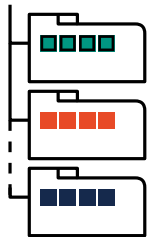


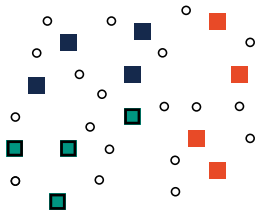
Collection of documents
with initial classification



$Doc, C, y : Doc \mapsto C$

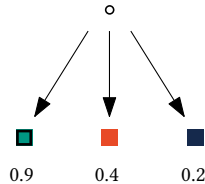
User Input

1. Learning
Joint Embedding



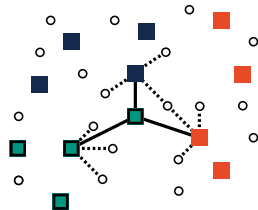
$Phr, V : \mathcal{O} \mapsto \mathbb{R}^n$

2. Mining
Representativeness



$r : Phr \times C \mapsto \mathbb{R}^+$

3. Text Outlier Detection



\mathcal{O}, \mathcal{M}

Type O/M Outliers

Preprocessing