



# DB&IS Seminar on AI and DM

Summer Semester 2023

Lehrgebiet Informationssysteme  
RPTU Kaiserslautern-Landau

# Organizing Groups

- **Databases and Information Systems (DBIS)**  
<https://dbis.cs.rptu.de/>
- **Heterogeneous Information Systems (HIS)**  
<http://wwwlgis.informatik.uni-kl.de/>
- Contact to organizers: M.Sc. Patrick Hansert  
(patrick.hansert@cs.rptu.de)
- For email addresses and rooms see websites of the two groups.
- Please include [\[db-seminar\]](#) in the subject of your emails.

# Aim of This Seminar

- Critically read and understand a research paper.
- Prepare a presentation and give a talk on a research paper.
- Learn novel concepts and recent developments of databases and information systems, especially:
  - the use of AI for Data Management
  - the use of Data Management for AI

# Process

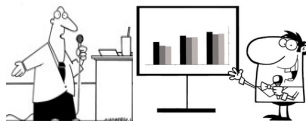
## 1. Reading and Understanding



## 2. Slide Preparation



## 3. Presenting



# Process: Reading and Understanding the Paper

- Research papers are dense texts written by experts for experts.
- You are the budding experts!
- There is no golden rule for reading papers. Depends on
  - the community
  - the type of paper (theory, system, ...)
  - your experiences

reading a research paper

Web Bilder Videos Nachrichten

Deutschland Sichere Suche: Moderat Irgendwann

**Reading Research bei Amazon.de - Niedrige Preise, Riesenauswahl** WERBUNG  
Kostenlose Lieferung möglich  
Prime Video, Prime 30 Tage testen, Angebote des Tages  
[www.amazon.de/Reading-Research](http://www.amazon.de/Reading-Research) | Werbung melden

**PDF: How to read a research paper. - Computer Science**  
careful **reading**. When you read a **research paper**, your goal is to understand the scientific contributions the authors are making.  
<https://eecs.harvard.edu/~michaelm/posts/scripts/ReadPaper.pdf>

**How to Read and Understand a Scientific Paper: A Step-by-Step Gu...**  
Reading and understanding **research papers** is a skill that every single doctor and scientist has had ... How to Read and Understand a Scientific Paper: ...  
<https://huffingtonpost.com/jennifer-raff/how-to-read-and-understand-...>

**Infographic: How to read a scientific paper - Elsevier Connect**  
Much of a scientist's work involves **reading research papers**, whether it's to stay up to date in their field, advance their scientific understanding, review ...  
<https://elsevier.com/connect/infographic-how-to-read-a-scienti...>

**How to (seriously) read a scientific paper | Science | AAAS**  
When **reading papers**, ... If the **paper** is vital to my research—and if it is theoretical—I would reinvent the **paper**. In such cases, ...  
<https://sciencemag.org/careers/2016/03/how-seriously-read-scient...>

**How to Read a Research Paper - YouTube**  
Ever wondered how I consume **research** so fast? I'm going to describe the process I use to read

# Process: Reading and Understanding the Paper

- Four more weeks for understanding the authors' contributions.
- Guideline for reading and understanding:
  - Recognize the research problem authors have addressed.
  - Understand the authors' contributions to the problem.
  - Raise appropriate questions and find limitations of the paper.  
[e.g., are authors' assumptions to propose the solution reasonable?,  
the logic of the solution justifiable?,  
is there any simpler way to approach the solution?, etc.]
- Have a look on the related works of the paper for better understanding of the scope of the research problem.
- Think: Your tutor might ask you to tell in 4-5 sentences what the paper is about.

# First Appointment with Your Tutor

- Schedule an appointment with your tutor, to take place **not later than 20.11.23**.
  - **Don't schedule this meeting last minute** – your supervisor has other appointments too.
  - Before that meeting, write a short (5000-5500 characters) summary. For this, you find a template on the seminar webpage.
  - Send the summary to the tutor before the appointment.
  - Send before the intended outline (incl. rough timeline) of your presentation to discuss it with your tutor.
- **Each student must show a solid understanding of a paper and outline of the presentation slides.**

## Process: Slide Preparation

- More than one month for making the slides.
- Consult with your tutor for any difficulties in slide preparation.
- Remember that you must explain the content of the slides to the tutor.
- Send your No-left-TODO version of slides to the tutor **at latest 14.01.24**.
- **Each student must complete No-left-TODO presentation.**
- Afterwards, revise your slides to incorporate the changes suggested by your tutor.
- Send your Camera-Ready version of slides to the tutor **2 days before** the presentation dates.



# Process: Slide Preparation

Always remember: **Most of the audience does not know the paper and wants to learn something!**

## Good Practice

- Mention slide numbers.
- Cite papers correctly.
- **Do not copy!**
- Put reference to the source of copied figures, equations, etc.
- Custom illustrations and animations can help.

# Process: Slide Preparation

## Good Practice

- Try to avoid including long sentences in your slides.
- Examples and figures are more preferable.
- A good presentation should tell a story.
- Do not use small fonts.
- Do not overfill your slides with text or figures.

# Process: Presentation

- 45 min. will be assigned to each student for their talk on the assigned paper following a 15 min. Q&A session.
- Talk and slides should be in English (don't worry—nobody here is native speaker).
- **Everybody** is expected to ask questions.

# Process: Presentation

- Presentations should be **45 min.** Large deviations will affect the grading/passing of the seminar.
- When presenting do not read from the slides.
- **Practice your talk at home.**

# Process: Presentation

- Presentation dates:
  - middle of February (maybe 15./16.)
- Participation in the presentations of the peer students is mandatory.

# Submission of Final Report

- Submit a short report (not longer than 4 pages). Report should include:
  - Motivation and problem statement.
  - Brief discussion on main approach and experimental results.
  - Conclusion of the work in your own words mentioning strong and weak points of the paper.
  - Send your Final Report to the tutor **2 weeks after** the presentations.
- **Do not copy and paste from the paper.**
- Use the  $\text{\LaTeX}$ -template.

# Process: Passing

## Assessment based on

- Quality of presentation slides and ability to explain the work of the assigned paper.
- Ability to answer and discuss the questions raised in Q&A session.
- Performance in engaging yourself in others' Q&A session.
- Evaluation on 4-pages report.

**The seminar is ungraded.**

# Process: Grading / Passing

## Attention!

- Missing deadlines will not be accepted. All deadlines with respect to local time zone (Kaiserslautern).
- Attend all the talks.
  - In case of absence please contact beforehand with valid reasons (e.g., illness or exams).



## Misc: How to Fail the Seminar

- Miss a submission deadline.
- Copy text passages from your assigned paper.
- Copy text from other resources.
- Copy the presentation from, e.g., original authors.
- Do not understand the contents of your paper.

# Summary

- Understanding → Slides → Presentation → Report.
- Also, on the seminar webpage you find more information and the schedule (eventually).

*Thank You for Your Attention!*

