Privacy-Enhancing Technologies
Lecture series Summer Term 2021 -- The Reading Group

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12.04.2021 – KIT/TUD
The Reading Group (Exercise Course)

- Exercise course will be organized as a reading group
  - Papers (links) available on the webpage (soon, depending on the number of participants)

- Read papers early...

- One paper with relation to lecture topics will be presented (by a random one of you!) and discussed (by you!) each week (please take note of the emphasis on YOU :-) )
The Reading Group

Intention of the reading group is to learn

- from good (and bad) scientific papers
- how to stay up to date and inform yourselves at the source
- that what others do is mostly no rocket science
- how to read a paper properly
  (probably not in the order from beginning to the end!)

Different kinds of papers

- **Papers**: the classic form of scientific content dissemination, a single contribution
  - **Workshops**: Early ideas, WiP, Challenges/discussions ("Recurring issues with spark-plug electrodes")
  - **Conferences**: concise studies ("On the electrode shapes in spark-plug design")
- **Journal articles**: self-contained ("On spark-plug design")
- **Surveys**: summarizing a field or research area
The Reading Group – Reviewing Papers

- **Paper idea**
  - What is the field of research?
  - What is the motivation of the paper?
  - What is the problem the paper tries to solve/it’s innovation?
  - What is the exact research question?
  - What is (are) the paper hypotheses(i|e)s?
  - How relevant is this research?

- **Paper content**
  - What is the *claim*, what are the *assumptions* of the paper?
  - Which definitions are contained?
  - What is the idea for solving the problem?
  - Which implications does it entail?
  - How is the evaluation carried out? Does it suffice to demonstrate/substantiate the claims? What about the results?

- **Critical acclaim: Merits & Shortcomings**
A SURVEY OF COVERT CHANNELS AND COUNTERMEASURES IN COMPUTER NETWORK PROTOCOLS

SEBASTIAN ZANDER and GREYTIE ARMSTRONG and YERFIP BRANCH
SHERBOURNE UNIVERSITY OF TECHNOLOGY, MELBOURNE, AUSTRALIA

Abstract

Covert channels are used for the secret transfer of information. Exceptionally, a number of covert channels are used for malicious purposes, e.g., in computer network protocols. This article provides a survey of covert channels and countermeasures against them. The article examines the security implications of covert channels and countermeasures against them. The article also examines the security implications of covert channels and countermeasures against them.
The Reading Group – Reviewing Surveys (2)

- What is the field of research? What is the exact problem domain?

- Survey content
  - What are the assumptions in the survey? Which definitions are used?
  - Aspects, requirements, concepts, properties?
  - Which classification is developed and used?
  - Which implications does each class entail?

- Critical acclaim
  - How convincing are classification and implications?
  - Completeness of the survey
  - Merits & shortcomings
From your anonymous benefactor...

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<tr>
<th>Paper</th>
<th>Title, Author(s)</th>
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<tr>
<td>Field of research</td>
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<td>Exact research question</td>
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<td>Relevance (Claim)</td>
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<td>Hypothesis</td>
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<th>Content</th>
<th>Assumptions / Definitions</th>
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<td>Aspects, requirements, concepts, properties</td>
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<td>Classification</td>
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<th>Critical acclaim</th>
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Organization

- Please help us with the organization:
  - One reading group can host students with up to 16 papers
  - Thursday 14:00h is the scheduled slot

- Alternatives:
  - Not everybody presents a paper
  - Two reading groups in parallel
  - Two reading groups at different times

- Please email us if you would like to participate until Tue, 13.4. 18:00h!
  - patricia.cabarcos[at]kit.edu thorsten.strufe[at]kit.edu
Questions?