HS: Technical Data Privacy

Kickoff: Reading and writing in academia

Amr Osman

Chair of Privacy and Data Security
TU Dresden
Dresden, Germany
amr.osman@tu-dresden.de

17.10.2017
Outline

1. Literature
2. Writing
3. Academic honesty
4. Peer-reviewing
   - In academia
   - In the seminar
5. Easychair
1 Literature

2 Writing

3 Academic honesty

4 Peer-reviewing
   - In academia
   - In the seminar

5 Easychair
Finding papers

Search engines
- Google scholar
- Springer (TUD IP)
- IEEE Xplore (TUD IP)
- DBPL
- Citeseer

Keyword search
- Be creative. Try different keywords

Backward search
- Which papers are referenced?

Forward search
- Which papers reference this one?

Ask your supervisor :-)

References


Reading papers

Criteria

• Promising title!
• Considers the same area / problems.
• BUT it does not really have to be relevant for your topic
  – Different scope / assumptions
  – Not a new system, only evaluation.

• Reading order
  1. Title
  2. Abstract
  3. Summary & Conclusion
  4. Introduction
  5. The rest
Questions to ask

- What problem is tackled?
- How is the problem motivated?
- What assumptions is the work based on?
- What solution to the problem is proposed?
- How is the solution evaluated?
- What is the setup of the evaluation?
- What are the main contributions of the paper?
- Are there any open questions?
- Problems in the evaluation / assumptions?
1. Literature

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Outline

- Title
- Abstract
- Introduction
- Literature survey
- Background
- Theory
- Specification
- Implementation / Evaluation / Related work
- Summary / Further work / Conclusion.
What to include

Abstract

- Problem statement
- Relevance: Why is this problem really a problem?
- Response: What is your solution to the problem?
- Confidence: How do you show in this paper that your solution is good?

Introduction

- Broad topic, potentially little broad background.
- Topic, some background.
- Our goal, research question, motivation and relevance.
- Why is it a problem the reader should care about? Why is it hard?
- Related work
- Your contributions in this paper
- Reader’s digest
What to include

Background
- Basic principles
- Definitions
- Related work

Literature survey
- Comparison / classification of related work
- Use same measures / structure for each work
- Often, $a_1, a_2, a_{etc}, b_1, b_2, b_{etc}$

Summary, conclusion and outlook
- Re-state what you did in this paper
- What is the main insight?
- What are the potential next steps?
## Citations

<table>
<thead>
<tr>
<th>Bad</th>
<th>Good</th>
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</thead>
<tbody>
<tr>
<td>Johnson found that “ABC” [1]</td>
<td>A'B'C’ [1]</td>
</tr>
<tr>
<td>In their paper “XYZ”, the authors find that ... ABC ... [1]</td>
<td>... ABC ... [1]</td>
</tr>
<tr>
<td>Mark Smith found that ... [1]</td>
<td>Smith found that ... [1]</td>
</tr>
<tr>
<td>Mark Smith and John Shepard found that ... [1]</td>
<td>Smith and Shepard found that ... [1]</td>
</tr>
<tr>
<td>Smith, Shepard, and Green found that ... [1]</td>
<td>Smith et al. found that ... [1]</td>
</tr>
<tr>
<td>In 2005 ... [1]</td>
<td>... [1]</td>
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</tbody>
</table>
Structural hints

Sentences
• Present a single statement
• E.g. “x = y”, “red is not blue”, “z < 1 => x = y”

Paragraphs
• Statements belonging to the same idea / concept
• E.g. “x > 2” and “y = 7 => x > 10”

Sections
• Combines statements belonging to the same line of thought
• In most cases: same level of abstraction
• E.g. “preliminaries for X”, “approaches for X”, “new ideas”

Abstraction levels
• One level per paragraph
• From high to low abstraction level or vice versa
• E.g. Design -> specification -> implementation (or the opposite)
English hints

- a, b, and c
- i.e. means id est (clarification)
- e.g. means exempli gratia (example)
- cf. confer (do not use cp.)
- et al. means et alii (and others)
- Figure, Table, Section, Chapter
- “we” describe (do passive, only present)
1 Literature
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4 Peer-reviewing
   ● In academia
   ● In the seminar
5 Easychair
Academic honesty

Paraphrase and write in your own words.

It is ok to sometimes include some “quotes” from some papers. Don’t do that often though.

