# Money Trail Digital safety & security





Welcome!



# **Training overview**

Risk Assessment

What to protect?

Protect from what?

How to protect?

Security Measures

Information Safety

Communication channels

Standard Operating Procedures

**Security Measures** 

**Security Tools** 

Passwords & Encryption

Operational & Mobile Security

Analysing measures



# Risk assessment

Time slot indication ..... h - ..... h



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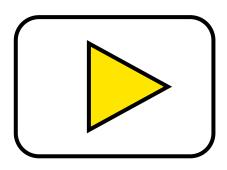
Passwords & Encryption

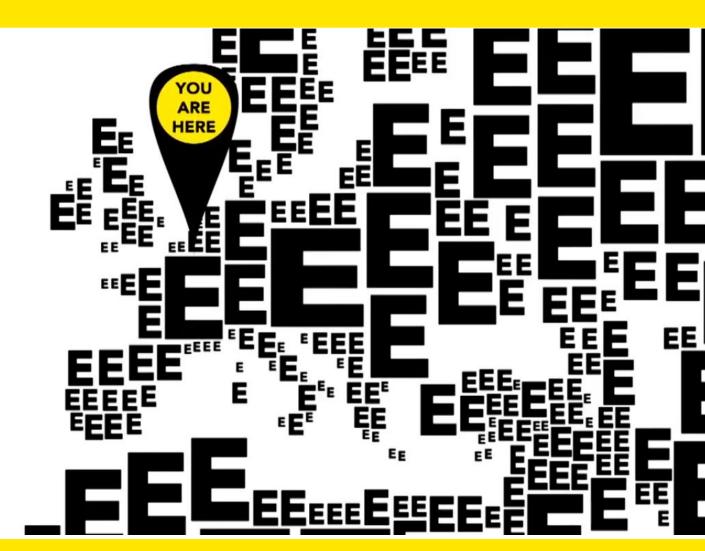
Operational & Mobile Security

Analysing measures



# Why carry out a risk assessment?







# Why carry out a risk assessment?





## Risk assessment training

#### The goal

To assess digital security on a personal and professional level

#### The method

Based on a case you will work together to understand possible dangers during an investigation



# Welcome to Deltora Magazine

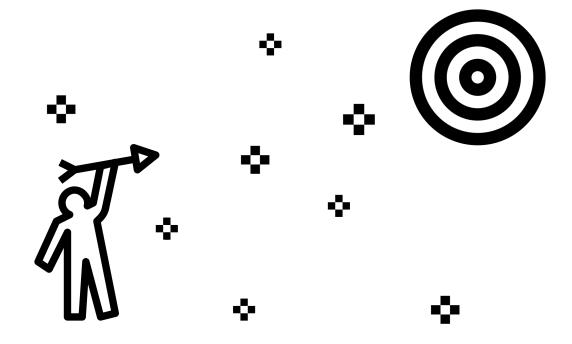
Roile River Delta Case



# Life in Petronia



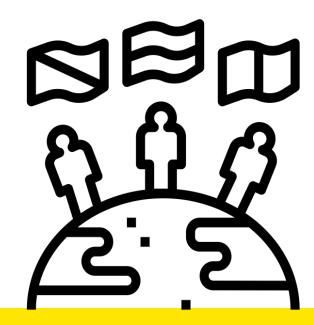
# Your aim





### **Your team**

- An experienced journalist
- A foreign journalist
- An ambitious newbie
- A consulting expert
- An activist
- The editor-in-chief

