

Seminar
Selected Topics in Communication Management
Selected Topics in IT Security

Information and Advice

University of Bonn
Institute of Computer Science 4

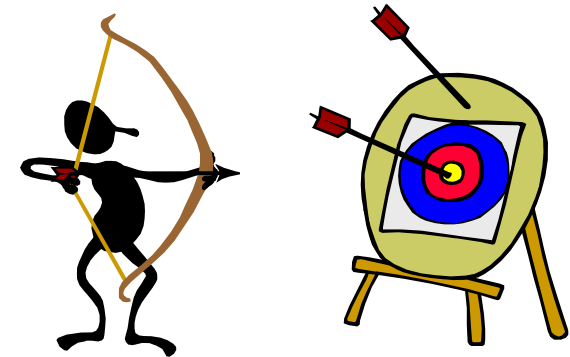
Prof. Dr. Peter Martini Prof. Dr. Michael Meier

summer term 2017

General Information

- Goals:

- Getting familiar with a topic in a limited time frame.
- Writing a good report.
- Giving a good presentation to a group.

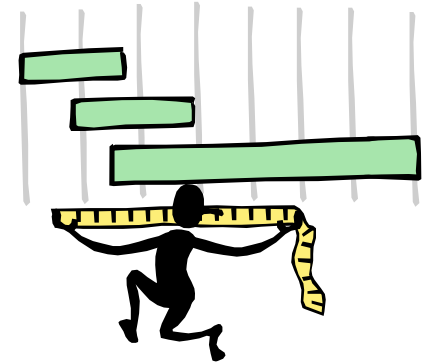


- Components:

- Written report of approx. 10 pages (a template will be provided)
- Review of ~two other reports. For this part you will use a conference management system. We will inform you on time via e-mail.
- Presentation (~30-minute talk, 15-minute discussion).
- Lots of interaction with your advisor and fellow students.

- Steps:

- Register for the seminar (until 7 **May** in BASIS).
This is your first important deadline! Care about the registration!
- Initial meeting (today).
- Structure your work, write the report, review other's reports, prepare the presentation (guided by your advisor).
- Presentations (“Blockseminar”, all presentations are given within one day: 17 July 2017; exact time and location will be announced timely).



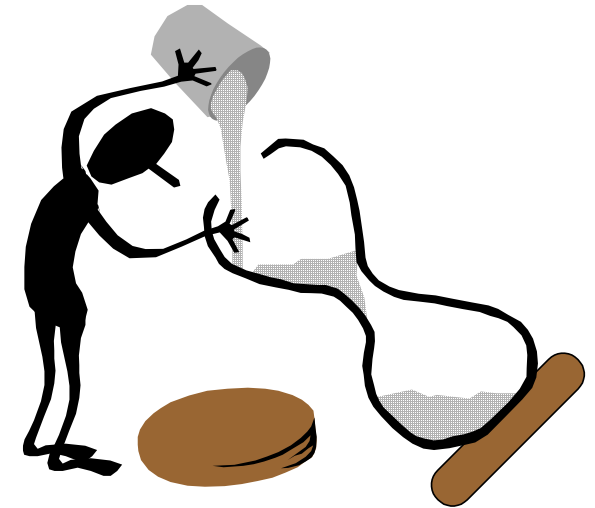
- Seminar Websites:

- Seminar MA-INF 3209 “Selected Topics in Communication Management”
<http://net.cs.uni-bonn.de/work-groups/cs/teaching/st-2017/lab-communication-and-communicating-devices-semester-course/>
- Seminar MA-INF 3317 “Selected Topics in IT Security”
<http://net.cs.uni-bonn.de/wg/itsec/teaching/st-2017/selected-topics-in-it-security/>

Time Schedule

Time schedule (your deadlines)

- **Today:** Introductory meeting
- ~3w • **7 May:** Document outline
 - » literature research is done at this point
 - » you already know what you want to write in each section
- 4w • **7 May:** Registration in BASIS ends
- **4 June:** Complete report draft
 - » final report, as you would want it to be graded
 - » correct citation/referencing, no grammar or spelling mistakes
- 3w • **12 June:** You receive comments on your report from your advisor
- **25 June:** Complete report, ready for peer-review
 - » you read, understand and comment on two other reports
 - » You receive reviews from your classmates and your supervisor.
- 2w • **9 July:** Reviews done
- <1w • **14 July:** Complete report, final version
- 2d • **16 July:** Slide set for your presentation
- 1d • **17 July:** Final presentation



- You will receive a mark for the seminar based on:
 - the written report (substance, presentation, language, ...)
 - the reviews (understanding, quality of comments, ...)
 - the presentation (scientific presentation, reduction to main aspects, understanding, ...)
 - the discussion (ability to explain, understanding)
- The “Examination Rules for the Masters Degree Course in Computer Science” (i.e., the unofficial translation of the “MaPO”, January 2012) say:



