Gambling

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Does fortune truly favour the bold?

Problem Statement

Problem Statement

- Problem Gambling Vs Gambling

- Reddit Posts

- NLP > Feature Words

Data Handling

Data Handling

- Reddit API
- Column Selection
- Missing Values and Duplicates

Data Handling

- Subreddit Mapping
- Tokenise
- Stopwords
- Lemmetisation

Data Handling

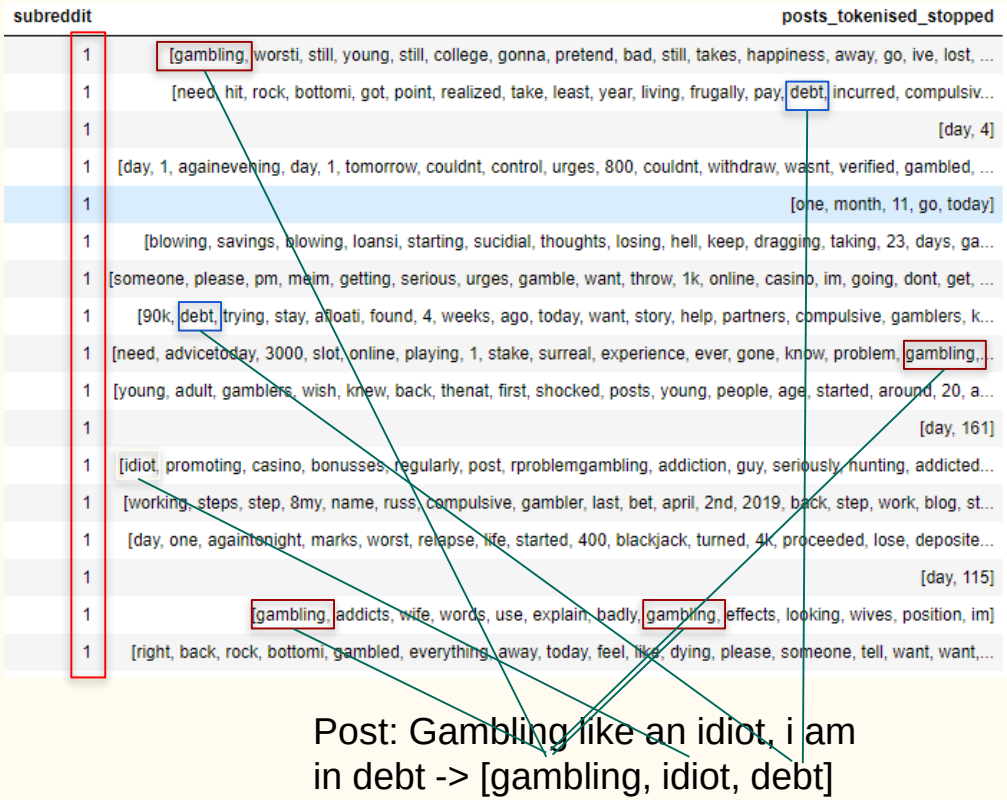
	subreddit	posts	posts_tokenised	posts_tokenised_stopped	posts_tokenised_stopped_lem
0	1	Weekly Community Support Thread: Monday, Febru...	[weekly, community, support, thread, monday, f...	[weekly, community, support, thread, monday, f...	[weekly, community, support, thread, monday, f...
1	1	Even if this sounds ridiculous, i just want to...	[even, if, this, sounds, ridiculous, i, just, ...	[even, sounds, ridiculous, want, say, thank, e...	[even, sound, ridiculous, want, say, thank, ev...
2	1	Please Help Me - I don't know how to fix my li...	[please, help, me, i, dont, know, how, to, fix...	[please, help, dont, know, fix, lifethis, firs...	[please, help, dont, know, fix, lifethis, firs...
3	1	Day 12Spending more time with my family , read...	[day, 12spending, more, time, with, my, family...	[day, 12spending, time, family, reading, valua...	[day, 12spending, time, family, reading, valua...
4	1	How to stay positive and motivated when not ga...	[how, to, stay, positive, and, motivated, when...	[stay, positive, motivated, gamblingi, see, dr...	[stay, positive, motivated, gamblingi, see, dr...
...	...	...	...	...	...
1570	0	14th birthday cake	[14th, birthday, cake]	[14th, birthday, cake]	[14th, birthday, cake]
1571	0	Heavy horse favorites to showI was listening t...	[heavy, horse, favorites, to, showi, was, list...	[heavy, horse, favorites, showi, listening, fr...	[heavy, horse, favorite, showi, listening, fre...
1572	0	Another parlay	[another, parlay]	[another, parlay]	[another, parlay]
1573	0	Taruhan Slot Online Terpercaya	[taruhan, slot, online, terpercaya]	[taruhan, slot, online, terpercaya]	[taruhan, slot, online, terpercaya]
1574	0	Are casino dealers meant to confuse youHi, all...	[are, casino, dealers, meant, to, confuse, you...	[casino, dealers, meant, confuse, youhi, ive, ...	[casino, dealer, meant, confuse, youhi, ive, a...

