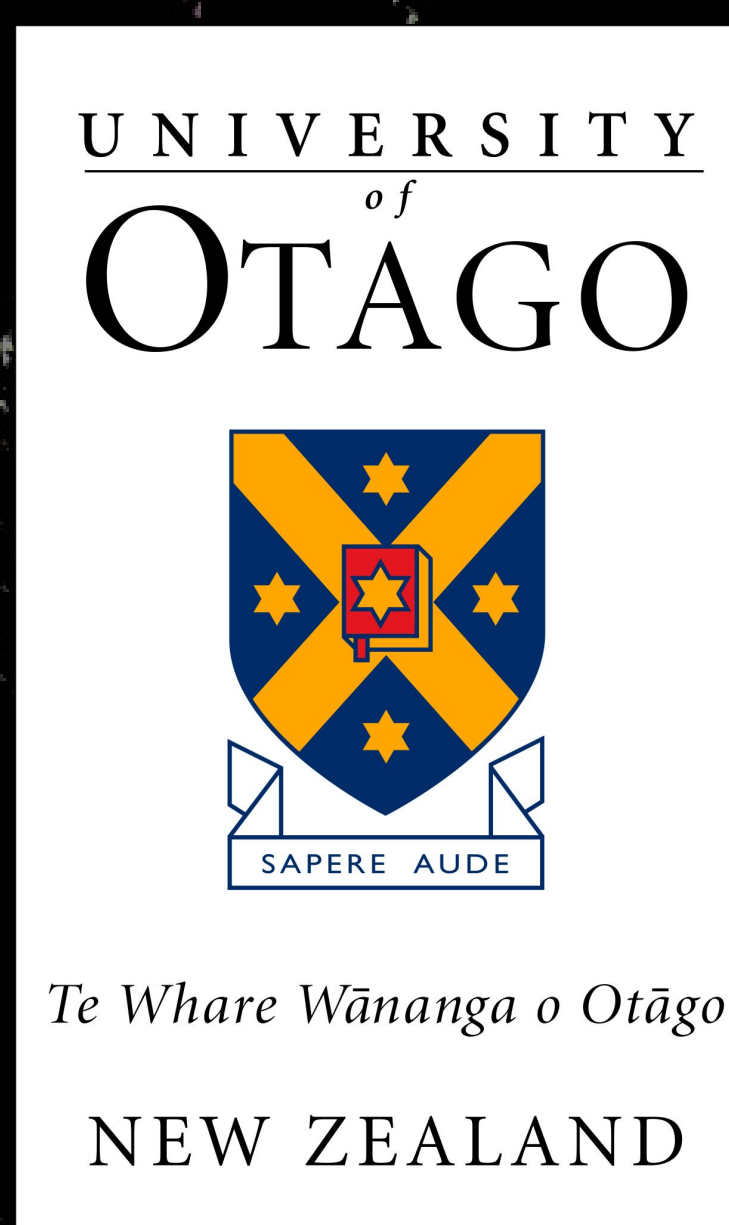


# BERT's The Word : Sarcasm Target Detection using BERT

Using transformers with further pre-training gave us a **23.4%** improvement on Reddit data set compared to the current state-of-the-art methods

SPOILER ALERT:  
Identifying Target of Sarcasm is **STILL HARD!**

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**Andrew** Trotman  
**Veronica** Liesaputra  
**David** Eyers



## 01 INTRODUCTION

- The target of sarcasm is defined as target being ridiculed in a text
  - **James** is as good at cooking as **Guy Feiri** is at avoiding controversy.

## 02 RESEARCH QUESTIONS

- Can we use BERT to identify target?
- Can we perform better in ALTA Task?

