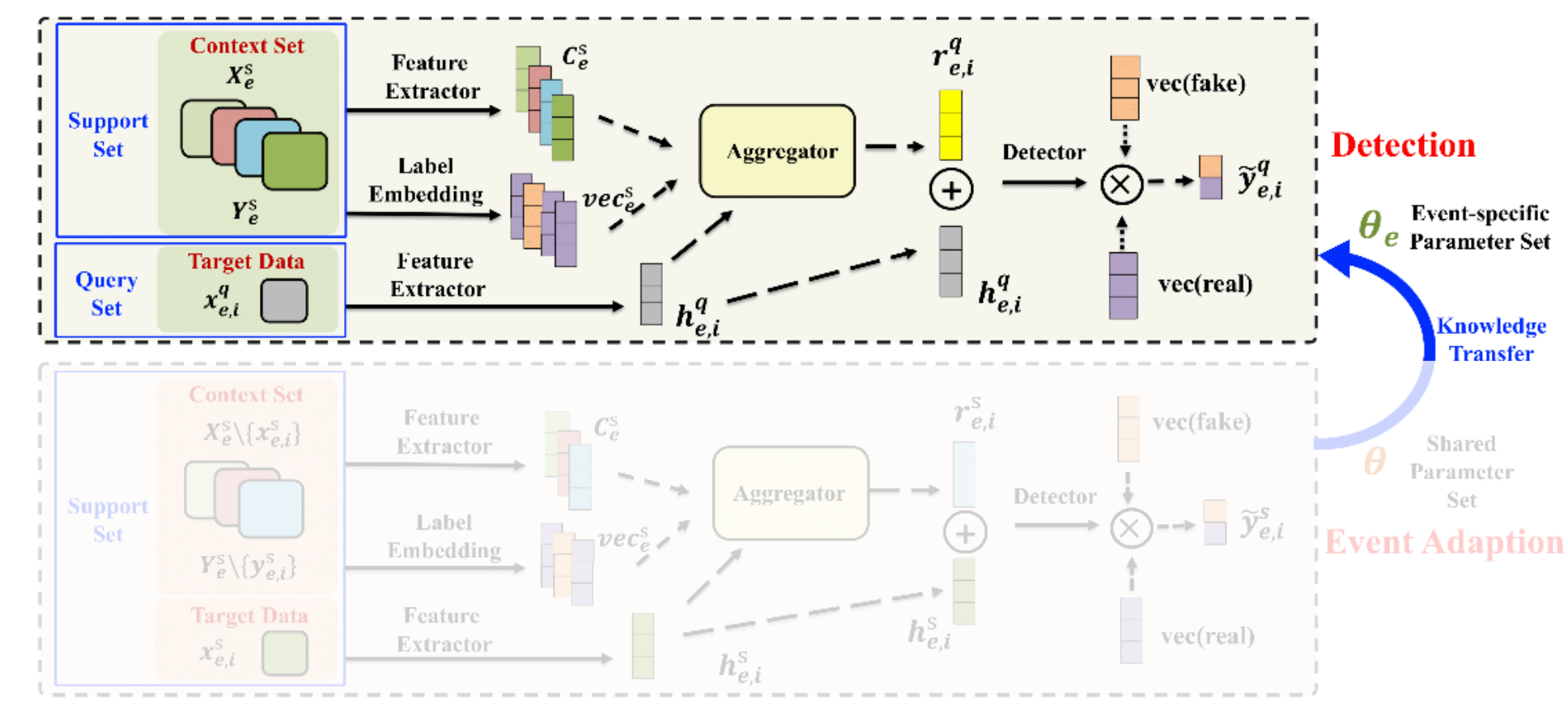


# Methodology

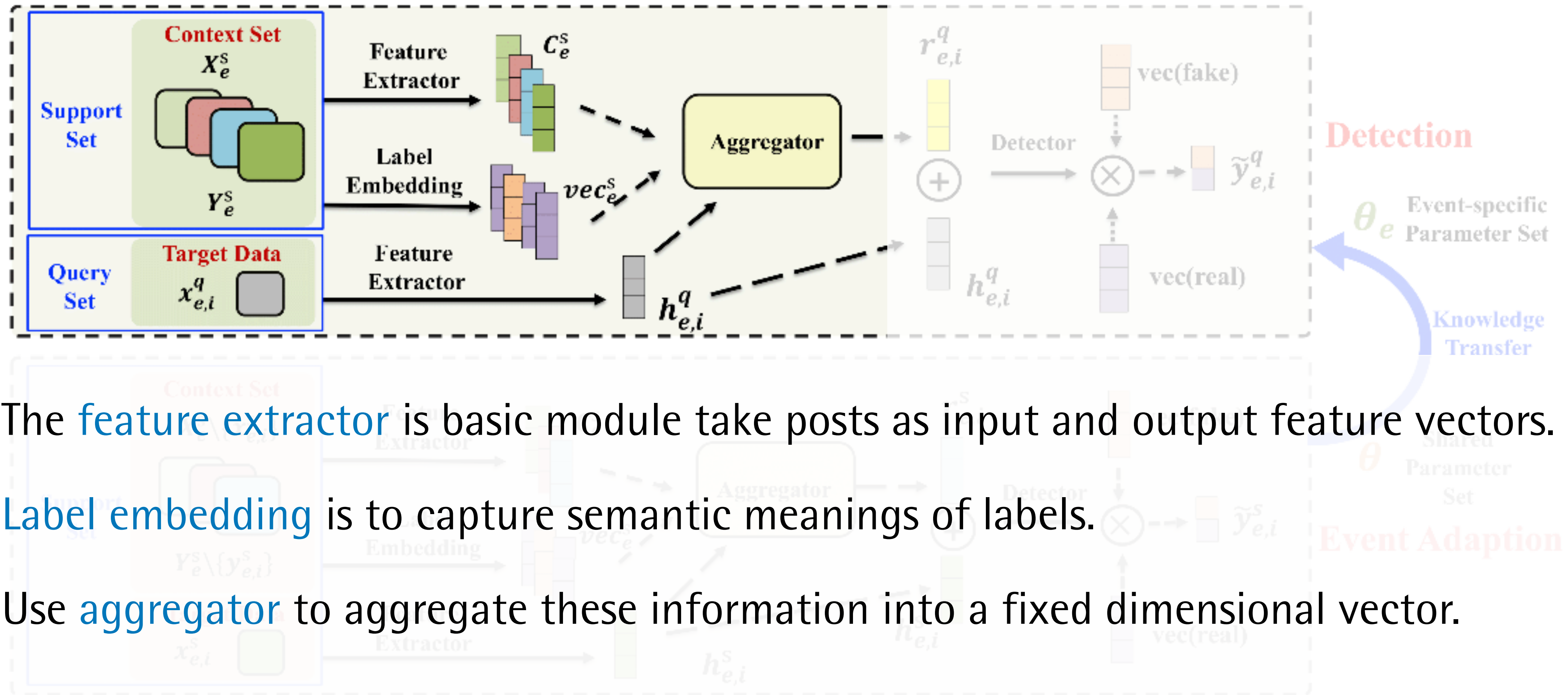
## Detection stage



- The proposed model with event-specific parameter set  $\theta_e$  takes query set  $X_e^q$  and entire support set  $\{X_e^s, Y_e^s\}$  as input and outputs predictions  $\tilde{Y}_e^q$  for query set  $X_e^q$ .
- The loss function in the detection stage can be represented as
  - $\mathcal{L}_e^q = \log p_{\theta_e} (Y_e^q | X_e^s, Y_e^s, X_e^q)$
- Through this meta neural process, we can learn an **initialization parameter set  $\theta$**  which can **rapidly learn to use given context input-outputs as conditioning** to detect fake news on newly arrived events.

# Methodology

## Neural Network Architecture



- The **feature extractor** is basic module take posts as input and output feature vectors.
- **Label embedding** is to capture semantic meanings of labels.
- Use **aggregator** to aggregate these information into a fixed dimensional vector.