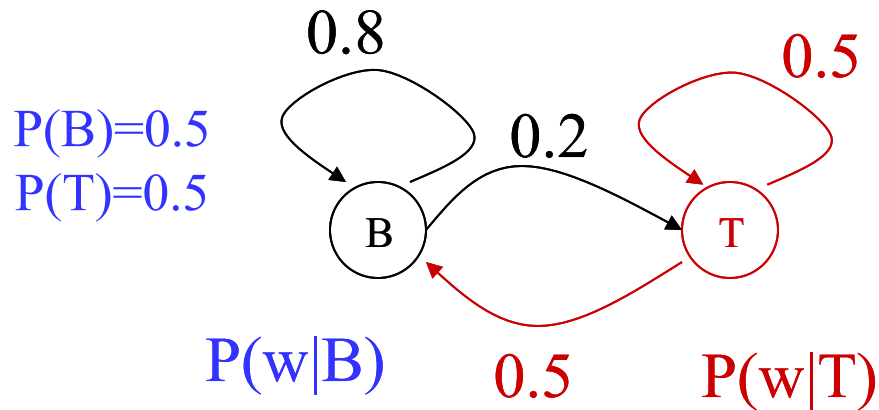


# A Simple HMM for Recognizing Relevant Passages



the 0.2  
a 0.1  
we 0.01  
to 0.02  
...  
text 0.0001  
mining 0.00005  
...

Background

...  
text = 0.125  
mining = 0.1  
association = 0.1  
clustering = 0.05  
...

Topic

## Parameters

Initial state prob:

$$p(B) = 0.5; p(T) = 0.5$$

State transition prob:

$$p(B \rightarrow B) = 0.8 \quad p(B \rightarrow T) = 0.2$$
$$p(T \rightarrow B) = 0.5 \quad p(T \rightarrow T) = 0.5$$

Output prob:

$$P(\text{"the"}|B) = 0.2 \dots$$

$$P(\text{"text"}|T) = 0.1 \dots$$