

SPYPI AN ATTEMPT TO GET STUDENTS INTO DATA SECURITY

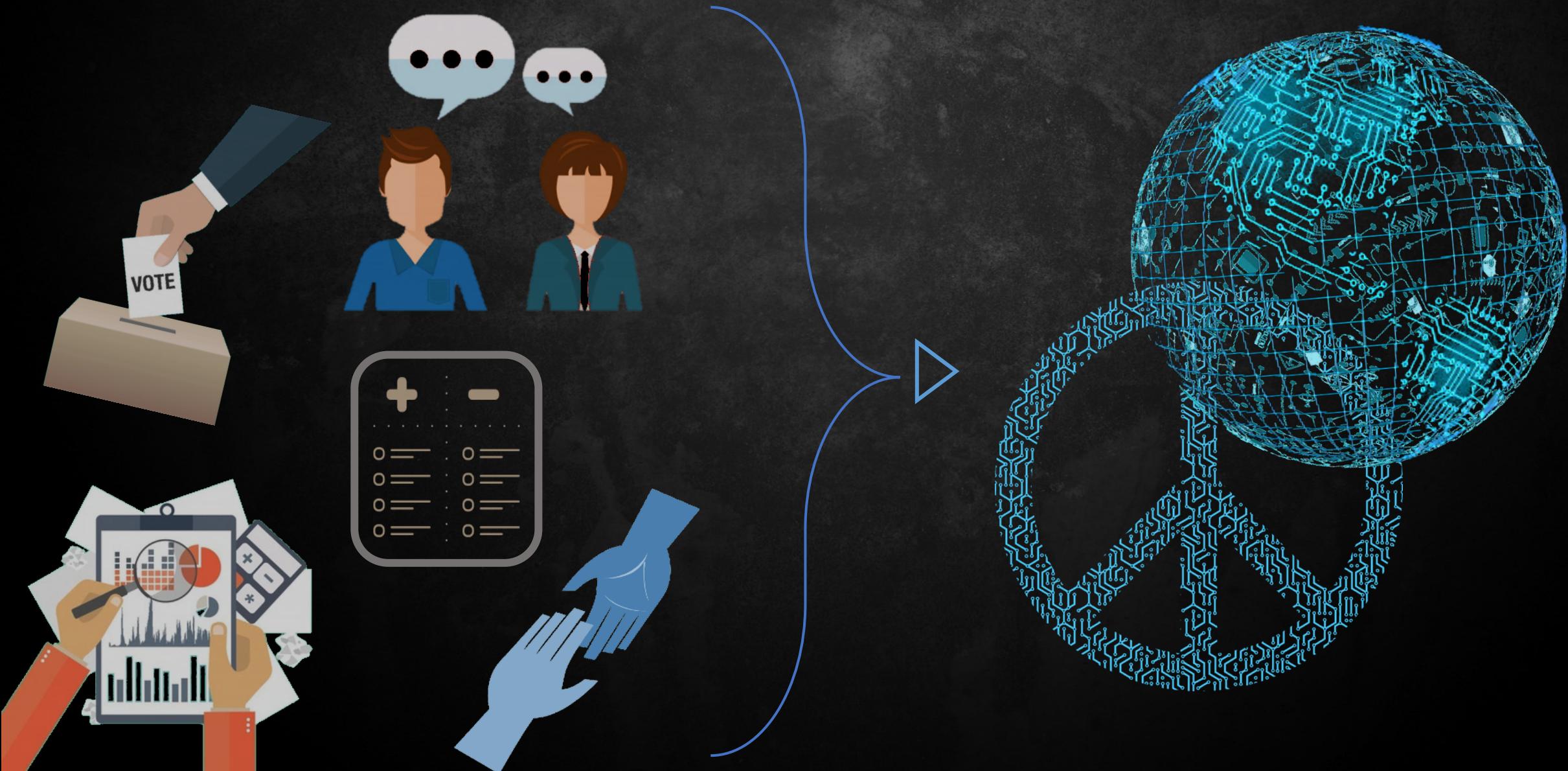
SARAH MÜHLEMANN, SWISS PYTHON SUMMIT 2018

ABOUT ME

- High school senior. Fall 2018: Computer science at university
- Programming experience:
 - **2016:** Wanted to build and program a robot. **Failed** because hardware parts blew up.
 - **2017:** Programming my graduation work in Python. **Succeeded** after many sleepless nights.



