

**Title: Executive Summary – NewsBot Intelligence System 2.0****Author: Erick Banegas**

The NewsBot Intelligence System 2.0 is an enhanced, production-ready version of the midterm project. The goal of this system is to provide intelligent multilingual analysis of news articles by combining advanced NLP techniques into a unified platform.

The system integrates translation, summarization, topic classification, and conversational interaction. It processes both Spanish and English news, detects the language, translates when necessary, extracts the main ideas, predicts the topic category, and presents the results in a simple, interactive interface.

A modular architecture was adopted to keep the code organized and maintainable. Key models include MarianMT for translation, BART-large CNN for summarization, and XLM-Roberta-XNLI for topic classification. These models were selected for their accuracy, multilingual support, and ability to operate offline without external APIs.

The entire application is deployed using Streamlit and made accessible through an Ngrok public URL:

<https://grouseless-dacia-nontaxonomic.ngrok-free.dev/>

This makes the system easy to access and test from any device.

Overall, the project demonstrates strong practical knowledge of NLP, model integration, modular programming, debugging, and real-time deployment. It represents a complete, professional-grade solution suitable for real-world applications and future portfolio use.