Query Model Estimation

- Question: How to estimate a better query model than the ML estimate based on the original query?

- "Massive feedback": Improve a query model through co-occurrence pattern learned from

  - A document-term Markov chain that outputs the query [Lafferty & Zhai 01b]

  - Thesauri, corpus [Bai et al. 05,Collins-Thompson & Callan 05]

- Model-based feedback: Improve the estimate of query model by exploiting pseudo-relevance feedback

  - Update the query model by interpolating the original query model with a learned feedback model [Zhai & Lafferty 01b]

  - Estimate a more integrated mixture model using pseudo-feedback documents [Tao & Zhai 06]