What's The Hot Topic in Topic Town?

Credible News Reporting using Natural Language Processing and Hugging Face Transformers

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1 RUBRIC

Table 1: Rubric

Task	Execution
Web Scraping	Build a Spider to scrape news from at least 1 credible news source (AllAfrica, BBC, The New York Times, Reuters, Foreign Affairs).
Display News	Show top 10 news headlines with one paragraph summaries and allow user to select and read desired articles
Summarize News Articles	Fine tune the BERT base cased model from Hugging Face with labeled dataset of news articles and generate one paragraph news summaries with it
Social Sentiment Analysis	Apply the distilBERT base uncased SST-2 sentiment analysis tool from using Hugging Face, to understand and display the emotional tone of news articles, either negative or positive.
Deploy Functional App	Use Streamlit to build an interactive and responsive web application for project functionality

Table 2: Extended Rubric

Task	Execution
Web Scraping	Build a Spider to scrape news from at least 5 credible news sources (AllAfrica, BBC, The New York Times, Reuters, Foreign Affairs) and use the Twitter API for social discourse on the news.
Display News	Show top 10 news headlines with truncated 1 paragraph summaries and allow user to select and read desired articles
Summarize News Articles	Fine tune the BERT model from Hugging Face with labeled dataset of news articles and generate 3 paragraph news summaries with it
News Sentiment Analysis	Apply VADER sentiment analysis tool from NLTK to understand and display the emotional tone of news articles in a header called, "Sentiments: how is the writer feeling about this?"
Social Sentiment Analysis	Apply VADER sentiment analysis tool from NLTK to understand and display the emotional tone of X discussions in a header called, "General Sentiments: how is the world feeling about this?"
Train a news classification model	Train a deep convolutional neural network to classify news into categories
Filter news by category	Allow users to select the categories of hot news articles they want to see
Educating users	Create section on website to educate users on misinformation and disinformation in Africa
Deploy functional app	Use React to build an interactive and responsive web application to contain project functionality