

Masters Thesis Proposal

The New Fake News Classification with Comment Generation by Seq-GAN

Yuta Yanagi

Department of Informatics, The University of
Electro-Communications

Main Advisor : Yasuyuki Tahara

Advisor : Akihito Ohsuga

Advisor : Yuichi Sei

1 Abstract

2 Introduction

3 Related Works

4 Thesis

The main objective of this research is developing new fake news classification with comment generation and investigate how proposed method is better in operation on social media. To suppress spread of fake news, we have to spot it early enough. Specifically, it is required classifying before spread of fake news if classifier operate in social media.

In classification of fake news, social contexts give strong information. Among social contexts, comments gives more information as natural language than retweets and likes. However, it is impossible to get social contexts from news which is just posted on social media. Therefore, we train model not only classifier but also comment generator for fake news detection. This use Seq-GAN [1] as comment generation with real comments which are posted in Twitter.

5 Methodology

Our proposed model structure is very similar to Seq-GAN[1] and it has classifier and comment generator. Fig.1 shows structure of our model. On the one hand, generator create comments from post. On the other hand, classifier evaluates two values to binary classifications with real or generated comments from generator: post's credibility and reality of comments.

Generator is trained by post feature which is leaked from classifier and classifier is trained by label of posts(true, fake) and comments(real, generated). In the test term, classifier only use posts with generated comments in order to simulate operation on social media.

6 Preliminary Results and Discussion

7 Implications of Research

References

- [1] Lantao Yu et al. “SeqGAN: Sequence Generative Adversarial Nets with Policy Gradient”. In: (2017). URL: <https://aaai.org/ocs/index.php/AAAI/AAAI17/paper/view/14344>.

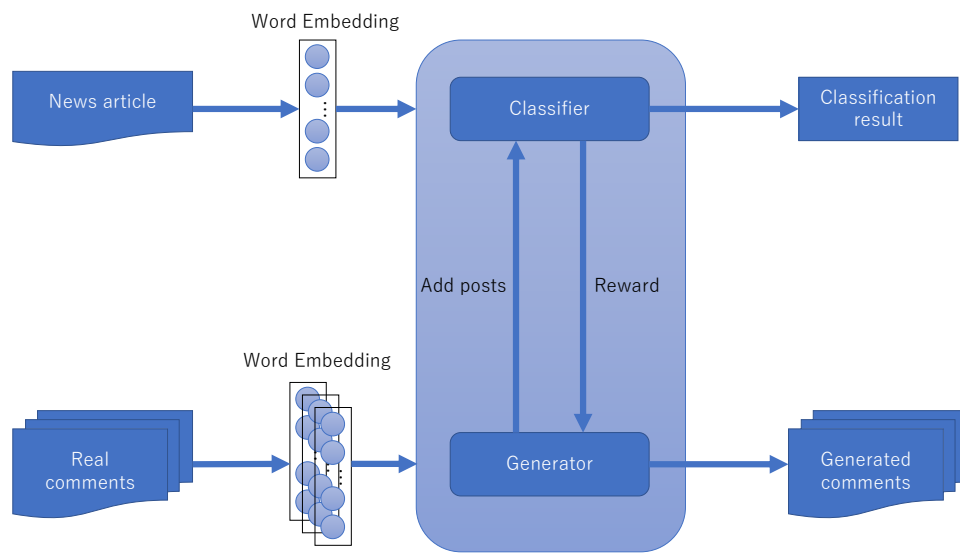


Figure1 The structure of our planning proposed model.