THE ROLE OF THE GENERAL PUBLIC



TRADITIONAL TEACHING METHODS



ROLE REVERSAL

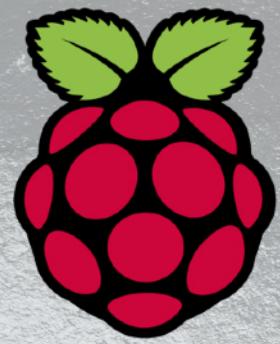


INTERACTIVE INSTEAD
OF JARGON-HEAVY



CHILDHOOD DREAM AS A
MOTIVATION TOOL





DATA COLLECTOR

TWITTER DATA MINING

- TWEETS
- PICTURES



(VERY BASIC) SENTIMENT -
ANALYSIS

BLACK-HAT HACKER

WLAN PSK BRUTEFORCE

SMS SPOOFER

MIFARE CLASSIC 1K
DEFAULT KEY
BRUTEFORCE

MITM PROXY
+ LOGIN DATA CATCHER

SMS SPOOFER

NOT SAM

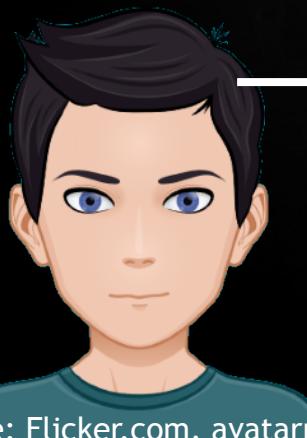
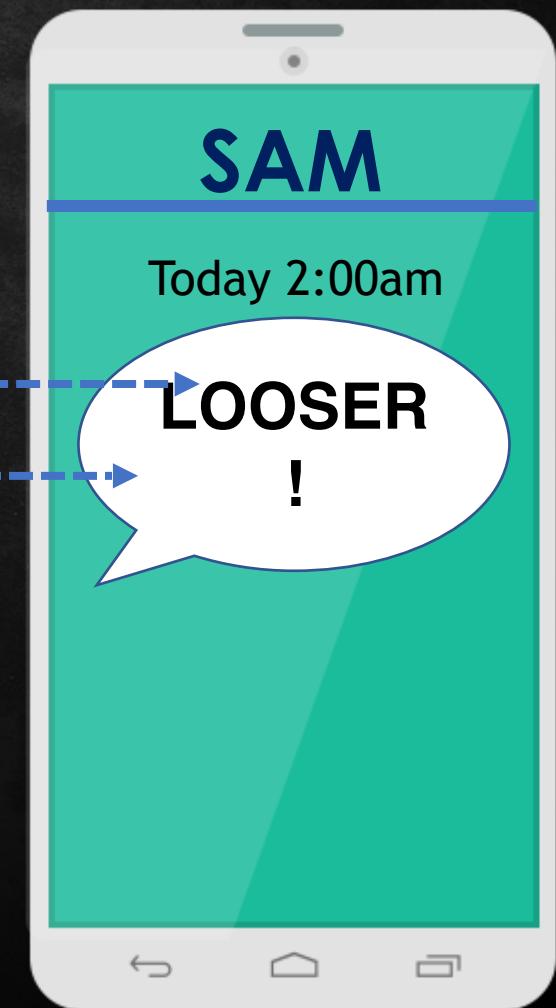


Sender ID: 079 999 99

```
message = clockwork.SMS(  
    to = '41799999999',  
    message = 'LOOSER!')
```



