

Methodology

Definition

	User (U)	News (A)	Source (S)
User (U)		Friendship	
News (A)			Publication
Source (S)			

Social Interactions

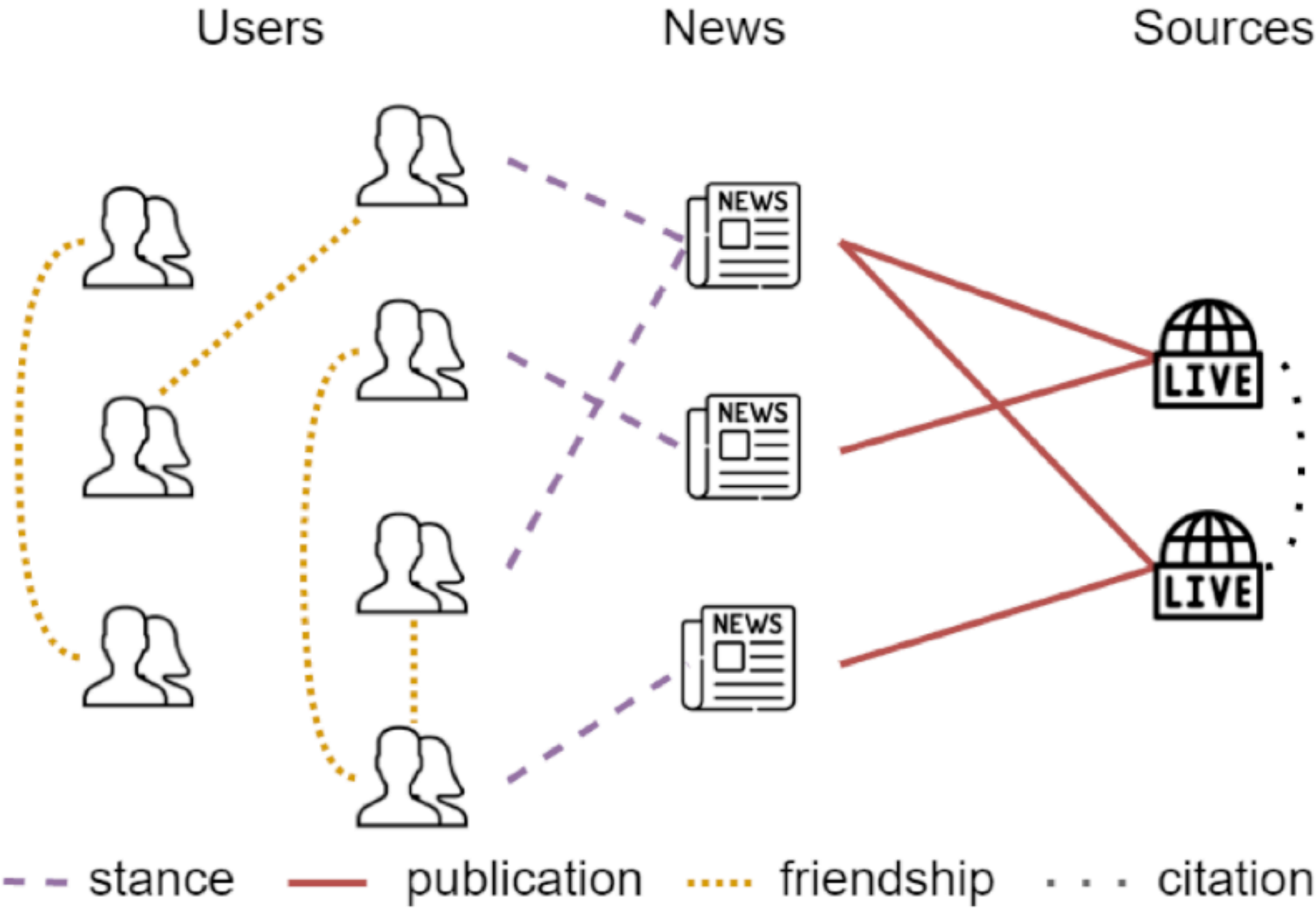


Figure 1: Graph representation of social context.

