**SMART FASHION RECOMMENDER APPLICATION**

Literature survey

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**Fashion Meets Computer Vision: A Survey**

**Authors :** Wen-Huang Cheng, Sijie Song, Chieh-Yun Chen, Shintami Chusnul Hidayati, Jiaying Liu

**Abstract :**

Fashion is the way we present ourselves to the world and has become one of the world’s largest industries. Fashion, mainly conveyed by vision, has thus attracted much attention from computer vision researchers in recent years. Given the rapid development, this article provides a comprehensive survey of more than 200 major fashion-related works covering four main aspects for enabling intelligent fashion: (1) Fashion detection includes landmark detection, fashion parsing, and item retrieval; (2) Fashion analysis contains attribute recognition, style learning, and popularity prediction; (3) Fashion synthesis involves style transfer, pose transformation, and physical simulation; and (4) Fashion recommendation comprises fashion compatibility, outfit matching, and hairstyle suggestion. For each task, the benchmark datasets and the evaluation protocols are summarized. Furthermore, we highlight promising directions for future research.

# A Review of Modern Fashion Recommender Systems

**Authors :** [Yashar Deldjoo](https://arxiv.org/search/cs?searchtype=author&query=Deldjoo%2C+Y), [Fatemeh Nazary](https://arxiv.org/search/cs?searchtype=author&query=Nazary%2C+F), [Arnau Ramisa](https://arxiv.org/search/cs?searchtype=author&query=Ramisa%2C+A), [Julian Mcauley](https://arxiv.org/search/cs?searchtype=author&query=Mcauley%2C+J), [Giovanni Pellegrini](https://arxiv.org/search/cs?searchtype=author&query=Pellegrini%2C+G), [Alejandro Bellogin](https://arxiv.org/search/cs?searchtype=author&query=Bellogin%2C+A), [Tommaso Di Noia](https://arxiv.org/search/cs?searchtype=author&query=Di+Noia%2C+T)

**Abstract:**

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, explainability, among others) 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.

**Recommender Systems Leveraging Multimedia Content**

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**Authors:** Yashar Deldjoo, Markus Schedl,Paolo Cremonesi,Gabriella Pasi

Abstract:

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 au dio, 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.

**Apparel recommendation system evolution: an empirical review**

**Authors:** [Congying Guan,](https://www.emerald.com/insight/search?q=Congying%20Guan)[Shengfeng Qin,](https://www.emerald.com/insight/search?q=Shengfeng%20Qin)[Wessie Ling,](https://www.emerald.com/insight/search?q=Wessie%20Ling)[Guofu Ding](https://www.emerald.com/insight/search?q=Guofu%20Ding)

**Abstract:**

With the developments of e-commerce markets, novel recommendation technologies are becoming an essential part of many online retailers’ economic models to help drive online sales. Initially, the purpose of this paper is to undertake an investigation of apparel recommendations in the commercial market in order to verify the research value and significance. Then, this paper reviews apparel recommendation techniques and systems through academic research, aiming to acquaint apparel recommendation context, summarize the pros and cons of various research methods, identify research gaps and eventually propose new research solutions to benefit apparel retailing market.