

Class Prior Probability

Likelihood

$$P(c | x) = \frac{P(x | c) P(c)}{P(x)}$$

Posterior Probability

Predictor Prior Probability

$$P(c | X) = P(x_1 | c) \times P(x_2 | c) \times \cdots \times P(x_n | c) \times P(c)$$