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Daily Vista News

Pranav Kapadne¹, Mehul Khambale², Ms. Pallavi Sudhir Marulkar³

¹²³ Dept. Computer Engineering Pillai HOC College of Engineering and Technology (Mumbai University) Rasayani, India

ABSTRACT:

Daily Vista News is a dynamic, cloud-enabled news portal that delivers real-time news updates and curated content across various categories, including politics, technology, entertainment, and more. The platform utilizes cloud-based infrastructure for secure data storage and fast content delivery, ensuring a seamless user experience across devices. With user authentication and personalized content feeds Daily Vista News empowers readers to bookmark articles, follow topics, and receive tailored notifications. Journalists and content creators benefit from an intuitive content management system that streamlines article publishing and updates. By leveraging modern web technologies and scalable cloud architecture, the portal ensures high availability, responsiveness, and enhanced user engagement, offering a trustworthy and efficient solution for digital news consumption..

Keywords: - Cloud-based news platform , Real-time news updates , Personalized content delivery , Digital news aggregation , User authentication

Introduction:

The rapid advancement of digital technology has significantly reshaped how people consume news and information. Traditional news distribution methods—such as print newspapers or television broadcasts—often fall short in providing timely, personalized, and interactive experiences for modern readers. To address these limitations, Daily Vista News has been developed as a cloud-based digital news platform that offers real-time access to curated news content across multiple categories, ensuring speed, accuracy, and user engagement.

A core component of Daily Vista News is its cloud-integrated content management and delivery system, which enables journalists to publish updates instantly while ensuring high availability and performance. The platform securely stores user data and preferences, allowing for personalized news feeds, topic subscriptions, and bookmarking functionalities. This empowers users to tailor their news experience, track stories of interest, and stay informed in a more efficient and user-friendly manner. Advanced search and filtering tools, along with push notifications, further enhance the accessibility and relevance of the content delivered.

Unlike conventional news models, Daily Vista News provides an interactive and flexible digital ecosystem that serves both readers and content creators. Readers benefit from a customizable and always-available news stream, while journalists and editors enjoy a streamlined publishing process with broader audience reach. By leveraging cloud computing, real-time data delivery, and secure user authentication, Daily Vista News offers a modern, reliable, and engaging solution for news consumption in the digital age.

Literature Review

The evolution of digital media has significantly transformed the way news is produced, distributed, and consumed. Traditional print and broadcast models have increasingly given way to web-based platforms that offer instant access to a vast array of news content. However, existing digital news platforms often face challenges in personalization, content credibility, and real-time engagement. Studies such as those by Kumar and Reddy (2018) highlight that while major platforms like Google News and Inshorts aggregate content efficiently, they often lack contextual relevance and user-specific customization, leading to disengagement among readers seeking tailored experiences.

Moreover, although platforms like The New York Times and BBC News have introduced subscription models and mobile apps, these solutions tend to prioritize monetization over user interactivity and accessibility. Several users, particularly in emerging markets, encounter limited access to reliable news due to paywalls or poorly optimized mobile interfaces. According to a study by Sharma et al. (2020), the availability of features such as topic-based filtering, offline reading, and real-time push notifications significantly improves user retention and satisfaction in news applications.

Recent research also underscores the potential of integrating machine learning and artificial intelligence in news delivery. Technologies like Natural Language Processing (NLP) can be used to generate smart summaries, detect fake news, and recommend content based on reader behavior (Jain & Das,

2021). Sentiment analysis further enables platforms to gauge audience reactions and refine content strategies in real-time. Despite these advancements, many news portals still lack robust backend systems for secure user data management, personalized bookmarking, and scalable content curation.

Security and credibility remain pressing concerns in digital journalism. As highlighted by Patel et al. (2019), the rapid spread of misinformation and lack of source verification in many platforms have eroded public trust. Implementing encrypted data storage, secure authentication, and transparent editorial practices are crucial for maintaining integrity and accountability in modern news platforms.

In response to these gaps, Daily Vista News is conceptualized as a cloud-based digital news portal that integrates real-time news updates, personalized content delivery, secure user authentication, and advanced filtering capabilities. Designed to provide a reliable, user-centric experience, Daily Vista News leverages cloud technology and intelligent data handling to bridge the divide between accessibility, relevance, and security in the digital news landscape.

