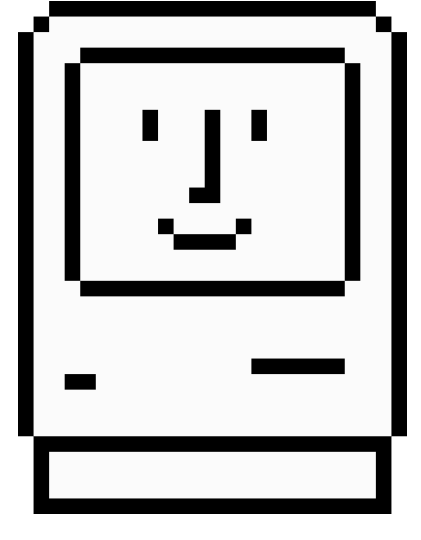


A Frank System for Co-Evolutionary Hybrid Decision-Making



HELLO, I'M FRANK! AN INCREMENTAL LEARNING SYSTEM. AND AN ASSISTANT.

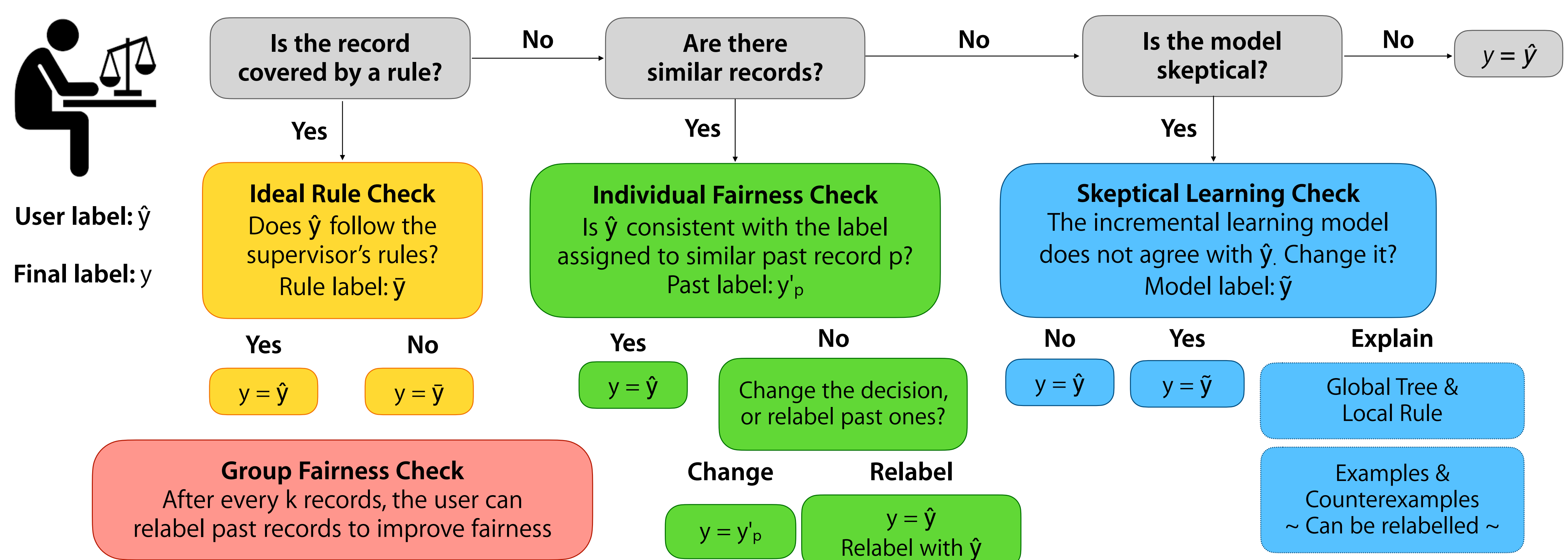
I DON'T NEED A TRAINING SET. I LEARN LITTLE BY LITTLE FROM YOUR DECISIONS AND I CAN REPLICATE YOUR BEHAVIOUR. I EVOLVE WITH YOU.

I'M BASED ON SKEPTICAL LEARNING. ARE YOU TASKED TO LABEL A DATASET? IF I THINK YOU ARE INCONSISTENT WITH YOUR PAST BEHAVIOUR, I CAN SUGGEST AN ALTERNATIVE TO HELP YOU STAY CONSISTENT.

