

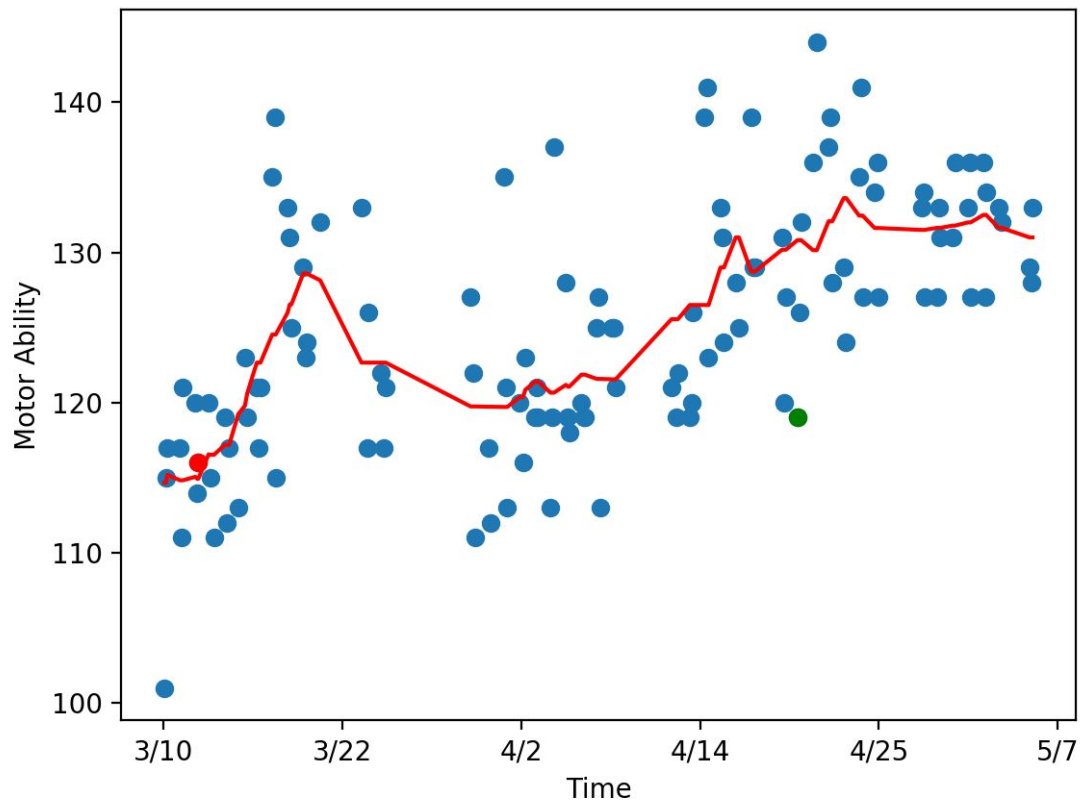
# Modeling Progression of Parkinson's Disease Using Smartphone Data

