Academic Skills in Software Engineering (ASiSE)
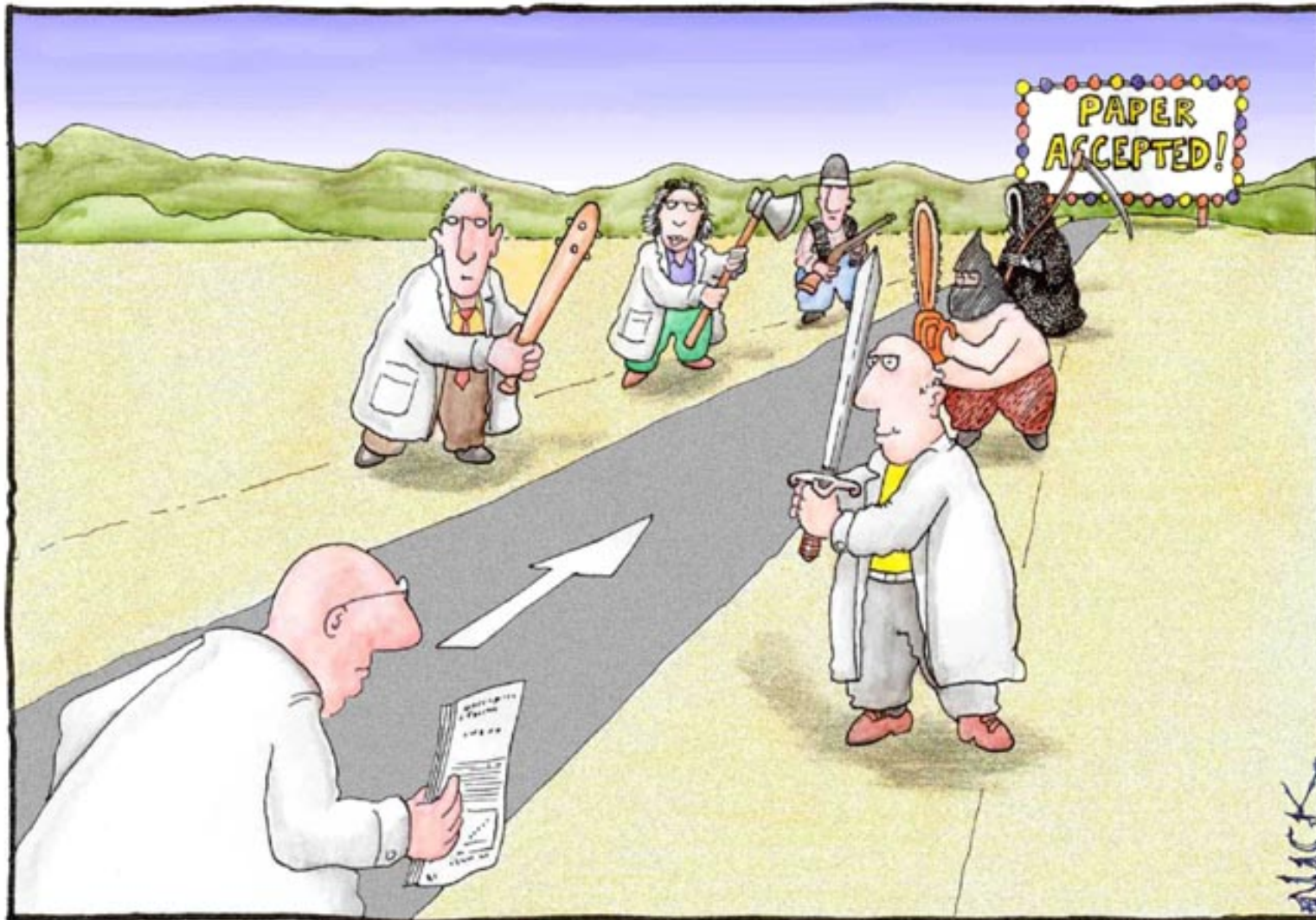
Organization

