FINANCIAL PLANNING & RETIREMENT

Shuying | 17 Mar 2023

Agenda

1. Problem Statement

2. General Process

3. Key Findings

4. Other Considerations

Problem Statement

Differentiating posts between the two subreddits, r/**Retirement** and r/**Financial Planning**, to help direct individuals to advice tailored to their interest.

Important because while both subreddits deal with personal finance, they have distinct differences in their focus & audience.

Success will be measured by the **accuracy** of the classifier in identifying the source of the posts.

Examples of Posts from the Subreddits

Post from Retirement:

"I'm retiring next year, and I'm wondering if I should pay off my mortgage before I retire. Any advice?"

Post from Financial Planning:

"I'm in my mid-20s and just got my first job. What are some good investment options for beginners?"

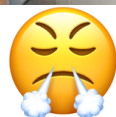Enabling Singaporeans to make wise financial decisions

Singapore's first bionic financial adviser serving clients with comprehensive, competent and conflict-free financial advice to live their best possible lives.

CREATE ACCOUNT

MoneyOwl is an NTUC social enterprise that is licensed by the Monetary Authority of Singapore as a financial adviser and fund management company.

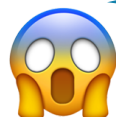Plan   Insure   Invest   Promotions   Pricing   Resources & Events
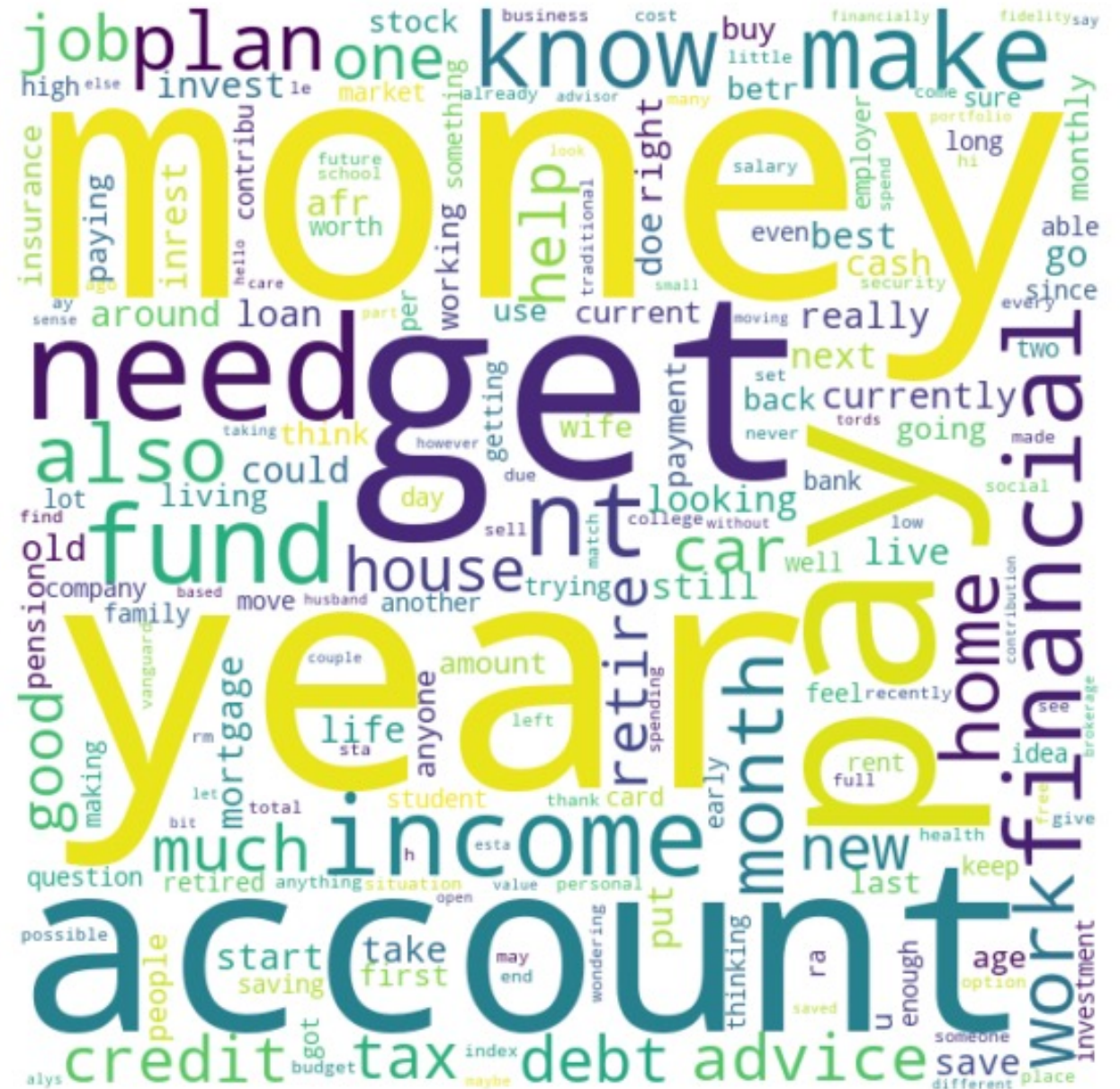
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Create your MoneyOwl account fast and hassle free with Myinfo, or skip to create account manually.