Close that other window and / or browser / pdf reader while you write :-)

http://integrity.ou.edu/files/nine_things_you_should_know.pdf
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In a Nutshell

Reviewing means:

• Objectively read and criticize a work in a structured process

Done by people of similar qualification as the readership

• Hence: peer review

Reviews are passed back to authors

• Should aid them in improving their work

Reviews are written anonymously

• Author does not know the reviewer’s name

• Sometimes: reviewer does not know the author’s name

Work is reviewed by several reviewers

• To ensure fair treatment

• To get several views on a work
The purpose

The objectives of peer-review are...

- Improving published texts
- Guarantee standards of quality
- Filter mechanism: What’s worth to be read and presented on a conference?
The process

Roles in the review process

- Authors
- Reviewers (PC members)
- Organizers (PC chairs)

1. Authors submit paper (e.g., to a conference)
2. Paper is assigned to reviewers (e.g., through paper bidding)
3. Reviewers submit review reports
4. Reviews are released to author
5. Authors resubmit paper (when accepted)
The review

Reviewer compiles review by filling out review form

- Multiple-choice and free-text questions
- Free-texts are most important in the seminar (detailed feedback)

Review should contain:

- Summary of paper’s content
- Evaluation of the research goal
- Evaluation of the quality
- Recommendation: Should the paper be accepted?
- List of necessary/recommended changes
Quality criteria

- Correctness
- Significance
- Innovation
- Interest
- Timeliness
- Accessibility

- Elegance
- Readability
- Compactness
- Style (Structure, Flow, Vocabulary, Grammar)
- Polish
Questions

- Written well enough for you to evaluate the technical content?
- Does the abstract describe the paper?
- Does the introduction adequately explain context and problem?
- Are the remaining sections clear?
- Do they follow in a logical order?
- Is there too much or too little detail?
- Are the figures and tables well labeled, legible, and meaningful?
- Are there too many or too few tables and figures?
- Are explanations poor or even nonsensical?
- Is the paper sufficiently self-contained?
  - Can someone knowledgeable in the field understand it?
  - Does the reader need detailed knowledge of the research field?
- Is the paper too colloquial or too formal in style?
  - Is the formalism useful or necessary?
- Is the paper too long?
  - Does it contain too much material or has the author been too wordy?
- Does the paper contain typographical errors or problems in grammar, punctuation, and wording?
Evaluating surveys

- Does it cover the material promised by title and abstract?
- Is this a reasonable body of knowledge to cover in a survey?
  - Is the scope too wide, too narrow, or too bizarre to be useful?
  - Is the selection balanced or biased?
- Does the paper have a consistent theme?
- Is the material correct?
- Is the level of coverage too simple-minded or sophisticated, given the likely audience?
- Is the paper well written and clear?
Peer-reviewing in the seminar - Purpose

Improve the texts to be written
Get an broader insight into the research area
Learn from other people’s work (and their mistakes)
Train your abilities to
  • Criticize other people’s work
  • Accept and reflect on other people’s opinion
Train to understand the quality of papers, enabling you to
  • Detect weak AND strong characteristics of a paper
  • Identify aspects that make a paper better (or less) readable
Peer-reviewing in the seminar - Quality criteria

- Correctness
- Accessibility
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Peer-reviewing in the seminar - Writing reviews

• Be polite and fair
  – Name the positive aspects as well

• Be thorough
  – Commit some time to the review

• Be critical

• Be constructive

• Be specific
  – Name key examples if there are too many errors of the a certain type

• Give reasons for your statements

• Basically: compare with you understanding of a good paper
  – And be reasonable!
Examples of bad reviews

• “The biggest problem with this manuscript, which has nearly sucked the will to live out of me, is the terrible writing style.”
  - [Not polite]

• “I started to review this but could not get much past the abstract.”
  - [Not thorough]

• “I usually try to be nice but this paper has got to be one of the worst I have read in a long time.”
  - [Not constructive]

• “The abstract and results read much like a laundry list.”
  - [Does not help the author and specify reasons why]
Peer-reviewing in the seminar - Responding

Try to see reviews as an opportunity to improve your work
Try to understand each review’s points and consider them
  • Esp. in case different reviews contradict each other
  • You should not reject a change without considering it
  • Is it really wrong or do you just misunderstand the reviewer?

