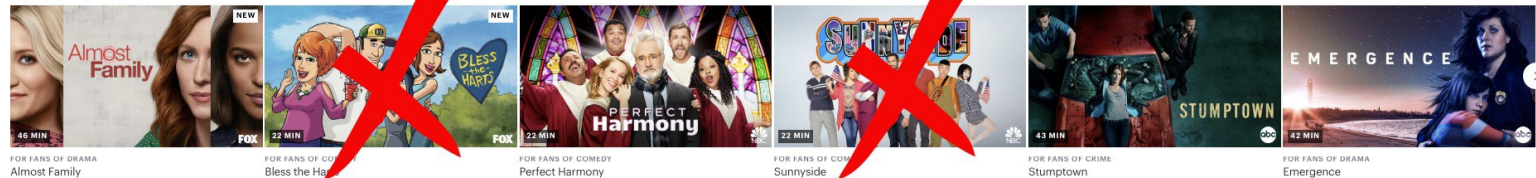


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What are the differences between recommendation and personalization?



Emile Contal

Oct 7, 2019 · 4 min read

The answer to this question is fairly detailed, so here's the TL;DR version:

Recommendation is one of the tools for personalization, but personalization goes beyond recommendation.

For example, on a website, pre-selecting your local shop based on

your location is personalization, but not recommendation. And as soon as you employ a recommender system to filter what the user sees (even a simple one) you improve personalization as well.

Defining recommendation and personalization

Let's dive into the details. This question is hard to answer since both terms “recommendation” and “personalization” are not well defined. We usually take the following definitions, which we believe are fairly accurate even though you might see variants elsewhere.

We consider a system personalized as soon as its content is modified based on some personal variables.

These can be your past purchases on an online store, or your age, or where you live or simply what device you are using. What is there is logic so that what a user gets differs from what another user gets.

On the other hand you do recommendation when you filter a collection of things based on historical behavior of a user (typically likes/dislikes

or behavioral history).

Framing it this way recommendation is a form of personalization. We could say that a recommendation engine is a “personalized search engine,” since default search engines are information filtering systems where all users get exactly the same answer from the same input.

What makes them similar

Recommendation and personalization share a lot of similarities. Classical rules for personalization, such as your location or what is inside your online basket, can all be leveraged in a recommender system as well. We talk about contextual variables, and it is fairly easy today to implement context-aware recommender systems.

Recommendation specializes in employing historical data that is linked to users preferences and tastes. The ideal setting is explicit feedback data, such as star ratings or thumbs-up/thumbs-down. The most common one is implicit feedback, such as video watch history or product clicks. In both cases this data allows to define a “taste profile” for each user, which can then be used to filter or order items based on your predicted interests (products, videos, article).



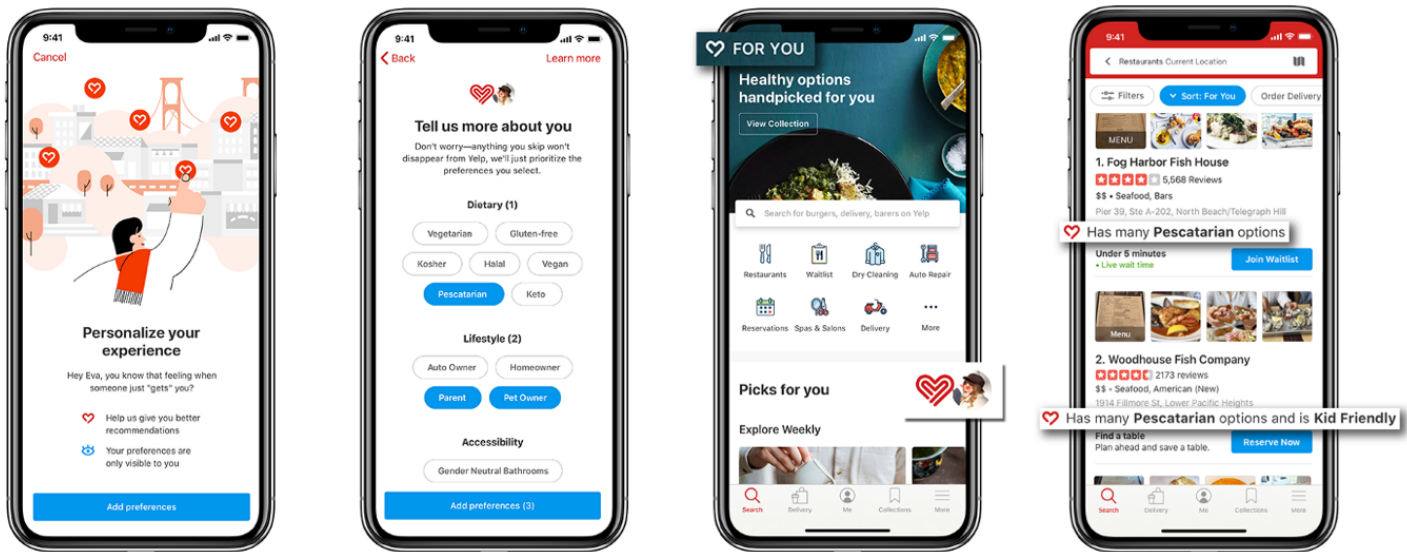


TARGETED ADVERTISING

How they differ

It is interesting to note that these techniques of recommendation engines can be utilized not only for your personal interest, but for specific business goals. When a website uses your predicted taste profile to rank sponsored products based on how much they expect to gain from you, and not based on how much you would like them, they are trading your user experience for their profits. The advertising ecosystem is the largest example of such misalignment between the users and business incentives. Many advertisers claim the targeted system they sell generates a “win-win” for both the users and business; we argue that the huge growth in ad-blockers installs is the best evidence of the contrary. Alternative definitions of “personalization” make sure to exclude anything made to optimize business profits instead of user interest, although some would still

consider this as recommendation.



Yelp Personalization System [Yelp]

Now how does personalization go beyond recommendation? Facebook was the first application to provide personalized feed at this scale. The content you see in social networks is entirely generated by your connections activities. In its basic form, social feeds are therefore personalized content, but not recommendations. The most modern applications of today are personalized in ways that go further than filtering and ordering. Take Netflix for instance, the sections of the user interface may change from a user to another. The process selecting the parts of the interface to show is often driven by hard-coded rules and patterns (for instance showing only the categories of videos you selected during the onboarding, and the size of your screen). More recently, Yelp deployed an effort to push more

personalization in their product. You can now manually select some preferences, like vegetarian food, and the app will filters restaurants accordingly. This differs from pure recommendation as you have to manually enter hard filters, whereas a recommender system would typically predict your preferences based on your ratings.

Original Answer by Emile Contal, Co-Founder of Crossing Minds, on Quora.

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