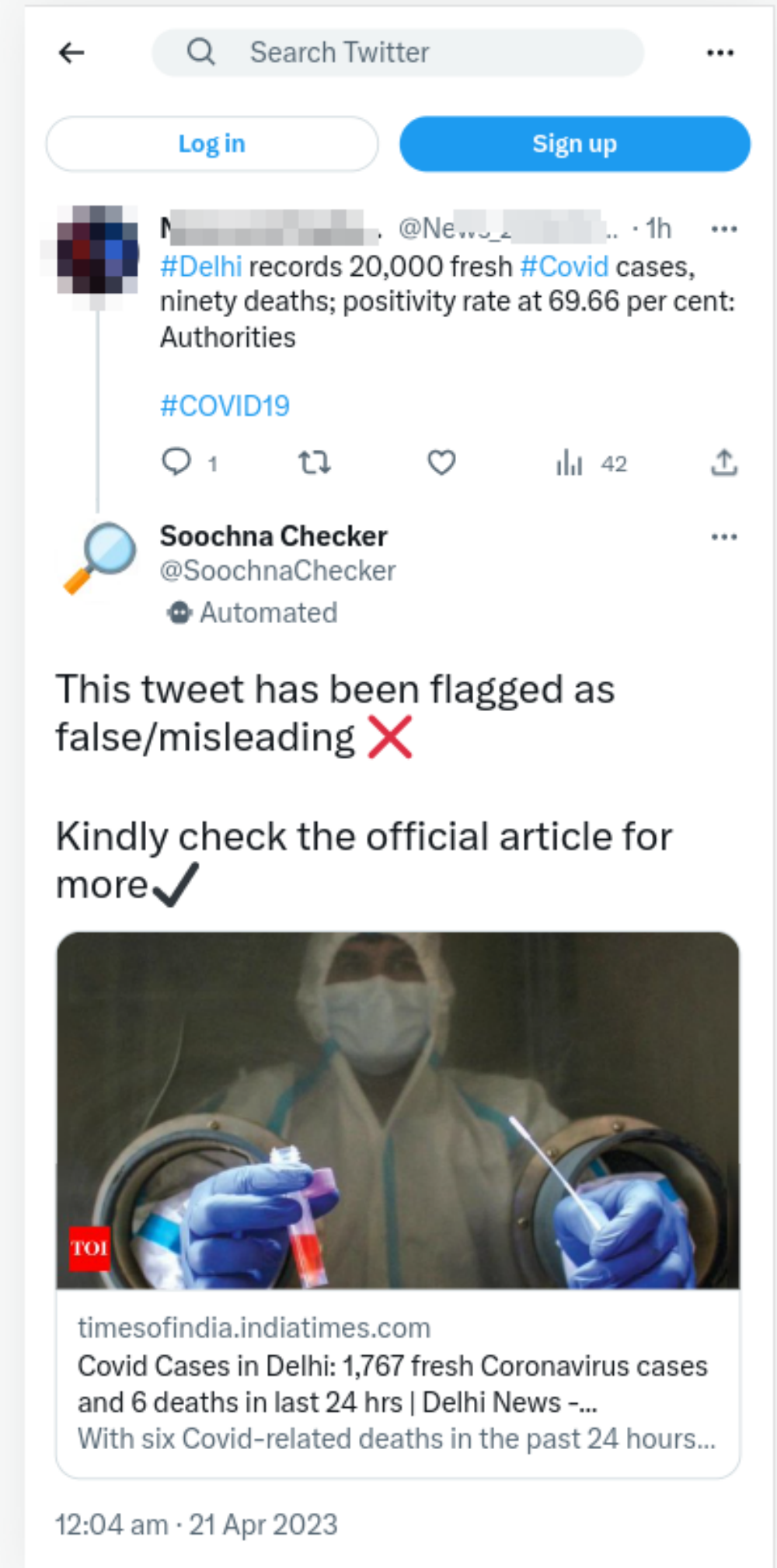




Soochna Checker

Team : Trace

Problem Statement : KVH-003





Problems...

Fake news refers to false or misleading information presented as if it were real news. Fake news can be deliberately created and spread by malicious actors who seek to manipulate public opinion or achieve some other nefarious goal.

It can be spread through various media channels, including social media, websites, and traditional news outlets. Fake news can have serious consequences, as it can spread misinformation and create confusion and distrust in the public, like:

Financial harm:

Spread of false information about companies, leads to a loss of trust from investors and customers.

