

# Improving Mental Health Outcomes through Machine Learning Feedback of Social Media Behavior

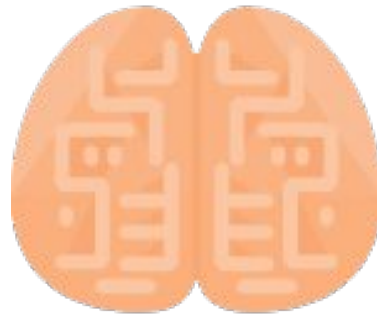
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# Background



**Social Media Engagement**

**Mental Health Trends**

**Social Media Content**

# So what...

- No ***interventions*** in the IS/technology discipline
- No ***longitudinal research*** reflecting the intervention or general adjustments to social media engagement

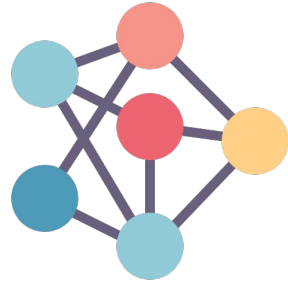


# Interventions

- Technology as method to enhance medical treatments
- Typically: *objective* data-based feedback
  - Wearables
  - Screen-time trackers
- But what if...
  - **ML Feedback/Forward**



# Methodology



## Phase 1

Create a trained ML model to predict mental health scores:

- Survey existing social media consumers on standard mental health scales (depression and anxiety)
- Scrape their publicly available social media engagement and content
- Create an API-accessible ML pipeline for predicting mental health



## Phase 2

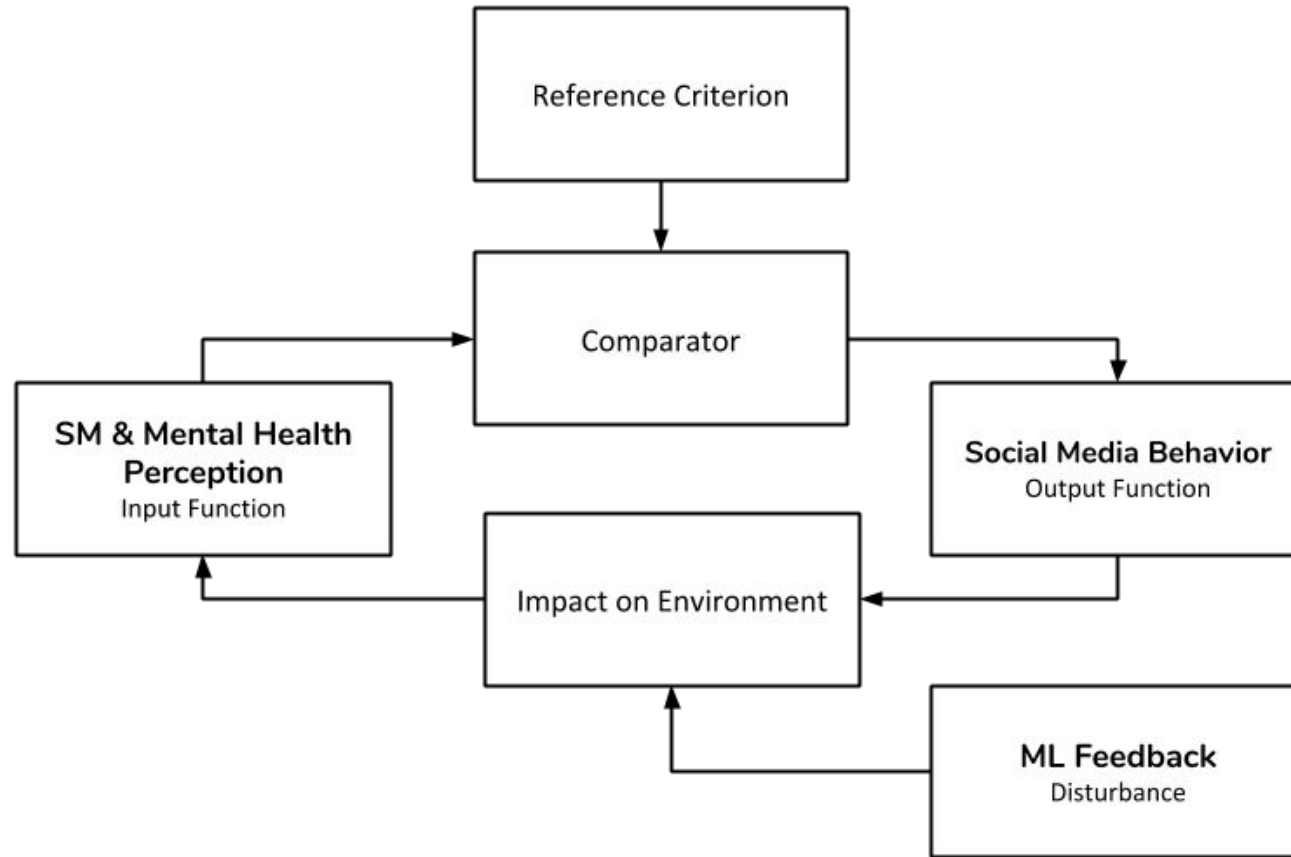
- Deploy the API in a plug-in/add-on for Instagram (and eventually Facebook)
- Determine UI manipulations to optimize the effectiveness of the reporting