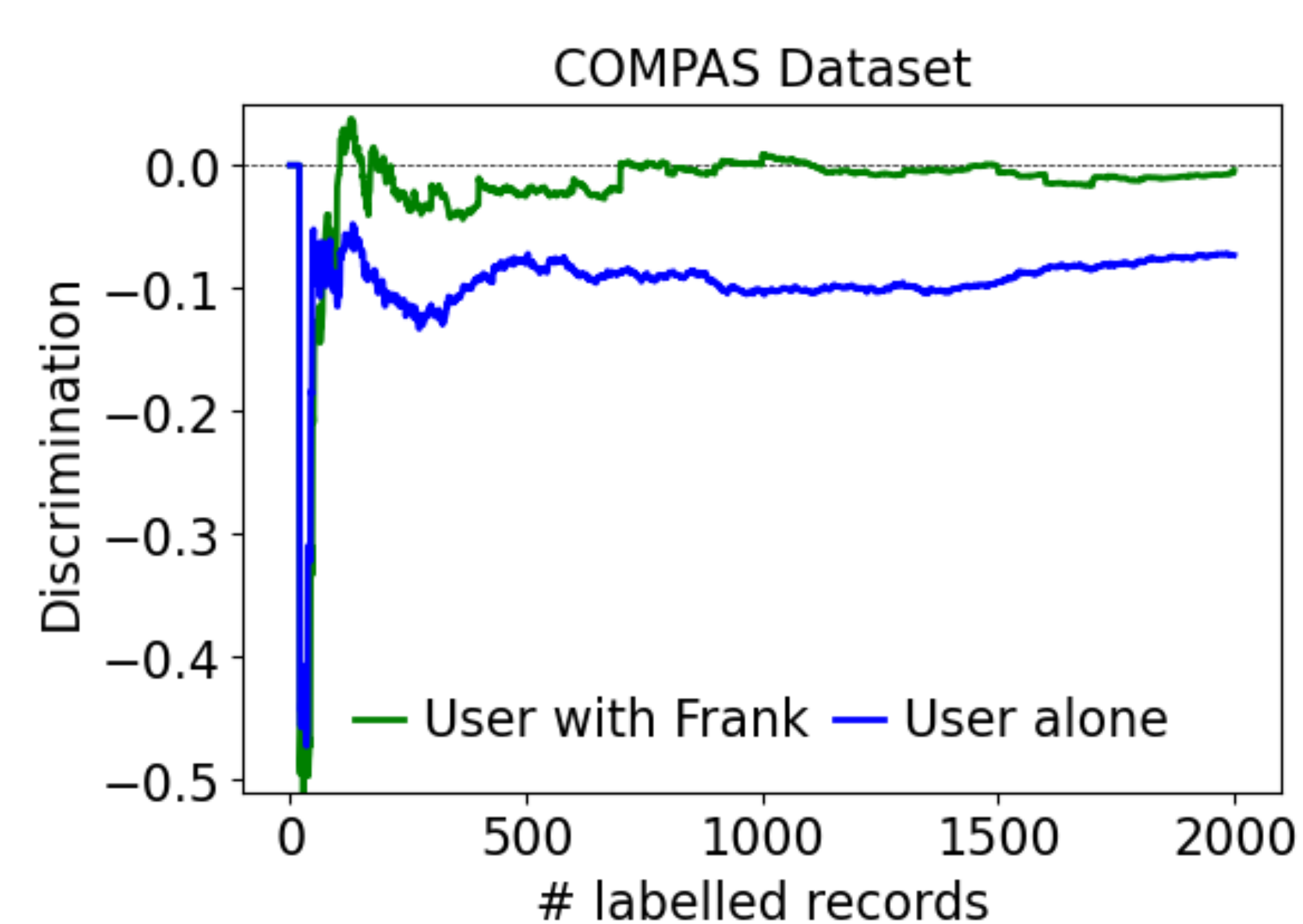
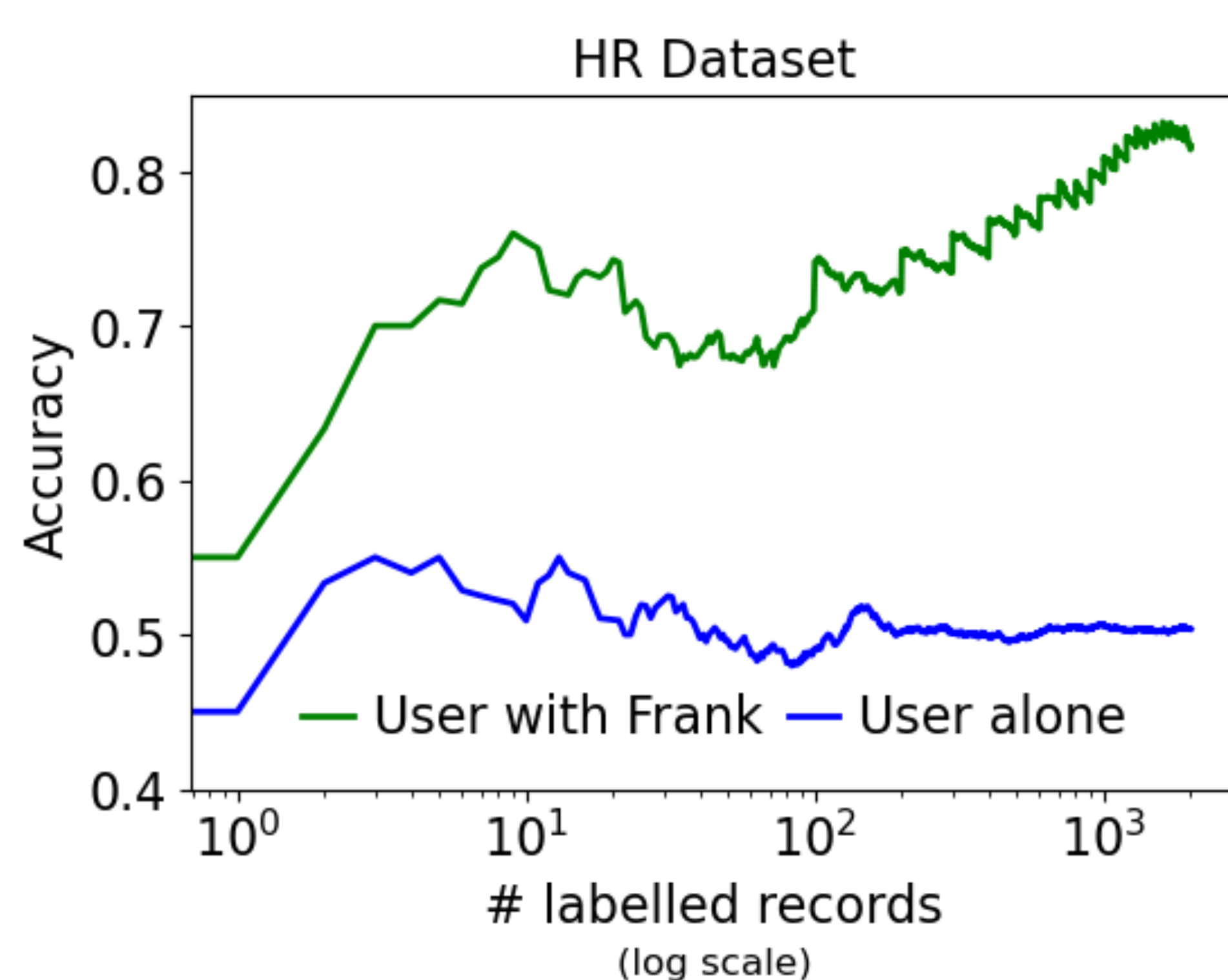
I CAN ALSO HELP YOU FIGHTING YOUR HIDDEN BIASES, AND I CAN PROVIDE MORE AND MORE DETAILED EXPLANATIONS.

I'M FRANK. A FRIEND.

A user is tasked to label a dataset. Frank helps them stay consistent and fair.



Experimental results prove that Frank is able to **help fair but unreliable users** reaching good accuracy (HR dataset with a user deciding by flipping), and **prevent discrimination from biased experts** (COMPAS, with the user following the biased ground truth 75% of times).



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