

TEAM ID	PNT2022TMID13869
PROJECT TITLE	SMART FASHION RECOMMENDER SYSTEM
PROJECT DESIGN AND PLANNING	IDEATION PHASE
TEAM MEMBERS	VIJAYAKUMAR.R MUTHUPANDI.S ROHITH ROSHAN.R SUJITH.S

## LITERATURE SURVEY:

### TOPIC: A Review of Modern Fashion Recommender Systems:

AUTHOURS: Yashar Deldjoo, Fatemeh Nazary, Arnau Ramisa, Julian Mcauley, Giovanni Pellegrini, Alejandro Bellogin, Tommaso Di Noia

- The textile and apparel industries have grown tremendously over the last years. Customers no longer have to visit many stores, stand in long queues, or try on garments in dressing rooms as millions of products are now available in online catalogs.
- However, given the plethora of options available, an effective recommendation system is necessary to properly sort, order, and communicate relevant product material or information to users. Effective fashion RS can have a noticeable impact on billions of customers' shopping experiences and increase sales and revenues on the provider-side.

The goal of this survey is to provide a review of recommender systems that operate in the specific vertical domain of garment and fashion products. We have identified the most pressing challenges in fashion RS research and created a taxonomy that categorizes the literature according to the objective they are trying to accomplish (e.g., item or outfit recommendation, size recommendation, explain ability, and type of side-information (users, items, context)).

- We have also identified the most important evaluation goals and perspectives (outfit generation, outfit recommendation, pairing recommendation, and fill-in-the-blank outfit compatibility prediction) and the most commonly used datasets and evaluation metrics.

## **TOPIC: Recommender Systems Leveraging Multimedia Content**

**AUTHORS:** Charu C. Aggarwal, Taleb Alashkar, Songyao Jiang, and Yun Fu

- Recommender systems have become a popular and effective means to manage the ever-increasing amount of multimedia content available today and to help users discover interesting new items.
- Today's recommender systems suggest items of various media types, including audio, text, visual (images), and videos. In fact, scientific research related to the analysis of multimedia content has made possible effective content-based recommender systems capable of suggesting items based on an analysis of the features extracted from the item itself.
- The aim of this survey is to present a thorough review of the state-of-the-art of recommender systems that leverage multimedia content, by classifying the reviewed papers with respect to their media type, the techniques employed to extract and represent their content features, and the recommendation algorithm. Moreover, for each media type, we discuss various domains in which multimedia content plays a key role in human decision-making and is therefore considered in the recommendation process.
- Examples of the identified domains include fashion, tourism, food, media streaming, and e-commerce.

## **TOPIC: Deep Learning Based Recommender System: A Survey and New Perspectives**

**AUTHORS:** Gediminas Adomavicius and Alexander Tuzhilin, Taleb Alashkar, Songyao Jiang, Shuyang Wang, and Yun Fu, Jimmy Ba, Volodymyr Mnih, and Koray Kavukcuoglu

- With the growing volume of online information, recommender systems have been an effective strategy to overcome information overload. The utility of recommender systems cannot be overstated, given their widespread adoption in many web applications, along with their potential impact to ameliorate many problems related to over-choice. In recent years, deep learning has all.
- Garnered considerable interest in many research fields such as computer vision and natural language processing, owing not only to stellar performance but also to the attractive property of learning feature representations from scratch.
- The influence of deep learning is also pervasive, recently demonstrating its effectiveness when applied to information retrieval and recommender systems research. The field of deep learning in recommender system is flourishing.
- This article aims to provide a comprehensive review of recent research efforts on deep learning-based recommender systems. More concretely, we provide and devise a taxonomy of deep learning-based

recommendation models, along with a comprehensive summary of the state of the art. Finally, we expand on current trends and provide new perspectives pertaining to this new and exciting development of the field.