



# VeriNews-A news aggregator app to verify and share news

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**Abstract:** A news aggregator app revolves around the concept to collect, organize and present it to the users. These kind of app collect news from various source. Keeping the users updated about the news is the main aim of this app. VeriNews also allows the users to verify if the news is real or fake. If the news is real it allows the users to post it in the app and let other users also know about the news.

**Keywords:** real news, fake news, post, verification, news aggregator.

## I. INTRODUCTION

Social media has become widely available nowadays to everyone, which can be used for entertainment, educational purpose and to know what is going on in different parts of world. In an era, where people around the world share and exchange their beliefs, culture, traditions, knowledge, views, etc. It is mainly used for the purpose of making presentations followed by assignment updates, better research and connectivity [1]. Unfortunately, all the news that we come across daily is not true completely or partially. Particularly during critical events like elections or health crises, intentionally deceptive information, often referred to as “fake news” can disrupt social behavior, undermine fairness, and compromise rational thinking. Most of information on the Internet always without treatment, so that many useless or repeated information filled the Internet [2].

To address this issue, various websites and social media platforms have taken measures to detect and combat disinformation. For instance, Facebook encourages users to report dubious posts and collaborates with professional fact-checkers to scrutinize the credibility of news items.

As the volume of information continues to grow, automated news verification systems have emerged. These systems leverage external knowledge databases as supporting evidence. This evidence-based approach has proven to be effective, offering both high accuracy and potential explanations for their assessments.

## II. RELATED WORK

### A. Information Overload

In today's society, we are inundated with information, and individuals who frequent the Internet often grapple with vast amounts of data. Finding valuable information amidst this data deluge is a challenge. This phenomenon is commonly referred to as "information overload." The primary cause of this issue is the lack of curation and organization of most online information. As a result, a significant amount of useless or redundant information clutters the Internet.

To address this problem, search engines and recommendation systems have emerged as the primary solutions. When compared to search engines, which require active user input, recommendation systems have gained popularity among users. This is because recommendation systems can automatically analyse and understand user preferences and behavioural patterns without compromising users' personal information. With this foundation, they can offer personalized services that adapt to users' evolving needs, truly embodying a “user-centric” approach to personalized recommendations.

Recommendation systems can be broadly categorized into two types: content-based and collaborative filtering. Content-based recommendation algorithms have been around for quite some time, especially in the domain of news recommendations. These algorithms analyse the content of news articles to establish connections between them and then



recommend related news articles based on the user's browsing history. First, Ken Lang put forward a definition named news group which consist of the news that user interested in. It can improve the recommended satisfaction 3-4 times by learning users' habits through using score marked by sample user [3].

Over the years, several well-known classification algorithms like KNN, Decision Trees have been proposed in this context. Content-based recommendation algorithms offer advantages such as user independence, transparency, and adaptability. However, they still face challenges, including difficulty in recommending content to new users and the need for improved interest discovery.

In contrast, collaborative filtering, introduced by Goldberg et al. in 1992, is a concept where users' preferences and behaviours are used to recommend content. Initially designed to filter spam, collaborative filtering has found applications in various domains, including e-commerce, film, news, and entertainment. In the field of journalism, collaborative filtering has been used for quite a long time, a matured collaborative filtering system has been proposed in 1994, which recommend net news by using KNN and its score and classification data [4].

When we talk about dubious post and real news, it is also important to know about the user who is posting. Emails are often used to illegal cybercrime today so it is important to verify the identity of email author [5]. Using email authenticator, helps us to know about the user. If an unauthorized person is making a post about some news, it will also mislead the other user. This verification process serves a dual purpose. Firstly, it enhances our ability to verify the identity of users, minimizing the risk of unauthorized individuals spreading misleading or false information. Secondly, it bolsters the overall credibility of the platform, assuring users that the content they encounter is not only trustworthy but also shared by individuals who have undergone a validation process. So it is also important to make sure the post is made by an authorized person.

Posting on social media really gives a power to it's user's to share knowledge with other user also. Social media marketing offers an unparalleled opportunity to reach and engage with a vast audience, harnessing their voices to amplify marketing impact. The quantitative study was based on a structured questionnaire, which gathered responses from 650 Facebook brand followers. Results show that while Facebook users are willing to connect to brands on Facebook, they do not seem to interact or to frequently share brand content themselves. As a consequence, brands must strategize to establish a relationship with their brand profile fans [6]. Hence the biggest advantage of using social media is to connect with other audience

### III. PROPOSED APPROACH

It is very important to understand the difference between real news and fake news on social media. As we consume social media on everyday basis, it gives a high impact on our decision making. So getting it verified from some trusted websites can be beneficial for the person in order to make opinion about the news. Digital literacy, coupled with reliance on trusted verification sources, can play a pivotal role in safeguarding the integrity of the information we consume and share on social media.

