Sentiment Analysis of Public Figure

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Nishant Gulgulia
Computer Science
University of Illinois
Urbana Champaign
Virginia, USA
nishant9@illinois.edu

Pradeep Khandelwal
Computer Science
University of Illinois
Urbana Champaign
Virginia, USA
pk5@illinois.edu

Liu, Ling-Hsi
Computer Science
University of Illinois
Urbana Chanpaign
USA
lhliu2@illinois.edu

***Abstract*—Sentimental Analysis of renown figures is something that media agencies, channels often do during various important events like elections, building public opinions. Even a common man would want to know about how others feel on some candidates' popularity. With this tool we intend to not only do a sentimental analysis on a political figure but also provide others the means to extend the idea of sentimental analysis to any other domain or entity.**

Keywords—Sentimental analysis on political figure, Sentiment analysis using Amazon Comprehend, NLP powered social media dashboard for tweets.

I. INTRODUCTION

We will use Amazon Comprehend to perform sentiment analysis on a political figure popularity based on the data gathered from tweets, showing the results on a dashboard. This tool can be easily extended to any entity based on the tweeter feed for the same analysis.

A. Usability

The target audience for this tool can be anyone from being a common man to media reporting agencies or channels to get an insight on anybody's popularity.

B. Benefits

We think that this is a very common use case where this kind of analysis is being performed every now and then. The key differentiator between our tools and similar tools is the implementation aspect of it and the extendibility that it provides for the different use cases that can be implemented.

We will be using different AWS services following a server less architecture to build a system which will be able to handle a large input and generate more accurate results. One of the AWS services (Amazon Comprehend) that we will be using will help analyze text and apply the results in a wide range of applications including voice of customer analysis, intelligent document search, and content personalization for web applications. This implementation can be built at very low cost on cloud without having to manage any servers.

In addition to this the tool itself can be easily changed to do the same task for any other entity with changing the query we would do to the tweeter feeds. It can also be integrated with any other social media platforms in future like Facebook, LinkedIn etc.

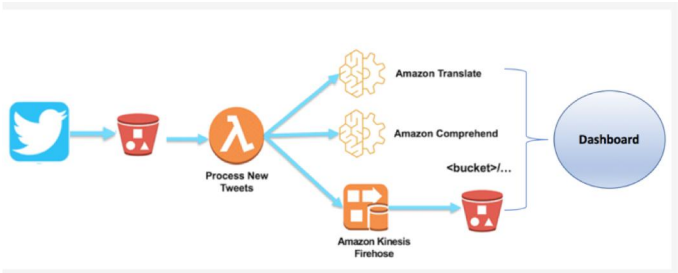
II. SOLUTION APPROACH

Tweeter apis will be used to do the sentimental analysis along with many AWS services on a serverless architecture.

A. Tools and Technology

a) Amazon Comprehend
b) Amazon Translate
c) Lambda functions
d) AWS Glue
e) Crawlers
f) Amazon Quick Sight

B. Architectural Diagram



III. RELATED WORKS

While we were working on this idea, we found similar architecture being used for other use cases which uses Amazon Comprehend to do the NLP processing and entity parsing. Some of them are as follows:

[1] https://aws.amazon.com/blogs/machine-learning/detect-sentiment-from-customer-reviews-using-amazon-comprehend/

[2] https://aws.amazon.com/blogs/machine-learning/building-text-analytics-solutions-with-amazon-comprehend-and-amazon-relational-database-service/

IV. REFERENCES

[1] https://aws.amazon.com/comprehend/
[2] https://aws.amazon.com/translate/
[3] https://docs.aws.amazon.com/comprehend/latest/dg/getting-started.html
[4] https://docs.aws.amazon.com/lambda/latest/dg/welcome.html

V. CONCLUSION

Rather than re-inventing the wheel we are using the AWS implemented NLP algorithms and techniques to parse the data and build our sentimental analysis tool. The architecture of this tool and the ASW services being used will be beneficial for all trying to build NLP, Text mining, lexical analysis, ML kind of use cases with better scalability, availability, accuracy at lower cost.

This tool will give different kinds of visualizations in the form of dashboards for the end user to derive more valuable results and metrics from the analysis.

This tool will provide easy configurations to build different sentimental analysis use cases extending to any other entity (not limited to public figures) or any other social media platform (not limited to Tweeter) with minimal architectural change.