

SPYPI

**AN ATTEMPT TO GET STUDENTS
INTO DATA SECURITY**

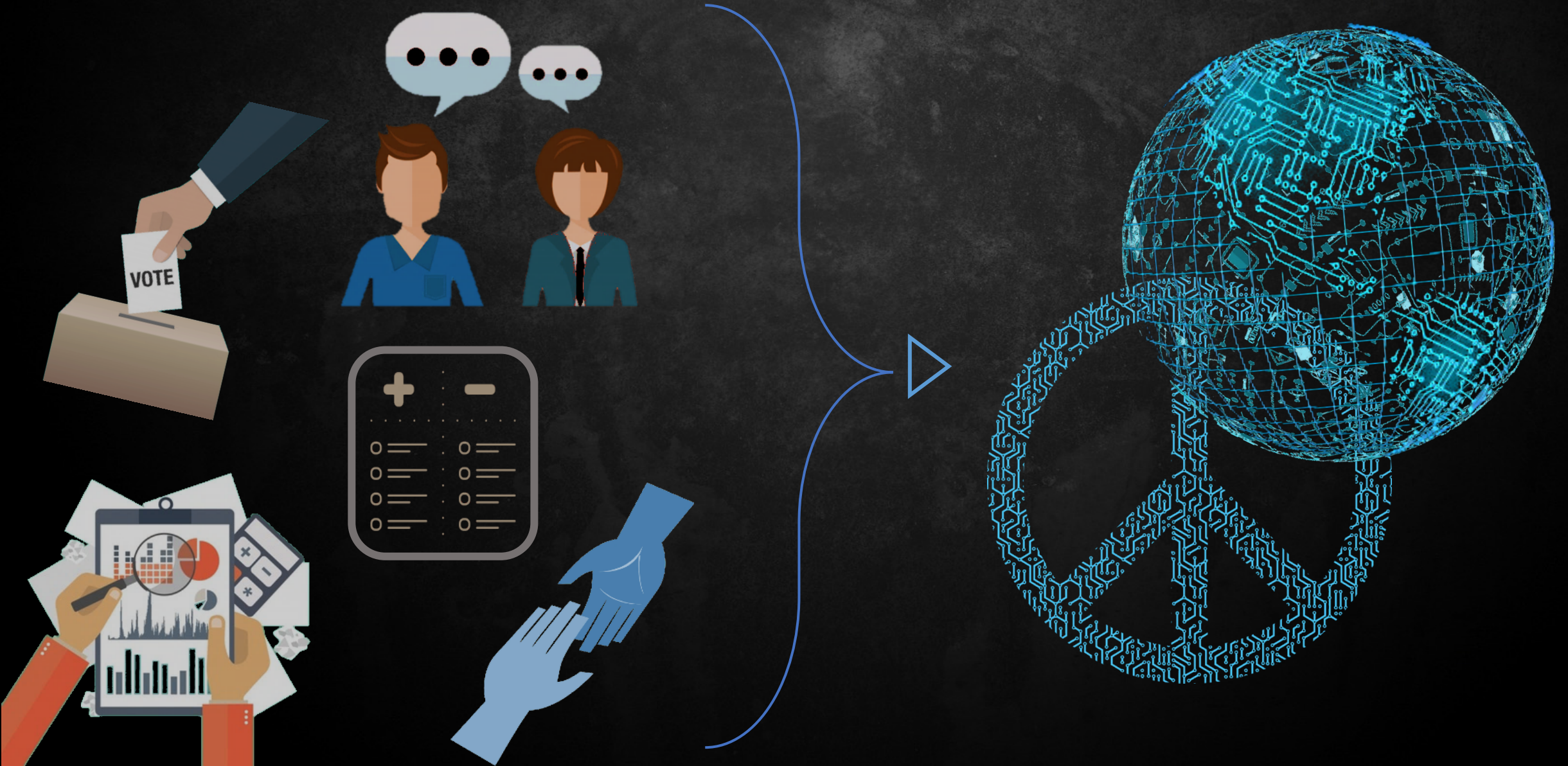
SARAH MÜHLEMANN, SWISS PYTHON SUMMIT 2018

