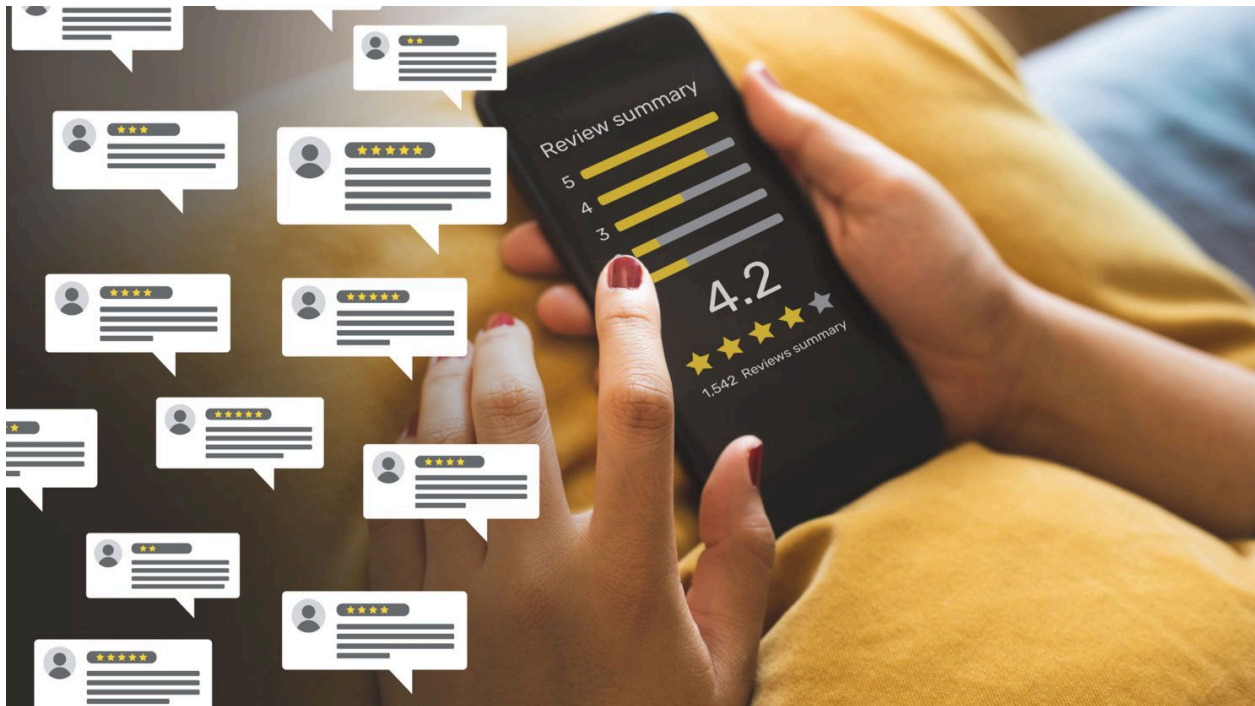


Laboratory Activities for Week 9: Amazon Reviews - Recommendation System

SC310005 Artificial Intelligence
Khon Kaen Business School

(10 Points) Amazon Review Dataset

Dataset Overview and Objectives



Dataset Description:

The Amazon Review Dataset contains user-item interactions, including user IDs, product IDs, ratings, and timestamps.

Dataset:

https://raw.githubusercontent.com/kaopanboonyuen/SC310005_ArtificialIntelligence_2023s1/main/dataset/amazon_reviews_dataset_toStudent.csv

Motivation:

The Amazon Review Dataset provides valuable insights into user preferences and product ratings. Analyzing this dataset allows us to understand user behavior, identify popular products, and build recommendation systems to enhance user experience.

Objective:

This assignment aims to build a recommender system using the Amazon Review Dataset and analyze the recommendations made for specific users.

Assignment Problem:

The assignment involves building a recommender system using **SVD techniques**. Students must analyze the dataset, preprocess it, train the recommender model, and evaluate its performance. Additionally, students will analyze recommendations made for **three specific users: 'A3HR0ZZOFKQ97N', 'A1V4VVBQBFXRHC', and 'A3D0UM4ZD2CMAW'.**

Task for Students:

- ☐ Dataset Exploration: Explore the Amazon Review Dataset and understand its structure, including the columns: **'userID', 'productId', 'Rating', and 'timestamp'.**
- ☐ Data Preprocessing: Preprocess the dataset, handle missing values (if any), and ensure data consistency.
- ☐ Recommender System Development: Build a recommender system using SVD techniques. Use the Surprise library to train the model and evaluate its performance.
- ☐ User Analysis: Analyze recommendations for **three specific users: 'A3HR0ZZOFKQ97N', 'A1V4VVBQBFXRHC', and 'A3D0UM4ZD2CMAW'.** Identify top recommendations for each user and analyze their ratings.
- ☐ Presentation: Prepare **a report summarizing the dataset analysis**, recommender system development process, evaluation results, and user analysis findings.

Data Dictionary:

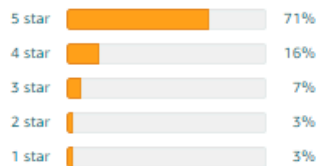
- userID: Unique identifier for users.
- productId: Unique identifier for products.
- Rating: Rating given by the user for the product.
- timestamp: Timestamp indicating when the rating was recorded.
-



Customer reviews

★★★★☆ 4.5 out of 5

8,908 global ratings



▼ How are ratings calculated?

By feature

Quality of material	★★★★☆ 4.5
Easy to use	★★★★☆ 4.4
Durability	★★★★☆ 4.4

▼ See more

Review this product

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Read reviews that mention

garlic press easy to clean stainless steel easy to use
highly recommend well made heavy duty press i have ever
high quality ever used pampered chef much better much easier

Top reviews ▼

Top reviews from the United States



Molly

★☆☆☆☆ Unhappy with this garlic press.

Reviewed in the United States on November 25, 2018

Verified Purchase

I purchased the model [redacted] Garlic Press, Stainless Steel Mincer and Crusher with Garlic Rocker and Peeler Set – Professional Grade, Dishwasher safe, Rusting-proof and Self Cleaning from Amazon on September 11, 2018. While this product is sturdy and made of good quality materials it, regrettably, does not perform well.