A Project report on

DATA ANALYTICS

Dissecting the Digital Landscape:

A Comprehensive Analysis of Social Media

By

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INTRODUCTION

1.1OVER VIEW

Dissecting the Digital Landscape: A Comprehensive Analysis of Social Media" is a research article or paper that provides a detailed and in-depth analysis of various social media platforms, including Facebook, Twitter, Instagram, YouTube, and LinkedIn. The analysis covers a wide range of topics related to social media, such as the history and evolution of social media, the demographics of social media users, the impact of social media on communication and society, the role of social media in politics and activism, and the challenges and opportunities of social media for businesses and organizations.

The paper draws on a wide range of research studies, surveys, and data sources to provide a comprehensive overview of the digital landscape and its implications for individuals, organizations, and society as a whole. Overall, the paper aims to provide a comprehensive and up-to-date understanding of the complex and dynamic world of social media(twitter as an example), and to inform future research, policy, and practice in this rapidly evolving field.

Technical Architecture
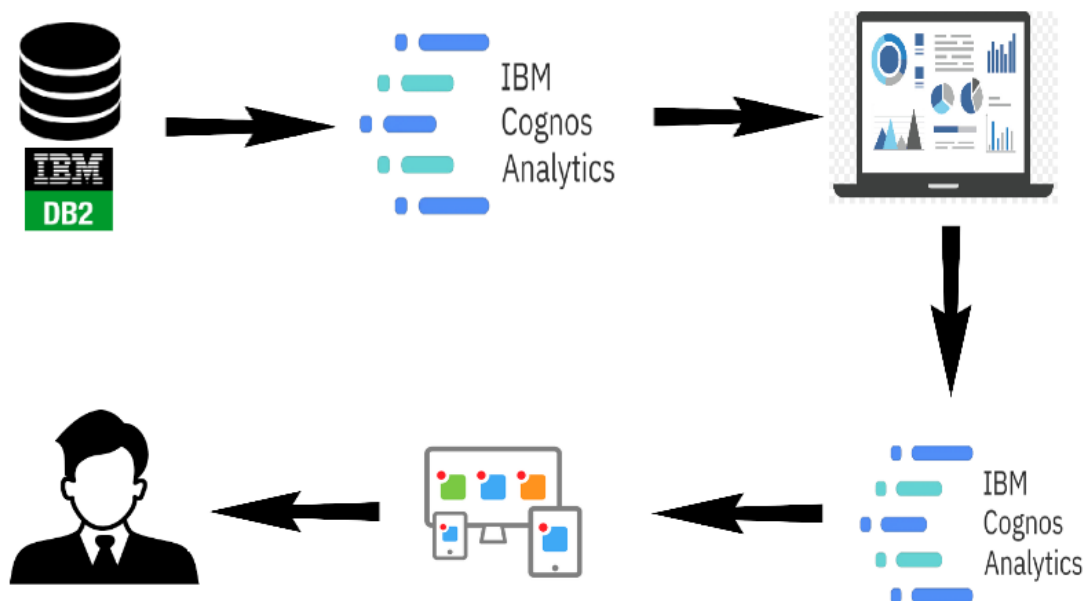
1.2 Purpose

Dissecting the Digital Landscape : A Comprehensive Analysis of Social Media. This project is a detailed examination of the various social media platforms and their impact on society.

A media landscape analysis can provide the insights you need to launch high-impact marketing campaigns and dominate your job at the same time.

LITERATURE SURVEY
2.1 Existing problem

Identifying Fake News and Misinformation:

Detecting and filtering out false information and misinformation is challenging due to the speed at which content spreads.

You may be wondering how to identify fake news on Facebook and other social media sites? As a student, how to avoid fake news? Or how to avoid accidentally sharing misinformation online? Here are ten tips to identify misinformation, recognize fake news websites, and think before you share:

1. Check the source:

Check the web address for the page you're looking at. Sometimes, fake news sites may have spelling errors in the URL or use less conventional domain extensions such as ".infonet" or ".offer". If you are unfamiliar with the site, look in the About Us section.

2. Check the author:

Research them to see if they are credible – for example, are they real, do they have a good reputation, are they writing about their specific area of expertise, and do they have a particular agenda? Consider what the writer's motivation might be.

3. Check other sources:

Are other reputable news or media outlets reporting on the story? Are credible sources cited within the story? Professional global news agencies have editorial guidelines and extensive resources for fact-checking, so if they are also reporting the story, that's a good sign.