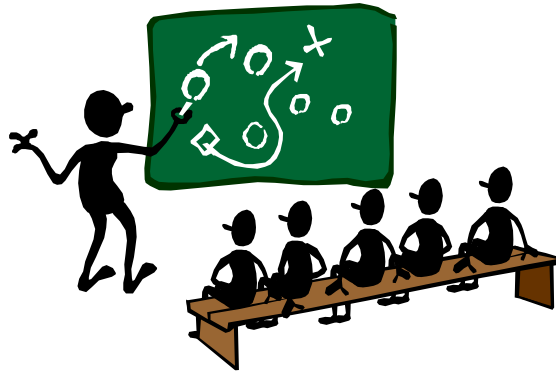
§ 11(5): “Examination results in seminars will relate, as a rule, to written papers and oral discourses relating to partial areas of the subject matter dealt with in the seminar.”

§ 16(3): “Seminar discourses document the candidates’ ability to present scientific results in a comprehensible manner and to explain them in a discussion.”



- Questions?

- Organizational:
Saffija Kasem-Madani
cs4-seminars-labs@lists.iai.uni-bonn.de
- About your topic: Your advisor



- Dates:

- Presentations:
17 July 2017, exact time and location t.b.a.
- Submission of written report (final):
Friday, 14 July 2017

These are firm dates!

- Main literature sources:

- Your advisor will send you an email containing further information about your topic.



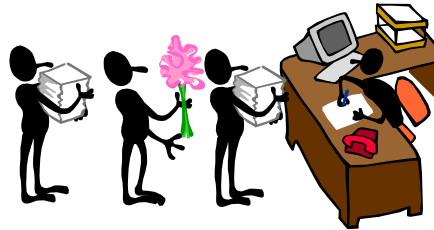
Review Process

Review Process

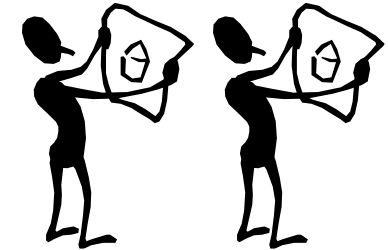
Peer review is the evaluation of papers by other researchers to the writer of the work to maintain quality (and improve the paper).



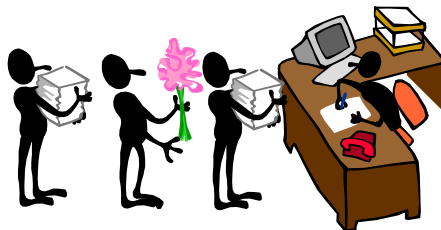
(1) Write your paper



(2) Submit paper



(3) Review other papers



(4) Submit reviews



(5) Receive reviews

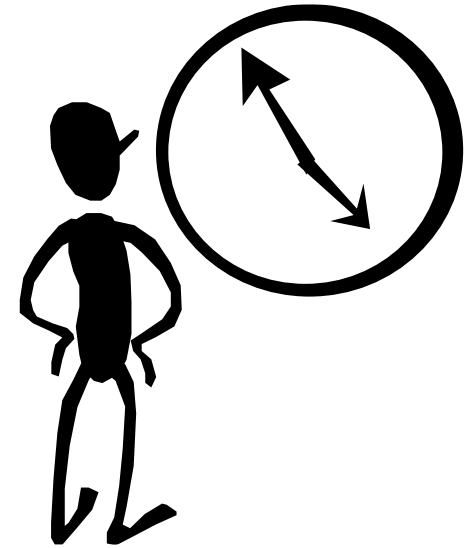


(6) Improve your paper

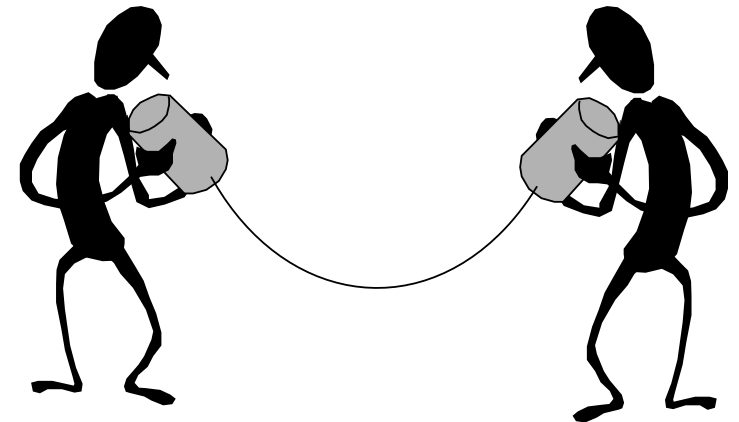
Some Advice

Advice: Deadlines

- Deadlines have to be kept!
 - Official deadlines (see previous slide on deadlines)
 - Any appointments and deadlines agreed upon with your advisor, e.g.,
 - first meeting
 - weekly meetings
 - intermediate report deadlines
 - Time management is important!
- A *complete* version is meant to be complete!
 - Submit a complete report without empty sections or paragraphs.
 - Include a full list of proper references and sources.
 - Make sure your text is free of spelling and grammar mistakes.