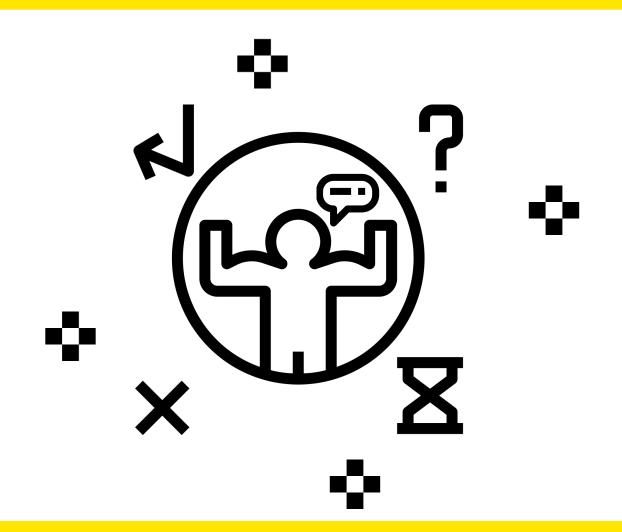




# **Investigative proposal**





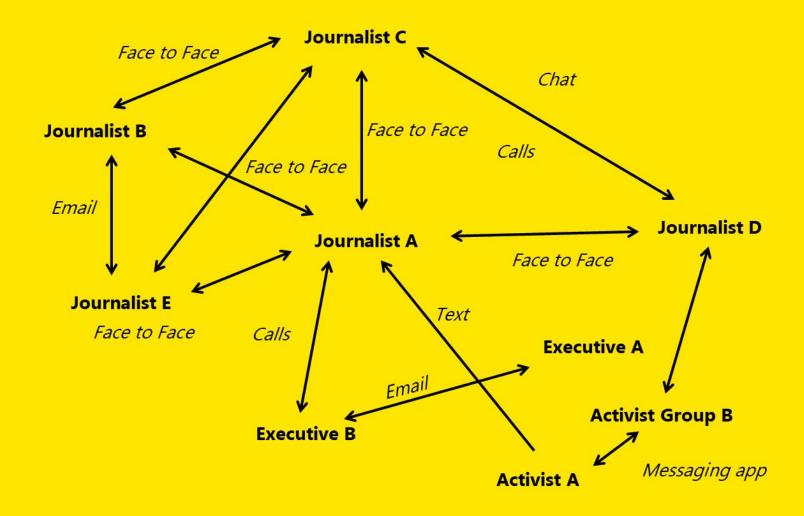


What to protect?

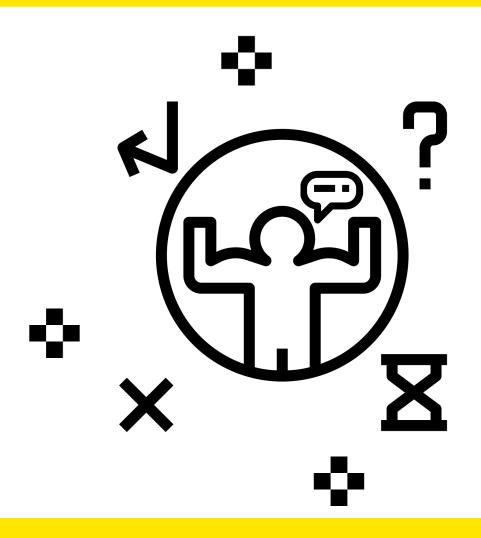


#### **Example of Actor Network with possible adversaries/ capabilities**

\*Not representative for Petronia case







- Who is involved in the investigation?
- Which data and information is processed by actors as part of the investigation?
- What devices are being used?
- How sensitive is this data or information?



**Actors**: Who is involved in the investigation?

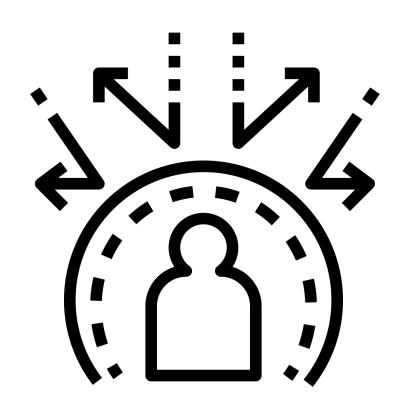
Everybody that you work with and need to successfully conduct your investigation.

**Assets**: Which data and information is processed by actors as part of the investigation; how sensitive is this data or information; what devices are you using?

