

IT/ AI Seminar: Practical Presentation Topics

Each topic includes five points you have to cover

1. How AI Works (Basics)

- What an AI/LLM is, in simple terms, with everyday examples
- How an answer is produced
- A short demo: same question, different context- different answers
- Typical limitations: why AI can be confidently wrong (hallucinations), examples
- Key terms to define: model, prompt, context, token, inference... at least 10

2. Prompts: How to Ask Better Questions

- What a prompt is and why clarity matters, examples
- A simple prompt template: task + details + output format
- How to improve a prompt in 2-3 steps
- Useful prompt types: summary, email/message, step-by-step plan
- A quick demo: a weak prompt vs. an improved prompt- an example from English Studies

3. AI with Documents (RAG): Answers from Your Materials

- Why a chatbot alone is not enough for course notes or policies
- RAG in one sentence: retrieve a relevant passage, then generate an answer
- Practical use cases: syllabus Q&A, study notes, university rules, FAQs
- What can go wrong: outdated sources, missing citations, irrelevant retrieval
- Find the requirements for writing a bachelor's thesis

4. Checking AI Outputs: How to Verify Information

- Why verification is necessary (fluent text is not proof)
- Split an answer into checkable claims (names, dates, numbers, facts)
- Verify with at least two reliable sources (and link them)
- A demo: verify three claims from one AI answer
- How to write safely: label uncertainty and list what must be checked

5. Security When Using AI: Scams and Data Leaks

- Common threats: phishing, social engineering, and manipulated instructions
- What never to share with AI: passwords, personal data, private documents... a list of
- How to spot suspicious messages (3-5 red flags)
- A practical safety checklist: 8 rules for safe AI use
- A short case study: analyze one 'suspicious' message and propose actions

6. Privacy: Personal Data and Practical Settings

- What counts as personal vs. sensitive data (clear examples)
- Where data is collected: apps, browsers, accounts, permissions...
- Data minimization: share the minimum needed, anonymize when possible
- A practical audit: review permissions for two apps and adjust them
- Safe habits: remove identifiers, manage history, and use privacy settings...

7. Fairness and Ethics: When AI Can Harm People

- What bias is (one simple scenario) and where it comes from
- Where it matters: hiring, admissions, scoring, content moderation...
- How to test: compare outcomes across different user groups or cases
- A practical task: Choose one potentially biased sentence from a short text, rewrite it in a neutral way, and explain why the original wording is unfair
- How to communicate ethically: transparency, limits, and human oversight...

8. AI for Study and Work: Practical Use That Makes Sense

- Typical helpful uses: summaries, outlines, brainstorming, language support...
- What humans must still do: judgement, verification, accountability...
- A demo: one task without AI vs. with AI (time and quality comparison)
- Academic integrity: when AI help is acceptable and when it is not
- Build a personal workflow: three steps for using AI responsibly

9. AI Images, Audio, and Video: Deepfakes and Verification

- What generative media means (text- image/voice/video)
- What a deepfake is and why it is risky, examples
- How to verify: source, context, and suspicious details/artifacts
- A practical checklist: steps for 'fake vs real' evaluation
- Ethics: do not spread unverified content; report and verify first... summary of rules

10. Cost and 'Heaviness' of AI: Performance, Time, and Energy

- Why AI costs money: compute, model size, and response length
- Why brevity helps: shorter prompts and controlled output formats
- Cloud vs on-device: speed, privacy, and availability trade-offs
- How to reduce cost/impact: summarise, reuse, limit queries, avoid waste
- A practical design: Which AI models are available, and how much do they cost?

11. AI: Current Trends and in the Future