- Contact your advisor:
 - Let your advisor approve your work.
 - Discuss the structure of the report with your advisor.
 - Discuss your presentation slides with your advisor.
 - Ask your advisor for help if you have questions or want to improve your understanding of the topic or you are unsure about proper citing/referencing.
- Consider the feedback you receive:
 - Take notes during the meetings with your advisor.
 - The suggestions by your advisor are meant to improve your work. However, in general only you are responsible for your work.
 - Exception: **change request by your advisor**. Ignoring a change request may result in a failed seminar.



Guideline for the Composition of Master Theses, Seminar Papers and Lab Reports

Rheinische Friedrich-Wilhelms-Universität Bonn
Institut für Informatik IV

Prof. Dr. Peter Martini and staff

28.03.2012

1 Why?

This guideline for composing master theses, seminar papers and lab reports was inspired by the observation that, in the process of their work, students often repeat the same mistakes that could easily be avoided. On this background, the idea for this guideline was born with the intention to reduce your (and also, of course, our) time input, and provide you with a set of techniques for composing scientific texts which have proven very effective for improving the presentation of contents as well as as their comprehensibility for the reader.

1.1 The Purpose of a Lab Report

Preparing the report is an inherent part of every lab offered by our work group during the main study period. The report should give the reader a detailed picture of

- which task was tackled during the practical exercises,
- which challenges had to be coped with in order to accomplish the task,
- in what way and how well these challenges were mastered.

The report is **not a protocol of procedures**, i.e. it should not provide a detailed listing of all steps made in order to solve the problem. It is rather a documentation of

1

and solution and should also motivate why this particular solution was chosen. It is appropriate to also mention other possible solutions that were tried but lateron (for good reasons). However, the description of the implemented solution must outweigh such references.

Purpose of a Seminar Paper

A seminar paper should summarize in short the vital aspects of a given subject. Since the text sources usually outnumber the admitted paper volume by far, it is the author's task to reduce the sources to the relevant facts. The paper should be written in the author's own words and never be literally copied from the original text. This is particularly applies to text sources in foreign languages: literal translations may be recognized for the simple reason that they are difficult to read; apart from this, they simply miss the point of the matter. One of the excuses for using literal translations is that the original text could not be understood. If this is the case, rather ask your tutor for help – that is what he is there for. Other popular excuses like "the text was so excellent, I could not have said it better" certainly do not require comments.

Purpose of a Master Thesis

According to the MaPO (conditions of study) of 2008 [MPO08], the Master thesis is defined as a final quotation from the German language MaPO:

Die Masterarbeit ist eine schriftliche Prüfungsarbeit, die zeigen soll, dass der Studierende in der Lage ist, innerhalb einer vorgegebenen Frist ein wissenschaftliches Problem zu bearbeiten, eine Lösung zuzuführen und diese angemessen zu präsentieren.

The English meaning would be:

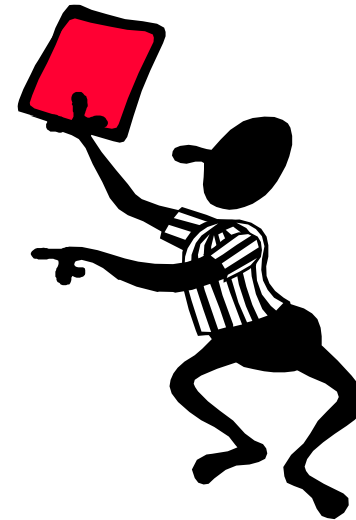
The master thesis is expected to show that the student is capable of independently applying scientific methods to a problem in the field of his/her specialization within a set period of time, proving his/her aptitude for scientific work."

