

# Integrating Human Feedback in a Virtual Smoking Cessation Coach: Optimizing Behavioral and Identity Outcomes with Reinforcement Learning.

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The data used for this study is not published yet, it will be made available soon at <https://osf.io/78cnr>

When the data is available, you can place the data in the same file with scripts to reproduce the results.

Scripts and produced files:

**Requirements:** run using terminal to install all requirements.

**data preprocess:** which prepare and clean the data, it ca produces 3 files:

- `preprocessed_data`: which contains prepared and cleaned data.
- `preprocessed_data_with_reward_option1`: contains data ready to create RL samples with reward calculated based on option1 which is an approach used to design reward function.
- `preprocessed_data_with_reward_option2`: calculate reward based on approach2

**reward\_utils:** code used to calculate the reward

**RL\_samples:** which produce a data file contains samples for RL (format(s0, s1,a,r))

**Compute\_RL\_Actions:** code to *computes the average reward per action across all samples.*

**Compute\_RL\_QValues:** *Q-value computation for RL model.*

**feature\_selection:** code to implement G-algorithm, not used.

**RL with analysis:** Notebook contains the code to run, train and analyze the model.