Modelling

Modelling

- TFIDF

- MultinomialNB & Logistic Regression



subreddit	posts_tokenised_stopped
1	[gambling, worsti, still, young, still, college, gonna, pretend, bad, still, takes, happiness, away, go, ive, lost, ...
1	[need, hit, rock, bottomi, got, point, realized, take, least, year, living, frugally, pay, debt, incurred, compulsiv...
1	[day, 4]
1	[day, 1, againevening, day, 1, tomorrow, couldnt, control, urges, 800, couldnt, withdraw, wasnt, verified, gambled, ...
1	[one, month, 11, go, today]
1	[blowing, savings, blowing, loansi, starting, sucidial, thoughts, losing, hell, keep, dragging, taking, 23, days, ga...
1	[someone, please, pm, meim, getting, serious, urges, gamble, want, throw, 1k, online, casino, im, going, dont, get, ...
1	[90k, debt, trying, stay, afloati, found, 4, weeks, ago, today, want, story, help, partners, compulsive, gamblers, k...
1	[need, advicetoday, 3000, slot, online, playing, 1, stake, surreal, experience, ever, gone, know, problem, gambling,...
1	[young, adult, gamblers, wish, knew, back, thenat, first, shocked, posts, young, people, age, started, around, 20, a...
1	[day, 161]
1	[idiot, promoting, casino, bonusses, regularly, post, rproblemgambling, addiction, guy, seriously, hunting, addicted...
1	[working, steps, step, 8my, name, russ, compulsive, gambler, last, bet, april, 2nd, 2019, back, step, work, blog, st...
1	[day, one, againtonight, marks, worst, relapse, life, started, 400, blackjack, turned, 4k, proceeded, lose, deposite...
1	[day, 115]
1	[gambling, addicts, wife, words, use, explain, badly, gambling, effects, looking, wives, position, im]
1	[right, back, rock, bottomi, gambled, everything, away, today, feel, like, dying, please, someone, tell, want, want,...

