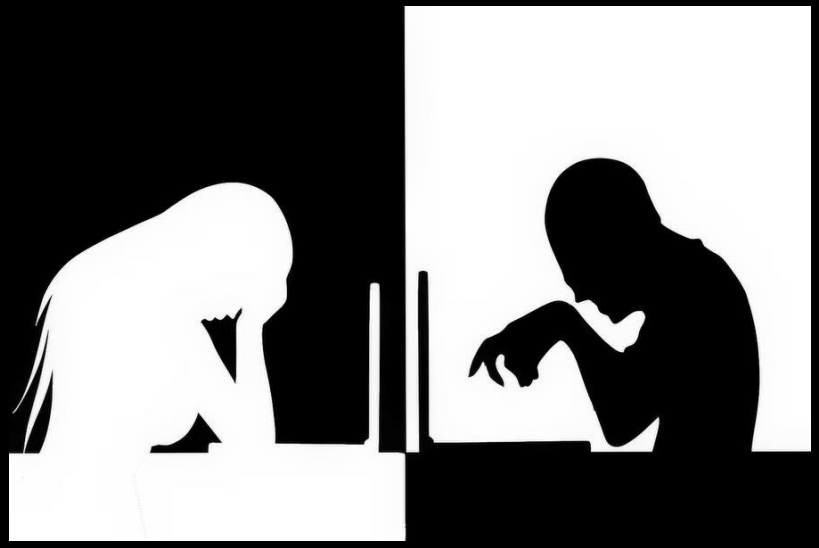
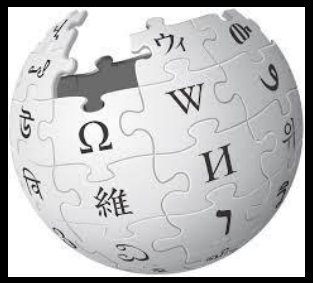
Has anyone here ever been harassed online?



54% reported decreased participation

Harassment Survey, Wikipedia.org. 2015

Toxicity affects your bottom line



Jigsaw

How can technology make the world safer?

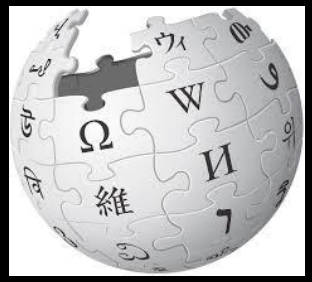
How can data science maximize profit?

- Toxic comments → warning/ban: 17.9%
- 9% of “insult” attacks in 2015 from 34 users
- Mitigate trolling
- Identify trolls by their comments
- “Sentiment analysis” via NBSVM
- Naive Bayes Support Vector Machines

Harassment Survey, Wikipedia.org. 2015

Dataset:

Wikipedia talk page edits



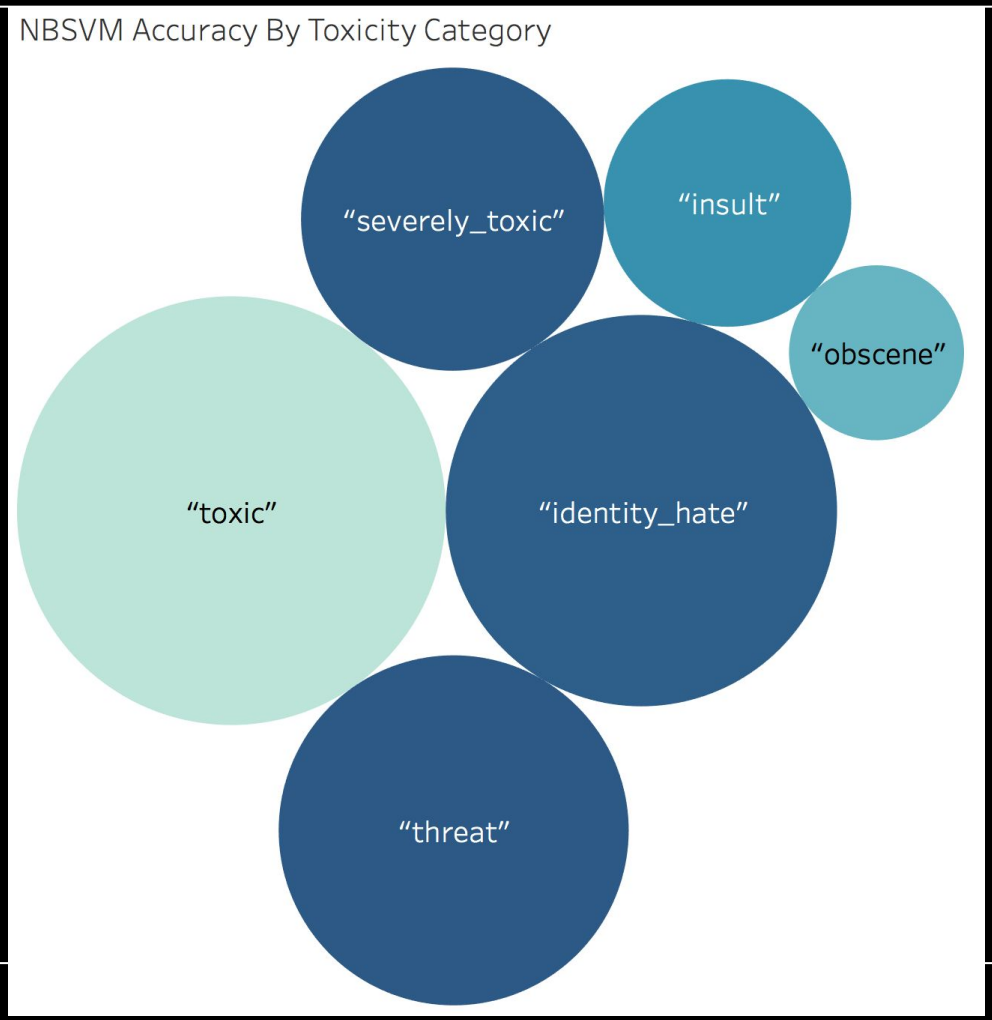
- Online comments generally “short snippets”
- Categories: Toxic, severely toxic, obscene, threat, insult, identity hate
- Crowd-sourced determination