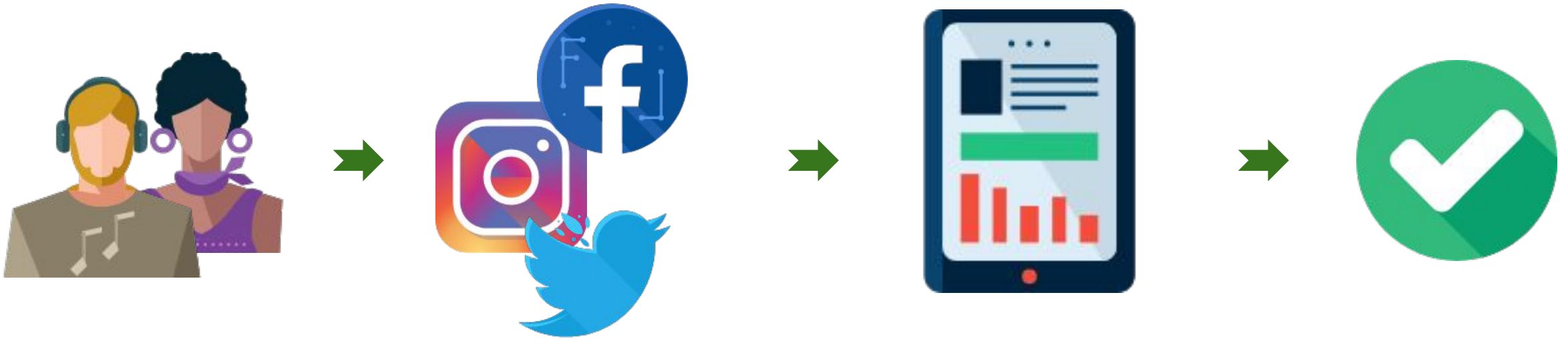
### **Ideas for useful manipulations?**

- Measure changes over time in:
  - Mental health
  - Social media engagement/content
  - Self-reported clinical treatments sought based on using this plugin

# Proposed Theoretical Process Model



# Intended Contributions



Track how individuals use social media, give them feedback about what this can tell us about them and their mental health, individuals seek help or adjust to make changes that improve their mental health.

# Areas for Improvement



**What can we learn/manipulate when implementing the plug-in in order to maximize/optimize engagement with reports and prediction?**

**Is there a more specific/appropriate theory (than cybernetic loop) that would be good for our treatment?**

