

What next? Modeling human behavior using smartphoneusage data and (deep) recommender systems

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October 08, 2021

Outline

Introduction

Theoretical Framework

- early works (big 5)
- uncouple from psych context: app2vec
 - app analogies not very intuitive (example)
 - how to evaluate performance?
- uncouple from psych context, focus exclusively on sequential nature of data
 - time-ordered sequences, imposing session structure
 - similarity to data from movie ratings, e-commerce sessions, social networking sites:
 - several users
 - 1+ sessions per user
 - 1+ events per session
 - use RS models
 - target variable follows a multinomial distribution with a large number of distinct outcomes
 - task is to create a recommendation list
- intrinsic similarity to language data
- session-based and session-aware RS

- description (+ table)
- representation and preprocessing: app-level
- representation and preprocessing: sequence-level
- representation and preprocessing: app-to-text conversion

- modeling
 - session-based baseline models
 - session-based neural models
 - session-aware neural models
 - extensions
- evaluation
 - train-validation-test split
 - evaluation protocol
 - evaluation metrics
 - tuning

Results