4. Maintain a critical mindset:

A lot of fake news is cleverly written to provoke strong emotional reactions such as fear or anger. Maintain a critical mindset by asking yourself – why has this story been written? Is it promoting a particular cause or agenda? Is it trying to make me click through to another website?

5. Check the facts:

Credible news stories will include plenty of facts – data, statistics, quotes from experts, and so on. If these are missing, question why. Reports with false information often contain incorrect dates or altered timelines, so it's a good idea to check when the article was published. Is it a current or old news story?

6. Check the comments:

Even if the article or video is legitimate, the comments below may not be. Often links or comments posted in response to content can be autogenerated by bots or people hired to put our misleading or confusing information.

7. Check your own biases:

We all have biases – could these be influencing the way you respond to the article? Social media can create echo chambers by suggesting stories that match your existing browsing habits, interests, and opinions. The more we read from diverse sources and perspectives, the more likely it is that we can draw accurate conclusions.

8. Check whether it's a joke:

Satirical websites are popular, and sometimes it is not always clear whether a story is just a joke or parody. Check the website to see if it's known for satire or creating funny stories.

9. Check images are authentic:

Images you see on social media could have been edited or manipulated. Possible signs include warping – where straight lines in the background now appear wavy – as well as strange shadows, jagged edges, or skin tone that looks too perfect. Bear in mind, too, that an image may be accurate but simply used in a misleading context. You can use tools such as Google's Reverse Image Search to check where an image originates from and whether it has been altered.

10. Use a fact-checking site:

Some of the best known include:

- Snopes
- PolitiFact
- Fact Check
- BBC Reality Check

Fake news relies on believers reposting, retweeting, or otherwise sharing false information. If you're not sure whether an article is authentic or not, pause and think before you share. To help stay safe online, use an antivirus solution like Kaspersky Total Security, which protects you from hackers, viruses, malware, and other online threats.

2.2 Proposed solution

The purpose of the work is to come up with a solution that can be utilized by users to detect and filter out sites containing false and misleading information. We use simple and carefully selected features of the title and post to accurately identify fake posts. The experimental results show a 99.4% accuracy using logistic classifier.
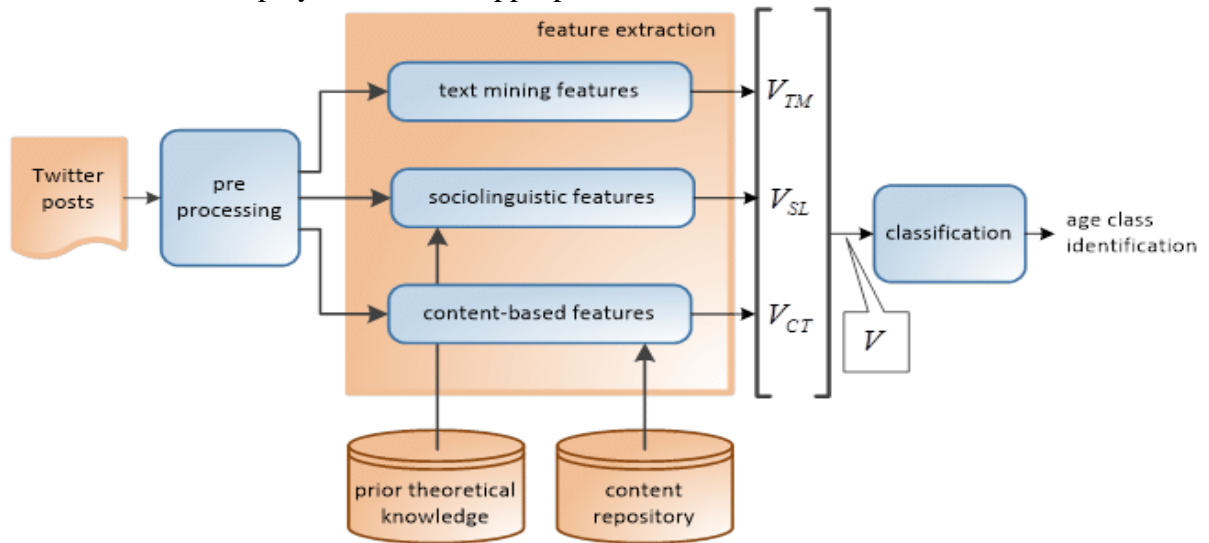
THEORITICAL ANALYSIS