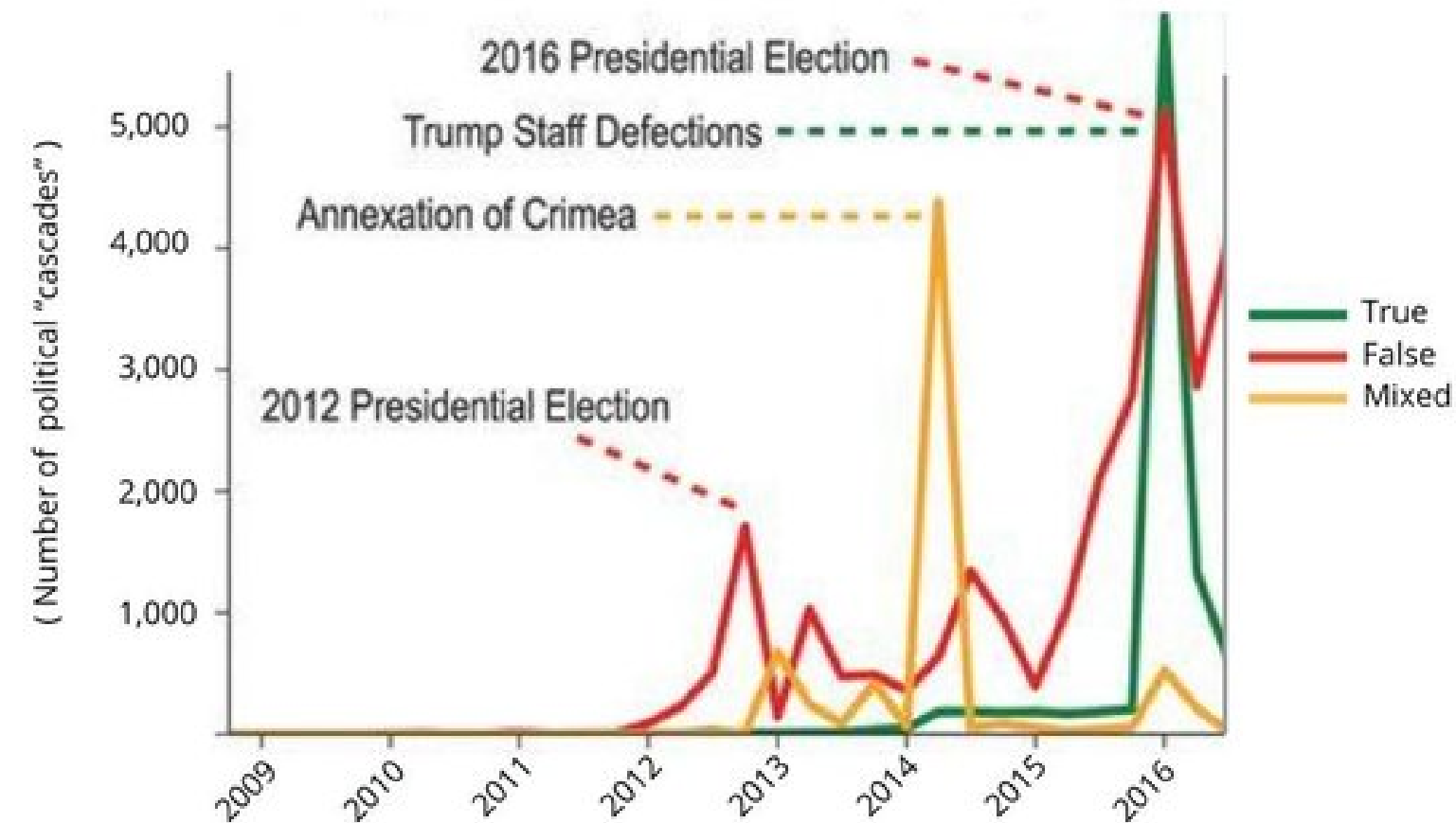
Influence on politics:

Influence on the outcomes of elections and referendums by spreading misinformation and propaganda that supports a particular political agenda.

Loss of trust:

Fake news erodes people's trust in media and institutions, leading to a loss of faith in the accuracy of information.

True, False & Mixed Political Rumor 'Cascades' On Twitter



Source: Research by MIT's Soroush Vosoughi, Deb Roy, Sinan Aral. Published March 9, 2018 in Science Magazine.





The Solution...



Twitter Bot

A fully automated Twitter bot that uses multiple AI models to distinguish false news and then flag it.

It picks up True news from the Official Handles recognized by Government.

