September 19, 2019 @ ThoughtWorks Event Space

Password(Managers), LogIns, Auth etc.

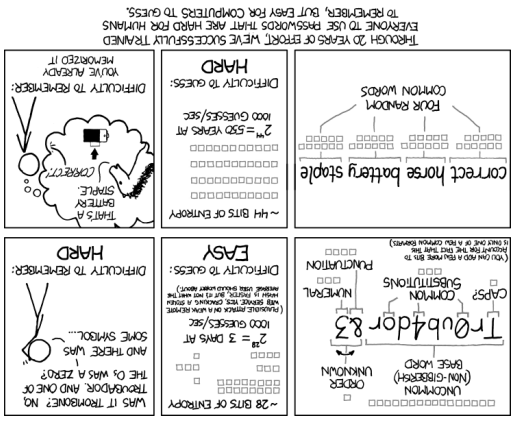
Why secure passwords and authentication?

- Every service, company or website gets hacked eventually. Often a weak password is the starting point of such a breach and they have equally bad practices to secure your data
- Reused passwords can lead to daisy-chained attacks (e.g. password resets for other accounts through a hacked e-mail account)
- Humans are bad at doing random things and a good password needs to be unpredictable
- Bad actors are not interested in you personally but in low hanging fruit

What makes a good password/passphrase?

- It's loooooooooooooooooooooooooong
- It's unique
- It's yours alone
- It's not a default (e.g. on your router or IoT device)
- It does not follow a simple algorithm (e.g. iteration over previous passwords or keyboard patterns)
- **Your system is maintainable**

https://xkcd.com/936/



Password managers can help!

PROs:	CONs:
• Different solutions for different users and use cases (e.g. offline vs online)	• Single point of failure
• Browser integrations	• Who do you trust?
• Password generators	• Valuable target for hackers
• Storing various kinds of data	• Inconvenience(?)

What about that 2nd factor?

- **1st factor** is **something you know** (password)
- **2nd factor** usually works with **who you are** (biometrics) or **something you possess** (e.g. phone or hardware token)
- Increasingly secure: SMS, e-mail, phone call > authenticator app (e.g. Authy, Google Authenticator) > hardware token (e.g. Yubikey)
- Can still be socially engineered (Phishing)

Code of conduct:

1. The basic questions are the most important ones. If you feel uncomfortable asking a question or don't understand the answer it is our fault and you should let us know.
2. We want to empower you to protect yourself. So we work together and give advice, but the only person who touches your device or keyboard is you.
3. We do not tolerate any form of hostile, condescending or exclusive behaviour and will act accordingly. Everyone is welcome, regardless of origin, gender, appearance, opinion, belief or ability. Just be nice and helpful to each other.

Links & resources

- https://haveibeenpwned.com/
- https://checkdeinpasswort.de/
- https://howsecureismypassword.net/
- https://bitwarden.com/
- https://keepassxc.org
- https://www.privacytools.io
- How to cut and fold this booklet: