

#### **Final Project Proposal**

## The Actual Informer

News network delivering reality amplified, distorted, and reimagined by AI

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## 1 - Project Description

#### 1.1 Overview

The Actual Informer is a web application disguised as a news company that dynamically fetches real current news stories from around the world and uses generative artificial intelligence (GAI) to amplify, distort, and exaggerate their content, pushing the limits of what AI-generated communication and storytelling can look like. Our AI model will autonomously transform these stories into hyperbolic, surreal, or even absurd versions mimicking the exaggeration found in political campaigns, news cycles, and media manipulation. This project is a satirical exploration of how GAI and media sensationalism can work together to create increasingly extreme narratives, and serves as commentary on the potential for AI to be weaponized for misinformation in the future.

#### 1.2 Objective

The goal is to develop a working prototype of an AI-powered web application that illustrates the potential risks and future of AI in media, demonstrating how generative models can push narratives in extreme directions.

#### 1.3 Subgoals

To achieve our goal and realize our vision, we have to run through a series of technical subtasks:

#### **UI/UX Design**

- Use prototyping tools to create a visually convincing, immersive news website interface.
- Implement deliberately obstructive or disorienting UI elements to accentuate a dystopian or satirical atmosphere.

#### **Data Collection and Automation**

- Automatically fetch real-time news headlines and full-text articles using APIs or web scraping techniques
- Employ a text-to-text generative AI model to rewrite fetched articles to introduce exaggerated narratives, surreal twists, and unpredictable creative elements.
- Dynamically present the rewritten articles in an engaging grid layout on the website.

#### **Generative Image Creation**

• Integrate a text-to-image generative AI model to automatically produce attention-grabbing, hyperbolic, and exaggerated thumbnails relevant to each article.

#### **Generative Audio Synthesis**

- Use a text-to-audio generative AI model to create synthetic audio news reports from the AI-generated article text.
- Display the audio as a playback timeline prominently at the top of the website, enhancing immersion and interactivity.

#### Backend Development and Integration

 Develop a robust backend infrastructure to seamlessly integrate, automate, and synchronize AI models, APIs, and frontend components.

#### **Deployment and Optimization**

• Host and deploy the application to a suitable web platform.

#### 1.4 Timeline

Date Range	Task	Deliverable
Mar 18 – Mar 20	Diego, Alex: Finalize project conceptualization and write proposal	Final written proposal submitted

	Aalok, Alex: Finalize UI/UX concept and visual prototypes	
Mar 21 – Mar 27	Diego, Alex, Aalok: Establish full-stack infrastructure, initialize workspace  Aalok: Prepare and collect all assets  Diego: Set up news scraping API	Backend with API scraping working
Mar 25 – Mar 31	Aalok, Alex: Early front-end development  Diego, Alex: Implement generative text-to-text AI rewriting	Text generation integrated
Mar 29 – Apr 4	Aalok: Front-end development  Diego, Alex: integrate text-to-image AI	AI-generated thumbnails visible
Apr 2 – Apr 7	Aalok: Audio playback integration and final stages of front-end development  Diego, Alex: Text-to-audio generation	Audio playback functional
Apr 5 – Apr 9	Entire team: Full-stack integration, debugging, & deployment prep	Deployed integrated web prototype
Apr 10	Final Project Presentation	Final presentation (slides) with final functional prototype
Apr 10 – Apr 17	Entire team: Compile final documentation, analysis	Final project report submitted

## 2 - Technologies & Data

#### 2.1 Software

The Actual Informer leverages a comprehensive set of modern technologies designed to deliver a dynamic, AI-driven multimedia experience. The backend infrastructure is developed using Node.js with TypeScript and Express.js, hosted through the deployment services offered by Heroku, a cloud-based application deployment platform that supports both our back-end and front-end technologies. News content is ingested via structured API calls from News API (newsapi.org), facilitating seamless interaction with our generative AI pipeline.

Generative AI tools are central to our content creation. OpenAI's GPT-40 will be our model of choice to rewrite factual news articles into hyperbolically exaggerated narratives, with fine-tuned parameters such as temperature and carefully engineered prompts ensuring both surreal creativity and controlled results. Another OpenAI model, DALL-E 3, this time for image generation, will complement, thematically vibrant images guided by parameters like guidance scale and seed values to maintain visual coherence and variety. ElevenLabs TTS provides synthetic audio news reports, leveraging customizable parameters such as voice selection, speech rate, pitch, and intonation to achieve compelling auditory presentations.

The front end is built using Vue.js, hosted on Heroku, to deliver an interactive and engaging user interface. This cohesive software ecosystem supports real-time data processing, content generation, and delivery, enabling *The Actual Informer* to explore the potential risks of AI-driven media manipulation effectively.

#### 2.2 Infrastructure

The infrastructure of *The Actual Informer* is designed for scalability, efficiency, and security, combining modern containerization methods with cloud infrastructure provided by Heroku. The Node.js backend utilizes TypeScript and Express.js, deployed via container-based methodologies to ensure streamlined orchestration throughout development and production.

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Restful APIs are employed to manage and monitor the health and status of containers continuously.

Data storage solutions are implemented through MongoDB Atlas, a secure and highly scalable NoSQL database optimized for rapid access and robust data management. This infrastructure supports the seamless integration of generative AI tools and facilitates real-time data processing, content generation, and secure, efficient content storage.

#### 2.3 Data

The Actual Informer uses structured JSON data sourced through News API, which aggregates live news content from prominent global news outlets, including BBC and CNN. This data encompasses critical elements such as publication dates, headlines, and full-text articles, forming the primary input for our generative AI pipeline.

Upon ingestion into the Node.js backend, data undergoes preprocessing, including text normalization and compatibility filtering tailored specifically for GPT-40 text rewriting, DALL-E 3 image creation, and ElevenLabs audio synthesis. Post-processing, generated multimedia content (articles, images, and audio reports) is systematically stored within MongoDB Atlas, ensuring efficient retrieval and seamless content delivery.

#### 2.4 Full Stack Summary

#### Backend (Heroku)

- Node.js + Express.js with TypeScript
- Three AI transformation services:
  - GPT-40: Text rewriting
  - DALL-e 3: Image generation
  - ElevenLabs: Audio synthesis
- The content processing pipeline manages transformations

#### Frontend

Vue.js application

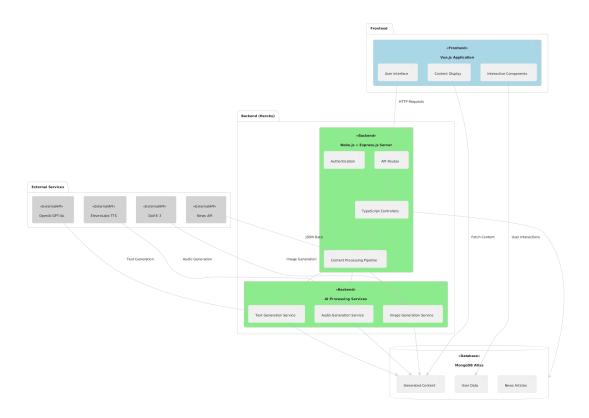
- Displays transformed content
- Handles user interactions
- Communicates with the backend via API routes

### Database (MongoDB Atlas)

- Stores original news articles
- Maintains transformed content (text, images, audio)
- Manages user data

#### **Data Flow**

- News API fetches current news articles
- Content arrives as structured JSON data
- AI services transform content
- Results stored in MongoDB
- Frontend fetches and displays content
- Users interact with transformed media