Available to all Singpass Registered users. Learn more about Myinfo.

Retrieve Myinfo with singpass

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Note: This tool is currently available only for those aged 15 to 65 years old. 😤

Comprehensive Financial Planning
• Limited Offer $99 (incl. GST) 😱

How about curious young minds & those aged >65 years old who have (actually) retired and want to glean info?

Get Started

Top of Mind

General Process

Pre-process to desired text format

Feed the data to the model

Labels

Data

Features

Model

Prediction

Output

Transform the text to vectors

Examine the predictions/ Testing & improving the Text Classifier

How Did It Work?

Financial Planning

	log_prob_diff
loan	-2.383800
car	-2.304952
credit card	-2.218591
credit score	-2.084566
credit	-2.028335
card	-1.910449
score	-1.876834
rent	-1.748649
airdrop	-1.722896
student	-1.695087
lease	-1.658516
debt	-1.652392

Retirement

	log_prob_diff
social security	2.769252
gold	2.720328
retiring	2.639010
boomer	2.618043
senior	2.607584
baby boomer	2.574352
retired baby	2.471492
retire	2.448755
community	2.297842
security	2.202771
village	2.116028
social	2.066857

Mediocre performance - 230 posts classified incorrectly ☹

Accuracy Score:
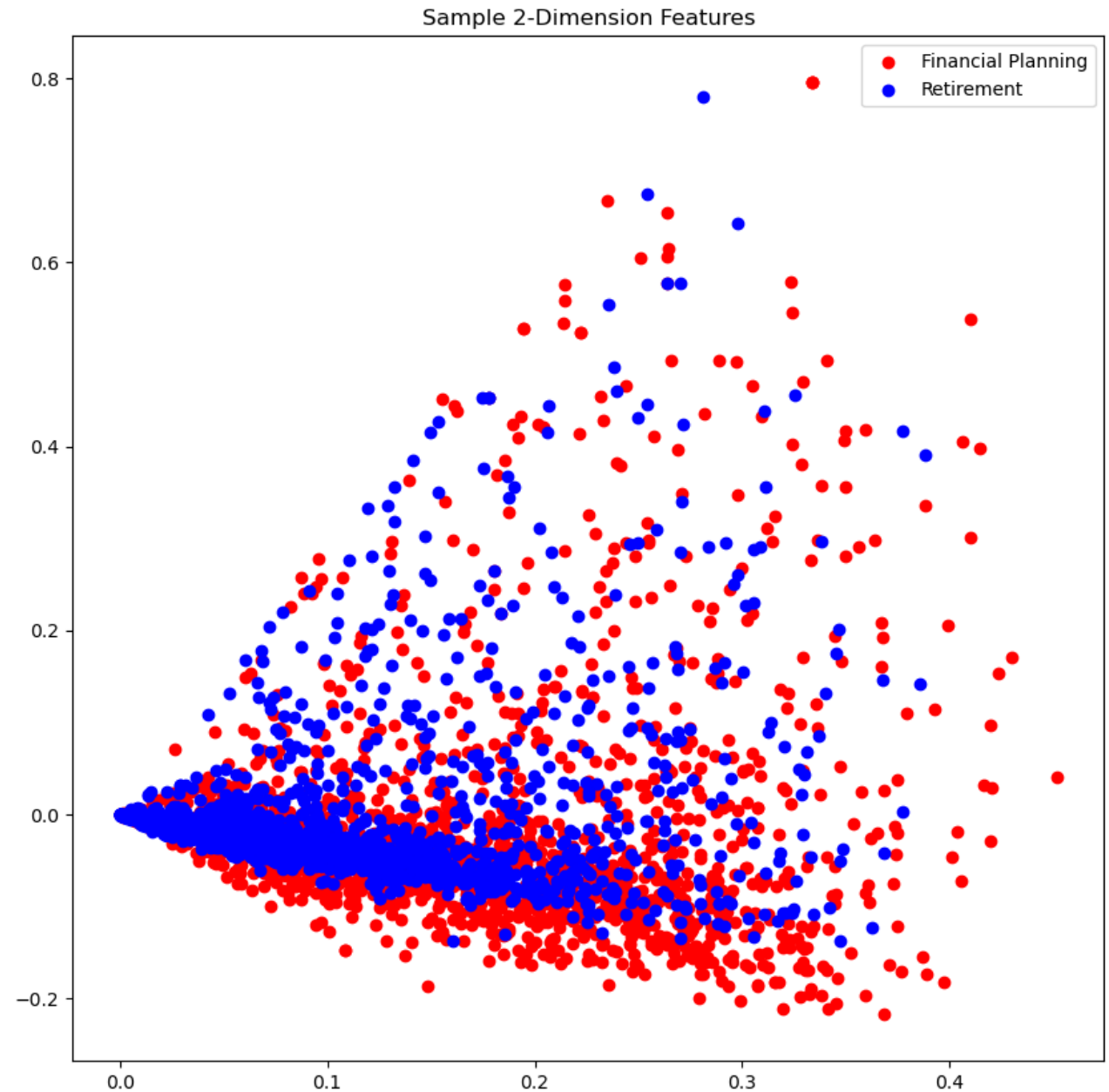- Train: 0.858
- Test: 0.766