Chen-Yu Hsu, Rumen Hristov

# Parkinson's Disease



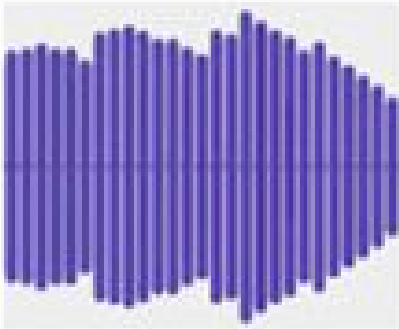
# Big variability



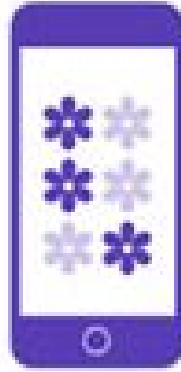
# mPower Dataset



Tapping



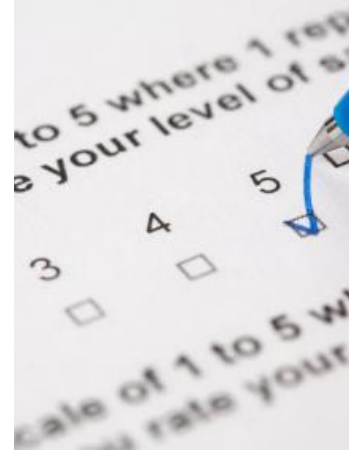
Voice



Memory



Walking

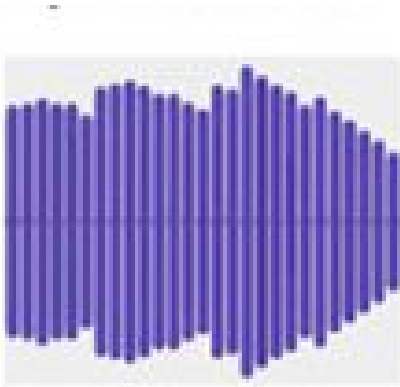


Survey

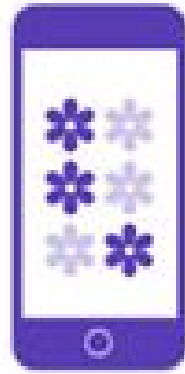
# Model wellness of PD patients using smartphones?



Tapping



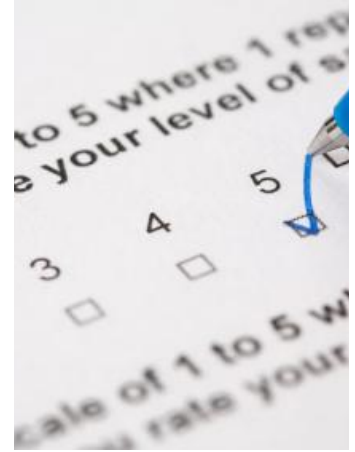
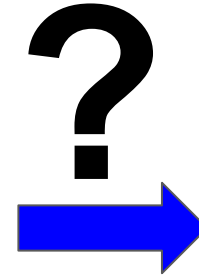
Voice