## 03 METHODOLOGY

TD-BERT and BERT-AEN

- Books
- Tweets
- Reddit

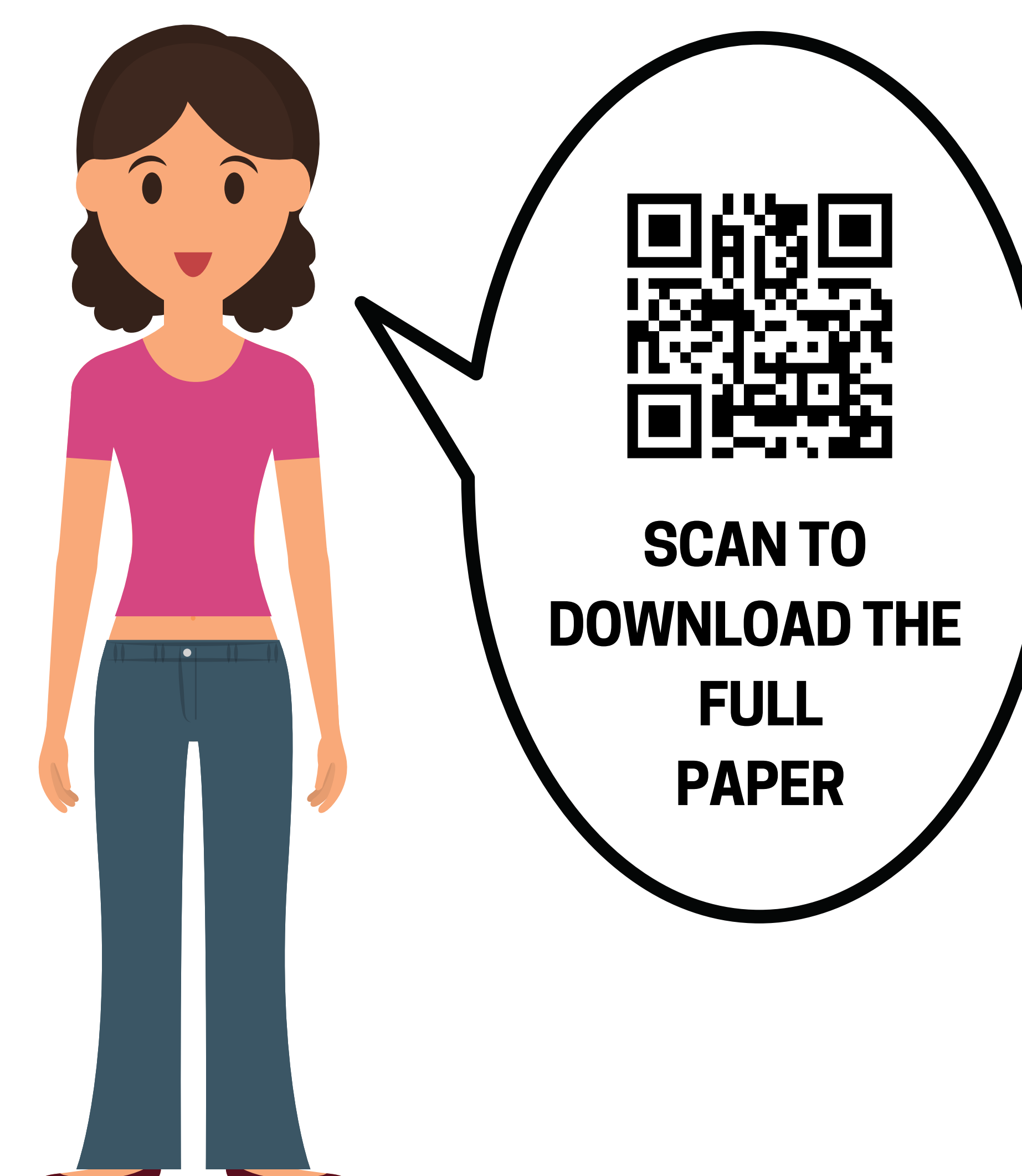
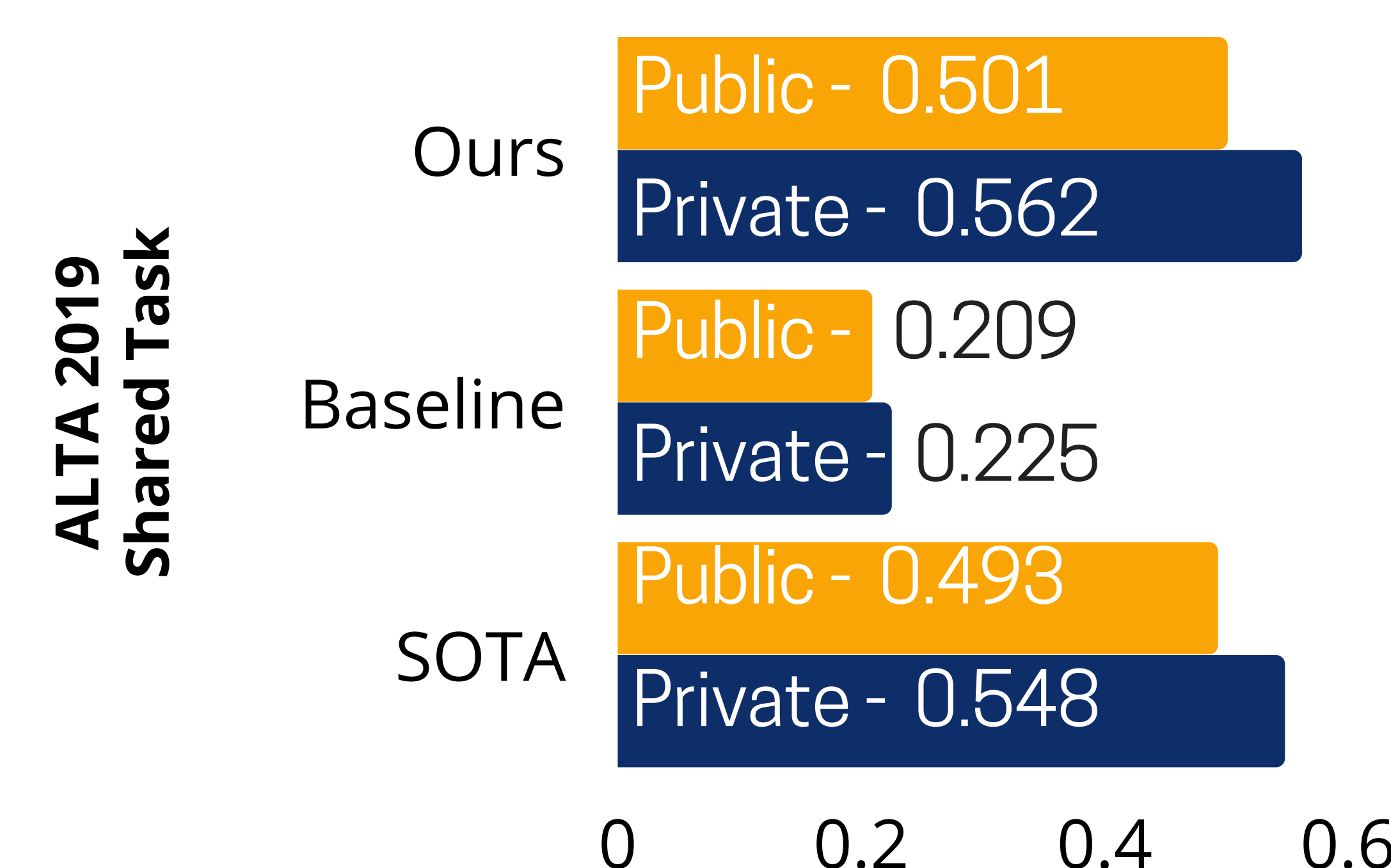
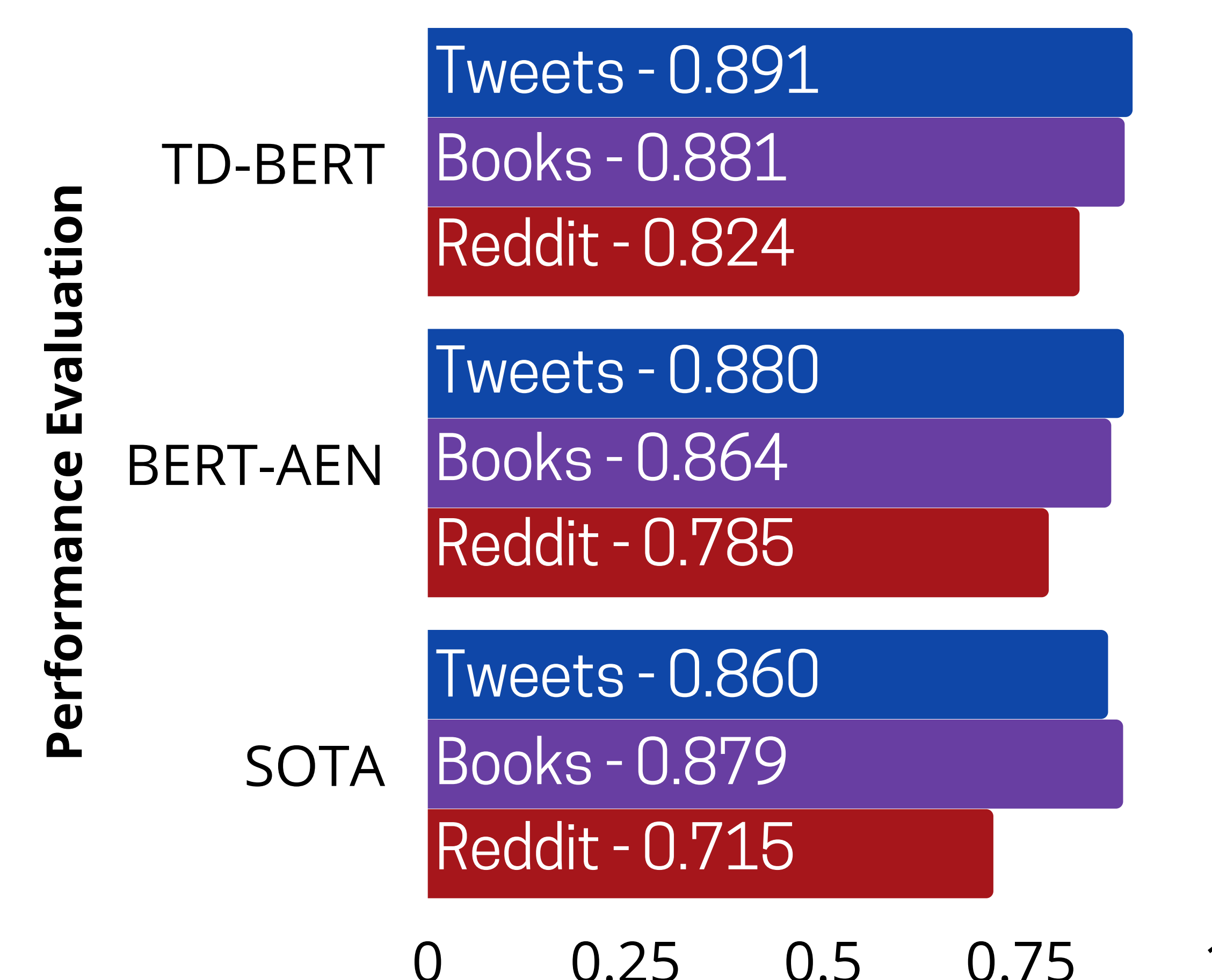
Sarcasm Targets can be

- Single Entity
- Multiple Entities
- Not in the text at all (**OUTSIDE**)



## 04 RESULTS

Evaluated using Dice SCORE



## 05 FAILURE ANALYSIS

What worked well:

- **TD-BERT (best)**
- Further pre-training unlabelled data **+13%**
- Reduction in training time by **12%** vs State-of-the-art (SOTA)

What didn't work:

- ALTA 2019 Shared Task results substantially deviated
  - Limited data on niche subreddits
  - Oftentimes context is required!

Example

Yeah I have an **i5 520m** and **Intel HD** and you know, it really bugs the hell out of me when my fps goes below 20 like come on  
(Ground Truth = **OUTSIDE**)

## 06 CONCLUSION

- A larger data set is required
- Detecting from text alone is hard.
- We would be very keen to hear your suggestions!