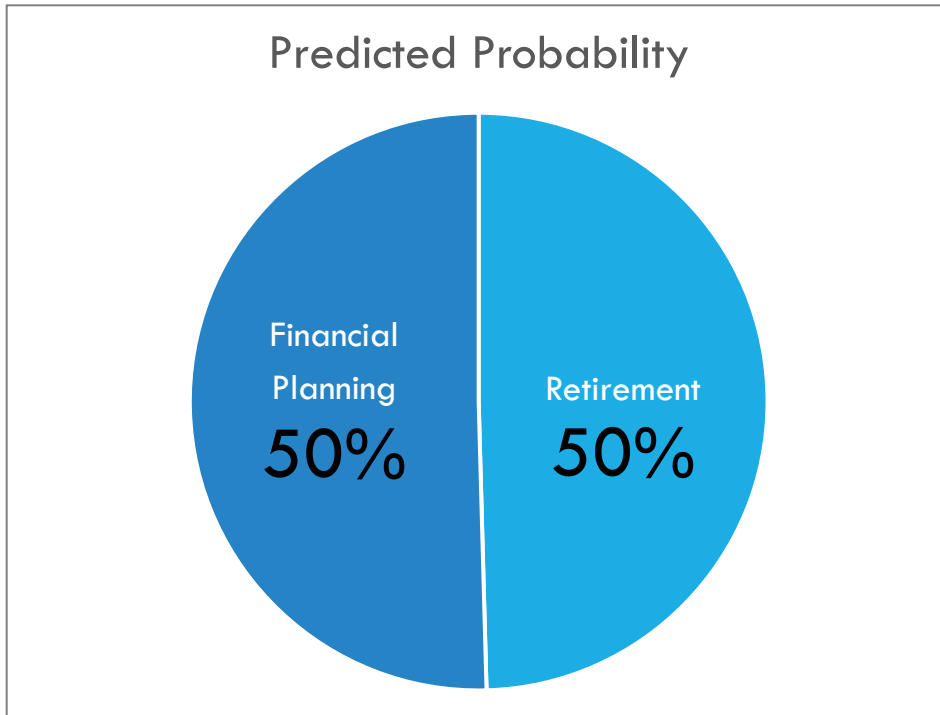*Number of correctly classified posts out of total number of posts…*
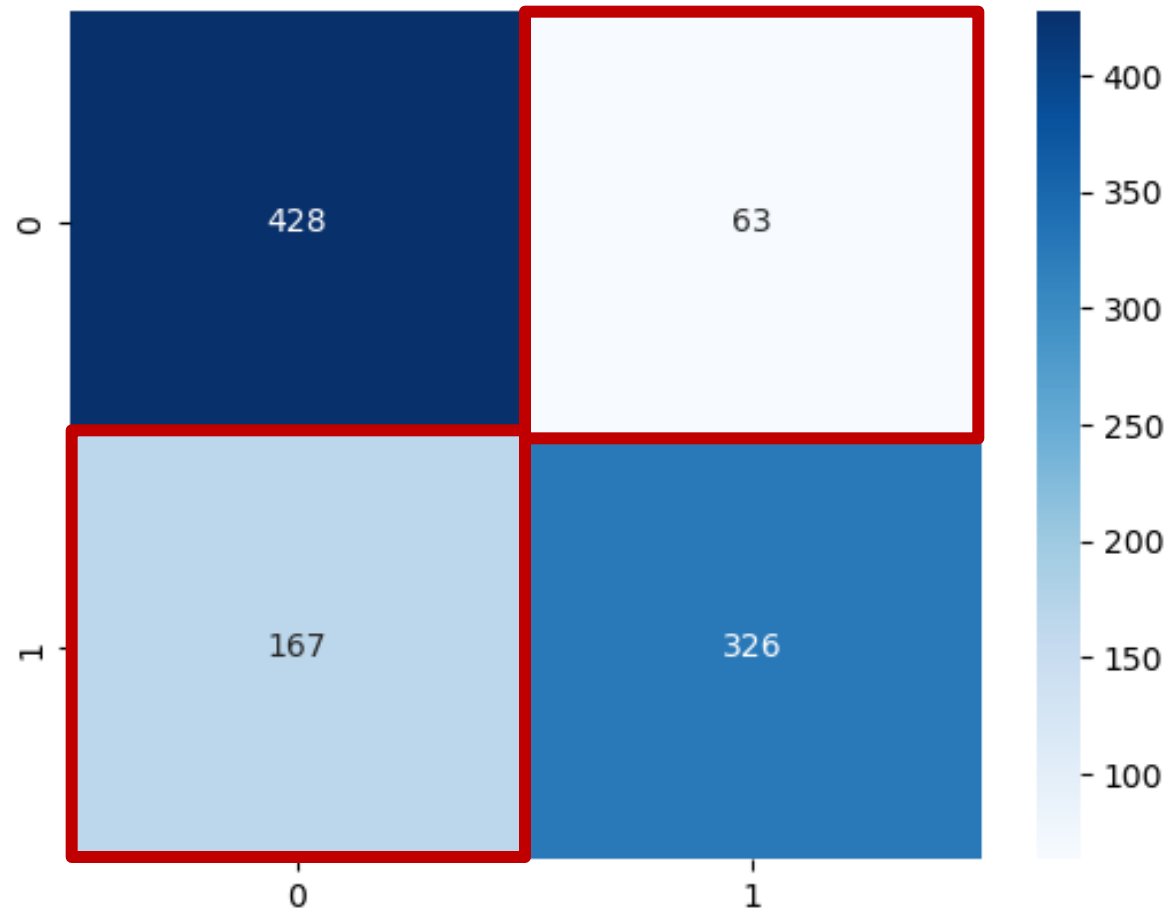
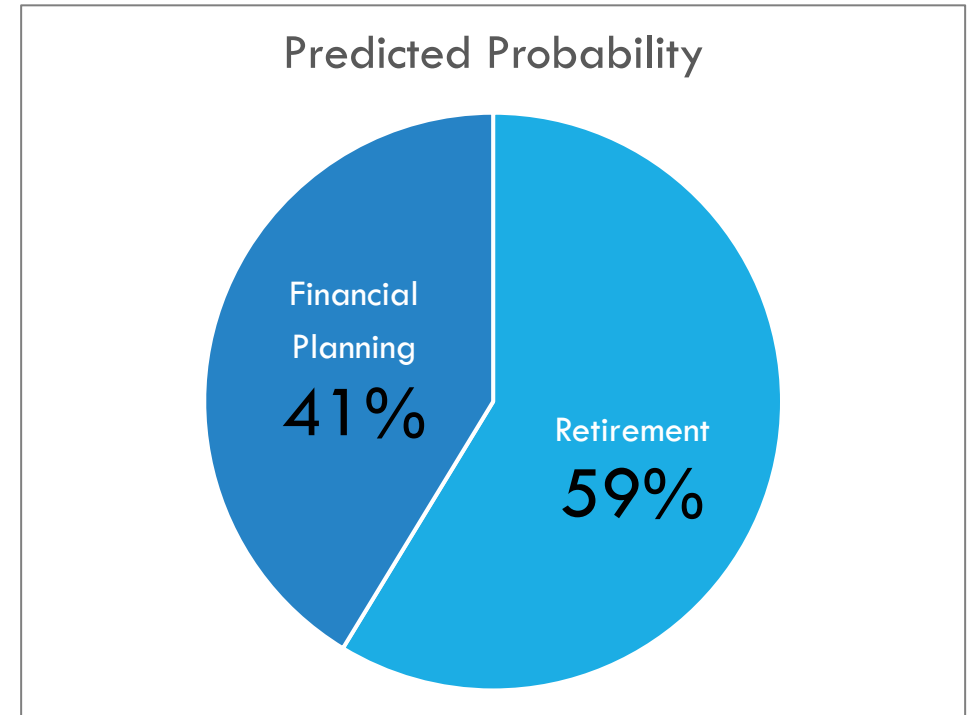BUT WHY?

Overlaps Between Features

Sample 2-Dimension Features

On the Fence….

"Pension versus life insurance"

"[3 Reasons Why you should]
Save *[for Retirement?]* **"**

Predicted Probability

Financial
Planning
50%

Retirement
50%

Predicted Probability

Financial
Planning
41%

Retirement
59%

Quality Content? Further Cleaning Required?

Fiesta celebration open house spring

Retirement Subreddit 🥳

Predicted probability [0.50 0.50]

[In the] **event of suicide** [, would a] **beneficiary spouse receive** [the] **money** [?] **Please** [don't] **take** [this the] **wrong** [way. I'm not] **thinking** [of] **taking** [my] **life**[, I'm just] **trying** [to] **find** [the] **answer** [to this] **question**

Financial Planning Subreddit 😮‍💨

Predicted probability [0.45 0.54]

Possible Next Steps

- Get more data

- Consider financial sentiments

THANK YOU