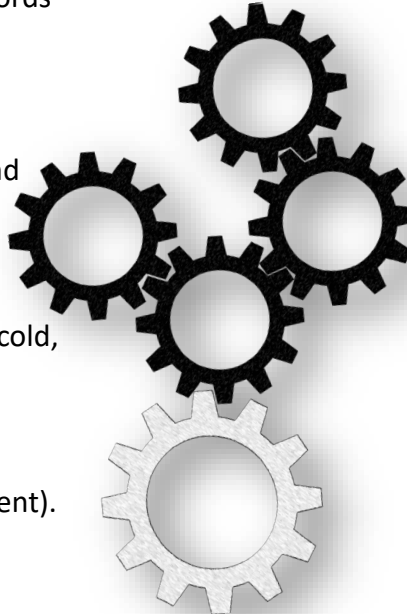
Name relevant elements (objects, colours, environment).

## 5. CAMERA POSITION / PERSPECTIVE

*Camera angle, distance, height, lens, depth of field.*

[CAMERA POSITION]

Specify angle, distance, height, focal length, or shot type (e.g. wide shot, close-up).



## 6. FEELING / ATMOSPHERE

*Emotional mood of the image.*

[FEELING]

Define the emotion/mood clearly (calm, epic, friendly, serious).

## 7. STYLE

*Image style, e.g. realistic, cinematic, hyperreal, watercolour, etc..*

[STYLE]

Specify a concrete image style (realistic, cinematic, digital art, watercolour, anime).

## 8. PROMPT ENHANCEMENT

*Should the prompt be optimised? „yes/no“*

[PROMPT ENHANCEMENT]

For fine-tuning and iterative improvement.

## 9. NEGATIVE PROMPTING

*Everything that must not appear in the image.*

[NEGATIVE PROMPTING]

Exclude unwanted elements (e.g. no blur, no text, no watermarks, no cartoon).

## Prompting - Tips

- English vs. German
- Use simple and direct language – avoid complex formulations.
- Use lots of descriptive words.
- Avoid vague or relative terms – approximately, around, maximum, relative, etc.

Refine = ask again and make gradual improvements until the desired result is achieved.

(bad – good – better – best).



# Leonardo AI

- link: <https://leonardo.ai/>
- founded in 2022 in Sydney, Australia (Canva)
- AI-based image generation tool
- free use possible – 150 tokens per day
- registration required



# DALL-E 3 (integrated into ChatGPT)

- link:  
<https://openai.com/de-DE/index/dall-e-3/>
- published in 2023 in San Francisco, USA
- owned by Open AI
- Integrated into ChatGPT
- AI-based image generation tool
- free to use –  
2 images per day
- registration required