**Everything** that you work with and need to successfully conduct your investigation.

**Activities:** How is this data and/or information obtained, communicated, processed, published, etc? **All** you journalistic or investigative workflows and processes



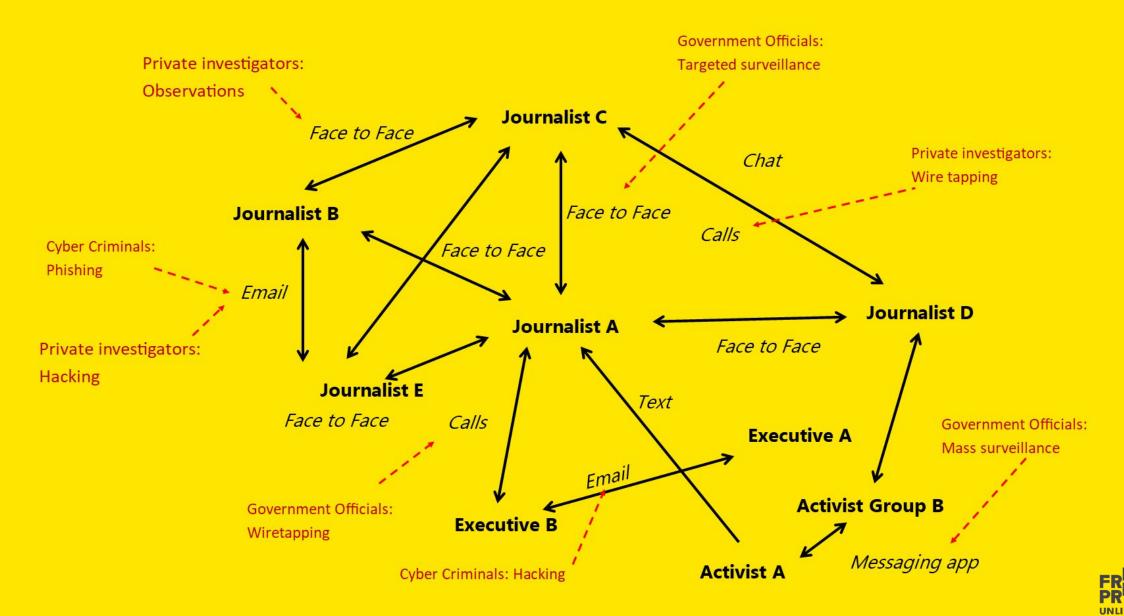


**Protect from what?** 



#### **Example of Actor Network with possible adversaries/ capabilities**

\*Not representative for Petronia case



#### **Adversaries:**

People or organisations that have an interest to influence or stop your investigation.

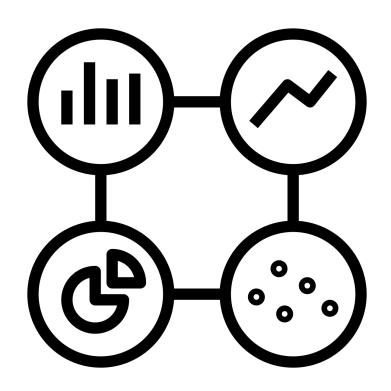
#### **Capabilities:**

Activities your adversaries can undertake to uncover your investigation, its actors, assets and activities.

#### Threats:

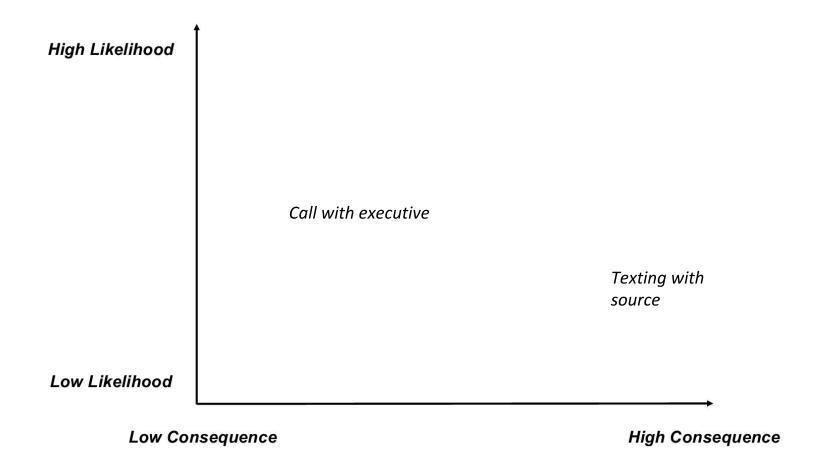
Activities your adversaries can carry out to influence your investigation, its actors and activities.