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

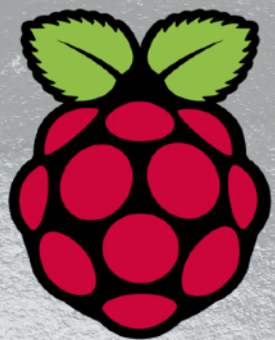


INTERACTIVE INSTEAD OF JARGON-HEAVY



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

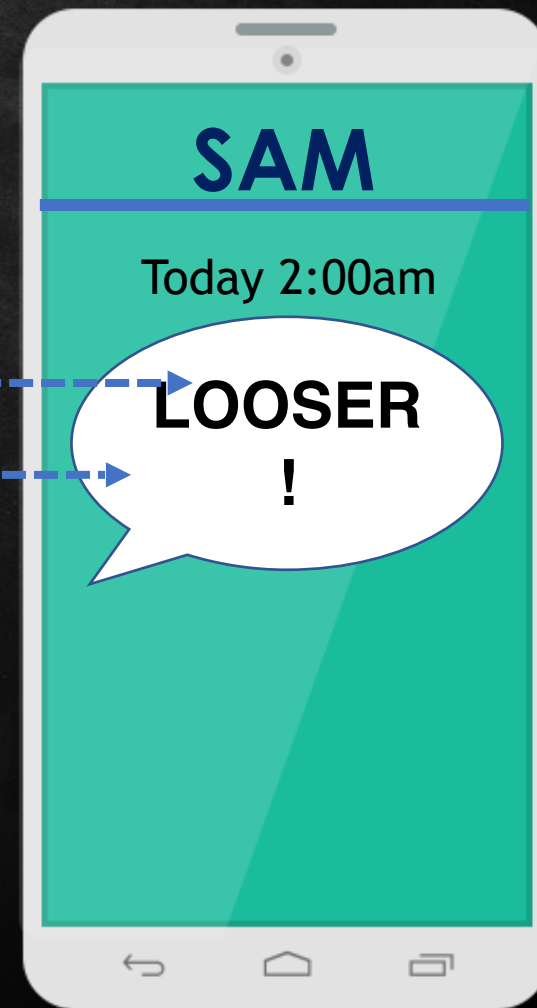


Sender ID: 079 999 99

```
message99 = clockwork.SMS (  
  to = '417999999999',  
  message = 'LOOSER!')
```



SAM'S
FRIEND



SAM

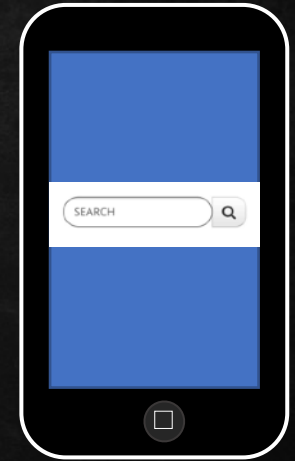
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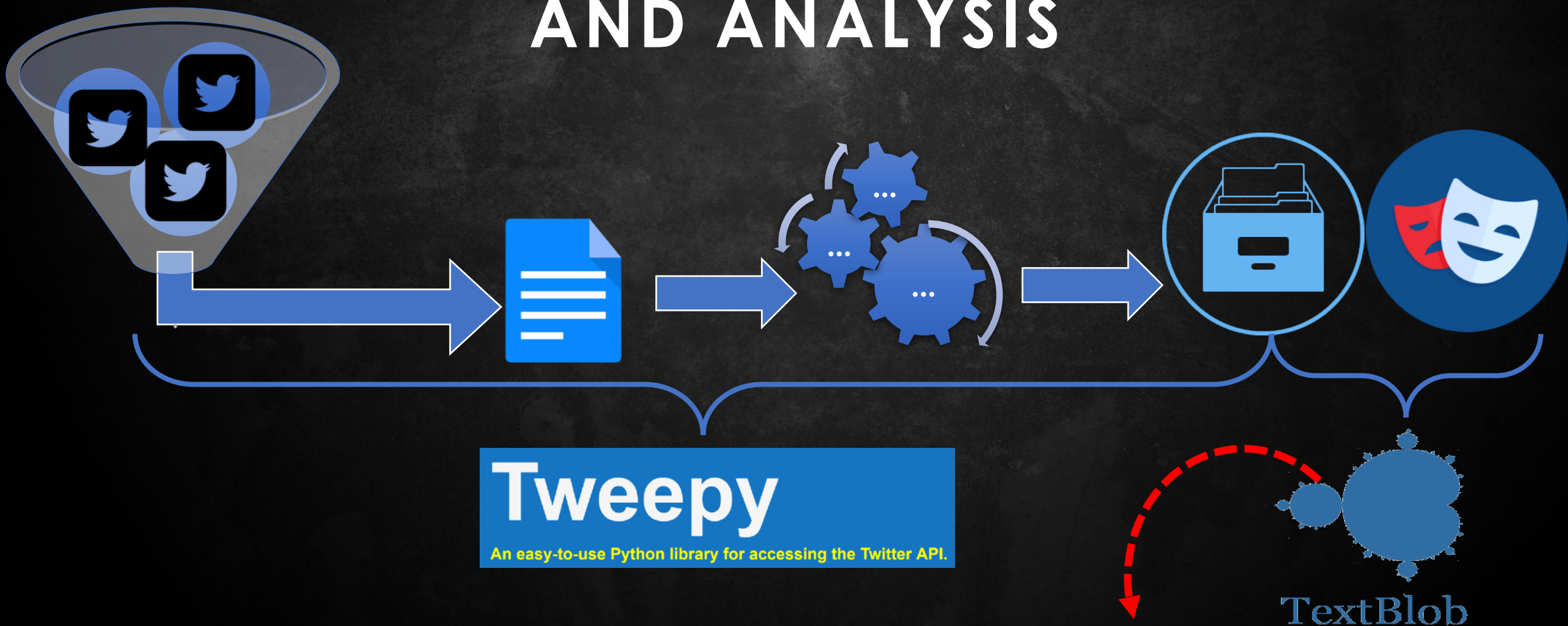
MITM PROXY