3.1 Block diagram
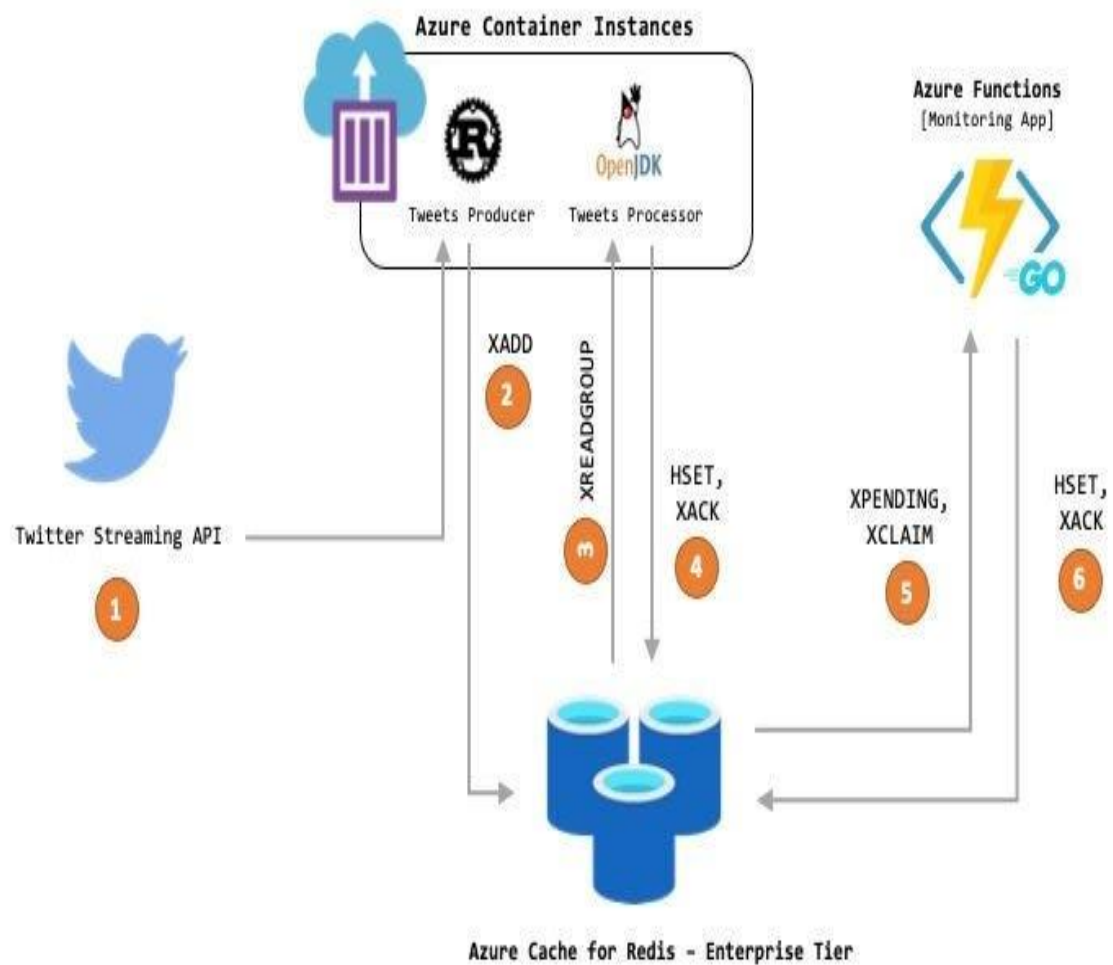
3.2 Hardware / Software designing

We'll need the concept of a feed to model the previous relationship between a user's followers and tweets they make. It will also handle rendering of all the tweets for follks that

user follows and display them where appropriate.

4.RESULT

IBM **Cognos Analytics**   social media dash-board ∨

Edit   🖫 ∨   ⅇ⅀   ↶   ↷   ↗   ⚲

Analytics 📈   Filters 🝖   Fields 🗐   Properties ⇄

My pins   All ∨

Q Search

7 pins

1.11K

retweets summary value

New exploration, 8/3/2023, 3:40 AM

retweets, email t...nd replies table

New exploration, 8/3/2023, 3:38 AM

detail expands h...hy bubble chart

▽ All tabs   Drag and drop data here to filter all tabs.

▽ This tab   Drag and drop data here to filter this tab.

