

# Smart Investigation Social Media Scanner

By BeCode SMS





**How to extract intelligence from social medias or other internet channels?**

**Social Media Scanner**





## The Spread of Discriminating Ideas

Social background

Age Discrimination

Nationality

Ethnic origin

Racism

Skin colour

Religious beliefs

Sexual Orientation

Sexual Harassment

Disability

Political beliefs

Financial Resources

State of health

language

Civil status

Hate speech

Physical characteristics



## Overview of Social Media

SOCIAL MEDIA USERS BELGIUM (2019)

7.5m

SOCIAL MEDIA PENETRATION BELGIUM (2019)

65%

MOBILE SOCIAL MEDIA PENETRATION BELGIUM (2019)

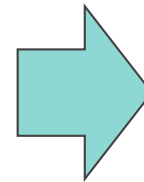
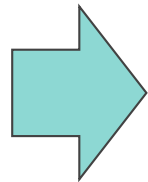
57%

**1.7 million** Facebook users  
in Belgium that were  
between 25 to 35 years old.



# Social Media Intelligence

obtain text from **social medias / website**

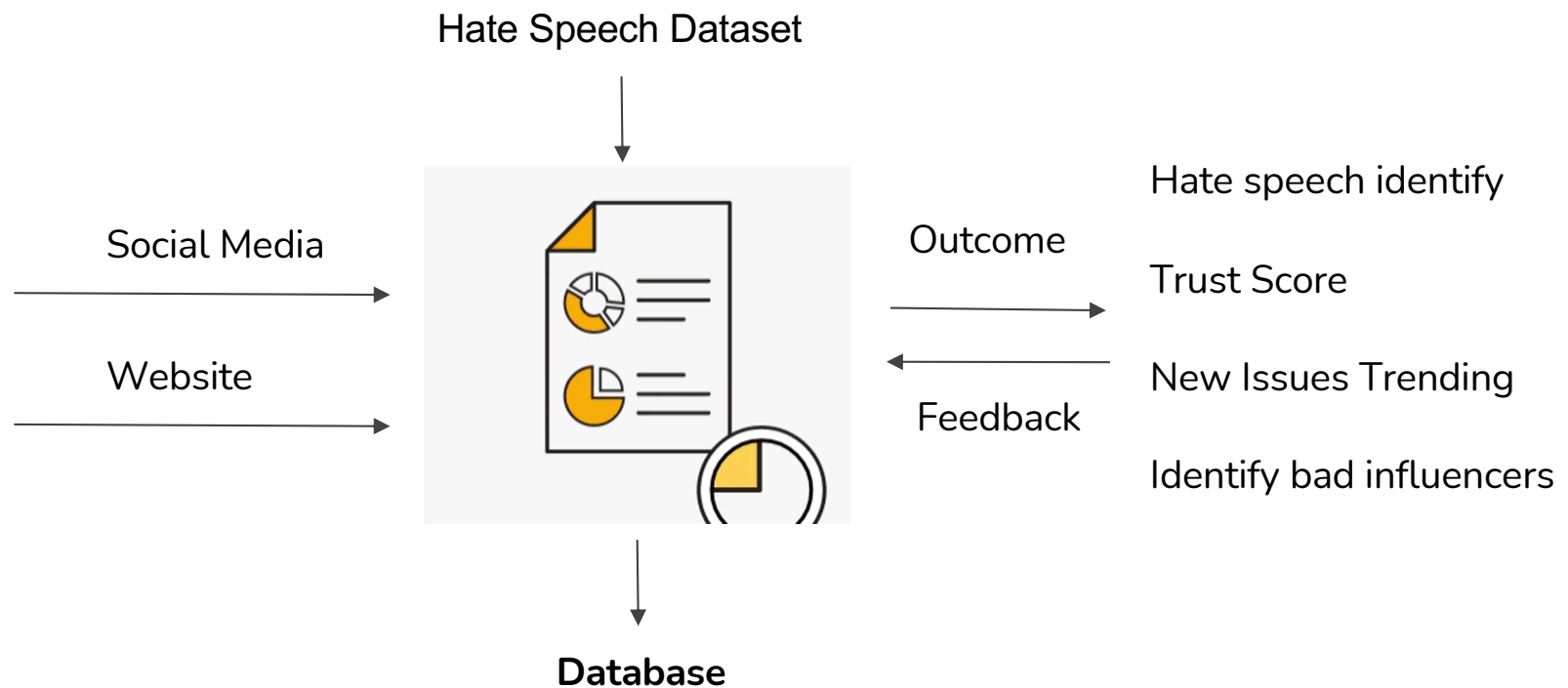


**Take action**

**Make report**

Identify the probability of the text to be discriminative

# Concept : Social Media Scanner





# Prototype

## Testing

```
In [33]: def predict(text,model):  
        text = pd.Series(text)  
        tfidf = vectorizer.transform(text).toarray()  
        tweet_tags = []  
        for t in text:  
            tokens = basic_tokenize(preprocess(t))  
            tags = nltk.pos_tag(tokens)  
            tag_list = [x[1] for x in tags]  
            tag_str = " ".join(tag_list)  
            tweet_tags.append(tag_str)  
        pos = pos_vectorizer.transform(pd.Series(tweet_tags)).toarray()  
        feats = get_feature_array(text)  
  
        #Now join them all up  
        X = np.concatenate([tfidf,pos,feats],axis=1)  
        my_prediction = model.predict(X)  
  
        if my_prediction[0] == 2:  
            print('This sentence is neutral.')        elif my_prediction[0] == 1:  
            print('This sentence is offensive.')        else:  