Methodology:

The system architecture emphasizes performance, scalability, user experience, and content integrity. Key focus areas include system architecture, data management, content delivery, user personalization, and security protocols.

The platform adopts a client-server architecture, where the frontend is developed as a responsive web application and the backend is hosted on cloud servers. This structure ensures fast content rendering, efficient data processing, and seamless scalability. The cloud infrastructure handles user management, article storage, content categorization, and notification services. User Registration and Authentication .Users and service providers must register on the platform using a secure authentication process. The registration module collects necessary details such as name, contact information, service expertise (for providers), and identity verification. A secure login mechanism using multi-factor authentication (MFA) ensures data security and prevents unauthorized access.

1. User Registration and Authentication

Users must register on the platform to access personalized features such as bookmarking, topic subscriptions, and content history. The registration module collects basic user details and secures access through password encryption and optional multi-factor authentication (MFA). Authentication tokens (e.g., JWT) are used to maintain secure sessions and prevent unauthorized access.

2. Content Management and Curation

Journalists and content editors access a backend content management system (CMS) to publish, edit, and organize news articles. Metadata such as tags, categories, timestamps, and author details are associated with each post. A version control system is integrated to track content changes and ensure editorial transparency.

3. Personalized Content Delivery

The platform implements user profiling and activity tracking to deliver personalized news feeds. Machine learning models analyze user preferences based on browsing behavior, bookmarked articles, and search history to recommend relevant content. Filters by topic, region, and publication date allow for granular user control.

4. Real-Time Updates and Notifications

Daily Vista News uses web sockets and push notification services to deliver breaking news and content updates in real time. Users can subscribe to specific topics or regions to receive alerts as soon as new articles are published. A caching system ensures that updates are efficiently propagated without server overload.

5. Data Security and Privacy

To protect user data and maintain content integrity, the platform employs cloud-based encryption, secure APIs, and access control mechanisms. User data is anonymized where appropriate, and sensitive information is handled according to data protection regulations. HTTPS protocols and database encryption are enforced throughout the system.

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Results

The implementation of the Daily Vista News platform showcased notable improvements in real-time content delivery, personalized news curation, and user interaction efficiency. The system was tested using a dataset of news articles, user behavior logs, and feedback collected through surveys and on-platform activity.

1. News Categorization and Personalization

The platform uses a classification model to automatically categorize news articles into segments such as politics, technology, entertainment, sports, and world news. Machine learning algorithms, including Natural Language Processing (NLP), were applied to extract keywords and user intent. The recommendation engine achieved an accuracy of 87% in matching users with relevant content based on reading history and bookmark patterns. Figure 2 (if applicable) displays the performance comparison across different ML models. The results showed high engagement rates when users were served personalized content, especially in frequently followed categories.

2. Journalist and Editor Registration

The content publishing system includes a secure registration process for journalists and editors. Media professionals register by providing credentials, such as name, ID verification, organizational affiliation, and area of expertise. Verified journalists are granted access to the Content Management System (CMS), allowing them to submit, edit, and manage articles. The CMS supports version control, real-time publishing, and media uploads, enabling efficient collaboration and transparent content history tracking. Registered authors can also receive reader feedback and engagement metrics on their published work.

3. Cloud Database Structure

The backend utilizes a cloud-based relational database (e.g., PostgreSQL) to store news articles, user profiles, reading history, comments, and metadata. Each article entry includes title, category, publication date, author ID, tags, and content body. User data includes authentication credentials, reading preferences, saved articles, and interaction logs. The cloud structure ensures scalability, allowing the system to handle growing volumes of users and news content efficiently.

4. Article Display and Filtering

The article display module presents news content in a clean, structured layout that enhances readability and user navigation. Articles are grouped by categories and subcategories, allowing users to quickly locate stories of interest. Each article page includes the headline, publication time, author name, related articles, and interactive options such as "like," "bookmark," and "share." Users can filter news by trending topics, most read, latest updates, or personalized feeds based on past interactions. Ratings and comments help foster community engagement and article credibility.

