

For weight  $w$  of row  $i$  at iteration  $t + 1$  belonging to  $group_i$ , where  $group$  is the column being used for weighting at this step,

$$w_{i(t+1)} = w_{it} * \frac{P(group_i|reality)}{\frac{\sum_{group_i} w_{it}}{\sum w_{it}}}$$