Tab 1   Tab 2   +

retweets, email tweet and replies

retweets	replies	email tweet
1,106	1,674	2,053

media views, media engagements

Measures
● media views   ● media engagements

90,000

80,000

70,000

60,000

50,000

Values
40,000

30,000

20,000

10,000

ADVANTAGES & DISADVANTAGES

1. Cost Effective

Similar to other social networking sites, Twitter is also entirely free to join. There is no cost in posting Twitters either. Even though certain services require some amount of fee, users are free to disregard them.

2. Usability

Twitter to easy to use with its user friendly interface. For a better user experience, all graphical designs are made appealing. Even a layman will be able to understand the functioning of options here. On this platform, there are two basic functions to tweet and post content or follow people to get updates.

3. Security

Twitter always makes sure that privacy of users are protected. Hence, it takes measures to secure user accounts. No intruders can view personal information on Twitter. In addition to that, not all content published on Twitter is made public. Options are available to restrict who can view publications.

4. Audience Reach

Using Twitter, users can easily reach audiences across different regions of the world. Business view this as an opportunity for expanding their services outside of their locality. This platform makes it seamless to find people interested in your topic. Particularly, for the medium size companies with limited budget looking to improve their brand awareness.

5. Customer Service

Similar to a forum, Twitter can be used as a platform to get assistance. For an example, customer can raise questions regarding a brand and relevant brand authorities will be able to respond them. In this way, Twitter allows businesses to gather customer feedbacks.

Disadvantages of Twitter

1. Addiction

Twitter like other social media platforms is highly addictive. Signs of addiction can be seen in the frequency of posts. Some users simply post irrelevant stuffs on Twitter just for the sake of grabbing attention. Eventually, they will end up wasting a lot of time.

2. Spamming

Spamming is a prominent problem faced by the Twitter users. Some of the accounts on Twitter is solely created for the purpose of spamming. As a result, you might get lot of spam messages or tweets which could eventually put you into trouble.

3. Character Limitation

Every post on Twitter is limited to 280 characters. Tweets exceeding 280 characters are not allowed to be posted. Therefore, users must be concise in what they tweet. Nevertheless, many users find this imposed character limitation not sufficient to express their thoughts.

4. Account Maintenance

Post account maintenance on Twitter is tough so as to gain followers. If you plan to use Twitter for business, considerable amount of time needs to be spent for attracting targeted audience. For an example, consistency needs to be maintained while posting tweets. Otherwise, it is difficult to create brand awareness.

5. Negative Comments

In Twitter, anyone is free to express their opinions. This opens the door for negative criticism. Especially, for the businesses. If a customer is dissatisfied about your product or services, they can make complaints through Twitter. Since the complaints are visible to others, it can negatively impact your business reputation.

APPLICATIONS

Twitter Applications	Monthly unique visits (Compete)
1. Twitpic	1,236,828
2. Tweetdeck	285,864
3. Digsby	233,472
4. Twittercounter	212,200
5. Twitterfeed	149,812
6. Twitterholic	147,164
7. Twhirl	143,333
8. Twitturly	88,793
9. Twtpoll	74,154
10. Retweetist	60,051
11. Tweepler	51,304
12. Hellotxt	45,754

13. Twitdom   45,411

14. Tweetscan   44,463

15. Tweetburner   41,754

16. Tweetvisor   31,621

17. Twittervision 30,708

18. Twitterfall   29,592

19. Monitter   25,433

20. Twibs   17,168

21. Twistori   16,229

22. Twitbin   14,986

CrunchBase Information

Twitter

TwitPic

TweetDeck

twitterfeed

Information provided by CrunchBase

CONCLUSION

The research presented here proposes a method to classify a tweet as real or fake based on basic features like the tweet hashtags, URLs included, sentiment, popularity of the tweet and other features mentioned in the paper. Multiple machine learning and deep learning algorithms are used for comparison to determine the best one for the model. The classification model performance results show the effectiveness of the model applied by just using the few said features. The model developed here uses only a few features and still is on par with the other developed models which use a lot of features.

According to the results, it can be concluded that the Random Forest classifier best classifies the tweets in comparison to the other machine learning algorithms used in this project.

On analyzing the results and in comparison, to other researches, it can be concluded that the model is much less complex and reliable taking into account the real-time data.

FUTURE SCOPE

This paper is still under development and we are trying to improve the effectiveness of the system. In future research, we will improve the method by including sources from known journals or Google search results, to process early news and views, which have no similarities in the Twitter network.

THANK YOU