#### A. *User Registration and Authentication*

A user-friendly interface is a fundamental aspect of our application, designed to facilitate seamless interaction and engagement with news content. The initial page of our application serves as a gateway, presenting users with the options to either log in or register.

This serves a dual purpose:

1) *Collecting User Information:* The login and registration page plays a crucial role in gathering essential user details. As shown in Fig. 1, by registering, users provide us with their information, helping us establish their identity and build a sense of community within the application.

2) *Mitigating Unauthorized Access:* This registration process is integral to maintaining a secure and trustworthy environment. It acts as a protective barrier, preventing unauthorized individuals from posting misleading or false news. This precautionary measure ensures that only authorized users can contribute to the application, thereby safeguarding its integrity and quality of news shared.

Our user-friendly interface not only encourages user engagement but also upholds the application's credibility and reliability by securing it against the dissemination of misleading or fake news. This approach fosters a space where users can confidently access and share news, fostering a community built on trust and authenticity.



The mobile application, is delivered in APK form, is designed to provide a comprehensive and user-friendly experience for individuals seeking to access and share news content.

The APK application serves as a digital gateway to a world of credible and reliable news. Upon installation, users are introduced to an intuitive interface that seamlessly blends functionality with accessibility. The primary objective of the app is to empower users with the ability to both consume and contribute to a trusted news-sharing platform.

When the app is launched, they are greeted with a user registration and authentication process. This initial step ensures that each user's identity is confirmed, fostering a sense of community within the application. Furthermore, this registration acts as a protective shield, preventing unauthorized access and ensuring that only legitimate contributors can share news content. This commitment to user authentication sets the foundation for a secure and trustworthy news-sharing environment.

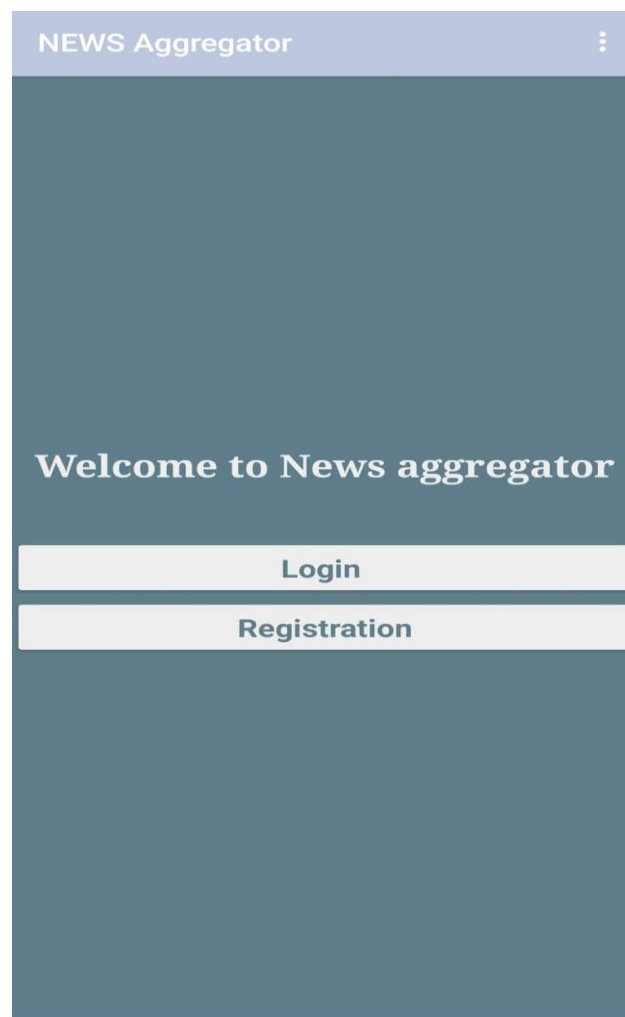


Fig 1. Login/ Register Page

#### B. News Submission

After successfully login is done, we offer users an interactive platform where they can actively participate by sharing news they come across. However, what sets our application apart is its commitment to ensuring authenticity of the news shared.

Here's how it works:

- 1) *User-Generated News:* Users have the freedom to submit news they encounter during their online exploration.
- 2) *Verification Process:* Our application takes on the responsibility of verifying the accuracy and credibility of the news shared by users.



