

# Back to Factoring out Background Words

Text Mining Paper  
**d**

... text mining...  
is... clustering...  
we.... Text, the

$$P(w | \theta_d)$$

text 0.04  
mining 0.035  
association 0.03  
clustering 0.005  
...  
the 0.000001

$\theta_d$

$$p(\theta_d) + (\theta_B) = 1$$

$$P(\theta_d) = 0.5$$

Topic  
Choice

$$P(w | \theta_B)$$

the 0.03  
a 0.02  
is 0.015  
we 0.01  
food 0.003  
...  
text 0.000006

$\theta_B$

$$P(\theta_B) = 0.5$$