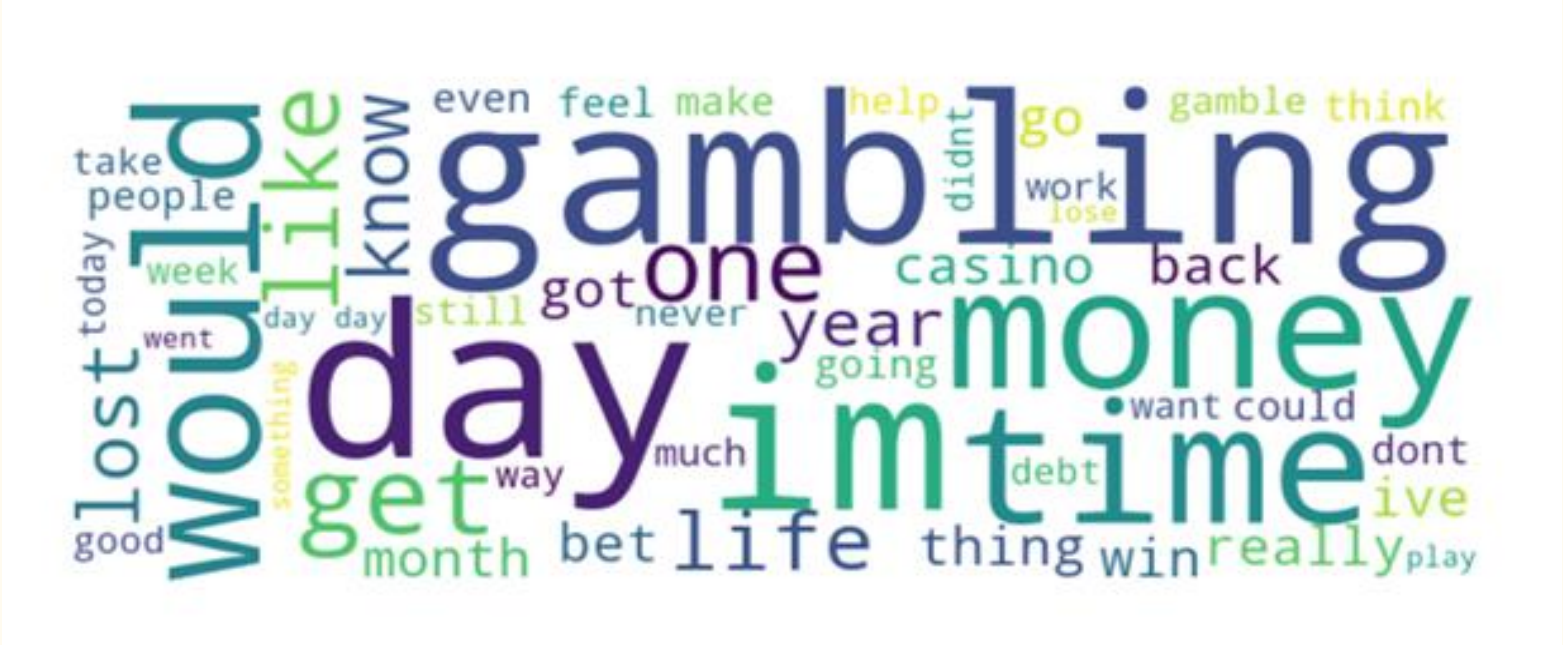
Post: Gambling like an idiot, i am in debt -> [gambling, idiot, debt]

Results

Results

	Multinomial	Logistic	baseline
train_accuracy	0.888985	0.919341	0.612987
test_accuracy	0.872727	0.916883	0.612987
sensitivity	0.961864	0.923729	NaN
specificity	0.731544	0.906040	NaN
roc	0.846704	0.914885	NaN

