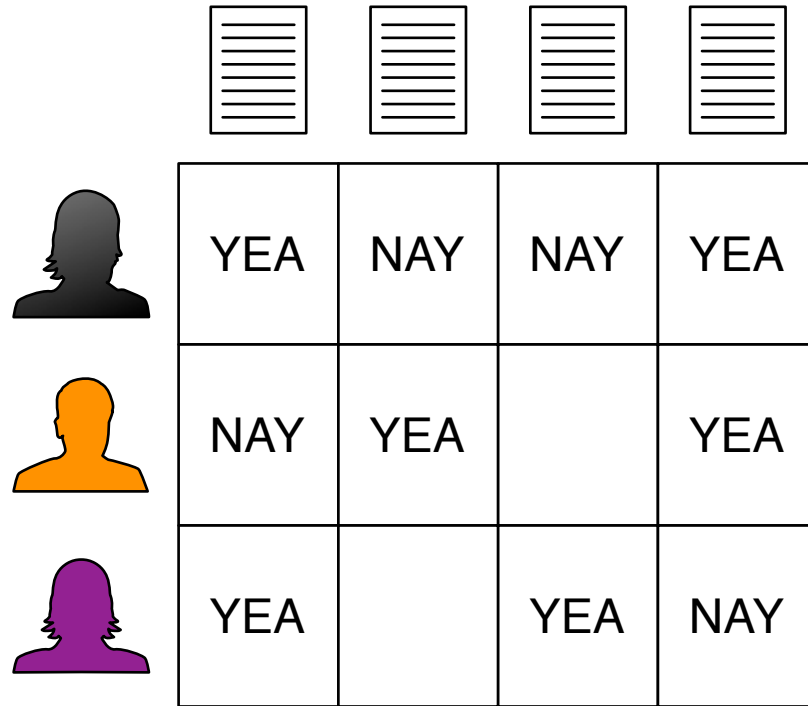

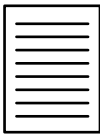
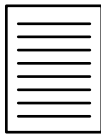






Legislator a votes 'Yea' on bill b with probability

Multi-dimensional ideal point
of legislator a



				
	YEA	NAY	NAY	YEA
	NAY	YEA		YEA
	YEA		YEA	NAY

$$p(v_{a,b} = \text{Yea}) = \Phi \left(\sum_{k=1}^K u_{a,k} x_{b,k} + y_b \right)$$

K dimensions