Memory



Walking



Survey

# Model wellness of PD patients using smartphones?



Tapping

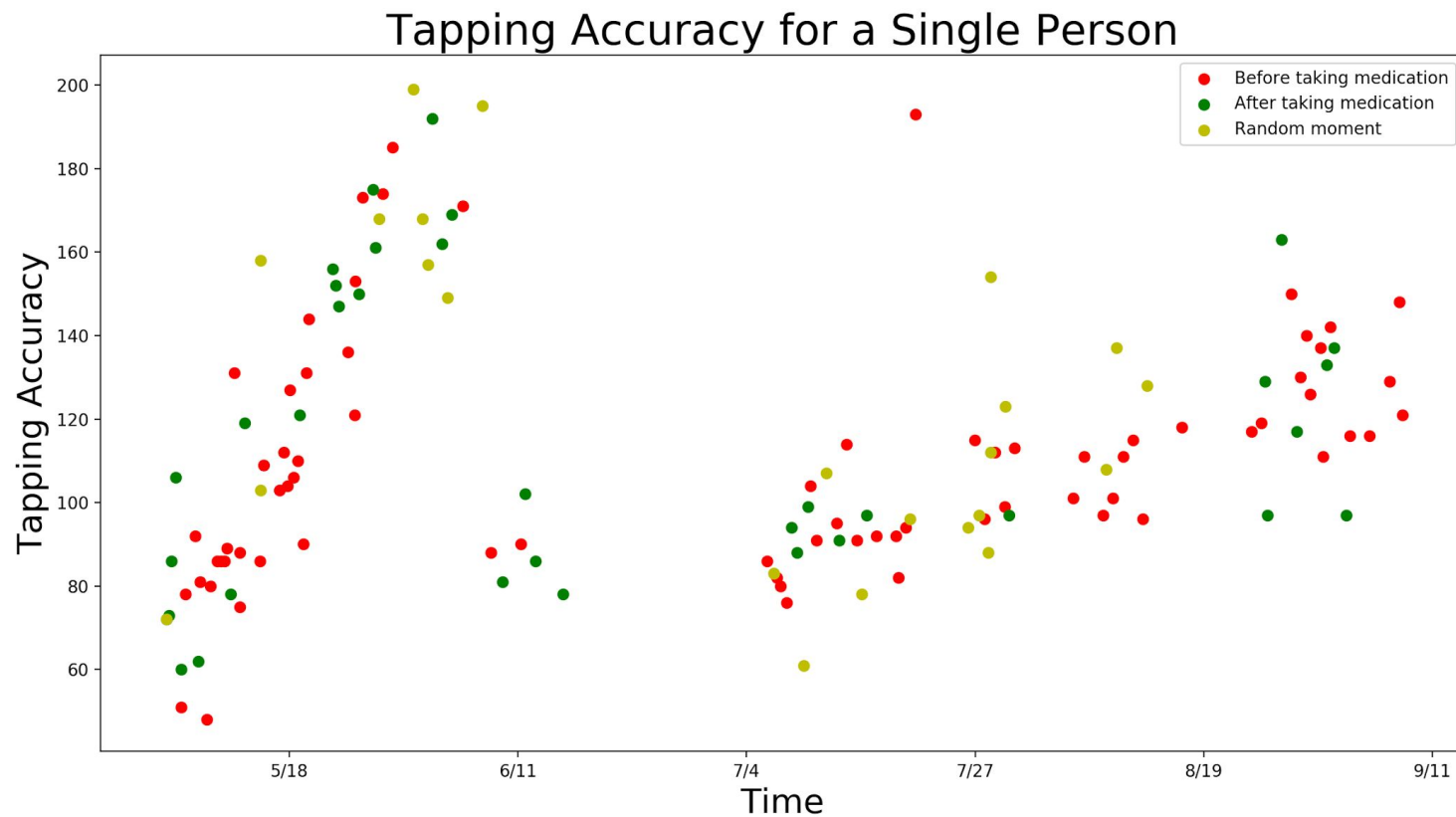
Voice

Memory

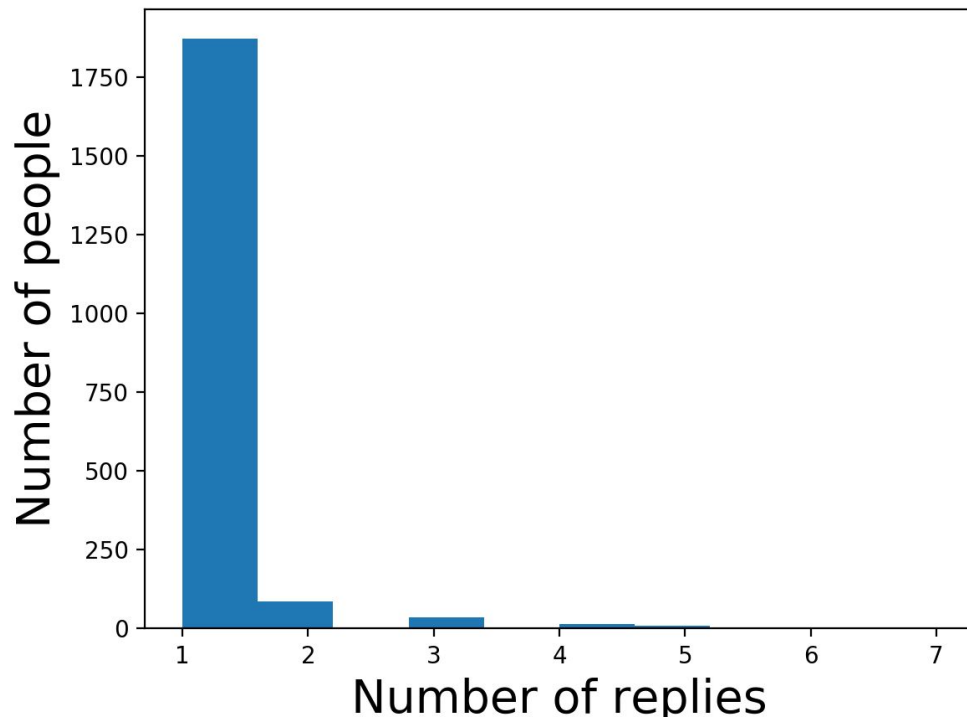
Walking

Survey

