

# Three Use Cases for AI as a Professor

Three practical use cases for AI

# Use Case 1: Topical Research with Perplexity AI

Streamlining research with AI



# Topical Research with Perplexity AI

- Quickly gather information on emerging topics
- Find relevant sources for lectures or research
- Stay informed about new developments
  - Avoid spending hours reading full papers



# Use Case 2: Generating Slides from Notes

Automating slide creation with Python

A decorative network diagram at the bottom of the slide, consisting of several grey dots (nodes) connected by thin grey lines (edges). The nodes are scattered across the bottom half of the page, with some clusters and some isolated nodes.

# Generating Slides from Notes using Python and AI

```
🍏 > ~/L/CL/G/M/02/Presentation Generator python main.py 7s
Presentation saved as module4.pptx
Welcome to the PowerPoint Generator!
Would you like to create a new presentation from a topic or from a markdown file?
1. Topic
2. Markdown file
Please enter the number of your choice: 2
Please enter the path to the markdown file: example.md
Generating slides...
Presentation saved as example.pptx

🍏 > ~/L/CL/G/M/02/Presentation Generator 50s
```



# Use Case 3: Creating Audio and Video Content

Enhancing teaching materials with multimedia

A decorative network diagram at the bottom of the slide, consisting of several grey dots (nodes) connected by thin grey lines (edges). The nodes are scattered across the bottom, with some forming small clusters and others being isolated. The lines are thin and light grey, creating a subtle background pattern.

# Creating Audio and Video Content with Python and AI

- Convert slides into audio narrations
- Create video presentations with voiceovers
- Offer alternative learning materials
  - Cater to different learning preferences



# Bonus Use Case

Encouraging AI use among students

A decorative network diagram at the bottom of the slide, consisting of several grey dots (nodes) connected by thin grey lines (edges). The nodes are scattered across the bottom, with some forming small clusters and others being isolated. The lines are thin and light grey, creating a subtle background pattern.



# Bonus Use Case: Student Engagement with AI

- Using AI to create quizzes for students



# Citations

- [1] Perplexity AI. (2024). <https://www.perplexity.ai>
- [2] Arxiv. (2024). <https://arxiv.org/>
- [3] STORM project. (2024). <https://storm.genie.stanford.edu/>



# Discussion Questions

- How can AI improve your teaching methods?
- What challenges do you foresee in using AI?
- How can students effectively use AI as a learning tool?

