A General Algorithm for Ranking Documents

$$f(q, d) = f_a(\boldsymbol{h}(\boldsymbol{g}(\boldsymbol{t_1}, \boldsymbol{d}, \boldsymbol{q}), \ldots, \boldsymbol{g}(\boldsymbol{t_k}, \boldsymbol{d}, \boldsymbol{q})), f_d(d), f_q(q))$$

- $f_d(d)$ and $f_q(q)$ are pre-computed
- Maintain a score accumulator for each **d** to compute ***h***
- For each query term $\boldsymbol{t_i}$
  - Fetch the inverted list $\{(d_1,f_1),\ldots,(d_n,f_n)\}$
  - For each entry (d_j,f_j), compute **$g(t_i,d_j,q)$**, and update score accumulator for doc d_i to incrementally compute ***h***
- Adjust the score to compute **f_a**, and sort