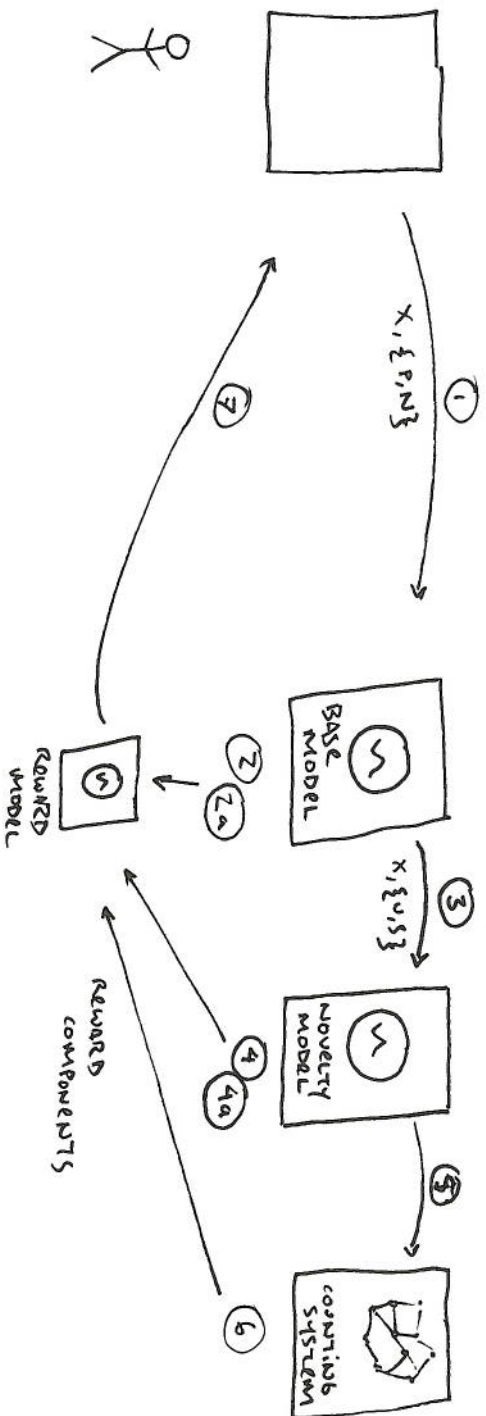# BTM

USER INTERFACE   BACK-END

1. USER SUBMITS {URL, CATEGORY, CLASSIFICATION}

2. COMPUTE PREDICTED CLASSIFICATION FOR SUBMISSION, GENERATE "SURPRISE SCORE" (2a) (OPTIONAL) INCORPORATE NEW PROBE'S INFO VIA A MODEL UPDATE

3. BASE MODEL RE-LABELS PROBE URL BASED ON SUCCESS OF BTM

4. META "NOVELTY" MODEL PREDICTS {SUCCESSFUL, UNSUCCESSFUL} FOR CURRENT PROBE GENERATE NOVELTY SCORE → (4a) UPDATE MODEL, INCORPORATE NEW INFO

5. GENERATE EXPLANATION OF WHY SUCCESSFUL PROBE IS SUCCESSFUL BUILD QUERY BASED ON THIS EXPLAIN, PASS TO NEXT COMPONENT

6. USING A SEARCH ENGINE API, ESTIMATE PREVALENCE OF THIS KIND OF MISTAKE ON THE WEB COMPUTE FREQUENCY SCORE

7. SOME COMPONENT COMPUTES TOTAL REWARD FROM COMPONENTS, RETURN(S) TO USER API