

## Using expanded query

- Developed using Inquiry
- Incorporate using weighted sum
  - Weight original query and expansion query equally

$$Q_{\text{new}} = \#wsum( \begin{matrix} 1.0 & 1.0 \\ & 1.0 \end{matrix} \begin{matrix} Q_{\text{original}} \\ Q_{\text{lca}} \end{matrix} )$$

$$Q_{\text{lca}} = \#wsum( 1.0 \ 1.0 \ c_1 \ 1.0 \ c_2 \ \dots \ 1.0 \ c_{30} )$$

- Variations
  - Lower weight on each subsequent term
    - More important the more terms that are added
  - Weight original query equally with a single expansion concept
    - Only works when query is not very reliable