OpenAI 



Anmelden

Forschung

## DALL·E 3

In ChatGPT ausprobieren ↗

Forschung

Sicherheit

Für Unternehmen

ChatGPT

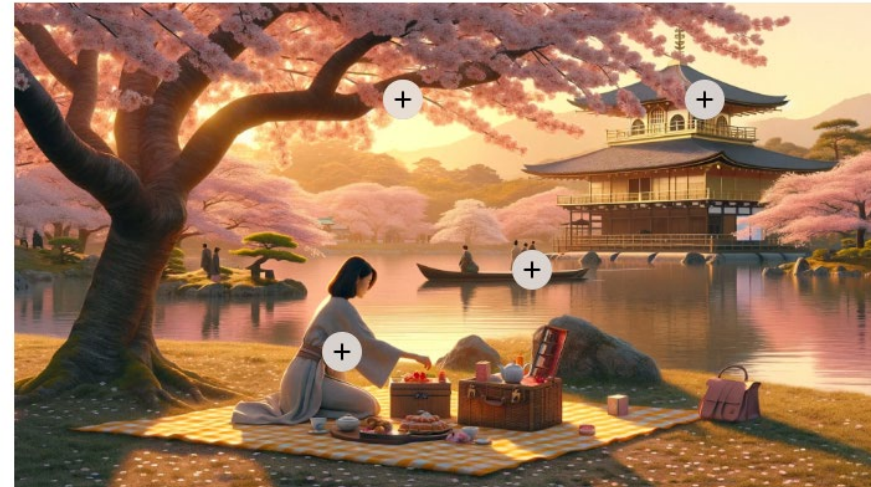
Sora

API-Plattform

Stories

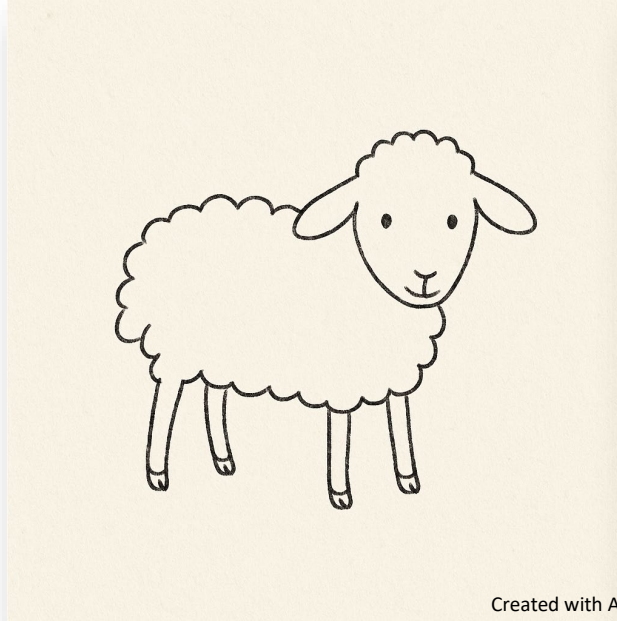
Unternehmen

Neuigkeiten



„Please draw me a sheep.“ (The Little Prince, Antoine de Saint-Exupéry).

DALL-E 3



LeonardoAI

A simple, charming, hand-drawn illustration of a small sheep, inspired by the gentle and minimalist ink-line style of classic mid-20th-century children’s book drawings. The sheep should appear slightly whimsical and innocent, as if drawn for a child who asked, “Please, draw me a sheep.” The lines are clean, thin, and slightly imperfect, giving a warm and personal sketchbook feeling. Light off-white textured paper background, no color, black ink only. The sheep stands calmly, looking toward the viewer with a soft, friendly expression. Style: minimalist, poetic, nostalgic, delicate line art, reminiscent of timeless literary illustrations.

**Negative Prompt:** No photorealism, no shading, no modern cartoon look, no vibrant colors, no background scenery, no digital effects, no textures except subtle paper grain, no complex anatomy, no overly detailed fur, no logos or text.





Created with Dall-E 3 on 19 February 2024 at 1:18 PM

# Any Questions?

## Additional Offerings

AI Campus – The learning platform for artificial intelligence

- <https://ki-campus.org/>

MMKH – Multimedia Kontor Hamburg

- <https://www.mmkh.de/>
- Artificial Intelligence Training Courses – <https://www.mmkh.de/schulungen/kuenstliche-intelligenz>
- Recordings – <https://www.mmkh.de/schulungen/aufzeichnungen>

## Opportunities for further learning on AI

**Prompt Workshop for Lecturers** (learning module in AULIS): [https://aulis.hs-bremen.de/goto.php/pg/194111\\_2203474](https://aulis.hs-bremen.de/goto.php/pg/194111_2203474)

**Workshops for Lecturers:** <https://www.hs-bremen.de/informationen-fuer/beschaefigte/lehrende-und-lehrbeauftragte/lehreplus/lehreplus-alle-workshops/>

**Prompt Workshop for Students** (learning module in AULIS): [https://aulis.hs-bremen.de/goto.php/pg/195134\\_2224629](https://aulis.hs-bremen.de/goto.php/pg/195134_2224629)

**Workshops for Students:** <https://www.hs-bremen.de/studieren/im-studium/ergaenzende-angebote-zum-studium/studiumplus/schreiblabor/#c41177>

**Homepage „AI in Study and Teaching“:** <https://www.hs-bremen.de/die-hsb/organisation/zentrale-einheiten/zentrum-fuer-lehren-und-lernen/ki-in-studium-und-lehre/>

**The State and University Library Bremen (SUUB)** regularly offers excellent online resources for using AI:  
<https://www.suub.uni-bremen.de/>

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Thank you for your attention.

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