

Seminar NPIC – Kick-off

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TUM Uhrenturm

Organization

- ▶ Kick-off meeting (today)
- ▶ Literature research + derive structure
- ▶ Discuss structure with advisor
- ▶ Write draft paper – deadline 2021-12-06
- ▶ Peer-review two other papers – deadline 2021-12-20
- ▶ Incorporate feedback from peers and advisor
- ▶ Final submission + presentation – January 2022

Topics

- ▶ Literature and sources
 - ▶ Finding literature and citable sources/references
- ▶ Writing a seminar paper
 - ▶ Structure, style, citing
- ▶ Presentation techniques
 - ▶ Structure, slide design, presentation style

Citable Literature

Good to use

- ▶ Books, book chapters
- ▶ Papers (conf./journal)
- ▶ Published articles
- ▶ Manuals
- ▶ Websites with identifiable author
(cite with URL+access date)

Try to avoid

- ▶ Wikipedia
- ▶ Facebook, etc.
- ▶ Advertisements
- ▶ Lecture slides
- ▶ Source code

Finding literature

- ▶ Starting points: IEEExplore, ACM DL, Google Scholar, ...
 - ▶ Select appropriate keywords
 - ▶ Many papers/books accessible freely via the library
- ▶ Other starting point: your advisor
- ▶ Graph algorithms
 - ▶ Publications of the same author(s)
 - ▶ Publications at the same venue
 - ▶ Cites ... (listed references)
 - ▶ Cited by ...

Structure

- ▶ Abstract: Brief summary of area, problem, approach, result
- ▶ Introduction: introduce area, problem, key results, contributions, outline
- ▶ Background: if needed, describe prerequisites
- ▶ Main part (approach, evaluation, discussion, etc.)
- ▶ (*In a paper*: Related Work)
- ▶ Summary & outlook

Writing style

- ▶ Factual, precise, focused
 - ▶ Stay on topic, no story telling, ...
 - ▶ Limit to important and necessary topics
 - ▶ Don't omit necessary prerequisites
- ▶ Avoid forward references
- ▶ Avoid *I*, prefer *we* (or passive voice)
- ▶ *We* only described the authors, not the reader

Citing

- ▶ All work that is not yours **must** be cited
 - ▶ Clearly describe source
 - ▶ But: no wrong/inaccurate attributions
- ▶ Citing styles:
 - ▶ Literal (direct) quote
 - ▶ indirect quote (rephrase) ←strongly preferred
- ▶ Exception: foundations can be assumed (generally first few Bachelor semesters)

Citing: Examples

The x86 architecture defines the register CR2 [1].

The x86 architecture defines the register CR2~\cite{intel2019man}.

The x86 architecture defines the register CR2. It can be used with the instruction MOV. [1]

The x86 architecture defines the register CR2. It can be used with the instruction MOV.~\cite{intel2019man} (Absatz)

Valgrind [1] is a tool for run-time instrumentation.

Valgrind~\cite{nethercote2007} is a tool for run-time instrumentation.

Other approaches [1,2,3] ...

Other approaches~\cite{foo,bar,baz} \dots

Presentation: Content Selection

Presentation for the **audience!**

- ▶ What do you want the audience to take away?
(Not: what can I talk about!)
- ▶ What are the key points?
- ▶ How much content fits into the time slot?

Structure

- ▶ Motivation
 - ▶ Why is the topic relevant?
- ▶ Background
 - ▶ Consider referencing information from previous talks
- ▶ Concept
- ▶ Evaluation
 - ▶ How good is the described concept?
- ▶ Conclusions and outlook

Structure

- ▶ Important: topics build upon each other!
(avoid forward references)
- ▶ Only give important details
- ▶ Use good/helpful examples
- ▶ Critical discussion of the topic

Media

- ▶ Slides (Beamer)
 - ▶ For use during the talk
 - ▶ Good to prepare
 - ▶ *Backup-Folien* as preparation for questions
- ▶ Whiteboard, blackboard
 - ▶ Permanently needed information
 - ▶ Answering questions
- ▶ Hardware, demonstrators, etc.

- ▶ Check possibilities in advance

Before the Talk

- ▶ Prepare slides, etc.
- ▶ Do a dry-run
 - ▶ Always recommended
 - ▶ Helps with uncertainty and time estimation
- ▶ Prepare on-site
 - ▶ Laptop, Beamer, laser pointer, clock, etc.

Talking Style

- ▶ Speak freely
- ▶ Don't go too fast/slow
- ▶ Stay in contact with the audience
 - ▶ Eye contact, position, etc.
- ▶ Usually at least 1 minute per slide
- ▶ Stay in time limit
 - ▶ Optional slides can fill time
 - ▶ Regularly consult a watch

- ▶ **Stay calm**

Slides: Content

- ▶ One topic per slide
- ▶ Avoid text
 - ▶ ≤ 8 lines
- ▶ Prefer graphics/illustrations
- ▶ No unused points
 - ▶ Cover everything on the slides in your talk

Slides: Content

- ▶ Title page
 - ▶ Title, name, institution, date, location
- ▶ On every other slide: number and title
- ▶ Conclusion
 - ▶ Alle important points on one slide

Slides: Colors

- ▶ **Black on white**
- ▶ **Black on white**
- ▶ Sufficient contrast
- ▶ Use colors sparingly, but systematically
- ▶ Be careful with gradients
- ▶ No annoying backgrounds (wave textures, etc.)
- ▶ **Anomations only with sufficiently added value**

Slides: Text and Graphics

- ▶ Double-check text for typos, etc.
- ▶ Use a readable, sans-serif font
- ▶ Prefer vector graphics (or images with a high resolution)
- ▶ Avoid screenshots/scans
- ▶ Important: citations
- ▶ Listings only with a sufficiently large value

Summary

- ▶ Bring your point to the audience – written or spoken
- ▶ Good literature as starting point
- ▶ Logical structure for paper and presentation
- ▶ Presentation: good preparation is important

- ▶ Chance to learn 😊