Exercise
Tuesday, 5. DS, APB/E007
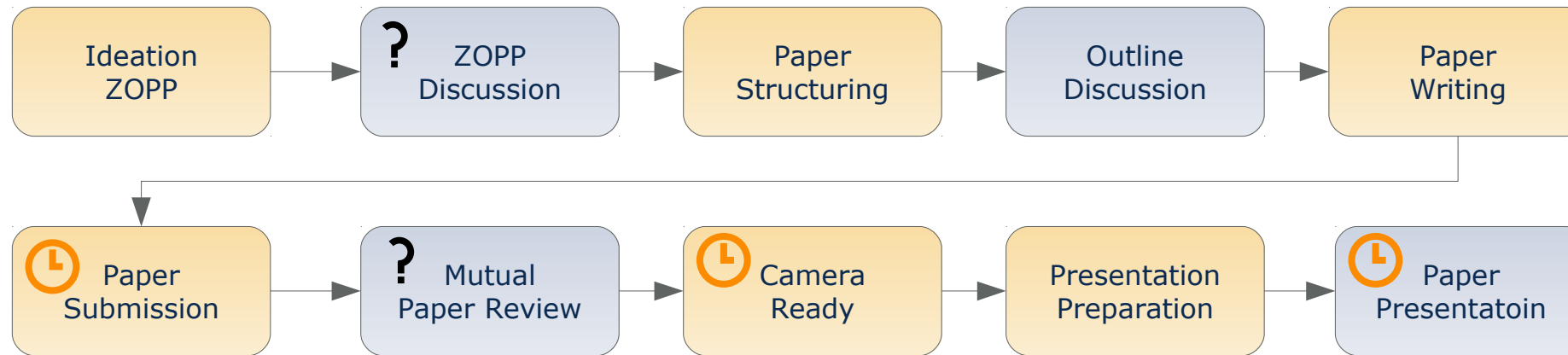Thomas Kühn (thomas.kuehn3@tu-dresden.de)

DRESDEN concept
Exzellenz aus
Wissenschaft
und Kultur

TECHNISCHE UNIVERSITÄT DRESDEN

Most scientists regarded the new streamlined peer-review process as "quite an improvement."

Cartoon by Nick D Kim strange-matter.net. Used by permission.

- Emulate a typical review process
- Students perform a cross review of their own papers
  - Directly via *EasyChair.org*[5]
  - *More later*

5) easychair.org

- Pick a research topic within **computer science**
- Work alone or in groups of two
- Give a presentation on your topic
  - 30 minutes presentation
  - Practice giving presentations
  - Follow the advise provided throughout the course
- Writing a research paper
  - 4-5 pages two column paper
  - Preferably use LaTeX
  - Style: *ACM SIGPLAN Conference Format* (acmart)[1]
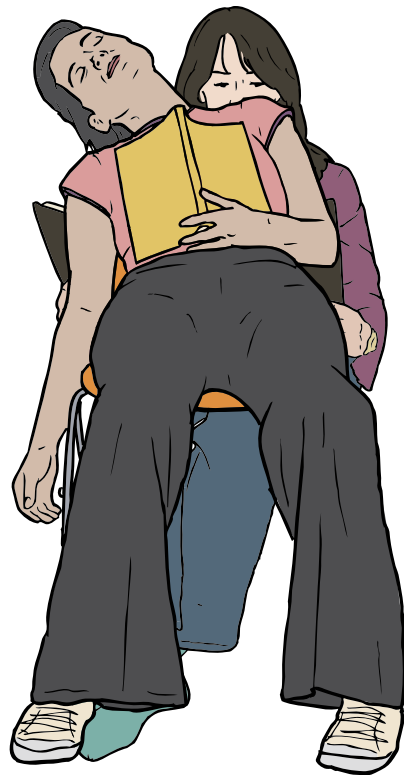 - Apply the skills learned throughout the course

1) http://www.sigplan.org/Resources/Author/

- (Preferably) create your paper with LaTeX[1]
  - Use an IDE for Latex
    (Linux: Kile, Windows: TexnicCenter)
  - Install a LaTeX distribution
    (Linux: texlive, Windows: miktex)
- Use the *ACM SIGPLAN Conference Format*
  - Hints and downloads from ACM website[2]
  - Follow the author guidelines
- Manage your references with BibTex[3]
  - Collect your references in bib file
  - Retrieve BibTex entries from, e.g., *Google Scholar*[4]
  - Toolsupport: Mendeley, Zotero, JabRef, ...