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.

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

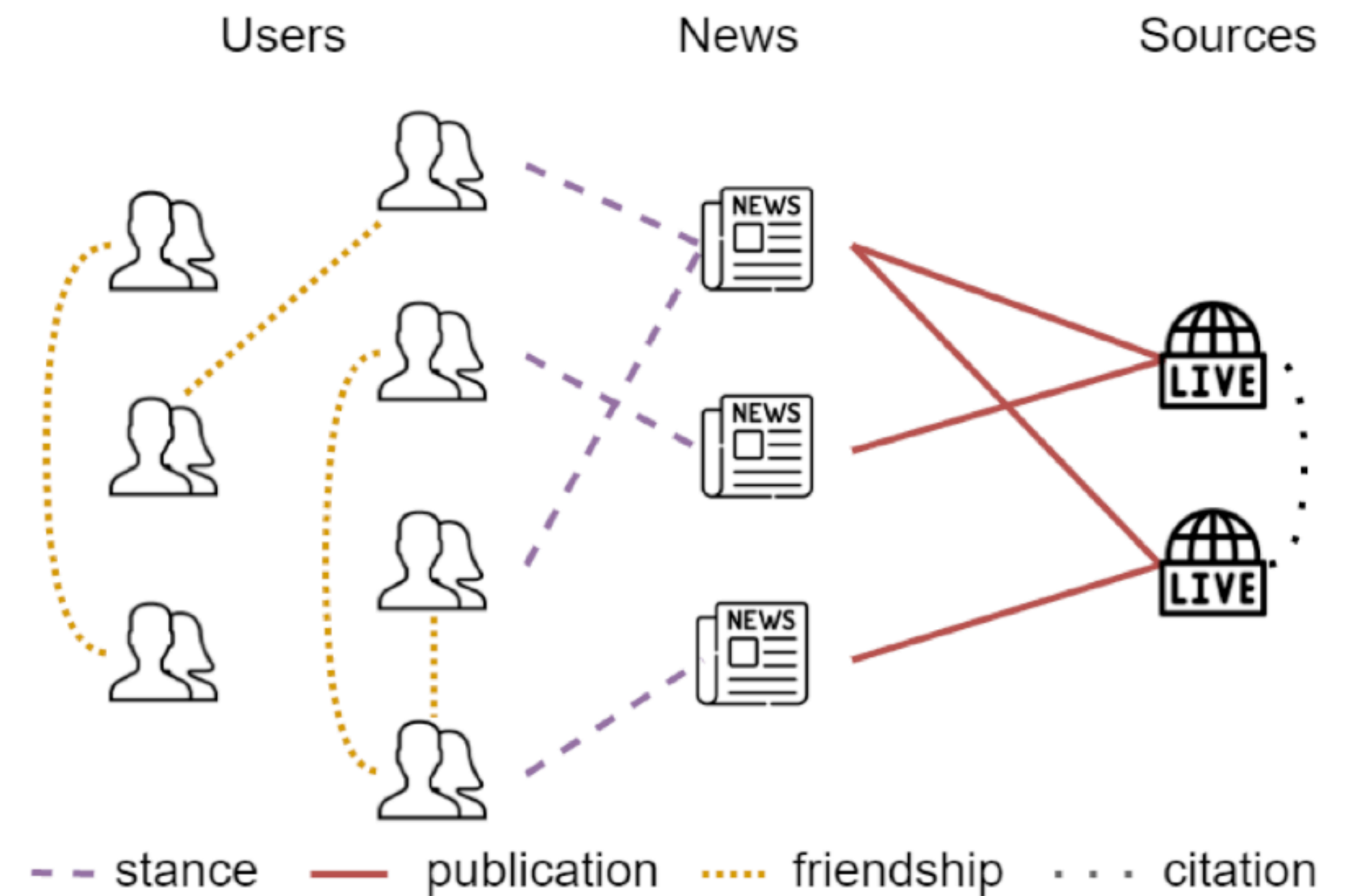


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