Introduction

Fake News Detection

- Roughly divided fake news detection into two categories:
  - Traditional learning methods
    - Extract features from news articles and train classifiers based on the extracted features
  - Deep learning models
    - Learning informative representations automatically
    - Usually require a large amount of hand-labeled data (i.e. $\hat{y} = 1$ or 0)

Introduction

Labeling fake news

- Creations of such data is expensive and time-consuming
- Accurate labels can only be obtained when the annotators have sufficient knowledge about the events.
- Dynamic nature of news articles leads to decaying quality of existing labeled samples.
  - Some of these samples may become outdated quickly and can't represent the news articles on newly emerged events.
  - Annotators have to continuously label newly emerging news articles, which is infeasible
    - It's essential to tackle the challenge of labeling fake news