



- We assume that are independent (not true)

- $P(x)$  → circle on our new data set  
→ likelihood a randomly selected data point will have the same features as the new point

$$P(x) = \frac{\text{number of similar observations}}{\text{Total observations}}$$

points in the circle

$$P(\text{Walks} | X) = \frac{P(X | \text{Walks}) \times P(\text{Walks})}{P(X)}$$

$\Delta$  (above the numerator)  
 $\nabla$  (above the denominator)  
 $\square$  (below the denominator)

\* Posterior Probability

$\square$  Marginal likelihood

$\Delta$  Likelihood

$\nabla$  Prior Probability

Ps.

$$\frac{P(X | \text{Walks}) \times P(\text{Walks})}{P(X)} \text{ vs } \frac{P(X | \text{Drivers}) \times P(\text{Dri})}{P(X)}$$

