# Netflix Movie Recommendations



#### **Business Problem**

Netflix is looking to improve their recommendation system for new users. As part of a new trial membership program Netflix is looking to maximize their customer retention by providing the best possible recommendations. It is important that this new recommendation system will also improve recommendations for existing customers.

#### **Data - MovieLens**

**100,000** ratings

9000 movies

600 users

## Singular Value Decomposition Model

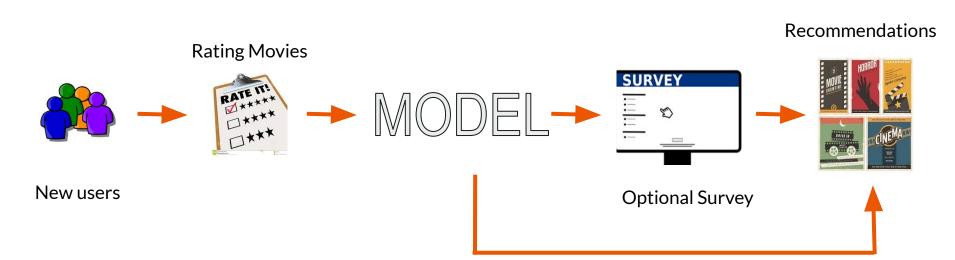
Model finds similar users to make recommendations.

Example:

User 6 will most likely enjoy Movie A because of User 5.

|        | movie A  | movie B | movie C | movie D |
|--------|----------|---------|---------|---------|
| user 1 | 3        |         | 5       | 5       |
| user 2 | 3        | 1       | 5       |         |
| user 3 | 4        |         | 4       |         |
| user 4 | 1        |         | 2       | 5       |
| user 5 | 5        |         | 1       | 2       |
| user 6 | <b>A</b> |         | ( 1     | 2       |

## **Recommendation System**



### **Sample Recommendations**

```
STANDARD RECOMENDATIONS
Title: Billabong Odyssey (2003)
Genre: Documentary
Projected Rating: 4.5
Title: How the Grinch Stole Christmas! (1966)
Genre: Animation | Comedy | Fantasy | Musical
Projected Rating: 4.5
Title: My Best Friend's Wedding (1997)
Genre: Comedy Romance
Projected Rating: 4.5
Title: I Love Trouble (1994)
Genre: Action Comedy
Projected Rating: 4.5
Title: Marat/Sade (1966)
Genre: Drama Musical
Projected Rating: 4.4
```

```
YOUR CUSTOMIZED RECCOMENDATIONS
Title: Education, An (2009)
Genre: Drama Romance
Projected Rating: 4.2
Title: Despicable Me (2010)
Genre: Animation | Children | Comedy | Crime
Projected Rating: 4.2
Title: White Ribbon, The (Das weiße Band) (2009)
Genre: Drama Mystery
Projected Rating: 4.2
Title: Pirate Radio (2009)
Genre: Comedy Drama
Projected Rating: 4.2
Title: Gamer (2009)
Genre: Action | Sci-Fi | Thriller
Projected Rating: 4.2
```

## **Questions**



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