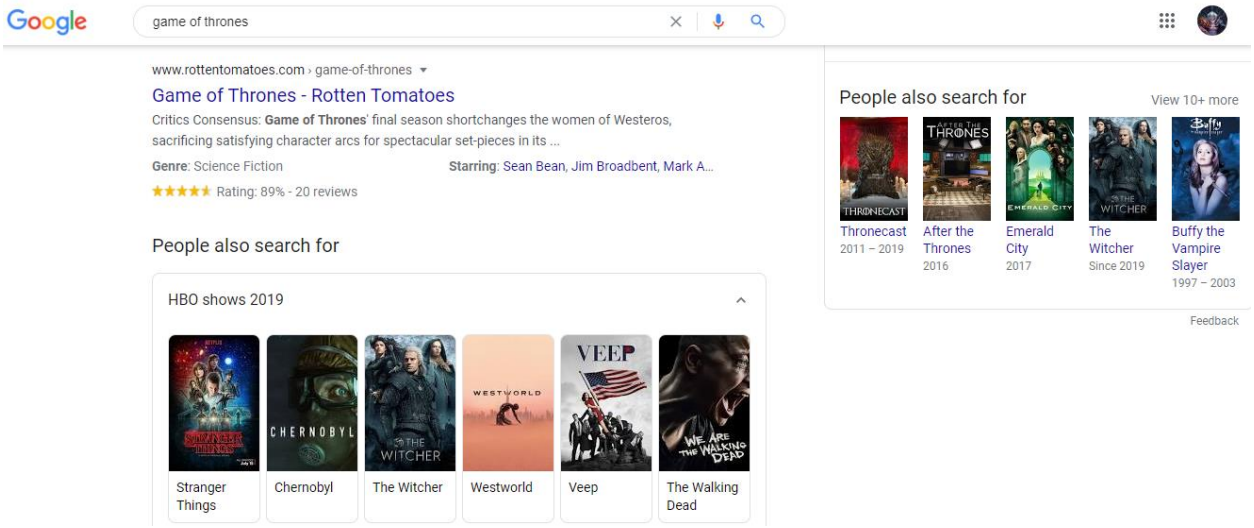
Recommender System: Basic Introduction & Classification.

What is RS?

The system which recommends something is a recommender system and this recommendation would be similar to the user behave. In our daily life, we are using it without knowing how we are using it. It's making our life easier and benefiting the company which is using it.



In that picture, you can see I searched only for Game of Thrones but right and lower side it also showing/suggesting some other movie and sires, behind the suggesting a recommender system is working and suggesting to you what else you can also watch. Not only this, Netflix, Youtube, Amazon, etc are using this system.

How It Works?

It works on what kind of data you give it to. Let's clear it with an example: suppose you are searching for some specific T-shirt on Amazon or Friends Series videos on Youtube. When you are searching they will show you what you searched but they will also show you some similar T-shirt and videos and how does is it do that, it takes your search information and uses an algorithm to show you the similar things. But sometimes also shows something you didn't search but someone searched which is similar to your search. Which indicates Collaborative Recommender System.

Classification

Mainly Six kinds of Recommender Systems broadly used.

1. Content-Based Recommender System:

It mainly uses yours, I mean the user searches information like text, keyword, and recommend similar things. In a content-based recommender system, the algorithm used is such that is recommends users similar items that the user has liked in the past or examining currently.

2. Collaborative Recommender System:

It is the most widely implemented recommender system. It recommends thing s with the collaboration of your interest and another bunch of groups user's same interest. Collaborative filtering is based on the assumption that people who agreed in the past will agree in the future and they will like similar kinds of objects as they liked in the past.

3. Utility-Based Recommender System:

The utility-based recommender system makes suggestions based on the computation of the utility of each object for the user. The main advantage of using a utility-based recommender system is that it can factor non-product attributes, such as vendor reliability and product availability, into the utility computation. This makes it possible to check the real-time inventory of the object and display it to the user.

4. Demographic Based Recommender System:

This system aims to categorize users based on attributes and make recommender based on demographic classes. Demographic techniques from "people-to-people" correlations like collaborative ones but use different data. The benefit of a demographic approach is that it does not

require a history of user ratings like that in a collaborative and content-based recommender system.

5. Knowledge-Based Recommender System:

This type of recommender system attempts to suggest object-based on inference about a user's needs and preferences. Knowledge-based recommendation works on functional knowledge. They have knowledge about how a particular item meets a particular user need, and can therefore reason about the relationship between a need and a possible recommendation.

6. Hybrid Recommender System:

Combining any of the two systems in a manner that suits a particular industry is known as the Hybrid Recommendation System. There are several ways in which the system can be combined, such as:

>>Weighted Hybrid Recommender

>>Swithing Hybrid Recommender

>>Mixed Hybrid Recommender

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The above contents are totally basic idea about Recommender System so study more about RC and enrich your knowledge.....Thank you.

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