

K-Means from EM perspective

M-step

$$\theta^{k+1} = \arg \max_{\theta} \mathbb{E}_{q^{k+1}} \log p(X, T \mid \theta)$$

$$\mu_c^{k+1} = \frac{\sum_{i:c_i=c} x_i}{\#\{i : c_i = c\}}$$

Exactly like in K-Means!