CSCE 5290: Natural Language Processing

**Project Proposal :**

Project Proposal Each project group should propose an idea of the project they will work on this semester. This can be refined throughout the semester.

The Fake news is causing a lot of unrest in civil society. Lots of riots and human loss was caused by fake news. Detecting the fake news is a challenge as the text might sound legitimate even though the intention is malicious. This led us to think about a system that can figure out the fake news that is circulated and flag them or remove them from social media inorder to reduce the mis-information.

We are trying to build a classifier that can detect fake news on the text dataset. We are trying to come up with a multi-class classifier instead of going binary where we will further try to grade how much of the news is false. This gradient will help to further granularize the news in multi level classification.

**Project Proposal Description:**

The project proposal should be composed of the following

**1. Project Title and Team Members :**

**Project Title** : Fake News Detection using Machine Learning

**Team Members :**

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**2. Goals and Objectives:**

**• Motivation :**

Fake news is causing significant damage to society. Analysing the news and tagging with level of truth and false information can have a significant impact on the overall malicious intention. Some fake news when observed will try to add some genuine news so that it will be escaping a binary classification. We need to figure out ways to detect it further down so that it can further be identified.

**• Significance**

Identifying the false news in a multi level classification can further figure our the genuinity at different levels . This can further improve the classification.

**• Objectives**

Create a multi class classifier which can detect fake news vs genuine news with classes like (Completely true, partial truth, Half truth, completely false).

Creating a feasible UI, which takes news text as input and provides a classified output which reveals the genuinity of the text.

Evaluating the impact of various obstacles faced throughout the process.

**• Features**

* Create a machine learning algorithm that can classify text as Completely true, partial truth, Half truth, completely false.
* Try to work out various methodologies and algorithms to further understand the best way of doing the classification.

**3. References:**

* Xiangyang Li, Yu Xia, Xiang Long, Zheng Li, Sujian Li Exploring Text-transformers in AAAI 2021 Shared Task: COVID-19 Fake News Detection in English

# Fabian Karl, Ansgar Scherp Transformers are Short Text Classifiers: A Study of Inductive Short Text Classifiers on Benchmarks and Real-world Datasets

[Github Reference](https://github.com/akhilboga18/fakenewsdetection) : <https://github.com/akhilboga18/fakenewsdetection>