# Data artifacts

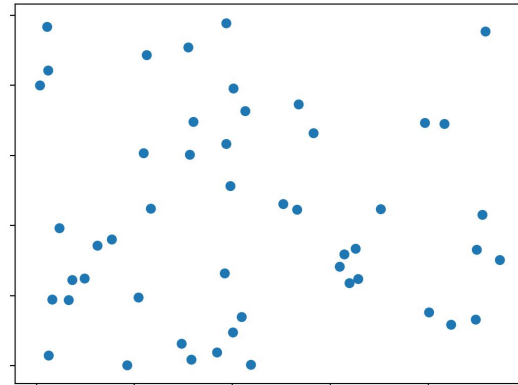


# Survey Statistics

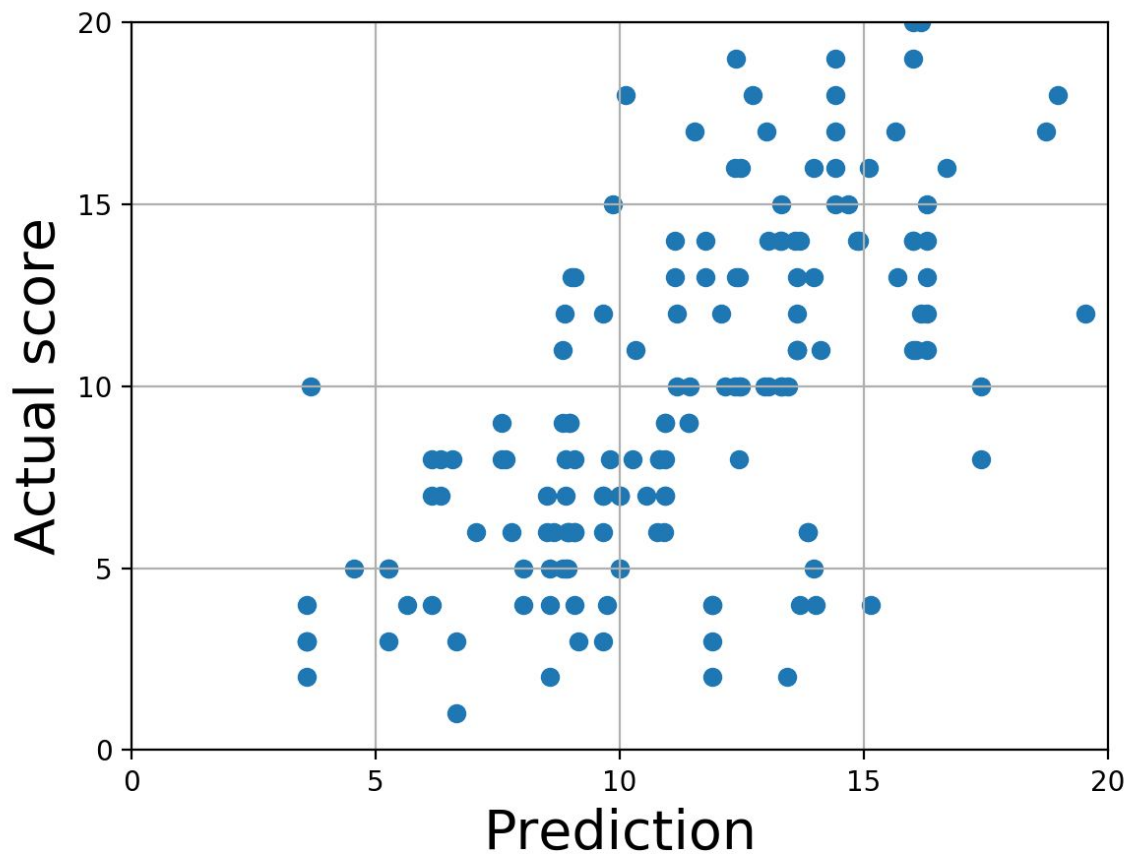




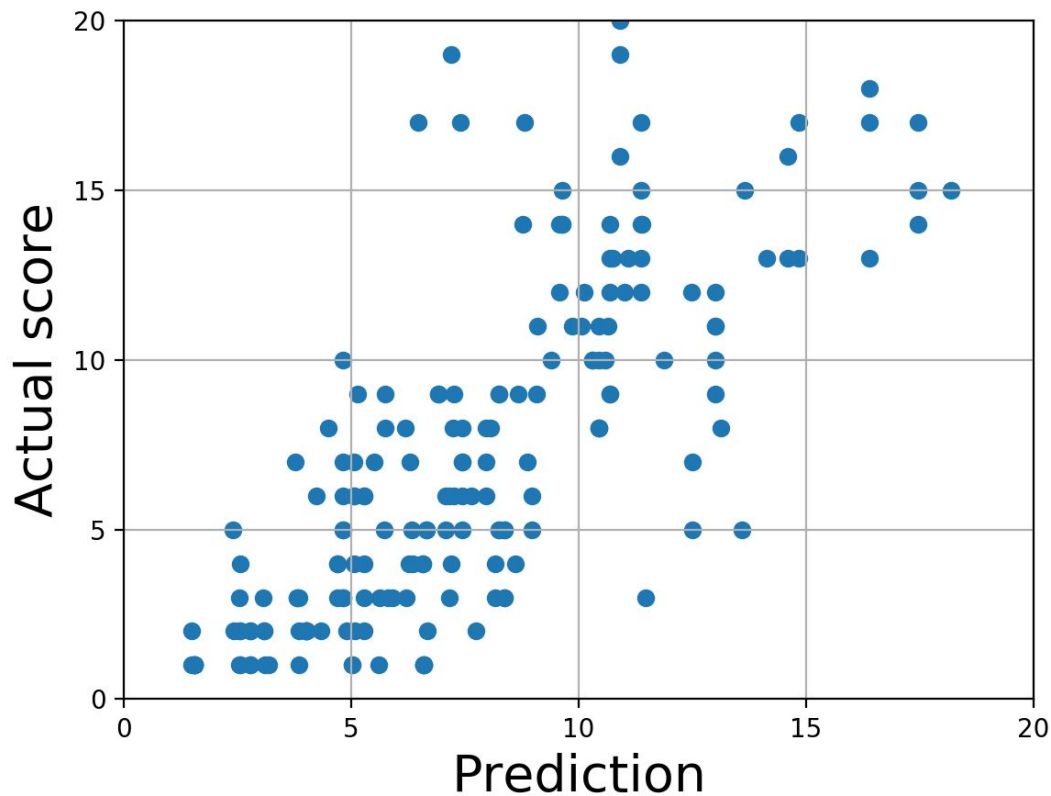
# Features



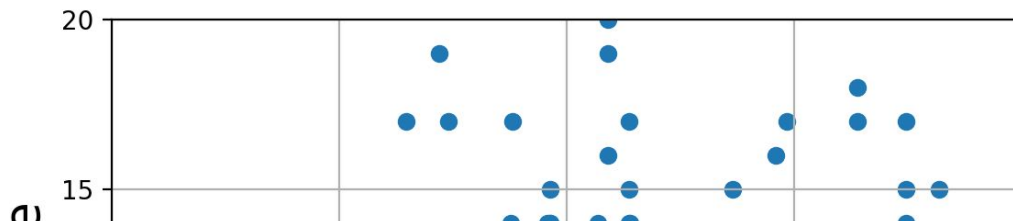
# Results



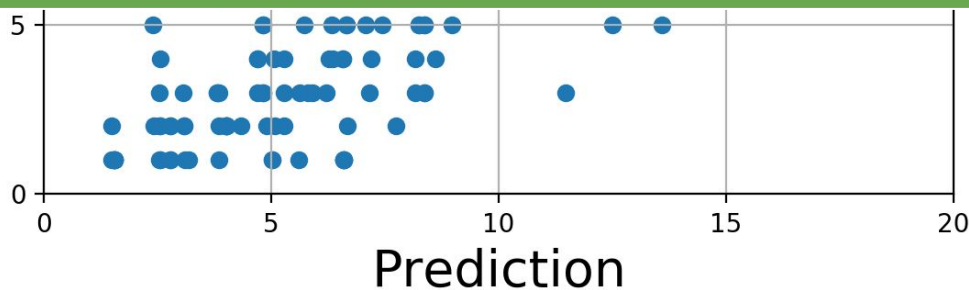
# Performance on Motor Experience Questions



# Performance on Motor Experience Questions



**Detects Clinically Meaningful Changes**





# Performance on Non-Motor Experience Questions