Don’t be offended by “harsh”/“wrong”/“unfounded” criticism
  • Definitions of politeness and fairness might differ :-)
  • Lack of time might lead to harsh wording
  • Wrong criticism might be based on misunderstandings of your work
    – In this case: clarify your work!
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5. Easychair
Easy chair

Web-based conference management system

In EasyChair:

• You submit your paper
• You bid for paper reviews
• You access the papers you should review
• You submit your reviews

Registration

Use the same email address used in the seminar registration form!

You will have two roles:

• Author
• Program committee (PC) member
• You can switch between both roles
Submitting (Author)

Submit papers through EasyChair
- Submission page: *(See course website)*
- Check that you submit to the right conference: TDP-WS17

Deadline for paper submission: *(See course website)*
- You can update your paper and meta information until then
- To submit you have to be in the **author role** in EasyChair

Receive reviews from other reviewers
- Date: *(See course website)*
- You will get an email containing the reviews for your paper
Paper bidding

How to become a PC member:

• Receive an invitation from us via email . . .
• … and accept it ;-)

Paper bidding in EasyChair

• State for each topic, whether you want to review it:
  – “Yes” / “maybe” / “no” / “conflict”
  – If you don’t bid, we will bid for you
• EasyChair tries to compute an optimal review assignment
• There are no guarantees that you get your preferences
• Deadline for bidding: *(See course website)*

To bid you have to be in the **PC member** role
Two papers are assigned to each reviewer \textit{(deadline on course website)}

Fill out review form and submit it

\begin{itemize}
  \item Choose "Reviews" -> "My papers" from the menu
  \item Choose "Add review", fill the review form online and submit it
  \item Store a copy of the review on your machine (just in case …)
\end{itemize}

Deadline for review submission: \textit{(see course website)}

You can revise your review

To review you have to be in the \textbf{PC member} role!
The review form

Please summarize the paper’s main contributions. (one paragraph, ca. 200 words)

Please describe three strong points of the paper. (number them S1,S2,S3)

Please describe three weak points of the paper. (number them W1,W2,W3)

Please give detailed comments to the author with respect to the criteria above.

Please be as precise as possible. (min. 300 word)

*** EVALUATION:
— 3 (strong accept)
— 2 (accept)
— 1 (weak accept)
— 0 (borderline)
— -1 (weak reject)
— -2 (reject)
— -3 (strong reject)

*** CONFIDENCE:
— 4 (expert)
— 3 (high)
— 2 (medium)
— 1 (low)
— 0 (null)

*** STRUCTURE
— 5 (excellent)
— 4 (good)
— 3 (fair)
— 2 (poor)
— 1 (very poor)

*** READABILITY
*** ARGUMENTATION
*** LANGUAGE
*** GRAMMAR
*** FORMATTING
*** CITATION STYLE
*** ABSTRACT
*** INTRODUCTION
*** MAIN PART
*** CONCLUSION
*** OVERALL RATING
Sources / Further reading

- [Video] How to write papers so people can read them
- Alan Jay Smith: Task of the Referee (1990)
- Environmental Microbiology 2010 - Referees’ quotes (2010)
- The Oatmeal
  - http://theoatmeal.com/comics/ie
  - http://theoatmeal.com/comics/misspelling
  - http://theoatmeal.com/comics/semicolon
  - http://theoatmeal.com/comics/apostrophe
- S & W: The Elements of Style
- ETHz: Writing reviews for systems conferences
- Uni Waterloo: A paper about reading a paper
- ETHz: Writing a scientific paper
# Timeline

<table>
<thead>
<tr>
<th>Date</th>
<th>Task</th>
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<tbody>
<tr>
<td>10.10.</td>
<td>Topics presentation</td>
</tr>
<tr>
<td>16.10.</td>
<td>Topics assignment</td>
</tr>
<tr>
<td>17.10.</td>
<td>Kickoff - Writing &amp; reviewing</td>
</tr>
<tr>
<td>23.10.</td>
<td>List of initial references</td>
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<tr>
<td>...</td>
<td>Discussion with supervisor</td>
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<tr>
<td>04.12.</td>
<td>Paper submission</td>
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<tr>
<td>05.12.</td>
<td>Review claiming</td>
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<tr>
<td>19.12.</td>
<td>Reviews due</td>
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<tr>
<td>08.01.</td>
<td>Final paper due</td>
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<tr>
<td>15.01.</td>
<td>Send initial version of presentations</td>
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<tr>
<td>16.01.</td>
<td>Final presentations</td>
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</table>
Good luck!