Research Discussion Assignment 1 Discussion Topic Nakyazze Pricilla

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Choose one commercial recommender.

Temu

Temu is a fast-growing online shopping platform offering extremely low-cost products across a wide range of categories. Like Amazon, AliExpress, or Shein, it uses recommender systems to surface products to users and drive engagement.

Describe how you think it works (content-based, collaborative filtering, etc)

Temu likely uses a hybrid recommender system, combining several techniques:

Collaborative Filtering.

What it does: Recommends items based on similar users' behavior (e.g., "users who bought X also bought Y").

How it applies: If many users who buy kitchen gadgets also browse cheap home décor, Temu will recommend home décor to similar users.

Likely using implicit feedback (clicks, views, carts) rather than explicit ratings.

Content-Based Filtering What it does: Recommends items similar to those a user has interacted with based on product attributes (e.g., price, category, brand).

Temu might suggest similar-looking products with similar descriptions or price points.

Trending / Popularity-Based Models What it does: Boosts trending items sitewide or within categories — often using real-time sales data.

On Temu, cheap trending products often flood the homepage or flash-sale sections.

Deep Learning (Visual + Behavioral Embeddings) Temu's design and UX imply the use of image-based embeddings (e.g., similar product photos) and user behavior modeling with neural nets — possibly through models like:

YouTube's Deep Neural Network recommender architecture

Facebook's DLRM (Deep Learning Recommendation Model)

Does the technique deliver a good experience or are the recommendations off-target?

Highly engaging: Temu constantly refreshes suggestions — creating a "TikTok-like" scroll of impulse-buy products.

Price sensitivity: It often recommends items at extremely low prices, matching user purchase behavior.

Visual similarity: Products that look alike or are from the same supplier are often bundled, which suggests image-based matching is used.

Relevance can be hit-or-miss:

After one purchase, recommendations may flood with related but unwanted categories.

Many products look identical, suggesting limited personalization in some cases.

Lack of diversity: Recommendations can be repetitive — many similar or cloned items, suggesting weak novelty or exploration mechanisms.

Describe the technique of Rotten Tomatoes: About Rotten Tomatoes

Rotten Tomatoes: Recommender System Overview Rotten Tomatoes (RT) is a film and TV review aggregation platform that also provides user scores and critic ratings. While it isn't primarily a shopping or streaming platform, recommendations still play an important role in user experience — especially in:

1.Suggesting movies to watch next

2.Recommending top-rated or personalized content

Rotten Tomatoes likely uses a hybrid recommendation approach, with an emphasis on:

collaborative filtering that may Compares user behavior (likes, ratings, watchlists).

Recommends films liked by similar users (e.g., "Users liked Beauty and the beast also liked Cinderella"). This filtering is used for personalized watch suggestions and You may also like sections

Content-based filtering which matches a user's favorites with similar titles.

Groups by director, actor, or genre, and popularity-based techniques.

Popularity-Based Recommendations works by using aggregate scores, critic consensus, and pushing trending or critically acclaimed films

Which non personalised recommender do i prefer to use.

I prefer Rotten Tomatoes because it offers reliable, quality-aware recommendations based on crowd wisdom and critic opinion — ideal for helping users decide what to watch, especially when critically good content is a priority over personalization.

Attacks on Recommender System

Before Christian Bale's movie (Amsterdam) officially opened, IMDb users began mass-rating it very low.

The article addresses the vulnerability of recommender systems to manipulation by groups, often referred to as "crowd attacks" or "review bombing."

This kind of manipulation can skew the average rating, reduce interest in the movie, and damage its commercial performance.

This is an example of a coordinated attack on a recommender system that relies on user-submitted ratings.

How to Design a System to Prevent Abuse

Don't allow ratings/reviews before official release.

Only accept ratings from users who purchased the item or Watched a minimum duration on the case of movies.

Identify sudden spikes in activity.

Separate Critic and User Scores.

Transparency & Timeline Visuals