

Table 1: GemGNN Framework: Key Notations

Symbol	Description
Problem Formulation	
\mathcal{L}	Labeled training set: $\mathcal{L} = \{(x_i, y_i)\}_{i=1}^{2K}$
\mathcal{U}	Unlabeled training set: $\mathcal{U} = \{x_j\}_{j=1}^M$
\mathcal{T}	Test set: $\mathcal{T} = \{x_k\}_{k=1}^N$
K	Number of labeled examples per class (few-shot)
Graph Structure	
G	Heterogeneous graph: $G = (V, E, \mathcal{A}, \mathcal{R})$
V_n	News nodes: $V_n = \{n_1, n_2, \dots, n_{ \mathcal{L} + \mathcal{U} + \mathcal{T} }\}$
V_i	Interaction nodes: $V_i = \{i_1, i_2, \dots, i_{20 \times V_n }\}$
I_i	Generated interactions for news article i
Node Features	
\mathbf{x}_v	Node feature vector: $\mathbf{x}_v \in \mathbb{R}^{768}$ (DeBERTa)
$\mathbf{h}_i^{(v)}$	Node representation for view v
α_{ij}^ϕ	Node-level attention weight for edge type ϕ