

Non-Personalized Recommenders

TOTAL POINTS 10

1. Conde Nast Traveller computes non-personalized scores as the percentage of people who rate a particular item “very good” or “excellent.” In what way is this BETTER THAN Zagat’s average rating model?

1 point

- ☐ It is easy to explain.
- ☒ It avoids giving too much weight to extreme ratings.
- ☐ It links recommender scores to product attributes.
- ☐ It uses real ratings from users.

2. We provided two product association recommender formulas: A simple formula ($(X \text{ and } Y) / X$) and a lift formula $P(X \text{ and } Y) / (P(X) * P(Y))$. In which circumstance might we prefer the simple formula?

1 point

- ☒ When it seems reasonable to recommend popular items as long as they are associated with the target item.
- ☐ When the products being recommended have been purchased, not just rated.
- ☐ When the X and Y scores are derived from ratings, not clicks or purchases.
- ☐ When users are familiar with most popular products and are looking for new, less-popular ones.

3. In the Hacker News scoring algorithm, the age of the post is raised to a small (<2) power. Why?

1 point

- ☒ Because the relative importance of votes and small age differences shift as items get older
- ☐ To demote old items
- ☐ To keep the top news list from being flooded with the most recent items
- ☐ To allow up/down votes to affect ranking

4. Why might we prefer product-association recommenders to average-rating recommenders?

1 point

- ☐ Product associations are based on user ratings.
- ☐ Product associations are personalized to a user's full history, while average-ratings are not.
- ☐ Product associations involve fancy math.
- ☒ Product associations allow recommendations that are relevant to a current context.

5. Why is average rating often inappropriate for ranking items in a non-personalized recommender?

1 point

- ☐ Because the item may have no ratings.
- ☒ Because a small number of ratings that happen to be high is not enough evidence that the item is particularly good.
- ☐ Because the crowd has bad taste.
- ☐ Because popular items should be ranked first.

6. When are demographic recommendations most likely to work?

1 point

- ☐ When the items in the product set are almost equally popular.
- ☐ When you have lots of item attribute data to describe each item (e.g., genres and actors for films).
- ☐ When your group of customers includes males and females in approximately equal numbers.
- ☒ When the products being recommended were created for or targeted to particular identifiable audiences.

7. Why does demographic recommendation tend to start with statistical explorations (such as scatterplots) over the ratings data?

1 point

- ☐ To test whether you have enough people in each demographic category to consider using demographic techniques.
- ☒ To discover or test ideas about demographic attributes that correlate with taste, rating, or consumption.
- ☐ To help find interactions among demographics, e.g., that different geographical areas may have different populations by race or income.
- ☐ To understand the popularity curve for products, i.e., whether most products are equally popular or whether there's a wide range from extremely popular products to unpopular ones.

8. When are Non-Personalized Recommenders Particularly Useful?

1 point

- ☐ When there's a reasonably strong agreement on overall quality among users.
- ☒ When most of your users have been in the system for a long time.
- ☐ When you have lots of users and very few items.
- ☐ When sending recommendations to individuals on their mobile phones.

9. Amazon adopts an approach to help its customers better understand the summary rating data it displays. What is that approach?

1 point

- ☒ Amazon computes consistency statistics on its ratings, and shows an indicator if the ratings for a particular product are too inconsistent.
- ☐ Amazon includes descriptive keywords associated with ratings, e.g., a person can rate a product five-stars for "appearance" but three-stars for "reliability."
- ☐ Amazon displays average rating, a ratings distribution, and a total rating count to help customers interpret the ratings.
- ☐ Amazon will let you look at who gave each rating so you can determine whether you trust that person.

10. In an environment where all you have is prior purchase data (e.g., supermarket data), what's wrong with just recommending the most popular items?

1 point

- ☐ Popular items probably don't go well with whatever else the customer has in her shopping cart.
 - ☐ Popular items don't make a lot of profit for businesses.
 - ☐ Most customers probably don't like popular items.
 - ☒ The recommendations are likely to be obvious (like bananas) and are probably items the customer will buy anyway even without the recommender.
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