Preliminaries

Notation

- $\mathbf{A}_i \in \{0,1\}^{n_i \times n_i}$: adjacency matrix where
  - $a_{ts}^i = \begin{cases} 1, & \text{if } e_{st}^i \in E_i \\ 0, & \text{otherwise} \end{cases}$
- $\mathbf{X}_i = \left[\mathbf{x}_0^{i\top}, \mathbf{x}_1^{i\top}, \ldots, \mathbf{x}_{n_i-1}^{i\top}\right]^\top$: feature matrix extracted from c_i
  - $\mathbf{x}_0^i$: feature vector of r_i
  - $\mathbf{x}_j^i$: feature vector of w_j^i

Preliminaries

Notation

- Each c_i is associated with a ground-truth label $y_i \in \{F, T\}$ (False Rumor, True Rumor)
  - In some cases, $y_i \in \{N, F, T, U\}$ (Non-rumor, False Rumor, True Rumor, Unverified Rumor)
- Given the dataset, the goal of rumor detection is to learn a classifier $f : C \rightarrow Y$