            print('This is a hate speech.')  
        return
```

```
In [34]: text = 'we are going to party tonight'  
        predict(text,lg)  
        This sentence is neutral.
```

```
In [35]: text = "you're all niggers"  
        predict(text,lg)  
        This is a hate speech.
```

```
In [36]: text = "You're going to die!"  
        predict(text,lg)  
        This sentence is offensive.
```



Social Media Scanner

Social Media Scanner

Detector for Tweets

Enter Your Message Here

you're all niggers

predict

This sentence is hate speech.

Social Media Scanner

Social Media Scanner

Detector for Tweets

Enter Your Message Here

You're a faggot

predict

This sentence is hate speech.

Social Media Scanner

Social Media Scanner

Detector for Tweets

Enter Your Message Here

@Chris #youarestupid you are so stupid. %\$%&\*%\$%

predict

This sentence is offensive.

Social Media Scanner

Social Media Scanner

Detector for Tweets

Enter Your Message Here

you're beautiful

predict

This sentence is neutral.



# Showcase

Social Media ScannerHomeContactLoginRegisterENFRNL

### Hate Speech Detector

#blacklivematter You are F\*ucking idiot! Go to hell.

predict

### Coming Soon

Text Scanner

Twitter

Facebook

Instagram

Website/Blog/Forums

Video Scanner

Youtube

Tiktok

Analyzer

Word Cloud

Database

Hate Speech

Social Media ScannerHomeContactLoginRegisterENFRNL

This sentence is hateful.

Save to Database

### Coming Soon

Text Scanner

Twitter

Facebook

Instagram

Website/Blog/Forums

Video Scanner

Youtube

Tiktok

Analyzer

Word Cloud

Database

Hate Speech

Predict hate speech

Result and Save to Database

<https://social-media-scanner.herokuapp.com>





## Conclusions

- To gather social media intelligence and detect hate speech content from social media or website.
- To provide valuable information for police for new issues trending.
- To create a database for hate speech model development.

