SMART FASHION RECOMMENDER APPLICATION

IBM - LITERATURE SURVEY

UNDER THE GUIDANCE OF

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CASE STUDY - 1
Abishek PS

Title: Literature on Existing Systems

Myntra Matching Clothing Recommendations:

When you select specific items to purchase, Myntra will automatically suggest complete clothing sets that match the selected items. For example, if you select a particular T-shirt**,** the system will automatically generate matching watches, shoes, pants, etc. to match the selected T-shirt. This system does not take into account your personal characteristics, such as skin colour or existing clothing. Only clothes that are already in the database are suggested.

Your Closet:

For example, there is a mobile application to organise your closet. The user interface can be shown in simple terms. The application prompts the customer to enter their outfit. Then match each cloth with the other garment. For example, if you have 4 shirts and 4 pants, the application will match each shirt with each pair of pants, giving you 16 possibilities. The application does not adjust clothing by clothing patterns, colours, and textures. Also, there is no recommendation system.

Magic Closet:

This is a system that searches online shops for clothes that match the clothes you input. These clothes should be suitable for a particular occasion. In this system, the user takes a picture of them and specifies whether to use outerwear or underwear according to the scene to be used. The system searches for clothing that meets the user's requirements and meets aesthetic and correct wearing standards.

CASE STUDY - 2
Arjun RU

Title - Literature related to approaches towards creating Recommendation System

Occasion-Related Clothing Recommendations Using Latent SVMs:

Magic Closet recommendations are performed using a latent SVM model that is learned through the use of tagged clothing. The model makes recommendations based on visual characteristics, clothing attributes, and occasion. The possible attributes of appropriate wear consider the possible functional occasions. Potential aesthetic features are considered. Features are extracted and concatenated into vectors representing human parts. Some attributes are manually defined to narrow the semantic gap between clothing characteristics and the concept of occasion. Category attributes such as jeans and skirts and properties such as patterns are also defined. The system finds basic rules from all fully annotated clothing photos.

Knowledge Graph based clothing recommendations:

Three twists of the base ontology are defined for related entities such as user, clothing and context. User entity descriptions include user characteristics such as height, weight, and skin. Clothing is defined using properties of cloth such as colour, texture, pattern, and fabric. Contextual entities consist of information about current weather, events, and so on. We use an a priori algorithm to find correlations between clothing and contextual attributes to collect a common set of items. Knowledge rules are saved and applied to ontologies and knowledge graphs. This process is known as knowledge reasoning. When you learn to reason with knowledge, you get a lot of association rules. Related attributes are connected using edges to build a knowledge graph of ontology and clothing domains. Personalised recommendations include knowledge graph, user context, and recommendation engine analytics.

CASE STUDY - 3
Aditya Kushwaha

Title: Approaches on detecting clothes and clothes features from clothes

DESCRIPTION

Image processing method for finding clothes regions [6]: Initial RGB is converted to grayscale and the background is removed. It is then converted to a binary image for more efficient manipulation. Binary erosion and dilation are applied to the image to remove spurious noise regions while preserving the topology and shape of the clothes. A corner detection algorithm is applied to the binary His image. A clothing edge detection algorithm is applied to pixels that appear as objects, and pixel centres are changed using a threshold method based on neighbouring pixels. The centre pixel is compared to the sum of squares of the remaining pixels in the window and a threshold is used to determine if the centre pixel is a cross-edge pixel. Corner detection is done by finding the intersection of edges

Clothing Recognition by Region-Growing: A clothing category is a high-level semantic concept and various cues related to recognition such as: B. Characteristics of a person's gender and age, exposed skin, and clothing colour and texture. First, face detection and tracking are performed for each frame, and the positions of the detected faces are aligned. Clothing segmentation performs clothing segmentation based on small area growth. It then uses a multiclass linear SVM classifier to learn clothing categories. A candidate rectangular region containing a person is divided into roughly uniform-coloured segments and knowledge of the foreground and background is applied to extract the foreground or clothing. Using a Bornoi image automatically places the seed point in the centre of a uniform region. The intensity of any point on the Voronoi image is the distance to the nearest edge.

CASE STUDY - 4
Ashwin Balaji PL

Topic: Merits and Demerits of Systems

Myntra:
The system does not consider personal user attributes such as skin tone or existing user's clothing to optimise recommendations.

Your Closet App:
Matches each clothing type to every other clothing type. H. All shirts are combined with all pants. The system is not automated and requires users to organise their own closets.

Magic Closet:
The system is designed for his Kinect, so it may not be available to all users. Recommend clothes from the online store as the user's existing clothes.

What clothes can you wear with confidence?
This approach uses deep learning and machine learning to check clothes for matching and gives satisfactory results. Although only shirts and ties are matched by this system, this approach can be extended to a wide variety of garments. Create fuzzy rules based on questionnaires. A more robust method can be adopted. The advantage of this system is that it uses the YCbCr color space to eliminate skin-tone photosensitivity effects.

Benefits of Personalised Recommendations in Fashion Ecommerce
-According to Epsilon, 80% of shoppers prefer to shop in stores that offer a personalised shopping experience.
-According to Monetate, an eCom store owner can get his 20% of sales if he integrates AI-based personalised recommendations into his online store.
-According to the segment, 44% of shoppers agree to become repeat customers when they have a personalised shopping experience.
-According to Forrester, 77% of shoppers will pay more, choose or recommend brands that offer personalised recommendation experiences powered by AI.
-Forrester also said that 53% of digital store managers do not have the technology needed for AI-powered, personalised experiences.