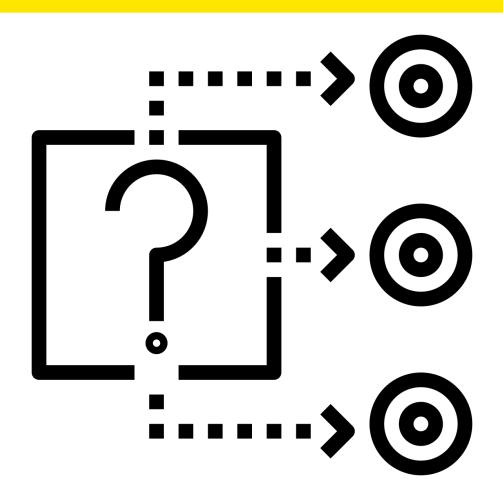


### **Risk assessment**



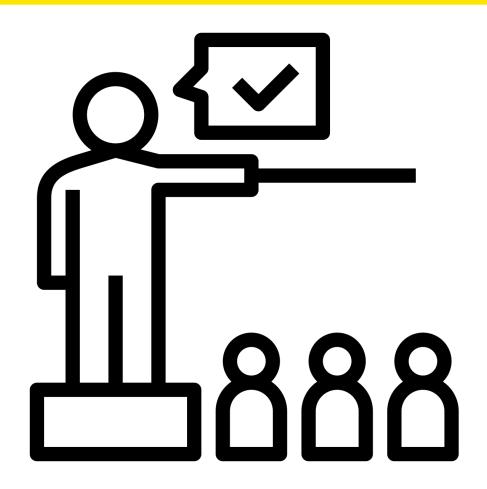






**How to protect?** 





Present your protection plan!



# Recap and feedback





# Questions



# Security measures

Part 1

Time slot indication ..... h - ..... h



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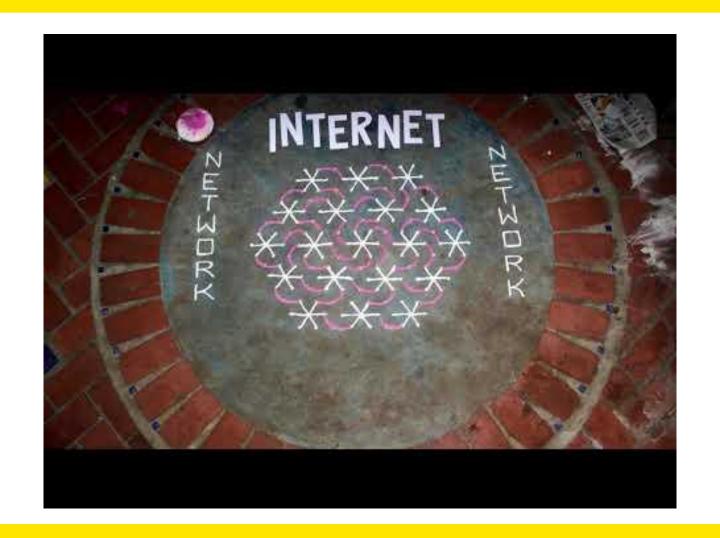
Analysing measures



# Do you feel secure?



### **How does the internet work?**







# **Security**





**Security** 

**Privacy** 





**Security** 

**Privacy** 

**Anonymity** 



# What can you learn from a message?



From: "John Dove"
To: "Journa List"

**Subject:** Top Secret!

**Send:** Monday, Sept 17. 15:36

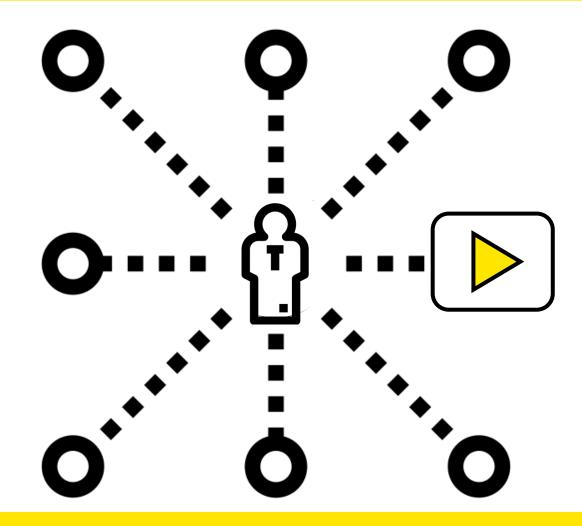
So, I think you should take a look at these recent development, as I am pretty sure Mister Z and Miss Y are involved in some shady business.

