Summary

Researchers, analysts, and companies deal with an overwhelming amount of news every single day. Staying informed requires constantly refreshing websites, scanning headlines, and manually checking for the next update on important topics. This slow, repetitive process delays report writing, slows down business decisions, and makes it harder for teams to react to breaking events on time.

Our project aims to solve this problem by creating a streamlined, automated environment that collects news, analyzes it, and delivers meaningful updates directly to the user. Instead of reading hundreds of articles, researchers will be able to quickly identify important events, star the ones they care about, and receive frequent updates as new related stories appear. The system transforms raw news into a clean, structured, and personalized research tool.

The application features AI-powered analysis, risk scoring, a personalized user dashboard, and receives non-biased, detailed alerts through email. Users can simply open the website, and view current situations around them. For articles relevant to the user, they can then register, and they will get frequent updates on big events happening in their area. This allows teams to produce reports faster and make decisions with more confidence.

We will use Python for backend processing, RSS feeds for data intake, OpenAI for text evaluation, SQLAlchemy for database operations, and PostgreSQL hosted on AWS RDS for persistent storage. The interface will remain simple and user-friendly with a personalized feed.

Description

The primary purpose of the project is to simplify how researchers and analysts track developing events across multiple news sources. Instead of manually checking different websites throughout the day, our system automatically gathers articles from trusted RSS feeds and other relevant news sources. Each article is processed through an AI-based analysis module that extracts sentiment, category, toxicity, keywords, and assigns a risk score for quick interpretation.

To help users focus on the stories that matter, the platform allows them to star any article they want to follow. Once starred, the system begins actively searching for additional related articles across other sources. These supporting or follow-up articles will appear at the bottom of the main article page, creating a natural timeline of the event. This makes it easy for researchers to track progress, cross-check facts, and understand how the story evolves over time.

Because the application is designed for teams who rely on accurate and timely information, the interface will remain simple and clear, emphasizing structured data over clutter. Users can log in, browse analyzed articles, star the ones they care about, and receive alerts when new, related information becomes available. Our goal is to create a tool that feels like a personal research assistant, intelligently organizing information without requiring constant human effort.

Usefulness

This website is extremely useful for people who want to stay informed but cannot spend hours filtering through endless news articles. Existing news platforms typically show headlines or general summaries, but they do not categorize stories by risk, highlight sensitive content, or automatically track related updates. Our system bridges this gap by giving users:

- Immediate access to structured AI-analyzed articles
- Personalized tracking through starring
- Follow-up articles gathered automatically from multiple sources
- Alerts for new high-risk events or updates
- A searchable, organized historical archive of all processed news
- Consistency across teams, since everyone sees the same structured data

The additional feature of gathering related articles is especially valuable for researchers. Instead of manually searching for updates, users can read the original story and instantly see all relevant follow-up stories underneath it. This reduces research time, increases accuracy, and helps users write reports faster because all supporting information is already collected in one place.

Whether the user is monitoring political developments, natural disasters, public safety concerns, or major business events, the system ensures that nothing important is missed.

Realness

The inputs to our system come from real, active RSS feeds provided by Turkish and international news outlets, ensuring that all collected stories reflect current events. In addition to these primary feeds, the platform will also gather articles from additional relevant news sources whenever a user stars a topic or whenever the analysis module detects that an event is high-risk or evolving. This creates an authentic stream of interconnected articles, similar to how real journalists and researchers trace the development of a story.

Once the articles are collected, they are analyzed using real AI models or structured mock models depending on the configuration. The risk scoring uses actual text-processing logic, identifying keywords, sentiment, toxicity, and category using the rules stored in our backend modules. All cleaned and processed data is saved in a PostgreSQL database running on AWS RDS, giving us scalable and reliable storage.

Because every component — from scraping, to analysis, to scoring, to alerting — uses real data pipelines and live sources, the system reflects genuine workflows that professional researchers and analysts use. The added feature of gathering related articles makes the platform feel even more realistic, mimicking how newsrooms and intelligence teams track developing stories across multiple outlets.