### 3 - Design

#### 3.1 Branding



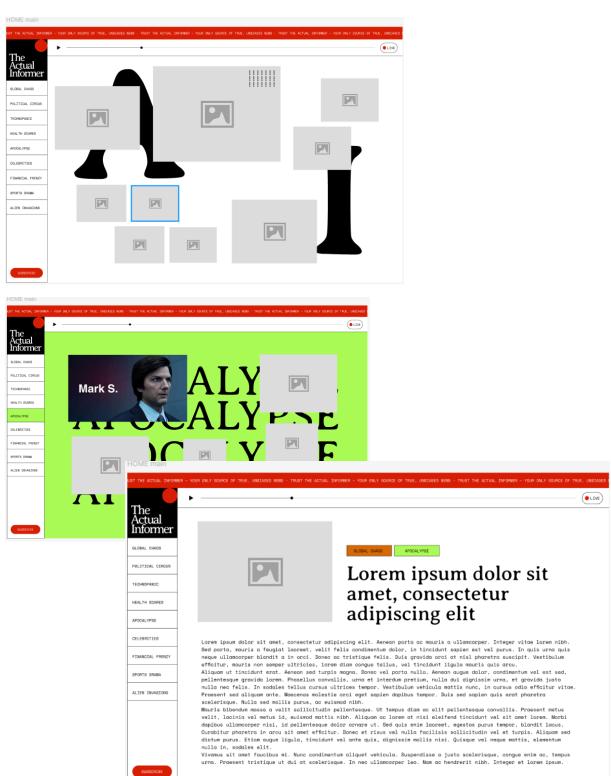
The logo is designed to visually mimic traditional journalistic companies through its composition, color scheme, and typography. The name of the company is written in Averia Serif Libre, an inky serif typeface with a distinctly handwritten quality, to suggest authenticity and imply that The Actual Informer tries to position itself as a company providing original, truthful and human-written journalism. The type itself is enclosed within a black box featuring a prominent red circle at the top right, symbolically referencing the iconography associated with live news reporting.

#### 3.2 Web Layout Design

With the layout design, we tried to establish *The Actual Informer* as a news company that is very much in tune with the current trends, to grab the attention of Gen-Z and younger audience. The web layout features randomly placed images (sized according to their upload time) that will open up the news article. A top bar that plays current news, text and voice. Finally, a subscribe button is shown on the bottom left to reflect pay-walls in modern information. Clean, but at the same time overwhelming, through its saturated colors and the various animated components; the narrative that the company takes itself very seriously but at the same time hilariously misinforms is what the layout tries to establish.

#### 3.3 Visual Prototypes

#### Link to the Figma file



## 4 - References and Bibliography

#### 4.1 Similar Projects

#### The Onion. n.d. "The Onion." Accessed April 18, 2025. https://www.theonion.com.

A satirical news outlet that transforms everyday news into humorous and exaggerated narratives. Its longstanding approach to blending factual reporting with hyperbolic satire provides a creative storytelling benchmark for The Actual Informer.

# This Person Does Not Exist. n.d. "This Person Does Not Exist." Accessed April 18, 2025. https://thispersondoesnotexist.com.

This Person Does Not Exist. An AI-driven project that uses generative adversarial networks to produce realistic human faces, illustrating the potential of AI in creating engaging visual content. Its success demonstrates how AI-generated imagery can captivate audiences.

#### 4.2 Literature Review

<u>Danry, Valdemar, et al. 2024. "Deceptive AI Systems That Give Explanations Are More Convincing Than Honest AI Systems and Can Amplify Belief in Misinformation." arXiv preprint arXiv:2408.00024.</u>

This paper explores how AI explanations can unintentionally amplify misinformation, providing insight into the challenges of creating believable yet exaggerated content.

# McChesney, Robert W. 2013. Digital Disconnect: How Capitalism is Turning the Internet Against Democracy. New York: The New Press.

McChesney examines the interplay between media, technology, and society, laying a theoretical foundation for understanding the impact of exaggerated media narratives in the digital age.

## Vosoughi, Soroush, Deb Roy, and Sinan Aral. 2018. "The Spread of True and False News Online." Science 359 (6380): 1146–1151.

This study analyzes how misinformation spreads through social media, underscoring the potential societal consequences of manipulated news and informing our project's critical perspective on media distortion.

#### **4.3 Technology References**

MongoDB Inc. "The MongoDB Manual." MongoDB Documentation. Accessed March 19, 2025. https://www.mongodb.com/docs/manual/.

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