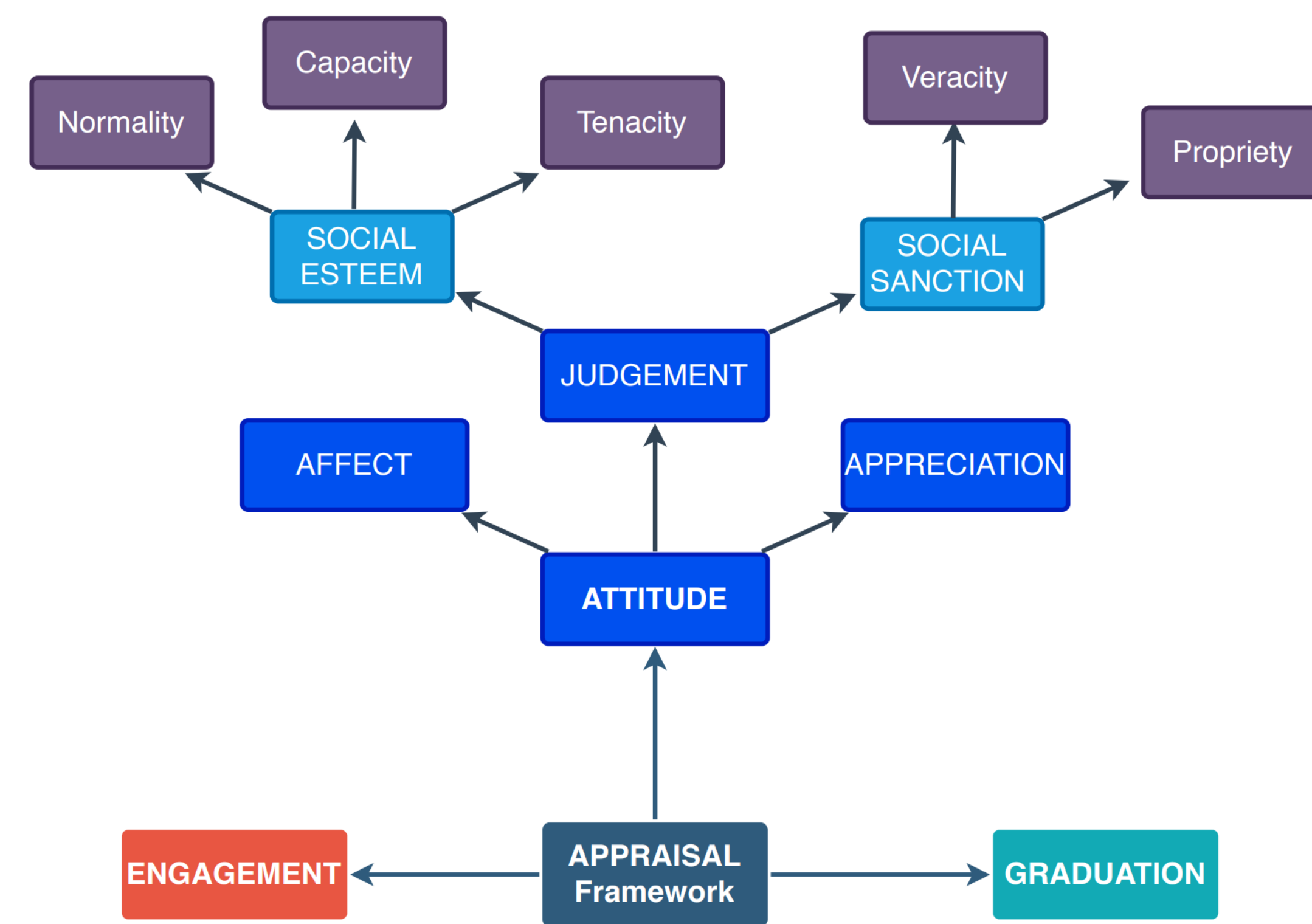


Combination of Transfer Learning Classifiers and Cosine Similarity achieved equal first place in ALTA 2020 Shared Task

BACKGROUND

The APPRAISAL framework (Martin and White, 2005) provides a detailed classification method for understanding how languages are expressed.



Our task for ALTA 2020 was to automatically classify JUDGEMENT (evaluation of people and behavior) into one or more (or none) of the five sub-categories of JUDGEMENT. We were given a task to classify 100 tweets

METHODS (in 4 Easy Steps)

1. Pre-Process Tweets

- Removal of Hashtags, Mentions and URLs.

2. ALBERT Transfer Learning Classifiers

- Binary Classifier for Social Esteem (*Esteem*) and Social Sanction (*Sanctions*).
- Multi-Label Classifier to Classify the Category (*Base*).

