

Collaborative Filtering

What is Recommendation?

New This Week Page 1 of 3



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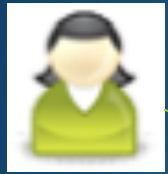
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Recommendation Techniques

Collaborative Filtering



User profile & logs



Community logs

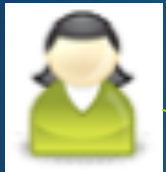


Recommendation List

Recommend items from **similar** user's tastes.

Recommendation Techniques

Content Based Filtering



User profile & logs

Title	category	genre	...

Item features



Recommendation List

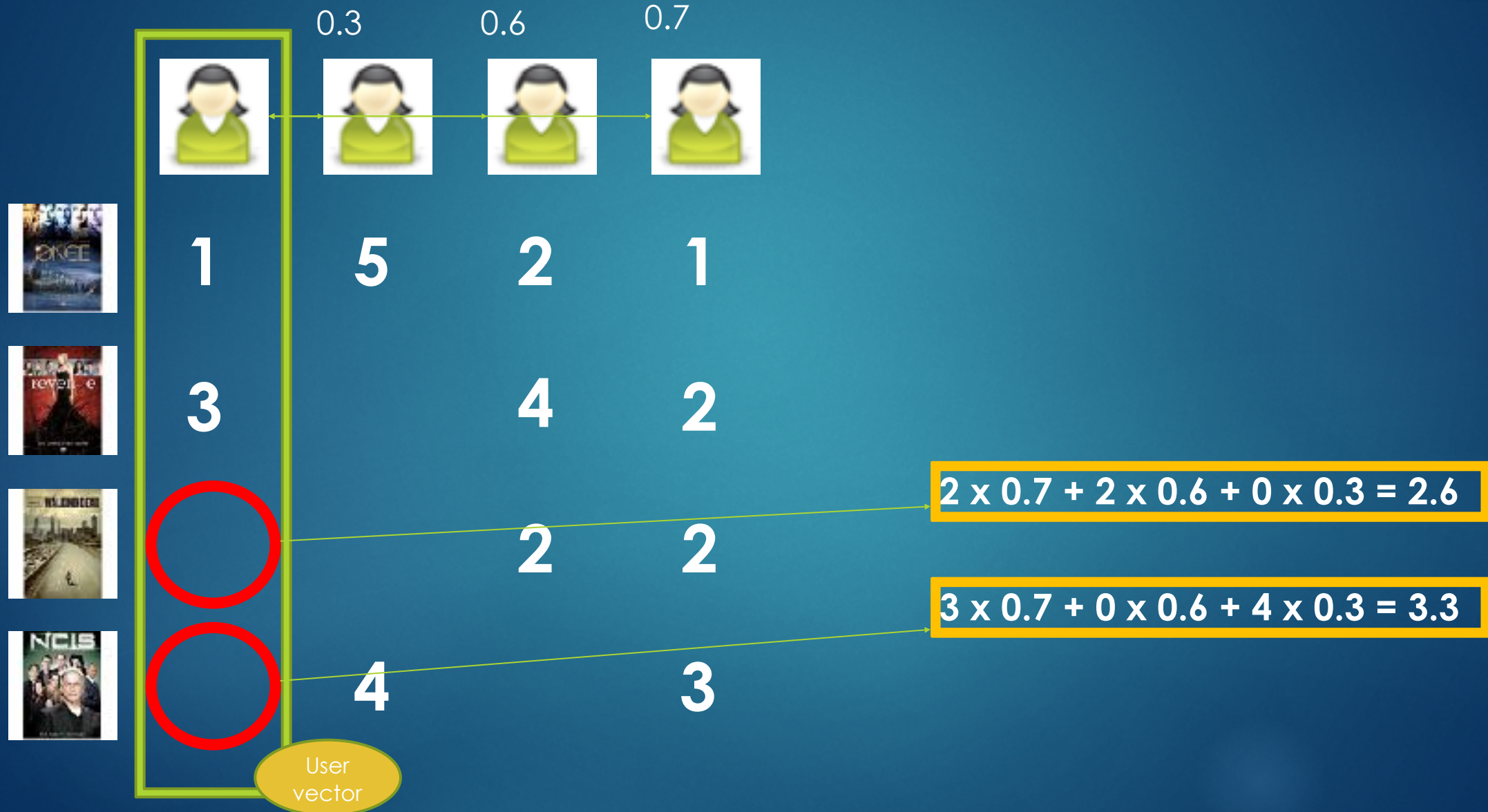
Recommend items from user's **past preferences**.

