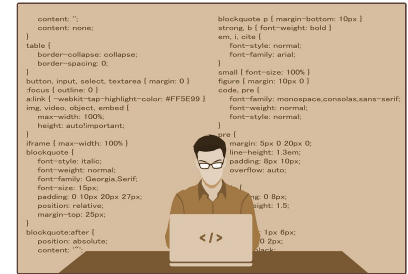


Providing Infrastructure for Expert Studies



Marco Herzog



About us ...

- Our research field:

Usable Security and Privacy for Developers & Administrators



Lab-Studies vs. Online-Studies

Lab-Studies vs. Online-Studies

- High effort + cost to recruit professionals
- Small sample sizes :(

Browser-based Virtual Laboratory Framework

- Framework for conducting online (expert) studies with remote developers
- Invited participants solve tasks in provided virtual environments using online code editors (e.g. Jupyter)
- Add benefits of lab-studies: Collect data on solving strategies

Data

- Automated data collection:
 - Current state of developed code
 - How many times code executed
 - Error codes, Warnings, Exceptions
 - Copy-and-Paste of Code
 - ...

Validity Requirements

- Different Condition Assignment Strategies (e.g. Sorted, Randomized)
- Equal study environment
 - Same software/library versions
- Ecological validity
 - Usage of own equipment/setup
 - No additional software required

Technical Requirements

- Pseudonymous or anonymous participation
 - Privacy is crucial
- Isolation of participants
 - Don't see/alter other participant's results
- Multiple participants simultaneously

Technical Requirements

- Reliability
 - Start/Pause/Stop anytime
- Primarily for Java development
 - Otherwise, multi-language support quite desirable

Own ideas

- Any **own project ideas** concerning expert studies ? Or in other areas of Usable Security and Privacy ?

GREAT!

- Feel free to let me know !



Application

- Please send your exposé to:

herzog@cs.uni-bonn.de

Deadline for exposé: 2nd October

- On the **5 October** you will be informed whether you were chosen/not chosen for your favourite lab topic
- **Register deadline for the lab in BASIS: 31.10.2018**