Methodology
Definition

- *Context-based fake news detection*: Given a social context $G = (A, S, U, E)$, context-based fake news detection is defined as the binary classification task to predict whether a news article $a \in A$ is fake or real.

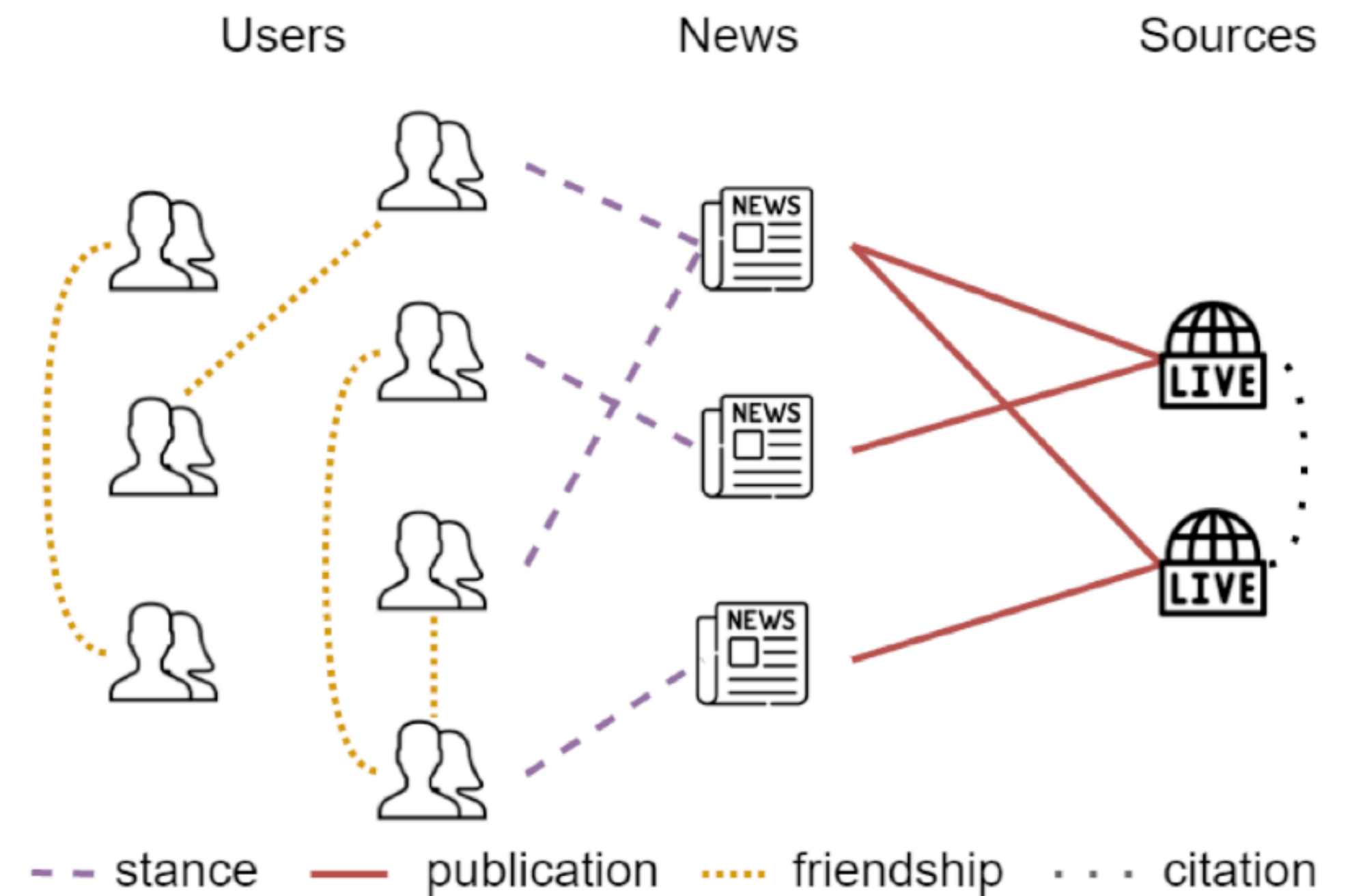- $F_C(a) = \begin{cases} 0 & \text{if } a \text{ is a fake article} \\ 1 & \text{otherwise} \end{cases}$

Figure 1: Graph representation of social context.