Kind Regards,

Received: from [computername] (sad231sdc.adsl.wanadoo.com [127.0.0.1]) (using TLSv1 with cipher AES128-SHA (128/128 bits)) (No client certificate requested)

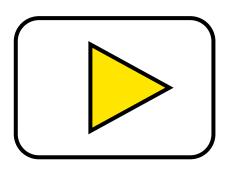


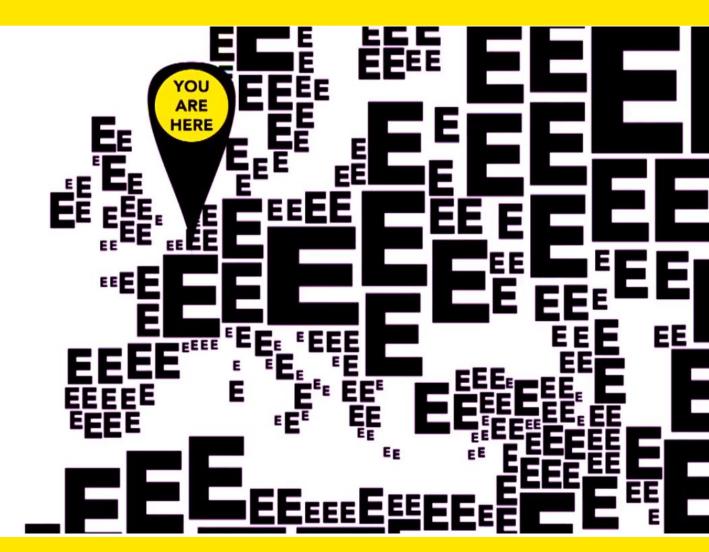
## What can metadata tell?





### The experienced expert







# What about your communication?



### **Assess your communication**

Somebody sends you a public tweet offering sensitive information about a minister. He/she asks for your email address to continue communication.





### **Assess your communication**

You want to discuss something sensitive with the foreign journalist in your team. He is not answering you on Whatsapp, so you pick up the phone.





### **Assess your communication**



**Practice with your team** 

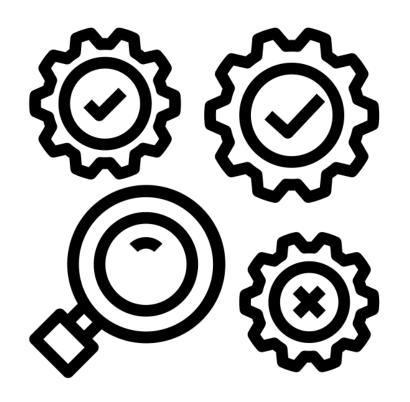


**Study your case** 



# Your communication tools



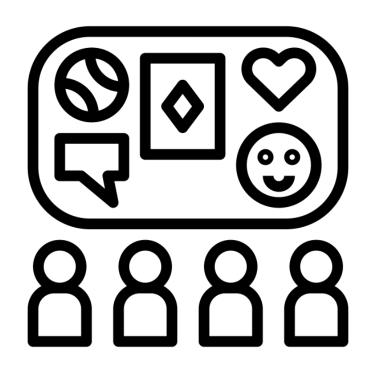


**Check the used tools** 



# Standard Operating Procedures





Share your Standard Operating Procedures



## Security checklist





## Questions & feedback



## **Money Trail**

Digital safety & security



### **Today's programme**

- 1. Security measures
- 2. OpSec plan
- 3. Passwords
- 4. Encryption
- 5. Tools

Q&A



## **Security Measures**

Part 2

Time slot indication ..... h - ..... h



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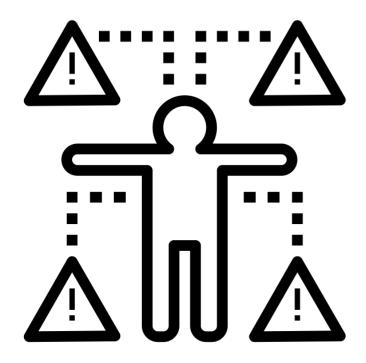
Analysing measures