Flagging

Any false information circulating is flagged as 'Fake' as soon as our model recognizes it on Twitter or our website.

The bot then replies to the false tweet, with the correct article for reference.

In case of false news articles, it will scrape the entire Twitter and reply to all tweets which have shared the article with corrected news.

Website

Any article or headline searched is verified with official sources and let known. Verified articles are also provided for reference.

Public Archive

All the false news and articles which have been checked by our bot are available to the public on our website.



Solution Structure:

1.

Getting Tweets

- Scrape trending topics of twitter every hour.
- Check most sensitive/relevant trending topics.
- Cluster tweets using K - Means analysis.

2.

Getting authentic info

- Scrape Tweets and Articles by government/official sources about the trending topic
- Clustering according to keywords.
- Creating a dataset of all authentic information scraped.

3.

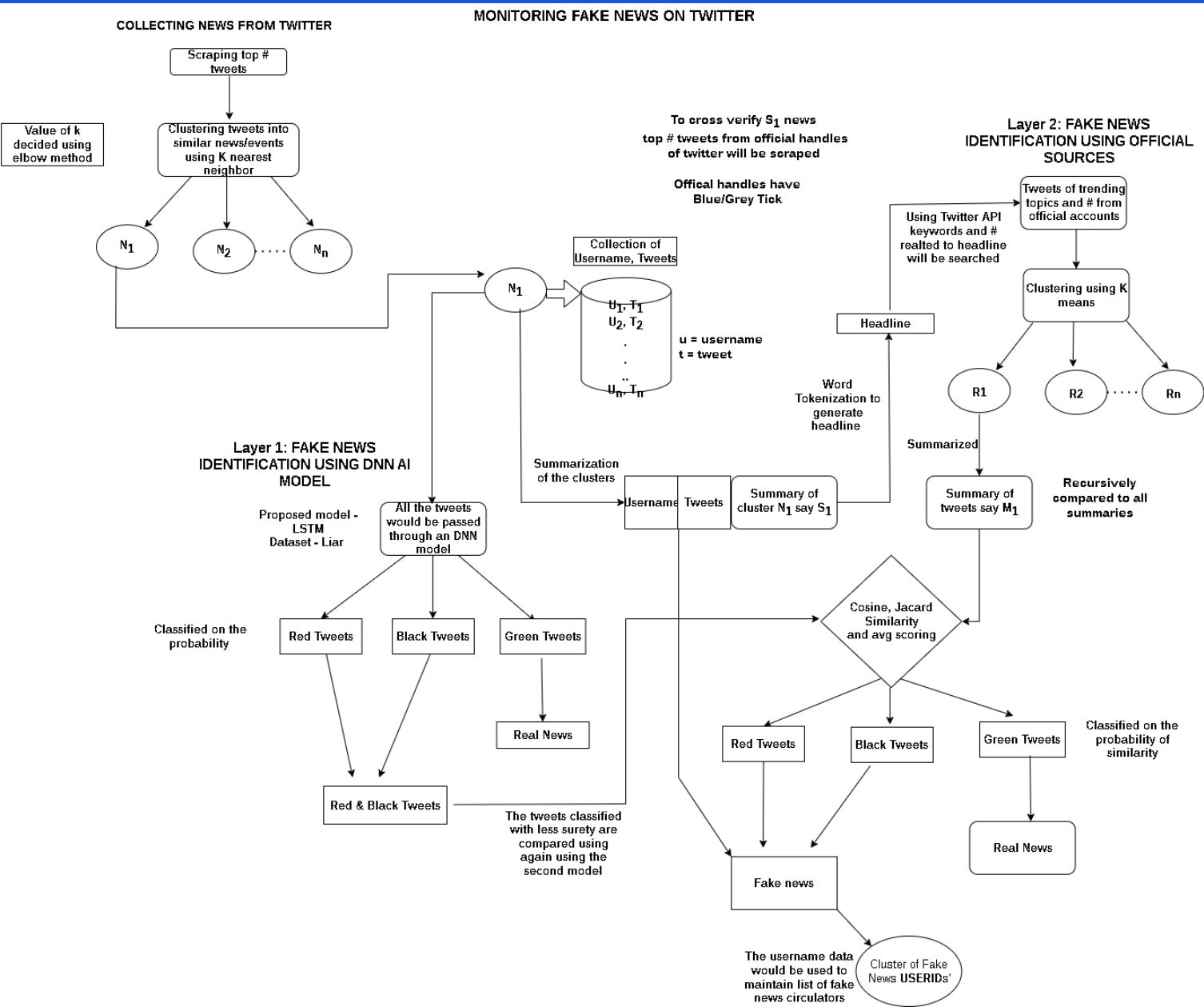
Fake News Detection

- Using the official dataset of step 2 as authentic source to verify the information.
- Using deep learning models to check authenticity of the tweet/articles.

