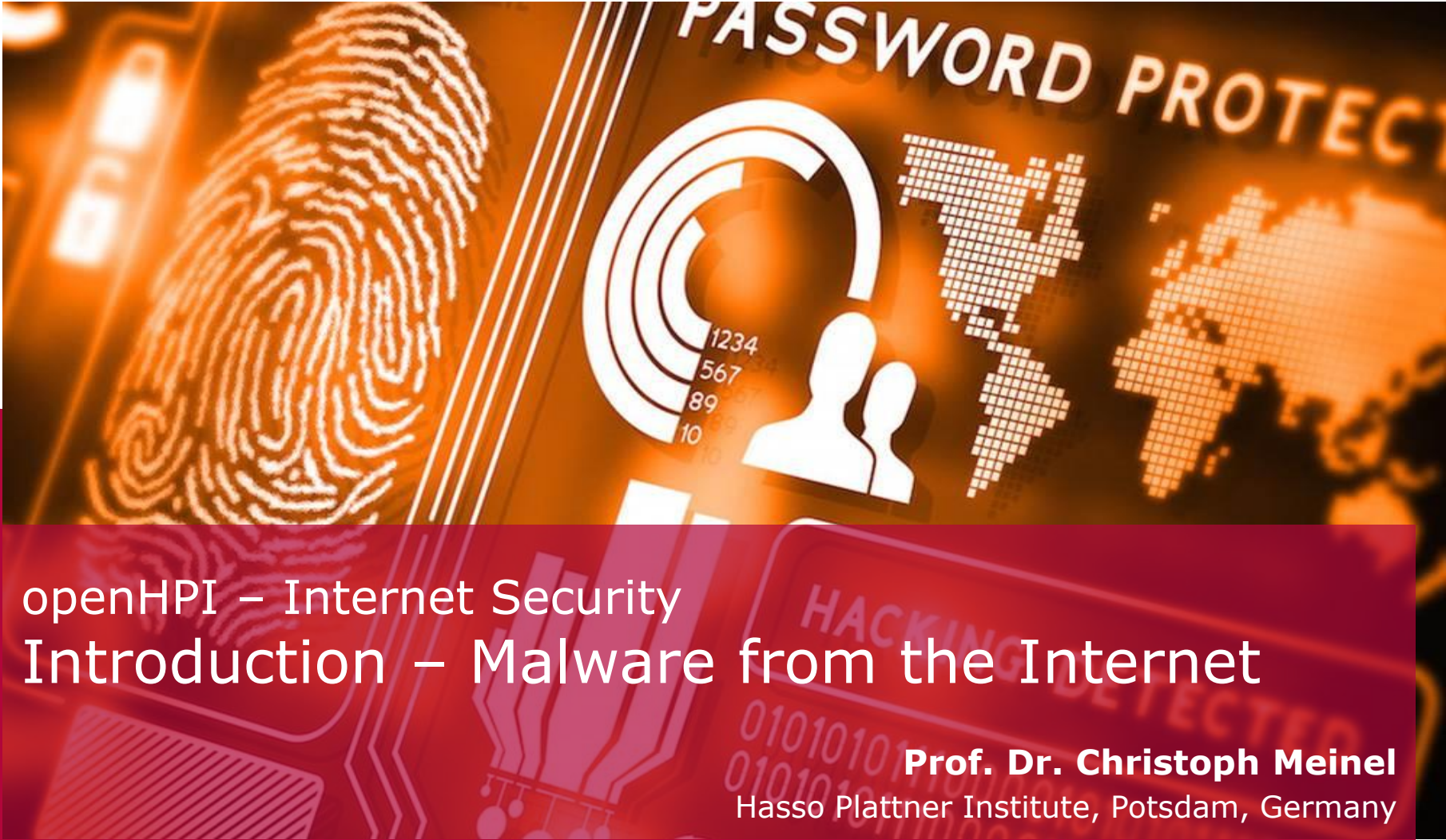




openHPI – Internet Security Introduction – Malware from the Internet

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When talking about security on the Internet and the dangers, the topic of malicious software is of great importance

- Malicious software – **malware** – refers to software smuggled via the Internet by hackers and cyber-criminals onto the devices of unsuspecting users in order to commit cyber-attacks
 - Destruction or manipulation of data
 - Password theft
 - Espionage und sabotage
 - Limitation of the system functionalities
 - Extortion
 - Remote control
 - ...

There is a long list of **different malware types**, e.g.

- Viruses, worms, trojans, botnets, rootkits, adware, spyware, ...
- In most cases today, malware contains several malicious functions, sometimes additional components can be added

Botnets constitute a particular threat on the Internet

- A remote controlled combination of numerous systems taken from the Internet without the owner's knowledge –
Bots

However, mobile systems and smartphones are also threatened by malware

Overview of the Week's Program on Malware

- In this course week we will
 - introduce different types of malware, their characteristics and malfunctions
 - look closer at Botnets, which, due to their large number of remote-controlled systems, trigger special attacks and threats
 - revisit spectacular malware attacks to help you understand the threats of malware
- This will not only involve attacks on computers connected to the Internet, but also smartphones and mobile apps
- Finally, we will deal extensively with protection measures to address malware attacks

Overview of the Week's Program on Malware

– Excursion

- We will like to provide more technical insights
 - Introduction into firewalls and their general function and
 - A closer look into personal firewalls for Windows systems and their configuration
- The insight materials can also be skipped
 - Insight are topics of special interest, and are not mandatory for the course content that will follow

→ We hope to build knowledge and have fun engaging with the topic of malware in course week 3