1) www.latex-project.org
2) http://www.sigplan.org/Resources/Author/
3) www.bibtex.org
4) scholar.google.de

- Enroll to the course via *jExam*[1]
- Give scientific presentations
  - Give a 20 minutes presentation
  - Survive 10 minutes of discussion
  - Individual Presentation   **17. – 18.06.2019**
- Write a research paper
  - Submission of the paper   **25.06.2019 (AoE)**
  - Submission of the camera ready version   **12.07.2019 (AoE)**

1) http://jexam.inf.tu-dresden.de

Reading   # Writing   # Organizing

Images from OpenClipart.org (Creative Commons by Steve Lambert)

Common Tasks

- Iterative process from idea to written paper
- Develop *"Ziel-orientierte Projektplan"* (ZOPP)
- Write an **abstract** early
- **Structure** your paper *(chapters, sections, paragraphs)*
- Write **outlines** for each chapter, section, ...

Mindmap with four arcs capturing the main idea of your paper

What *problems* does your paper address?
- Pick one main problem and add detailed subproblems

What are the corresponding *goals* of your paper?
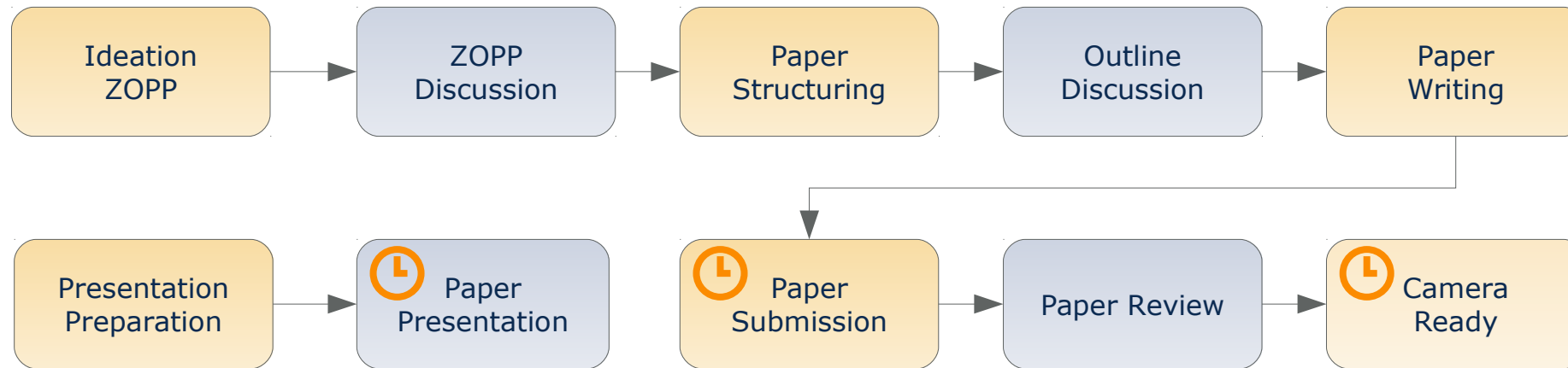- Align goals and subgoals to problems you address

What *solution* does your paper present?
- List your solution and subsolutions aligned to goals

What are *success criteria* or how to *evaluate* your solution?
- Specify *functional* and *non-functional* requirements
- *Evaluate* whether solution achieves goals

1) Find a research topic for your paper.

2) Create a ZOPP for your paper from the *scientific point of view*.

```
Ideation    →    ZOPP    →    Paper    →    Outline    →    Paper
ZOPP             Discussion   Structuring  Discussion     Writing
```

```
Presentation  →  🕐 Paper      →  🕐 Paper     →  Paper Review  →  🕐 Camera
Preparation      Presentation     Submission                       Ready
```

- *Give scientific presentations* (20 min + 10 min discussion)
  - Individual presentations   **17. – 18.06.2019**
- *Write a research paper* (>=5 pages ACM Style)
  - Paper submission[1]   **25.06.2019 (AoE)**
  - Paper camera ready[1]   **12.07.2019 (AoE)**

1) Per easychair.org

1) **LaTeX**
http://www.latex-project.org

2) **ACM SIGPLAN Conference Format**
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3) **BibTex**
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4) **Google Scholar**
https://scholar.google.de

5) **jExam**
http://jexam.inf.tu-dresden.de

6) **EasyChair**
http://easychair.org