SAM'S
FRIEND



SAM

Sender ID: 079 999 99 99



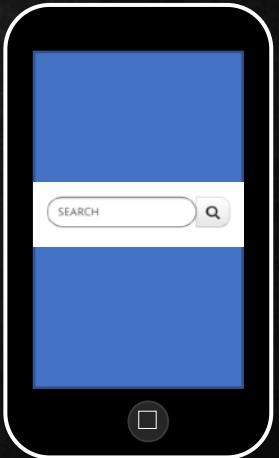
MITM PROXY



MITM PROXY



Webserver

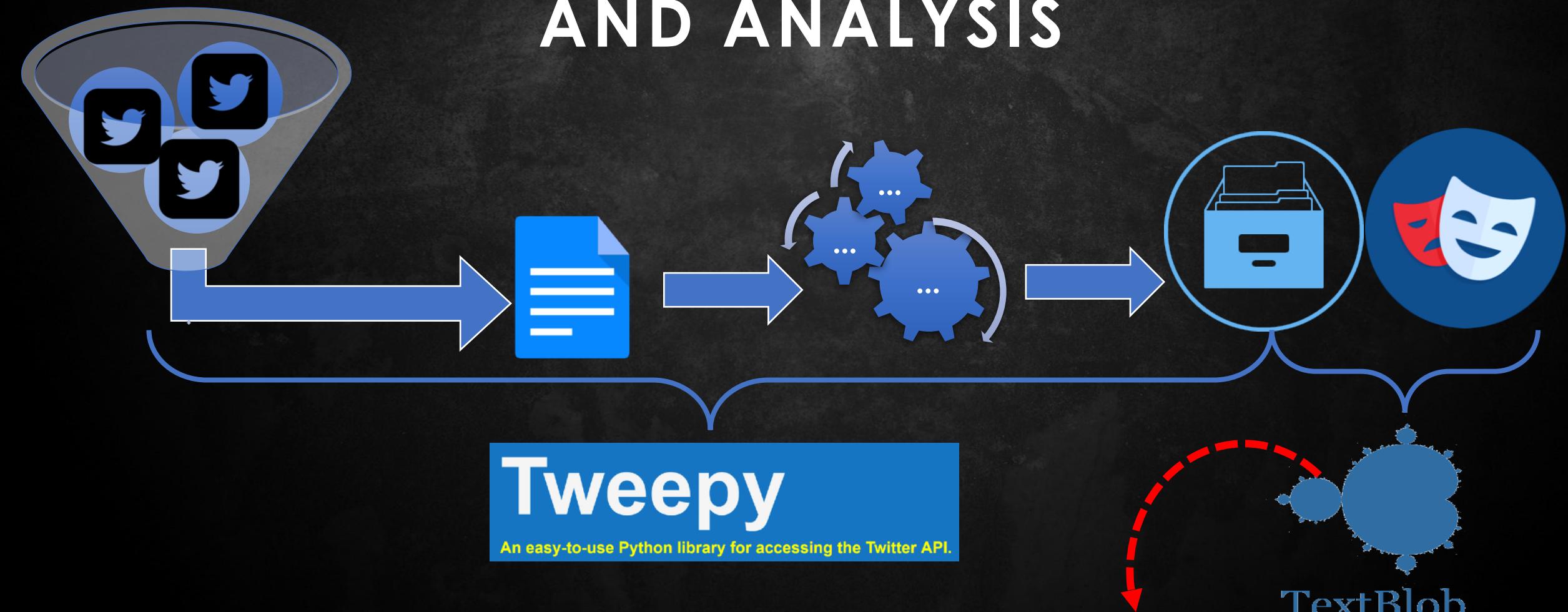


Client



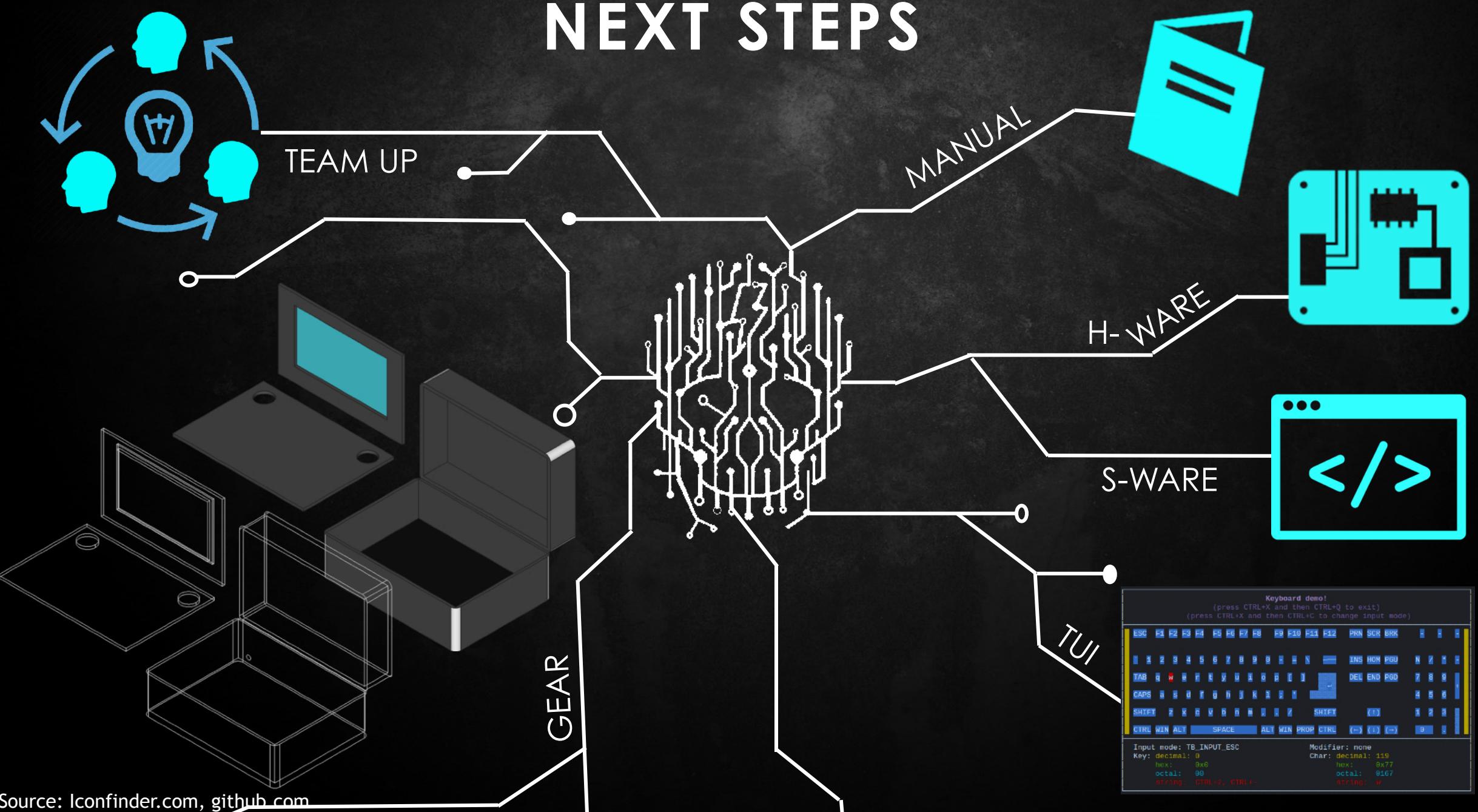
mitmproxy

TWITTER DATA-MINING AND ANALYSIS



```
>>> testimonial = TextBlob("Textblob is amazingly simple to use. What great fun!")
>>> testimonial.sentiment
Sentiment(polarity=0.3916666666666666, subjectivity=0.4357142857142857)
```

NEXT STEPS



AWARENESS RAISING ISN'T ENOUGH



AWARENESS RAISING



PROVIDING
FLEXIBLE SOLUTIONS

QUESTIONS?

Website: spypi.ch