When reviewed on the basis of the written elaboration handed in by the student, for the student's own benefit it is recommended to focus not only on the content but also on an appealing form of their presentation. Normally, the presentation is influenced by formal aspects of the thesis. If, however, we have to choose between two possible gradings, the form of presentation can be of vital

2

Advice: Citing and Copying

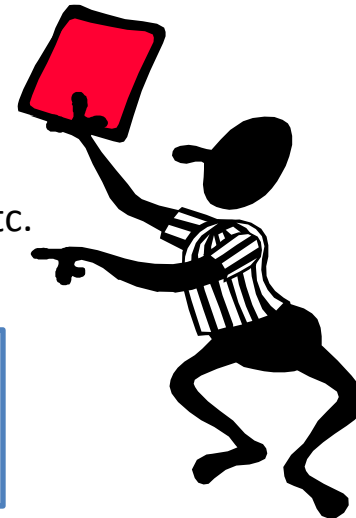
- Goal of the seminar:
 - Describe a topic **in your own words**, based on existing sources.
- Citations and figures:
 - Clearly indicate citations, e.g., when you cite opinions of others or results obtained by others.
 - Do not cite excessively!
 - When “citing” figures:
 - reference the original work,
 - draw the figures yourself, and
 - include only relevant parts
- Work scientifically or fail the course:
 - Copying (even if slightly modified or rearranged) without citing the original work leads to a failed seminar.
 - Simply translating from other works is equal to copying.
 - Excessive citing may lead to a failed seminar.
 - Know the difference between citing and referencing.
 - If you don't: ask your advisor!



Advice: Avoid Plagiarism

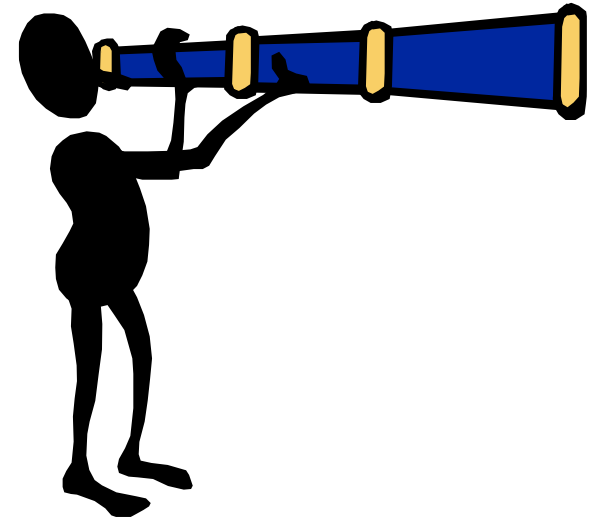
- What is plagiarism?
 - To steal and pass off the ideas or words of another as one's own.
 - Use another's production without crediting the source.
 - To commit literary theft.
 - Present as new and original an idea or product derived from an existing source.
- Merriam-Webster Online Dictionary
- How do I avoid it?
 - Do not copy, paraphrase, translate, or summarize from any source without documenting adequately and truthfully.
 - Do not quote excessively, such that the quoted material makes up significant portions of your work. This applies even if you give credit!
- Consequences
 - If plagiarism is in evidence, you fail the lecture, seminar, thesis, etc.
 - Plagiarism may become expensive (see MaPO):

§ 13(9): „Any intentional violation of a regulation of these examination rules [...] will be regarded as an offence. Such an offence may be punished by a fine of up to 50,000 Euros.“



Advice: Sources, References and Style

- Use the LNCS document class for the final report.
 - Downloadable from the seminars' websites.
- List of references:
 - Give a complete list of all sources used.
 - Author and title.
 - Type of publication.
 - Date.
 - For online sources: state when you last checked the contents.
 - When in doubt, ask your advisor!
- Choose sources carefully:
 - Use the sources indicated by your advisor, and look for further sources yourself.
 - Be aware that some sources may be unreliable or change frequently (common example: to cite or not to cite a Wikipedia article).
 - When in doubt, again, ask your advisor!



Conclusions

Your “Take-Home” Message

- Read your e-mails regularly
 - We advise you to use your @cs.uni-bonn.de address.
 - Use another → you are responsible that e-mails really reach you.
- Keep dates and deadlines in mind
 - Don't miss deadlines!
- Problems? Contact your advisor
 - In time!
- Do proper time management
 - Start early!
- Don't plagiarize
 - We will find out ...



Topics Selection

Topics Selection 1: Participants

- Participants:
 - Lennart Buhl
 - Sina Mahmoodi
 - Tim Jülicher
 - Tobias Hartmann
- Your preferences:

		ICS Security	Malware	Privacy
Buhl	Lennart	x	x	
Mahmoodi	Sina		x	x
Jülicher	Tim	x	x	
Hartmann	Tobias			x
Michaelis	Friederike	?	?	?

- Each participant will choose one of the presented topics.

Topics Selection 2: Topics

- Industrial Control Systems' Security
 - 1 Place
 - Supervisor: Piotr Pausztelo
- Malware
 - 5 Places
 - Supervisors: Mohammad Qasem (1), Niklas Bergmann (2), Raphael Ernst (2)
- Privacy
 - 1 Place
 - Supervisor: Saffija Kasem-Madani

ICS Security

Malware 1

Malware 2

Malware 3

Privacy

- Utility-Preserving Data Transformation
- Goal: Privacy-preserving data analytics.
- Survey definitions of utility and categorize them.