School of Computing  
CA326 Year 3 Project Proposal Form

**SECTION A**

Project Title UniFeed‎ ‏‏‎ ‎ ‏‏‎

Student 1 Name Jordan Tallon ID Number 21714601 ‏‏‎ ‎

Student 2 Name Hephzibah Victor Bode-Favours ID Number 21344221 ‏‏‎

Student 3 Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ ID Number \_\_\_\_\_\_\_\_\_\_\_

*(A third team member is exceptional and requires detailed justification.)*

Staff Member Consulted Dr John McKenna ‏‏‎ ‎ ‏‏‎

Project Description (1-2 pages):

UniFeed is a dynamic platform designed for users to aggregate articles from different news sources into a single unified place, primarily targeted at political news. On top of that, UniFeed makes use of artificial intelligence to detect and inform the user about any political bias in a given article in their feed. The primary goals of UniFeed are:

1. To create a single user-friendly interface for internet users to read all of their favorite news sources in one location.
2. To provide an informed reading experience for users in a polarizing age of digital news and information.

To achieve this end, UniFeed will effectively act as a sophisticated RSS reader. Users will be able to create an account and import their custom RSS feeds. The website will fetch the content from a given RSS feed and pass it to a pre-trained text classification AI. The AI will be trained on a dataset of ~20k political articles. Each article will have a label of either “Left”, “Right”, or “Center” to indicate its political alignment. The AI will determine the political alignment of the content, if any, and return the results back to the website. If the confidence rate of the classification is high enough, the article will have a tag indicating its potential political bias to the user.

The AI will be built using libraries, transformers, and datasets from the website HuggingFace, a leading platform in the AI community. For the RSS aggregation we will follow best practices as outlined in the [Digital Media Law Project's guidelines](http://www.dmlp.org/sites/citmedialaw.org/files/news%20aggregation%20white%20paper.pdf). This ensures that UniFeed respects ethical boundaries and remains compliant with any copyright considerations. The website will not display a political bias tag if the confidence rate of the AI does not pass a specific threshold. This is to avoid articles being misrepresented. The confidence threshold will be determined at a later date during testing. Furthermore, any labeling will come with a warning indicating that it was determined by an AI and may not be fully accurate. The AI aims only to classify content and to not make any value claims or judgements towards a given input.

**Division of Work**

Jordan:

* Develop the AI model to determine political bias.
* Design the platform’s interface (figma).

Hephzibah:

* Implement an RSS feed reader.
* Develop the web / data scraper.

Both:

* Integrate individual systems and finalize the main platform.
* Testing and evaluation

**Programming language(s)**

* Python
* HTML
* CSS
* Javascript

**Programming tools**

* Django
* Visual Studio Code
* Jupyter Notebook
* HuggingFace
* Google Collaboratory

**Learning Challenges**

* Web scraping methodologies.
* Data analysis.
* Language classification with artificial intelligence.
* AI integration into a web platform.
* Creating a responsive interactive interface.

**Hardware / software platform**

* Web browser (multi-platform) but primarily targeted at Desktop.

**Special hardware / software requirements**

* None