Predictors of Life Satisfaction Based on Daily Activities from Mobile Sensor Data

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Objectives

- Study the relevance of users’ lifestyle behaviors to their happiness
- Develop a recommender system to help enhance users’ wellness

Methods

1. Data Collection: Collect Location, Proximity and Survey data from the dataset.

2. Feature Extraction:
   - Compute Activities (sleep, work, break, leisure) and Their Distributions for Each User
   - Calculate Entropy:
     \[ H(x) = -\sum_{t=1}^{24}\sum_{c} p(c|t)\log(p(c|t)) \]

3. Factor Analysis:
   - Correlation \(\rightarrow\) PCA \(\rightarrow\) Structural Equation Modeling

Results

- Well amount of Sleep, work and Leisure for happiness
- Regularity is very relevant for satisfaction
- Social life satisfaction fuels research satisfaction

User Examples