Methodology
Graph Construction from Social Context – Users

- Feature

  - TF-IDF vector + weight word-embedding
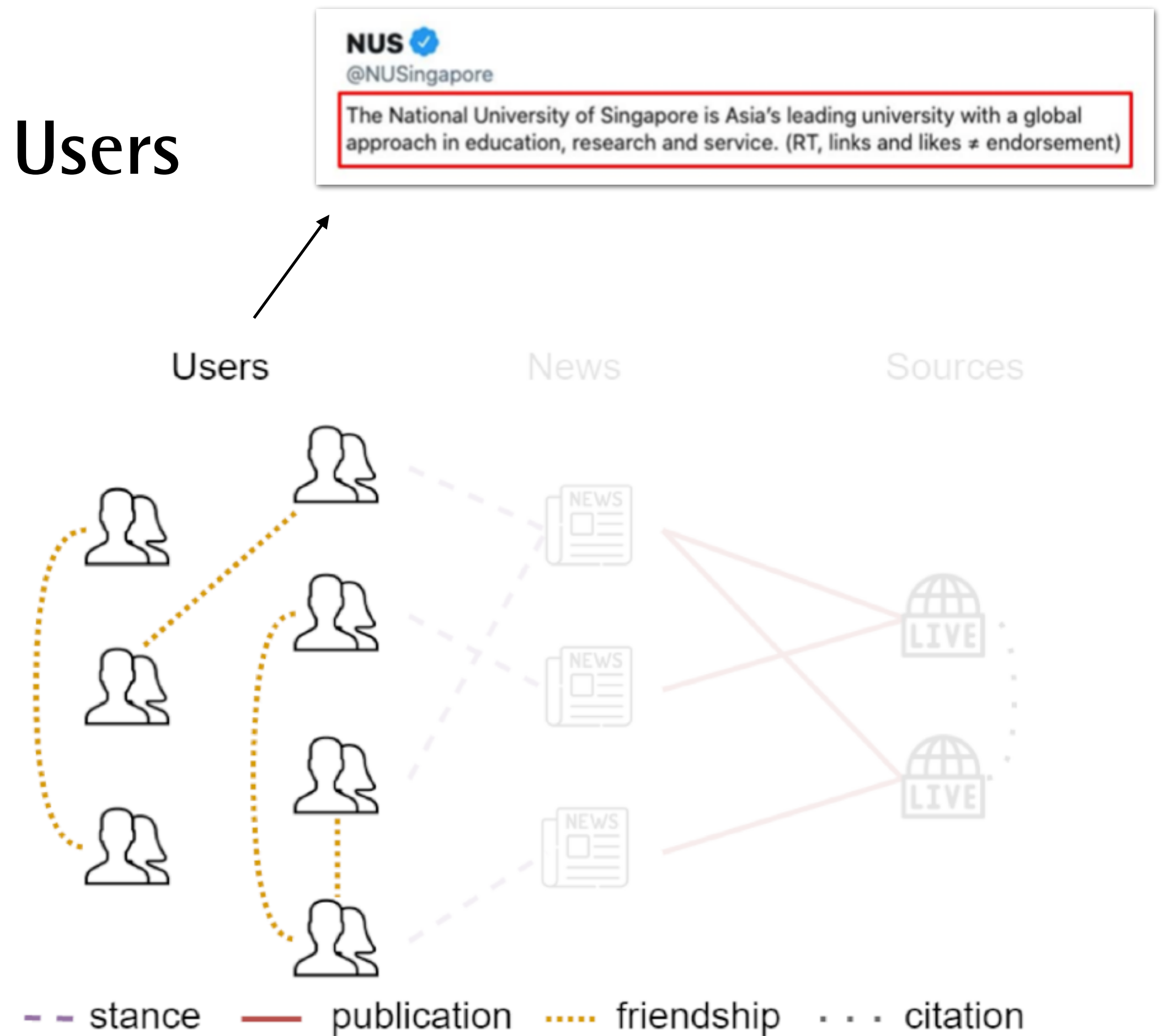
  - From user's twitter descriptions

- Relations

  - **Friendship**

Figure 1: Graph representation of social context.