4.

Auto-populating the source

- Extracting the username of author of fake tweet.
- Automatically replying to the tweet with the authentic news.
- Extracting email of author of fake article and mailing them authentic articles.



1		Date	ID	likes	retweet	Username	Followers	language	verified	Links	Tweets
2	34	2023-04-20 04:15:08+00:00	1648903098226872321	49	13	RakeshSinha01	1386797	en	False	https://t.co/kvFH59d1iH'	India saw record of ₹149.5 trillion UPI, ca
3	33	2023-04-20 05:02:42+00:00	1648915070657912832	66	22	Paytm	1348648	en	False	https://t.co/kvFH59d1iH'	#ContestAlert: You are just a tweet away
4	51	2023-04-19 12:30:42+00:00	1648665423351619585	26	6	thebetterindia	801974	en	False	https://t.co/kvFH59d1iH'	While digital payment systems have beco
5	54	2023-04-19 10:48:47+00:00	1648639774176215043	279	229	HardeepSPuri	589211	en	False	https://t.co/kvFH59d1iH'	In 'India Digital Payments Annual Report'
6	23	2023-04-20 13:00:53+00:00	1649035407890468864	7	13	NewIndianXpress	486576	en	False	https://t.co/kvFH59d1iH'	How UPI credit line is different from othe
7	44	2023-04-19 16:11:45+00:00	1648721051856306176	21	11	RadhamohanBJP	443936	en	False	https://t.co/kvFH59d1iH'	India saw record of ₹149.5 trillion UPI, ca
8	20	2023-04-20 17:27:07+00:00	1649102406989529088	114	37	GemsOfBollywood	334458	en	False	https://t.co/kvFH59d1iH'	Your utmost support is critical to us in thi
9	1	2023-04-21 11:27:40+00:00	1649374336527265795	47	12	canarabank	249337	en	False	https://t.co/kvFH59d1iH'	Now enjoy the power of Canara RuPay Cr
10	52	2023-04-19 11:35:13+00:00	1648651461402963968	205	10	finshots	159114	en	False	https://t.co/kvFH59d1iH'	Recently the RBI made a massive announ
11	24	2023-04-20 11:49:52+00:00	1649017536271495168	179	24	finshots	159114	en	False	https://t.co/kvFH59d1iH'	UPI emerges as India's favourite paymen
12	5	2023-04-21 07:31:35+00:00	1649314924114620416	99	56	thebharatarmy	151427	en	False	https://t.co/kvFH59d1iH'	🔥 CONTEST ALERT! Who will be the CRED



Working Explained:

- Our Bot uses Twitter API , which makes it capable of scraping tweets with their metadata, from geolocation, timing, date, and content to unique user_id and also whether the user is a verified business, government, or normal citizen.
- This gives us immense data to train the model and look for fake news and also analyse past cases of fake news spread and recognize patterns.
- We have studied various research papers(mentioned below) from different countries which have done similar study involving Twitter API and fake news, taking inspiration from there we have made our custom model for India
 - <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8485117/#Sec3title>
 - <https://www.sciencedirect.com/science/article/pii/S1877050918312559>
 - https://link.springer.com/chapter/10.1007/978-3-030-49186-4_34#Fn4
 - <https://link.springer.com/article/10.1007/s10207-022-00625-3>



Pic credits @TwitterDev

github.com/SoochnaChecker



SoochnaChecker

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SoochnaChecker Public

Automatic AI-enabled Fake News Flagging bot

JavaScript 0 0 3 0 Updated 1 hour ago



Pic credits @TwitterIndia

Why Twitter?

Twitter is the most used platform to spread fake news and hate, by just a few thousand tweets over a topic , anyone can make any news trending on the platform.

Platform has everyone, from common man to celebrities and politicians ,etc.

Keeping this in my mind we choose to stick with Twitter and propose a solution to curb the fake news spread over the platform.



Future prospects:

- Whenever a user mentions our bot under any Tweet, it will automatically scrape relevant info and check its authenticity.
- We can also have similar models for Facebook, Instagram, and other social media platforms.
- Articles related to any news can be verified with official sources.
- We can train our model for multiple languages once we are successful with English.

Thank You

Team : Trace
Problem Statement : KVH-003
