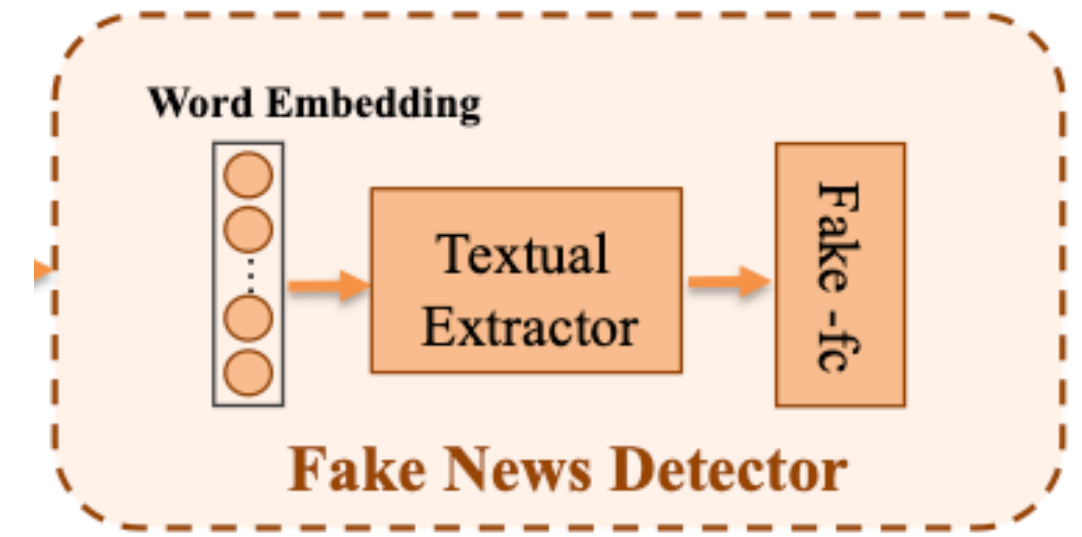


# Methodology

## Fake news detector



- Consists of a textual feature extractor and a fully-connected layer, namely Fake-fc
- Input: news content
- Output: the probability of the given news being fake
- $D_n \left( \cdot ; \theta_n \right)$ ,  $\theta_n$ : all the parameters

# Methodology

## Data Selection via Reinforcement Learning - *State*

- $s_i^{(k)}$ : state vector of the sample  $x_i^{(k)}$
- Every action is made based on the current sample and the chosen sample, the state vector mainly consists of two components:
  - Representation of the current sample (related to data quality and diversity)
  - Average representation of the chosen samples
- The concatenation of the current state vector and the average of previous state vectors is considered as the final state vector  $s_i^{(k)}$