3. Document Cosine Similarity

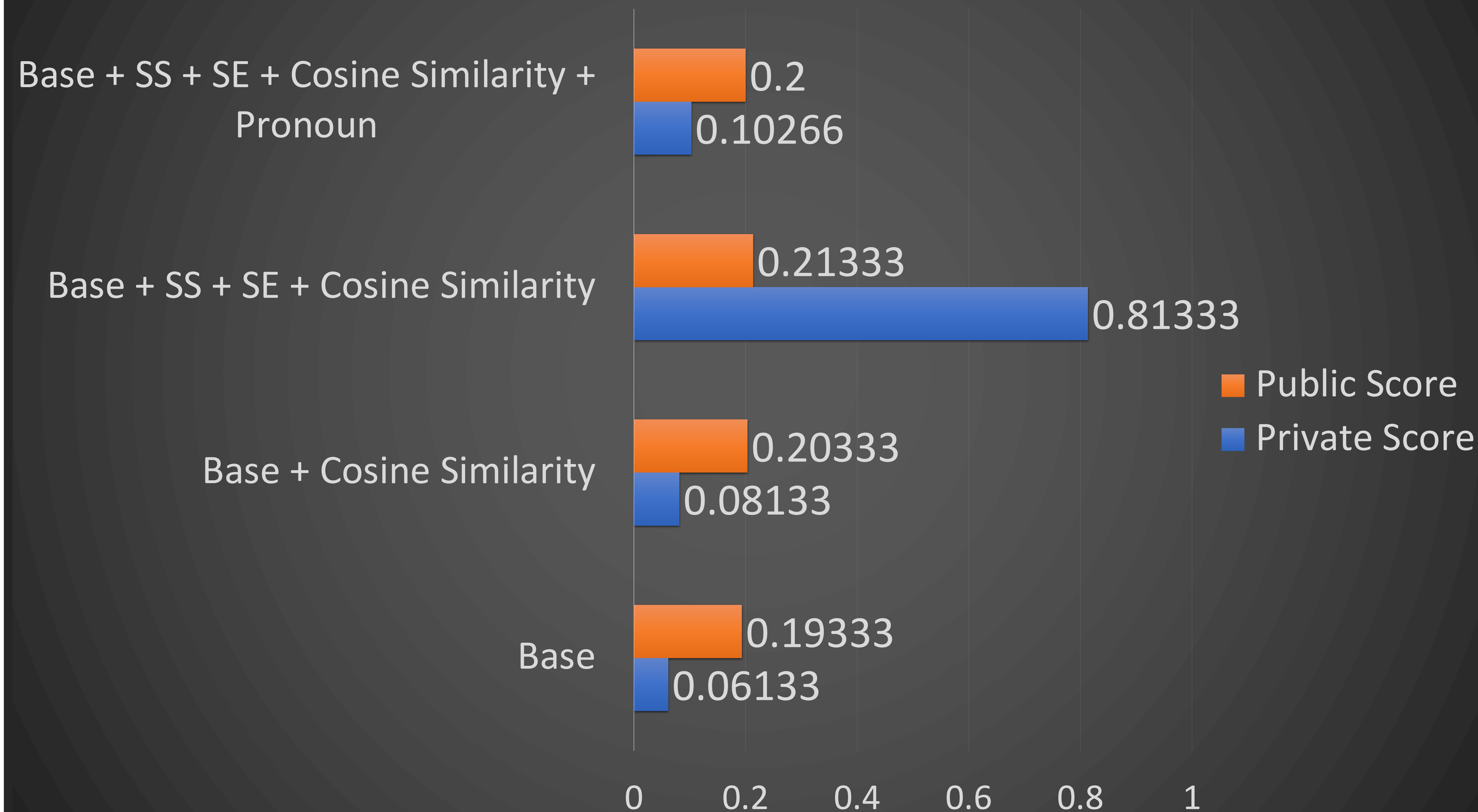
- To improve our score as some of the training data were in the test data.

4. Pronoun Resolution

- Judgement is only applicable to Human Subjects (not on inanimate objects).

Classifying JUDGEMENTS using Transfer Learning

F1 Score (Evaluated on Kaggle)*



* The differences between all of those systems are not statistically significant ($p=0.073$) using 1-way ANOVA)



Take a picture to download the full paper

White, P.R. (2015). Appraisal theory. The international encyclopaedia of language and social interaction, 1-7.
 Fuoli, M. (2018). A stepwise method for annotating APPRAISAL. Functions of Language, 25(2), 229-258.
 Ross, A. S., & Caldwell, D. (2020). 'Going negative': An appraisal analysis of the rhetoric of Donald Trump on Twitter. Language & communication, 70, 13-27.

CHALLENGES

1. There is only limited amount of training data
 - 200 training data & 100 on test.
2. Annotation Process . The main challenge with Annotation Process in such a task is ambiguity
 - The main challenge with Annotation Process in such a task is ambiguity. Take a look at the example below.

“@Gennneral thanks gen!! Love you miss you happy birthday natong duha ❤️❤️❤️.” (“None of the above”)

“@priny_baby happppy happpyyyyyyy happpyyyyyyy birthday best friend!! Love you lots #chapter22 ❤️❤️❤️.” (“Normality”)

SUGGESTIONS:

1. Specific Topic Instead of Range of Topics
 - This allows the use of domain knowledge such as Wikipedia (Ross & Caldwell, 2020) to improve classifier's performance.
2. Using Step Wise Method
 - This method was proposed by Fuoli (2018) for annotators resolve ambiguous text

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