## Rebel radio

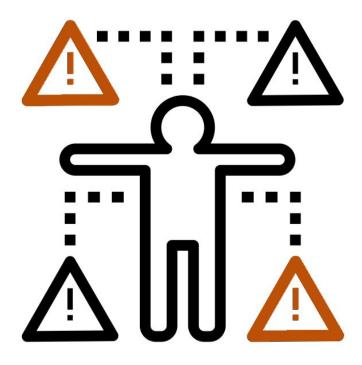


What's the risk?





Your
What's the risk?





## S.O.P. II

- 1. Create a plan
- 2. Gather feedback
- 3. Adjust



### **Strategies**

- Mitigating confiscation of assets
- Full disk encryption
- Account security and OTP
- Identity management
- VPNs/ obfuscation technologies
- Remote storage
- Compartmentalisation



## Security tools

Time slot indication ..... h - ..... h



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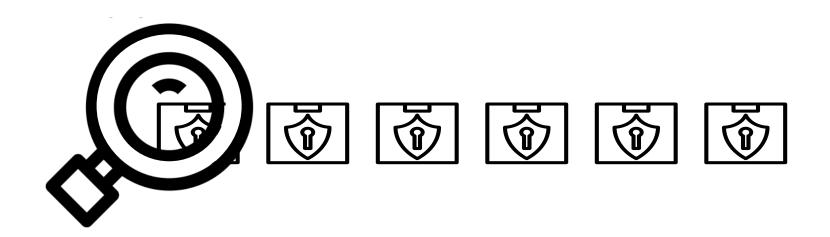