Results

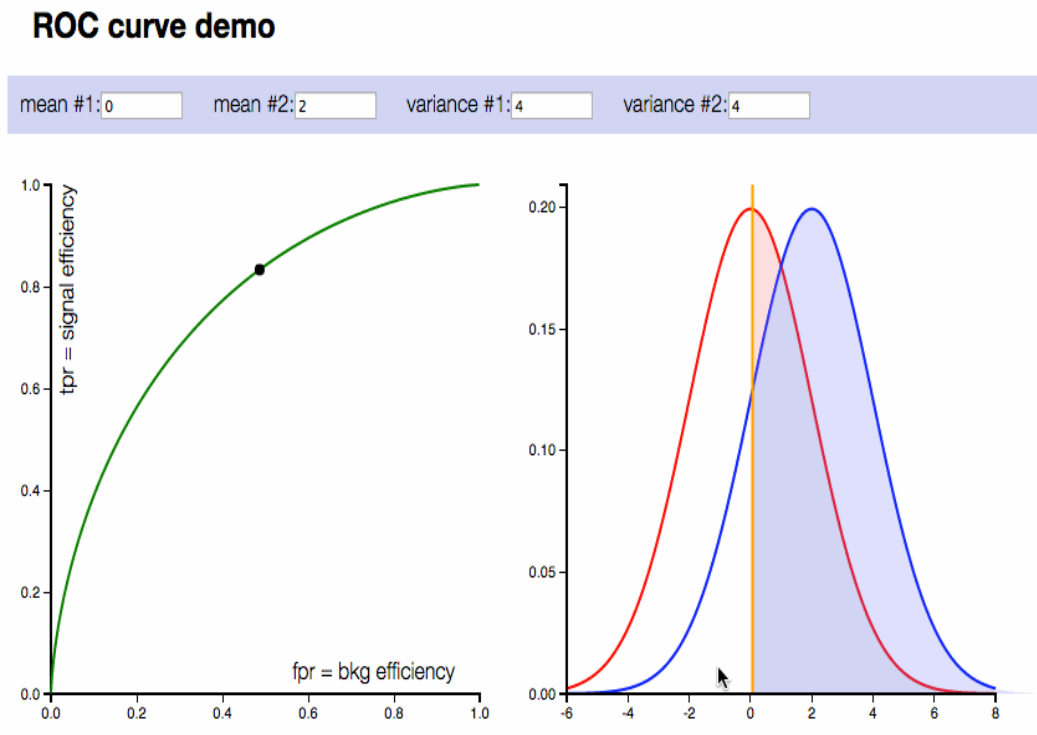

gambling
day
money
imtime
would
like
know
one
get
lost
life
casino
back
year
month
bet
thing
win
really
play
ive
dont
debt
much
way
good
take
people
today
week
went
day
day
still
got
never
going
want
could
even
feel
make
help
didnt
go
gamble
think
work
lose
something

Conclusion

Conclusion

Selected Vectoriser:
TF-IDF

Selected Model:
Logistic Regression

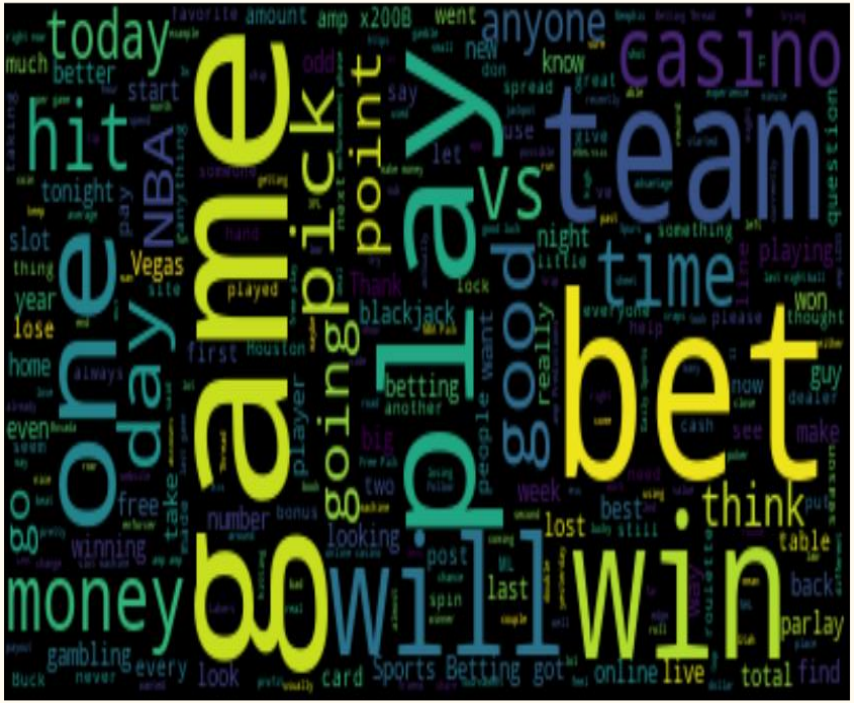


Conclusion

- **Extract the words** with higher coefficients for gambling and problem_gambling
- Words → Basis of investigation to develop recommendations for gambling addicts

Recommendations

Recommendations



Recommendations

Observation 1: Money has a larger presence in problem_gambling compared to gambling subreddit.

- Gambling leads to Financial Difficulties → Problem Gambling
- Gamblers are not solely driven by money, the thrill factor plays a major role → Appears lesser in gambling

Observation 2: Words of a shorter term like **today** have a higher representation in gambling over words of longer term like **month** and **year**

- Gamblers yearn for instant gratification
- Long term words → long term thoughts on recovery
- Identify and link up those who are rehabilitating

Recommendations

Observation 3: Emotional words like **feel** and **lost** are in the problem_gambling subreddit.

- The type of feelings can be studied to develop a more customised format of counselling to aid those in distress

Note:

- As always the optimal solution to better modelling is to get more data
  - Reddit != Local problems
  - Posts may not always be reliable
  - Use words from reddit to construct a detailed quiz for those facing gambling addiction locally

gambling
Fun or
Addiction?