SMART FASHION RECOMMENDER APPLICATION

TEAM MEMBERS

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ABSTRACT

- Recommendation systems are the techniques that are used to predict the rating one individual will give to an item or social entity.
- The items can include books, movies, restaurants and things on which individuals have different preferences.
- These preferences are being predicted using two approaches first content-based approach which involves characteristics of an item and second collaborative filtering approaches which considers user’s past behaviour to evaluate its choices.

METHODOLOGY

- A **convolutional neural network (CNN)** is constructed of multiple convolutional layers, where the number of layers is customized based on the desired recommendation system outcome.
- **Recurrent neural network (RNN)** is a generalization of feed forward neural network that has an internal memory. RNN can use the internal state (memory) to process sequences of inputs.
- **Generative adversarial networks (GAN)** are deep-learning-based generative models in which two neural networks (generator and discriminator) compete to become more accurate in their predictions.

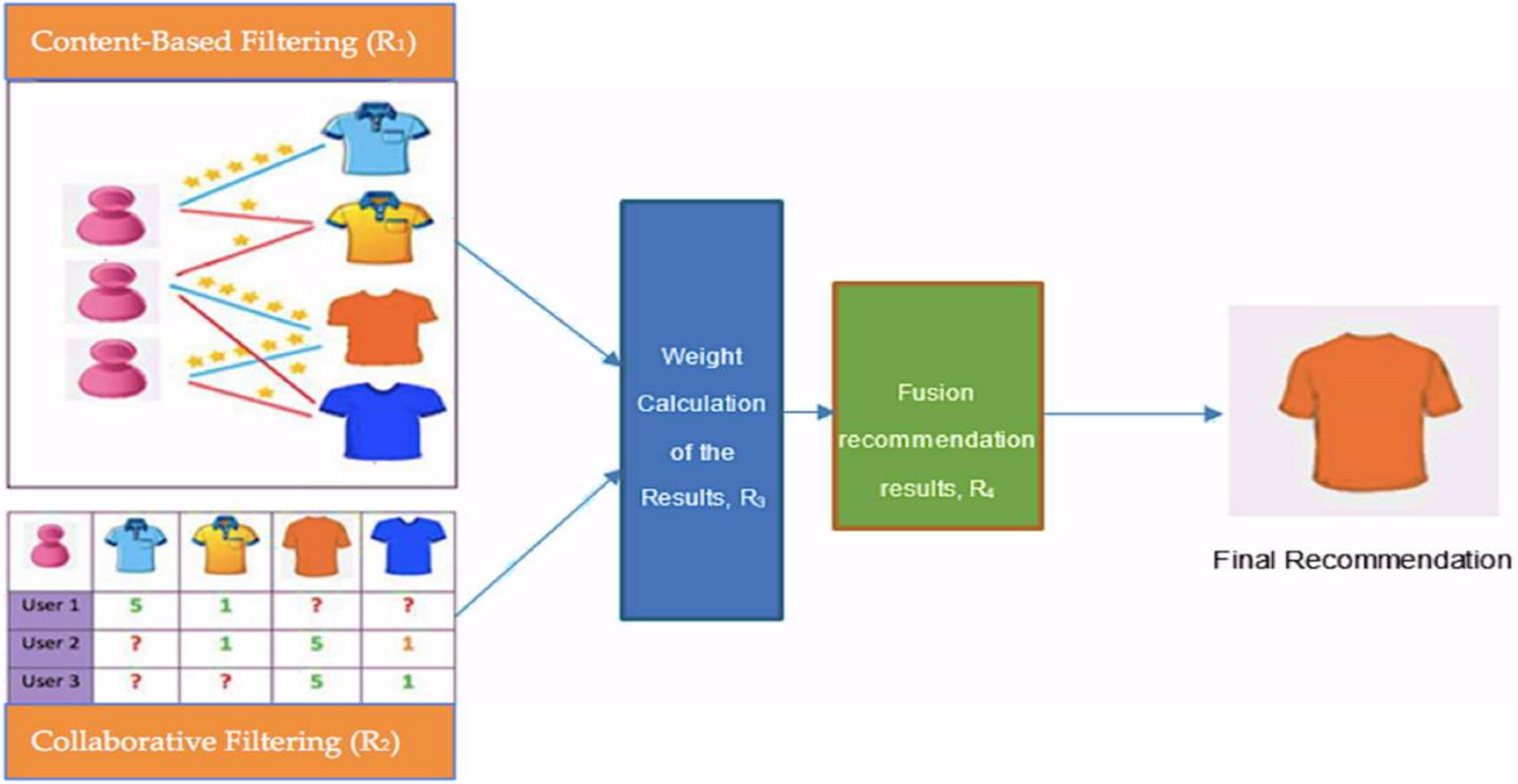
BENEFITS

- Products recommended based on the evaluation of experienced users.
- Content-based filtering(CBF) does not need any information from other users, which makes this technique more feasible and less time consuming.
- Content-based filtering(CBF) can attain the specific interest of a user and make recommendations accordingly.
- Provides a valuable explanation, which motivates users to make decisions.

LIMITATIONS

- As it is Content-based filtering(CBF) domain -dependent, rigorous domain knowledge is required to make precise recommendations.
- The model only recommends products based on an existing database of previous users' interest, which restricts its expansion.
- Due to cold start problem, cannot be applied to make recommendations to new users.
- This method suffers limited content analysis issues, meaning users are restricted to the items already recommended.

ARCHITECTURE



LITERATURE SURVEY

PAPER TITLE	TECHNIQUES/ ALGORITHM USED	MERITS	LIMITATION	FUTURE SCOPE
A Trends-Driven Collaborative Fashion Recommendation System	Collaborative Fashion Recommendation System Technique(CFRS)	It is used to sort or classify the new trend cloths and classic dress.	Cannot be applied to make recommendations to new users.	Plan to test different methods for calculating the trend score.
An Intelligent Personalized Fashion Recommendation System	Convolutional Neural Network (CNN) based on AlexNet model	Offering to the user a complete outfit based on a single fashion item.	CNN network consists in having the classification process very time consuming.	Plan to reduce the time consuming.
Diversity in Fashion Recommendation using Semantic Parsing	Siamese of Triplet network Technique.	It is used to customer to find their requested cloth using this model	It may sometimes predict false output.	To increase the prediction level.

CONCLUSION

- Product recommendations engines are the best way to deliver customers with an improved user experience. Through machine learning, manual curation and special algorithms, a product recommendations engines can help bring customers the relevant product they want or need.
- It allows marketers to provide customers with relevant product recommendations in real time.