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# Project proposal



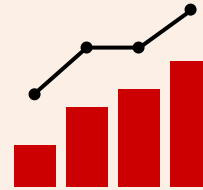
# Area/Topic

Overall economic health is paramount to making policy decisions, which is why so many resources are dedicated to measuring key economic indicators such as GDP, Inflation, employment, and consumer confidence. However, it may be possible to utilize knowledge mining in order to evaluate such measures in real time and improve our understanding of these economic indicators better than existing methods.



## Current benchmarks

Reliable sources of economic information serve baseline such as the Federal Reserve Bank of St. Louis



## Possible alternative

It may be possible to gather data from social media posts to update inflation measures more quickly and accurately.



## Consumer Price Index

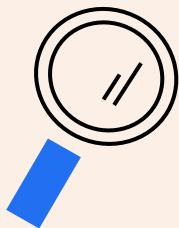
Measures of inflation such as CPI are still collected by visiting or calling a sample of retail, rental, and service businesses to record prices.



## Simple starting point

Test for correlation between the positive or negative tone of posts and inflation to see if they are correlated.

# Research Statement



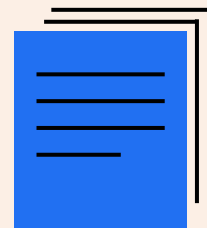
## Research Question

Is it possible to use a LLM to knowledge mine social media posts in order to predict inflation?



## How relevant are Posts?

Research will evaluate if social media posts related to prices and similar topics are correlated with traditional measures of inflation.



## Just a starting point

There is potentially more complex research that could be done if social media posts are generally reflective of inflation.

# Method



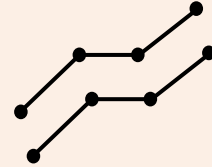
## Knowledge Mining

Utilize a LLM to sort social media posts into those relative to inflation, and then further into positive or negative in tone with dummy variables.



## Organize the posts

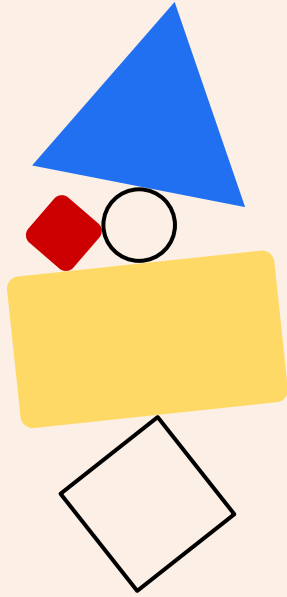
The time, date, and location of these posts would also be needed to evaluate trends over time and in specific locations.



## Just a starting point

Using regression(s) to see if correlation exists between the posts and inflation.

# Thank You!



Questions?

Is there anything I can clarify, go over, or expand upon?

Thoughts?

What are your impressions of the proposal?

Suggestions?

Any ideas, constructive criticism, or improvements that you would like to suggest?