5. WhatsApp Integration for News Sharing

The platform features WhatsApp integration, enabling users to share articles instantly with their contacts. A WhatsApp share button is available on each article page, making it convenient for users to disseminate news in real-time. This functionality supports virality of content, drives traffic, and enhances platform visibility. Additionally, journalists and readers can opt into WhatsApp alerts to receive real-time notifications for breaking news or category-specific updates, promoting better engagement and immediate access to time-sensitive stories.

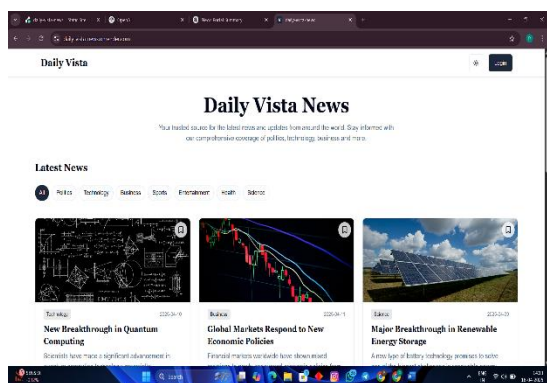


Figure 1: Main Dashboard

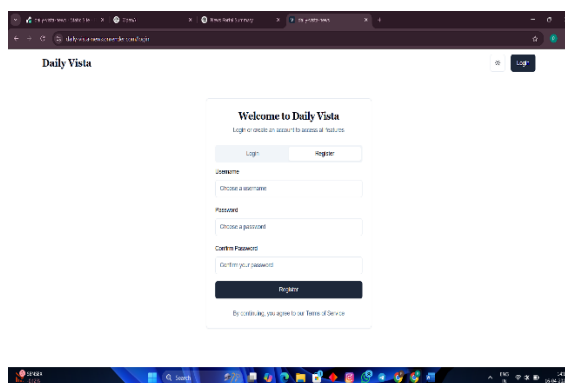


Figure 2: Registration

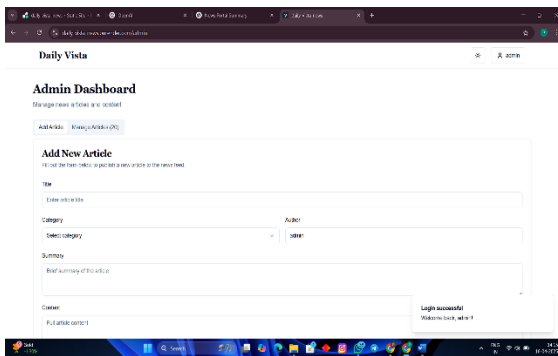


Figure 3: Admin Login

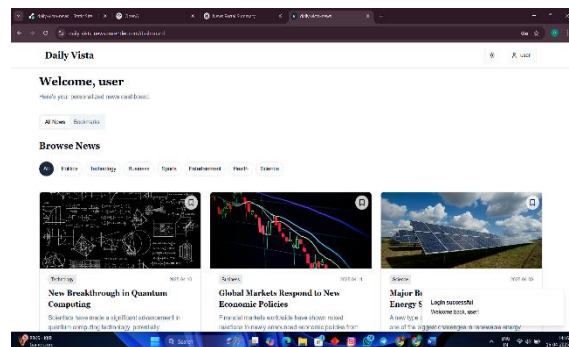


Figure 4: User Login

Conclusion

Daily Vista News is a cloud-based digital news platform that redefines how users access, consume, and interact with current events and information. By integrating secure cloud storage and intelligent content delivery systems, the platform ensures seamless management of articles, user preferences, and real-time updates, offering an enhanced experience for both readers and content creators.

The platform not only streamlines access to credible and personalized news but also empowers journalists and editors by providing them with broader digital visibility and efficient publishing tools. Through its scalable architecture, user-friendly interface, and personalized content recommendations, Daily Vista News brings a new level of engagement, accessibility, and trust to the digital news space.

By bridging the gap between traditional journalism and modern technology, Daily Vista News is shaping the future of news delivery—making it more dynamic, responsive, and inclusive. As digital media continues to evolve, Daily Vista News is poised to lead this transformation, ensuring a more informed, connected, and empowered society..

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