# How secure are your passwords?



### Let's check

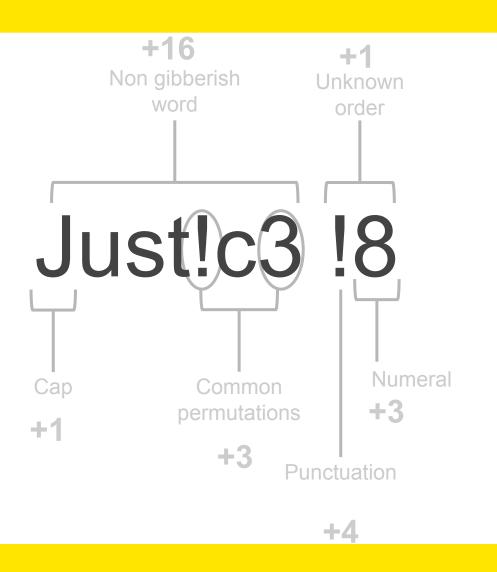




## Just!c3!8

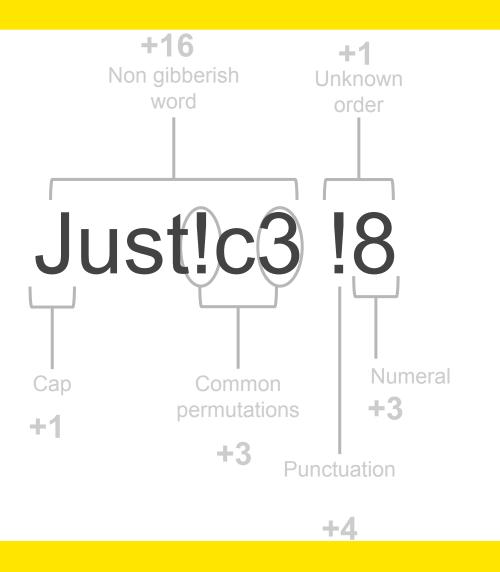
correct horse battery staple





### correct horse battery staple







Four random common words



# 28 bits of entropy Non gibberish Just!c3!8



Four random common words



## 28 bits of entropy Non gibberish 28 Just!c3!8 1000 guesses / s

### 44 bits of entropy

**2**<sup>44</sup>

correct horse battery staple
+11000 guesses / s +11

Four random common words



## 28 bits of entropy Non gibberish 28 Just!c3!8 1000 guesses / s 3 DAYS

### 44 bits of entropy

**2**<sup>44</sup>

correct horse battery staple
+11000 guesses / s +11

Four random common words

CRACKED IN **550 YEARS** 





Sentence-long

**U**nique

Random

**Extra characters** 



### **Justice 18**

#### HARD TO REMEMBER

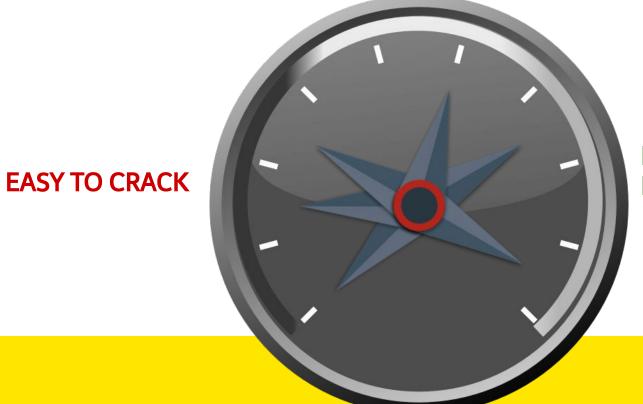


HARD TO CRACK EASY TO REMEMBER



### \$M0v!e 9r@nd c@t z@and@m !c3#

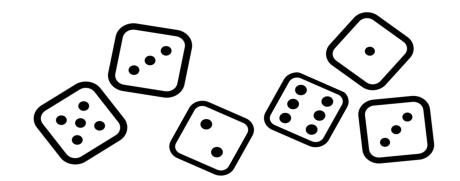
#### **HARD TO REMEMBER**



HARD TO CRACK EASY TO REMEMBER



### Let's create





### **Dice-generated passphrases**

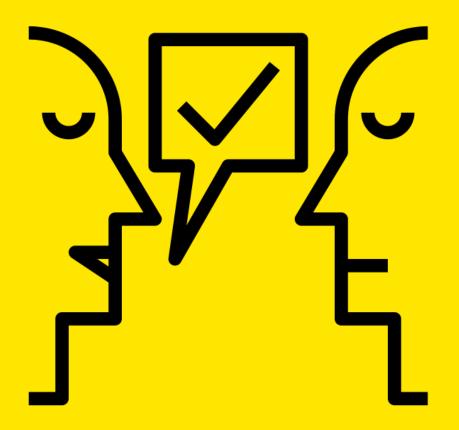
https://www.eff.org/files/2016/07/18/eff\_large\_wordlist.txt

- 1. Roll five dices at once.
- 2. Write all numbers down.
- 3. Look at the wordlist and find the word which corresponds with the numbers.
- 4. Write the word down that corresponds with the numbers.
- 5. Repeat step 1-4 **five** more times to come up with **a total of six words**.
- 6. Come up with a short story or phrase to remember the six words by.
- e.g.: Anger Cage Echo Royal Smog Truck
- e.g.: I felt **anger** when locked in a **cage** I heard my own **echo**, which sounded **royal** through the **smog** all formed by the **truck** carrying my confinement.



## Let's try!



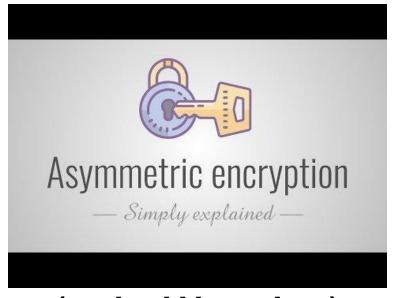


How to communicate in a safe way?



### **Encryption: the basics**

### What you just did



(or should have done)

### **How this works**





## Hackathon



### **Analyse your measures**

- 1. What is it?
- 2. When is it useful?
- 3. When is it not useful / what are its limitations?
- 4. What does it do to your content, data, metadata?
- 5. Where to get started / what best solutions out there?
- 6. Can it be dangerous to use?



Prepare an informative \_ but fun - presentation





**Practice with your team** 



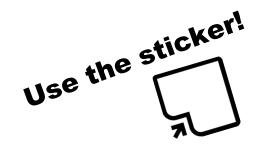
## Security checklist





## Security checklist







## Questions & feedback



# Money Trail Digital safety & security

https://security.money-trail.org/