- 3) *Cross-referencing with Trusted Sources:* We achieve this by cross-referencing the user-submitted news with a meticulously curated database containing news from various reputable and trusted websites. This database serves as our benchmark for what constitutes real news.
- 4) *Informed Decision:* If the news aligns with the content in our trusted database, the user is promptly informed that the news is indeed real, validating their contribution.
- 5) *Fake News Prevention:* Conversely, if the news is found to be inaccurate or misleading, the user is politely informed that their submission doesn't meet our authenticity criteria. In such cases, the post is not allowed to go live.

Our application acts as a gatekeeper, allowing only accurate and trustworthy news to be shared within our community. This approach helps in maintaining the quality and reliability of the news content while preventing the spread of fake or misleading information.

### C. Database Management

Gathering authentic news from trusted news websites form a fundamental aspect of ensuring the reliability and credibility of the information you share. In our proposed approach, we have harnessed the power of Python to systematically retrieve news articles from renowned and dependable sources, including but not limited to Hindustan Times, Times of India, and CNBC Awaaz. This collected news data is thoroughly preserved within our MySQL database, serving as a valuable reference point for validating the authenticity of news entries submitted by users.

By aggregating news from these reliable sources, we established a benchmark of trustworthiness against which user-submitted news can be compared. This cross-referencing mechanism aids in the verification process, distinguishing between real and potentially misleading or false news. Our approach builds a foundation of reliability by anchoring contributed news within the context of established and credible news reports. This strategy contributes to maintaining the integrity of news sharing within our platform and upholds the standards of accurate information dissemination. The database management component of our approach is the linchpin that empowers us to distinguish between genuine and false news. It provides us with the means to verify and validate user-contributed content against a wealth of trusted information, enhancing the overall reliability and trustworthiness of our platform.

As shown in Fig 2. we can see a process where 40 news articles are being gathered on a daily basis. These news articles are then added to a MySQL database. This database serves as a repository for real news, effectively accumulating and storing a collection of authentic news articles over time. The purpose of this process is to create a database of factual and up-to-date news content for various uses such as analysis, reference, or any other application that requires access to a consistent and reliable source of news information.

newsHeadline	NewsContent
Unfortunate: PG Orthopedic Student at SSKM H...	Kolkata: In an unfortunate incident, a post-gra...
Israel Hamas War LIVE Update: IDF Kills Hamas ...	Israel warplanes bombed Hamas tunnels and u...
Garena Free Fire MAX Redeem Codes for Octob...	Garena Free Fire Max, released in 2020, is a mo...
Kangana Ranaut Falls Once Again at BO... - Gre...	Kangana Ranaut's popularity among the public i...
Best Geyser Brands In India Running At A Disco...	Amazon Great Indian Festival 2023: Can you fe...
At ₹70/kg, onion prices rage in Delhi-NCR; ups...	Onion prices in Delhi and national capital region ...
Lunar Eclipse 2023 on October 28-29: NASA ha...	Practice photographing the full moon to get an i...
Market declines 2.5% as selling extends in seco...	The benchmark Indian indices ended lower for t...
Bigg Boss 17: Samarth Jurel enters the house a...	
Lightning mystery rises ahead of ISRO's Shukra...	Photo Credit: Pixabay Venus, resembling Earth ...
Long Covid most prevalent among those bedrid...	New Delhi: People bedridden for at least seven ...
BJP will make backward class person as Telanga...	

Fig 2. Data collection in MySQL



#### IV. SUMMARY

In summary, the proposed approach focuses on addressing the critical issue of distinguishing between real news and fake news on social media, given its significant impact on decision-making and the spread of misinformation. The approach involves the following key components:

1. Database Management: Authentic news is systematically gathered from trusted sources and stored in a verifying the authenticity of user-submitted news. By cross-referencing user-generated content with established news reports, the approach aims to uphold the integrity of information sharing.

2. User Registration and Authentication: A user-friendly interface allows users to register and log in, collecting essential user details and establishing a sense of community. This also acts as a security measure to prevent unauthorized individuals from posting misleading or false news, ensuring the quality and trustworthiness of content shared.

3. News Submission: Users can actively submit news they come across, and the application takes on the responsibility of verifying the accuracy and credibility of user-submitted news. This is achieved through cross-referencing with a trusted database of news sources. Real news is validated and allowed to be shared, while inaccurate or misleading information is prevented from going live.

The approach acts as a safeguard, ensuring that only accurate and trustworthy news is disseminated within the community. By anchoring user-contributed news within a context of reputable sources and implementing rigorous verification processes, the approach aims to foster a space where users can confidently access and share news, built on trust and authenticity, while mitigating the spread of fake news on social media.

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