Discussion 5

Commercial websites and social network

Example : ASOS ,YOOX ,..app

Context

Many commercial websites ask users(ASOS ,YOOX….) to sign up in exchange for discount ,they also ask users to sign into their account using their social network credentials(Facebook,twitter,…).

Traditional recommendations system limitations:

With the rise of the web-based economy in the past 10 years, internet retailers have begun to find it practical to use algorithmic approaches to decide on content to show users. If a retailer can show a user more relevant content, then the user will be more likely to buy or otherwise use the service. Perhaps the most widespread and successful class of these algorithmic solutions are recommendation systems.

Recommendation systems on the web were first popularized by Amazon.com, which would show users personalized recommendations of items that the system thought they would like based on the items that they had bought or rated in the Since then, the practice has spread widely, as computing power becomes cheaper and as the algorithms become more widespread.

In traditional recommendation systems, data can be made public without too much worry about privacy, but as descriptions of users become more complex, the risk of privacy breaches rises. Thus, the companies that do have access to both user histories and relationships between users are unlikely to share their data.

The problem is difficult because good data sets are hard to come by and because traditional algorithms assume that users are independent. In order to make use of the additional information that is available, we must develop a new algorithm that uses this information in a way that improves results, and in a way that that can be implemented efficiently.

Recommendations in social networks

There are findings in the sociological and psychological disciplines that point to the relevance of a person's social network in determining their tastes, preferences, and activities. Susan McPherson reported how "similarity breeds connection". They discovered that "people's personal networks are homogeneous with regard to many socio demographic, behavioral, and intrapersonal characteristics". In other words, we share many attributes with the people close to us. Reversing this principle suggests that, if we have information about the connections in a person's network, we can infer some of the person's attributes.

It is possible that at least some of the similarities within a network are caused by the influence and interactions of the people in the network. People tend to remember information that was concretely given to them (that is, in personal interactions) better than abstract information (like statistical base rates). For example, Hogarth states that when considering to buy a certain car model we will likely give more thought to the direct advice of a friend than to each of the 100 respondents to a survey in a specialized magazine.

Jure Leskovec discuss the phenomenon of information cascades, in which individuals adopt a new action or idea due to influence by others. In the most extreme cases, knowledge about a full network's behavior determines the behavior of its members – making a "top hits" list available in a music downloading website affects the popularity of the songs, and several different networks, kept in isolation of each other, prefer completely different songs, to the point that it is impossible to predict which will be the most popular songs for a network without observing the behavior of the users in the network.

Reverse Engineering

If we can get users (or customers) to share their network connections, then we are more likely to give the right recommendations to our users (or customers) and to generate more revenue .