## **LVC 1 - Glossary of Notations**

 $L_{ij}$  = Likelihood of  $i^{th}$  user matching with  $j^{th}$  item in the user-item interaction matrix

 $L_{i}$  = The average of observed entries in row i of the user-item interaction matrix

 $n_i$  = The number of observed entries in row i of the user-item interaction matrix

 $L_{j}$  = The average of observed entries in column j of the user-item interaction matrix

 $n_j$  = The number of observed entries in column j of the user-item interaction matrix

 $x_i$  = Features of the  $i^{th}$  user

 $y_{j}$  = Features of the  $j^{th}$  item

M = The matrix where each column is a unique word and each row is a document and the entries represent the frequency of the  $j^{th}$  word appearing in the  $i^{th}$  document