## Knowledge Leap

- Enormous case study done
- Concept formulation
- Model building for Hate Speech Detection
- Deployment on Hate Speech Detection online





## **LIVE DEMO**

<https://social-media-scanner.herokuapp.com>

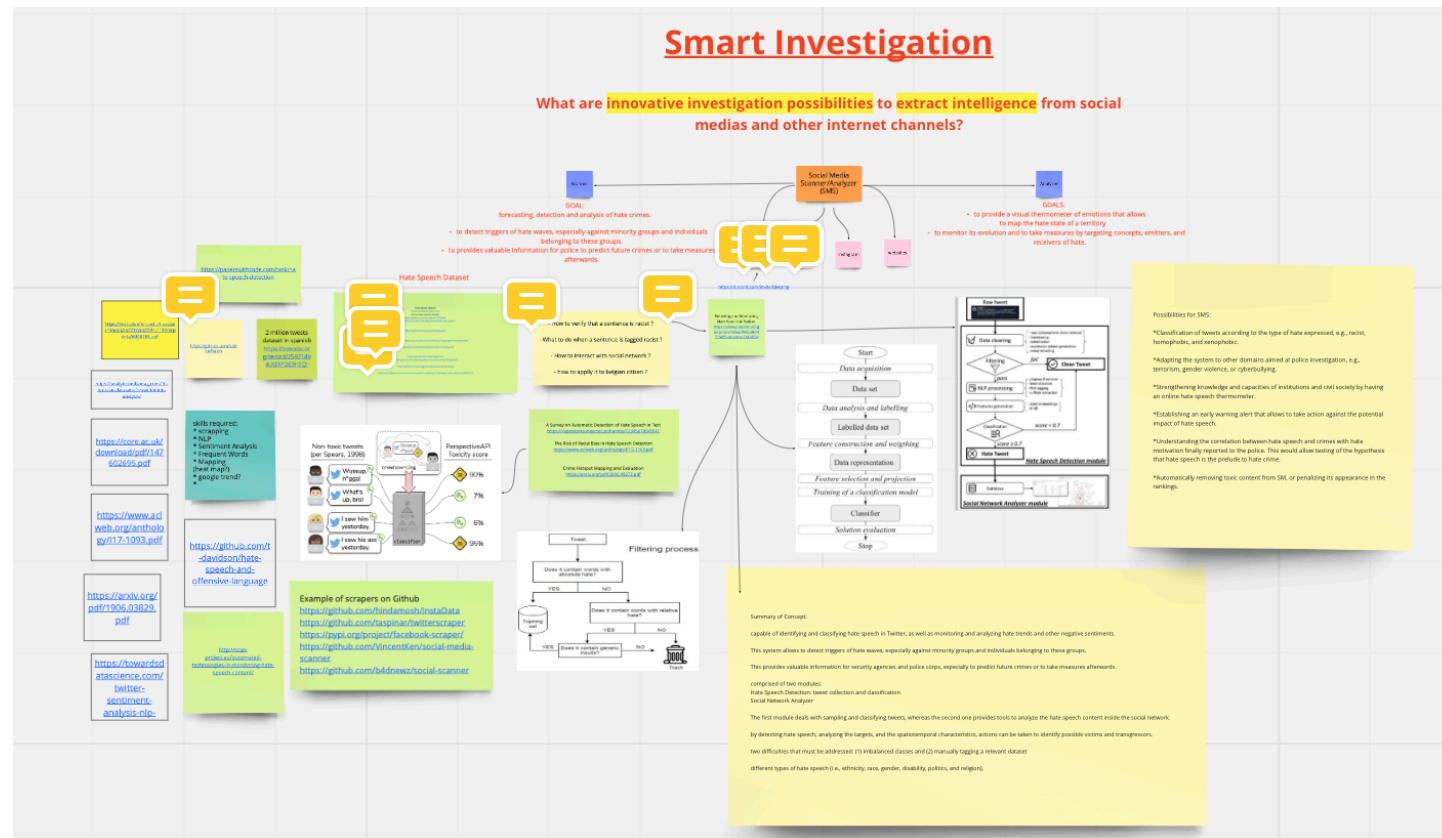
## **Github Repository**

<https://github.com/kaiyungtan/Social-Media-Scanner>

Thank You



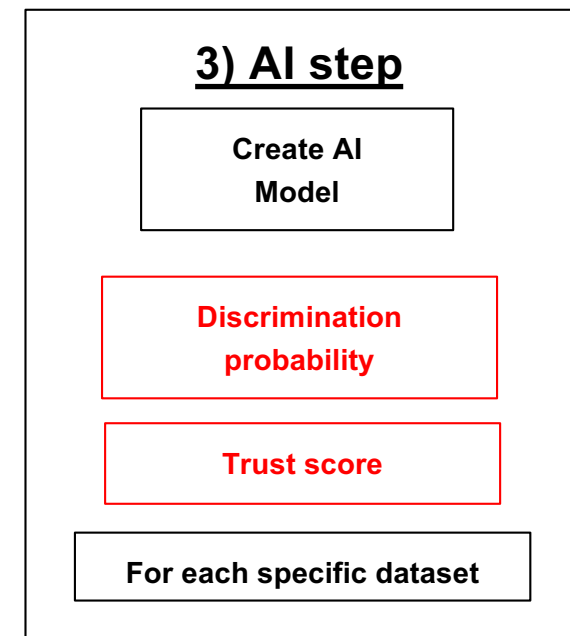
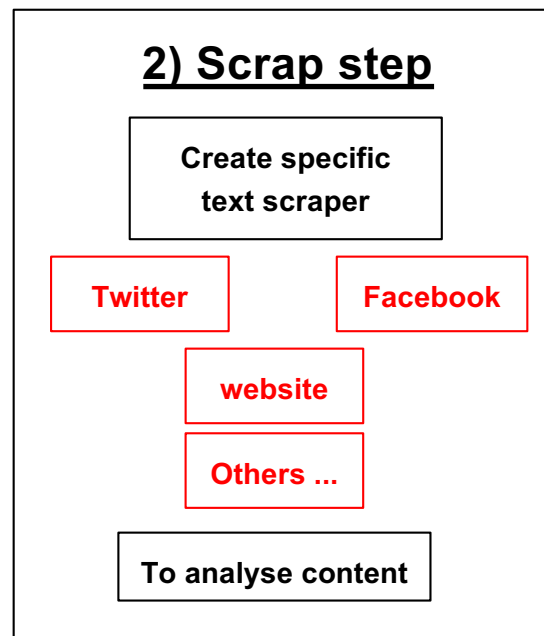
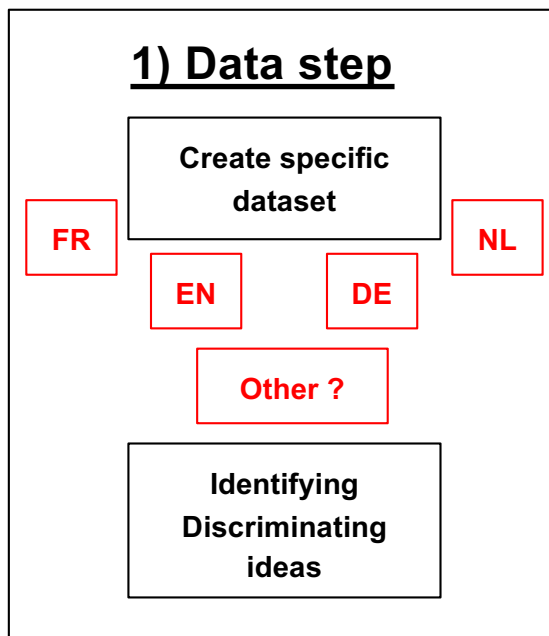
# Ideas Board



[https://miro.com/app/board/o9J\\_lcCfeB8=](https://miro.com/app/board/o9J_lcCfeB8=/)



# The simplified big picture





## The simplified big picture

### 4) Apply AI model

On selected  
scraped text

Discrimination  
probability > X %

To highlight  
worrying content

### 5) Take action

Human validation  
required

Delete content

Legal proceeding

Send warning to authors

To take an action

### 6) Monitor evolution

Dashboard  
application

FR

NL

EN

DE

Other ?

To monitor evolution of  
discrimination