## **Encoder for Query Impact** $\tilde{v}_{t+1}$ $\tilde{v}_{t+t\prime}$ <END> **LSTM LSTM LSTM** QI(t+1)FC QI(t+2)QI(t+t')FC Concat Concat **LSTM LSTM LSTM** $AT(v_{t+t'})$ $AT(v_{t+1})$ Concat Concat Concat **LSTM LSTM LSTM** Graph Graph Graph CNN CNN **CNN** $\tilde{v}_{t+t'-1}$ $NB(v_1)$ $NB(v_2)$ $NB(v_t)$ $\tilde{v}_{t+t}$ $v_1$ <START> $v_2$ $v_t$

Decoder

**Encoder**