

$$Sim(d, q) = \frac{\sum_{i=1}^t w_{i,d} \times w_{i,q}}{\sqrt{\sum_{i=1}^t w_{i,d}^2} \times \sqrt{\sum_{i=1}^t w_{i,q}^2}}$$

$$w_{i,d} = t f_{i,d} \times \ln(n/d f_i)$$

$$w_{i,q} = .5 \times (1 + \ln(n/d f_i))$$