



# COMPUTER SECURITY AWARENESS

# IT SECURITY

## THE CRITICAL LINK!

The IT Service is doing a great deal to limit the risks related to IT security:

- Antivirus
- Firewalls: protects against more than 1'000 attacks/day
- ....

There is one very important factor that we cannot control in IT: **YOU!**

**You are the critical link: either strong or weak.**

## PASSWORDS

### Weak password consequences

- Email access
- Access / Change of data
- Identity theft

### Attacks against passwords

- Brute-force
- Wordlist / Dictionary
  - Recovered from pirated sites
- Fully automated
  - Millions of attempts per second

### Recommendations

- Use a passphrase instead of a password.
  - 3PinkB@nanas
  - !love!He1d
- Keep your password to yourself
- Do not use your professional password anywhere else.
- Change your password regularly

## VIRUS

### Virus and malware consequences

- Access to the infected device with the same privileges as the user
- Difficult to remove
- Cryptolocker / Ransomware



### Propagation

- Social engineering
- USB keys

### Anti-virus

- Necessary, but not infallible

### Recommendations

- Install only what is necessary
- Download from an official source
- Avoid USB keys
- Avoid administrator privileges

# IT SECURITY

## COMMUNICATIONS

### Computer equipment in constant communication with the world

→ Usually unencrypted

### Interception consequences

→ Password theft

→ Credit card theft

### WiFi networks

→ Information sent over radio waves

→ Even easier interception

→ Especially on "open" networks: airports, hotels, FastFoods, ...

### Recommendations

→ Using encrypted protocols

- HTTPS

→ Do not ignore error messages

- Indicates possible interception



#### This Connection is Untrusted

You have asked Firefox to connect securely to [www.scr.ch](http://www.scr.ch), but we can't confirm that your connection is secure.

Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.

#### What Should I Do?

If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.

[Get me out of here!](#)

- [Technical Details](#)
- [I Understand the Risks](#)

# IT SECURITY

## SOCIAL ENGINEERING

### Social attacks consequences

- Sensitive data theft
  - Password
  - Bank details
- Trojan horse

### Phishing

- Most common social attack
  - Copy of a known site
  - Sending emails to convince victims to interact with the fake site
- Typosquatting operation:
  - [graduateinstitut.ch](http://graduateinstitut.ch)

### Emails

- Most common attack vector
  - Free of charge
  - Anonymous
- Very easy to create identity theft

### Recommendations

- Beware of unidentified persons
- Avoid clicking on links and attachments in external emails
- Enter the URL of the site yourself instead of clicking on the proposed link.
- Notify the IT Service desk in case of doubt

It is more likely that you will come across a criminal on the Internet at any given moment than over a lifetime in the real world.