MITM PROXY

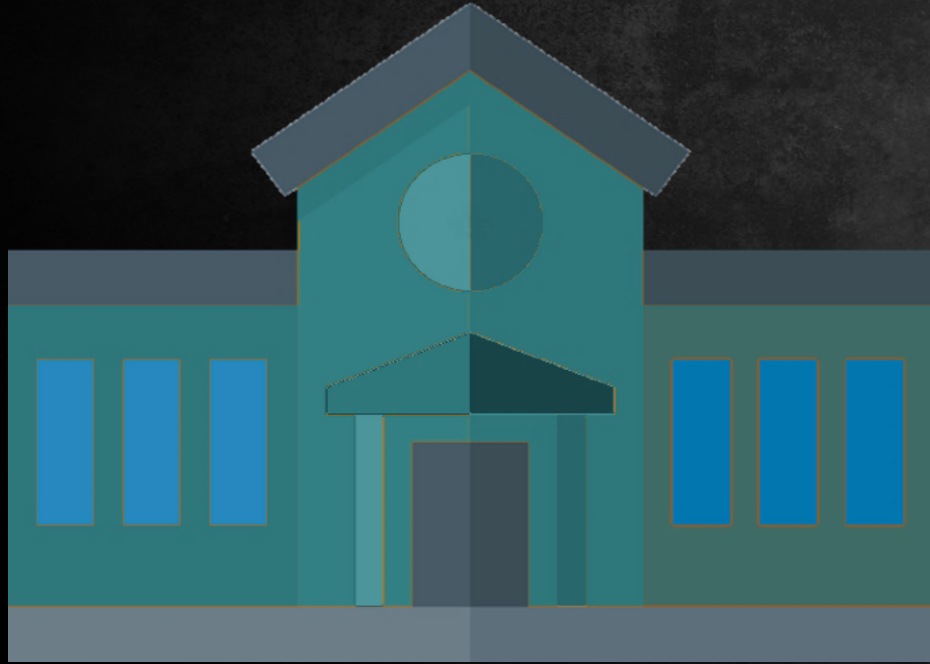


TWITTER DATA-MINING AND ANALYSIS

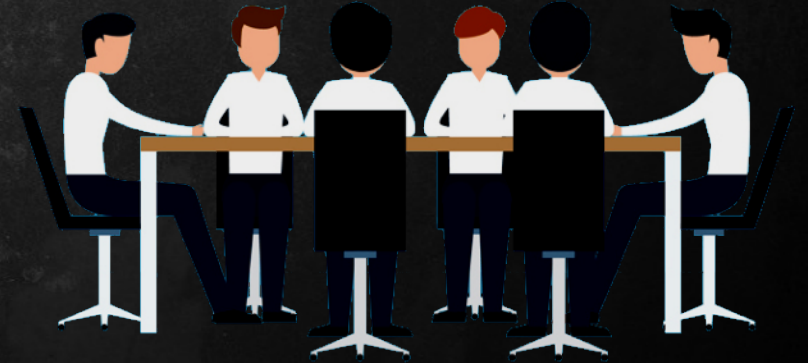
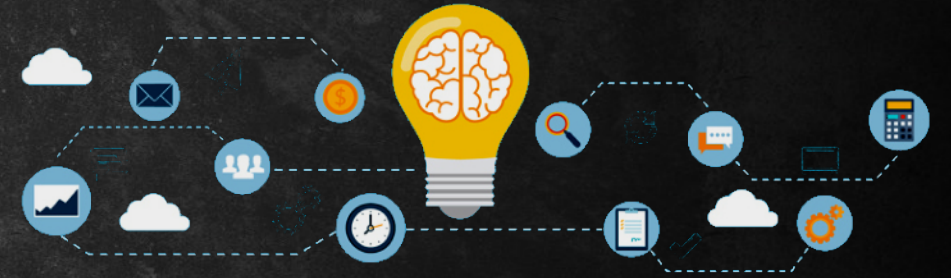
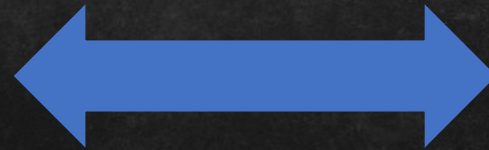


```
>>> testimonial = TextBlob("Textblob is amazingly simple to use. What great fun!")  
>>> testimonial.sentiment  
Sentiment(polarity=0.39166666666666666, subjectivity=0.4357142857142857)
```


AWARENESS RAISING ISN'T ENOUGH



AWARENESS RAISING



PROVIDING
FLEXIBLE SOLUTIONS

QUESTIONS?

Website: spypi.ch