Collaborative Filtering

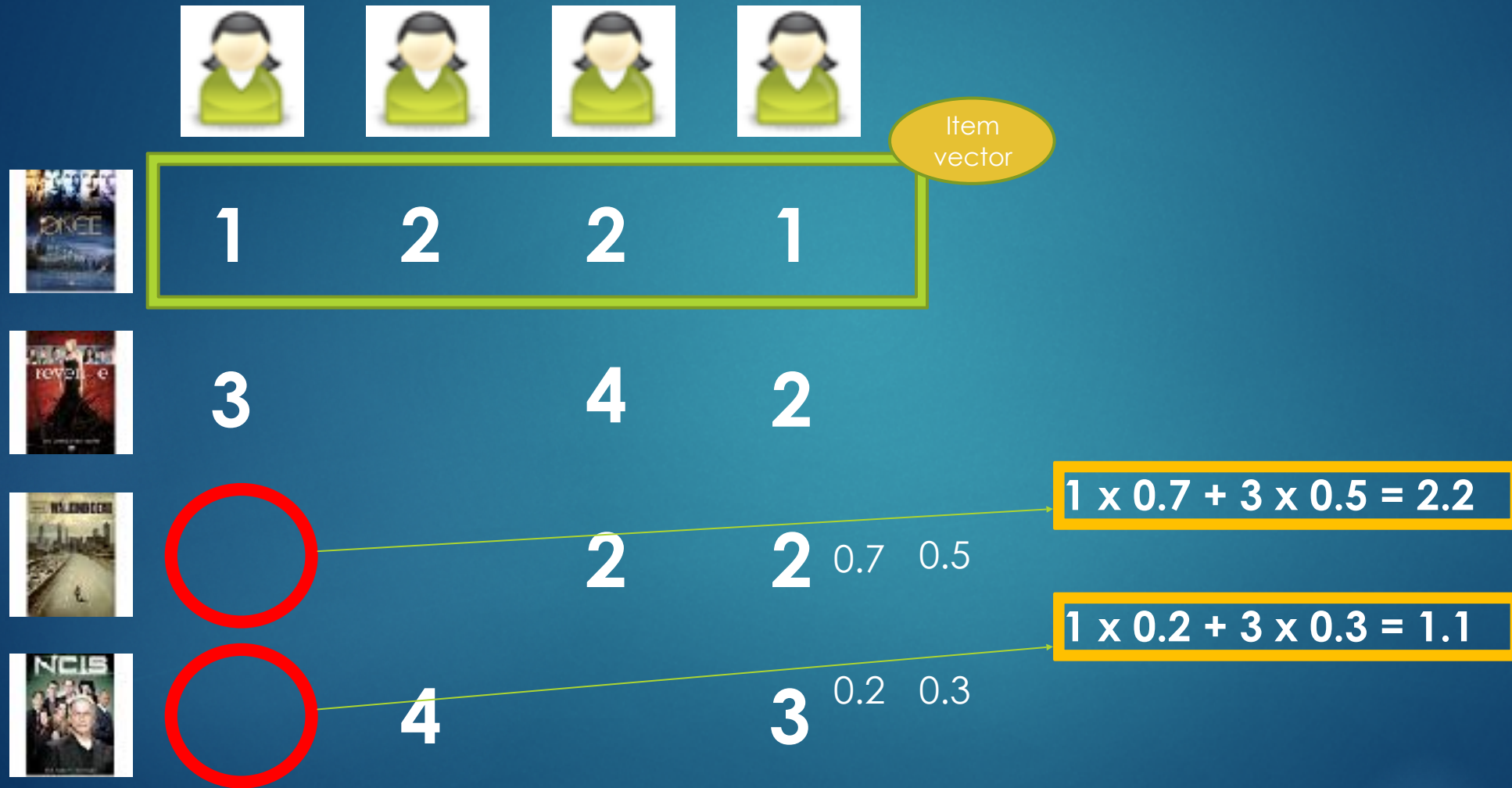


- ▶ How to get User-Item rating matrix?
 - ▶ explicit user logs are available in Netflix site
 - ▶ implicit user logs are needed to be converted
- ▶ How to predict “How much does the user like the item?”
 - ▶ Rating x similarity
- ▶ How to calculate similarity among users?
 - ▶ Cosine, Pearson, Adjusted Cosine similarity

User based CF



Item based CF



Collaborative Filtering Issue



- ▶ Cold Start problem
- ▶ User-Rating Sparsity problem