Seminar Usable Security & Privacy

MA-INF 3321

Application

In order to get a topic, you will need to submit your expose until 07.10.2020. Please send it to the respective supervisors. You will be informed whether you were chosen/not chosen for your favourite lab topic until 14.10.2020. Multiple applications are allowed for up to three topics.

Deadline for expose: 07.10.2020

Deadline for registration in BASIS: 15.11.2020

Requirement: passing the lecture Usable Security and Privacy MA-INF 3235

Investigating language in Studies
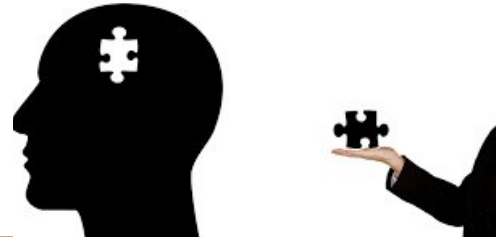
Supervisor

Maximilian Häring
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Investigating language in Studies

The language used in studies is a very important factor. Do your participants understand the text/the questions? Do they have unexpected connotations?

Your task will be to examine studies in the field of usable security and privacy with participants of different levels of IT expertise. Get an overview of the possibilities to measure the studies' complexity and apply this knowledge to what have been presented in the literature. Compare the studies based on the target group. (Maybe additionally identify clusters of words or differences by yourself not based on known metrics.)

Literature review: What physical security devices are there?
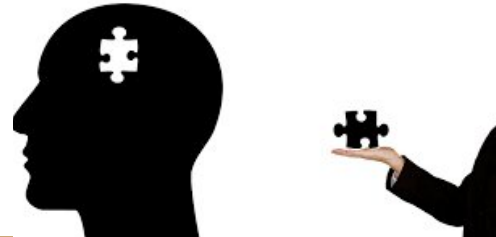
Supervisor

Maximilian Häring
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Literature review: What physical security devices are there?

There are a lot of physical devices out there to enhance digital security aspects. One common example would be the physical 2FA device to protect your account.

Your task will be to review the literature and industry for new, and interesting old, devices relevant to the topic of physical devices that enhance, ease the usability of digital security, or maybe are just interesting concepts.

# Literature review: What security knowledge do non-experts have?

Supervisor

Maximilian Häring
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Literature review: What security knowledge do non-experts have?

There are have been many studies of what misconceptions people have about security. This review should deal with a slightly different angle.

Your task will be to find sources and review the literature for questions like: a) What security knowledge/conception do non-experts have? b) What concepts are known? The goal is that other researchers can use this review to better construct studies with non-experts or to support developers build concepts that are more likely not to be misunderstood.
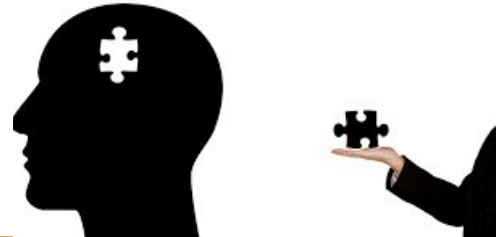
Literature review: Studies in the darknet.

Supervisor

Maximilian Häring
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Literature review: Studies in the darknet.

The darknet is part of the connected communication. The darknet has users, sellers, content providers ...

Your task will be to find literature that describe studies in the darknet. The focus should be on the methodology of these studies. In the best case users are already involved.

Starting questions that should be answered: a) How do studies recruit in the darknet? b) How do they communicate? (How do I contact a malware developer for questions?)

The goal is that other researchers can use this review as a starting point on how to conduct studies in the darknet.

Literature review on the effect of password policies on usability and passwords strength of the resulting passwords

Supervisor

Eva Gerlitz
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Literature review on the effect of password policies on usability and passwords strength of the resulting passwords

Your task will be to create an overview of literature focusing on the effect different password policies have on the usability and the strength of passwords.
Summarize different approaches (user studies, theories and algorithms) and find ways how policies can be "calculated".

Literature review on password managers

Supervisor

Eva Gerlitz
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Literature review on password managers

Your task will be to create an overview for the topic of password managers.

Some questions worth investigating are for example:
- What are reasons why end users (do not) use them?
- What are reasons companies (do not) provide their employees with password managers?
- Are fears reasonable?
- etc.

Overview of demographics in technical studies

Supervisor

Eva Gerlitz
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Overview of demographics in technical studies

Computer Science is (mostly) dominated by men. We are interested, if and how this also influences the participation in studies that are somehow technical related.

Your task:
a. Find papers that looked at general survey/interview/study participation (computer science and other disciplines)
b. Go through papers from SOUPS in which a user study was conducted and find out:
- How were participants recruited? What were they told what the study was about?
- How did the demographics look like?

Are there differences to other disciplines?

A broad collection of Usable Security and Privacy literature

Supervisors

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A broad collection of Usable Security and Privacy literature

Usable Security and Privacy is an ever-growing research field in which dozens of publications every year. They discuss arising problems, propose new advices, and compare and evaluate existing systems. Hence, keeping track of and staying up-to-date with the published papers is essential.

We want to help researchers in that field and build up a collection of all important publication. The collection shall not be just a simple list but bring the research into context, give overviews on certain aspects and highlights interesting results.

Your task will be to create an overview for one of the topics discussed in recent years (next slide). This will include summing up the problems and results as well as extracting interesting meta data, such as study design, evaluation metrics, etc. Using that, you will give an overall overview of the topic, with regard to relevant results, contradictions, trends, etc.

A broad collection of Usable Security and Privacy literature

Important conferences
- IEEE Symposium on Security and Privacy
  https://ieeexplore.ieee.org/xpl/conhome/8826229/proceeding
- NDSS Symposium
  https://www.ndss-symposium.org/ndss-program/ndss-symposium-2019-program/
- USENIX Security
  https://www.usenix.org/publications/proceedings?f%5B0%5D=im_taxonomy_vocabulary_2%3A108
- USENIX Symposium on Usable Privacy and Security
  https://www.usenix.org/publications/proceedings?f%5B0%5D=im_taxonomy_vocabulary_2%3A884

as well as other years

Own ideas?

Supervisors

all of us

send your idea to
Klaus Tulbure
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Own ideas?

You've got some **own ideas** for a project in Usable Security and Privacy?

GREAT!

We'd love to work with you on that!