Examples

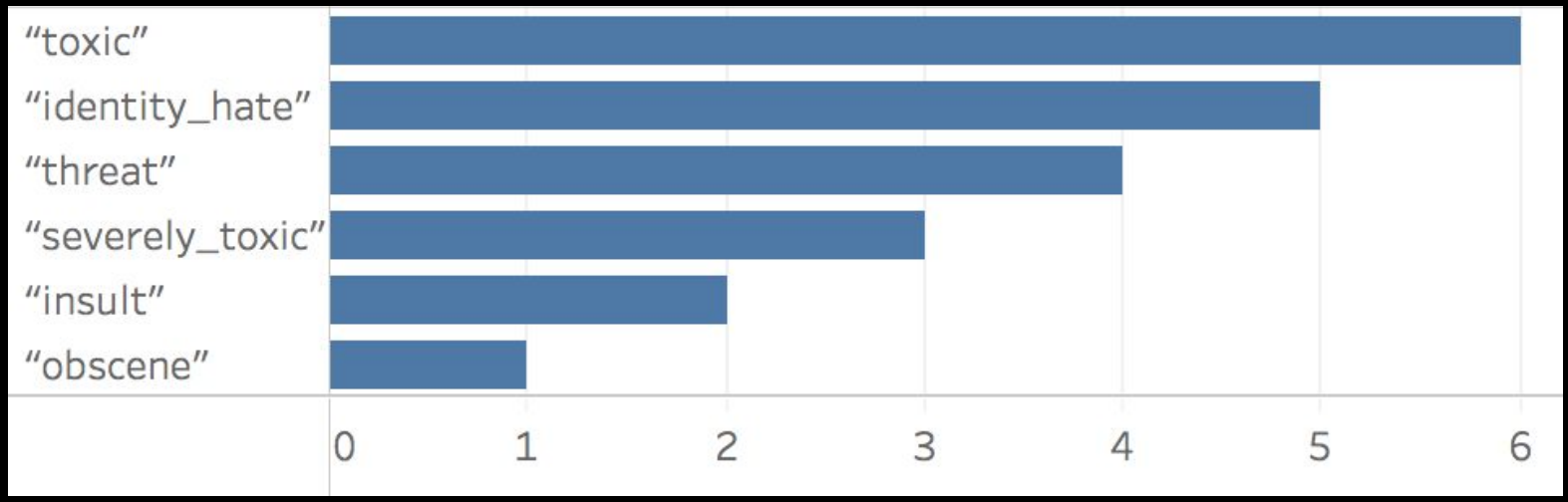
- Toxic: “Nonsense? kiss off, geek. what I said is true. I'll have your account terminated.”

- Toxic/Obscene/Insult: Ban one side of an argument by a bullshit nazi admin and you get no discussion because the islamist editors feel they ""won""."

Preliminary Results



Preliminary Results



Challenges/Limitations

- Scalable code
  - Had to halve dataset
- Validation cutoff: 0.9
  - Floored/ceiled to binarize toxicity calls
  - Excludes much of the ambiguous data

Next Steps

- Scale code
- Explore categorical dependence
- Tune validation cut-offs
- Benchmark other kernels

NBSVM aka “bag of words”

```
(1) John likes to watch movies. Mary likes movies too.

(2) John also likes to watch football games.
```