

Ludwig-Maximilians-Universität München  
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## Data Science & Ethics

– *The Netflix example II* –

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### Exercise 1: *Netflix Prize*

Implement a recommendation system suitable for the *Netflix Prize*:

“Netflix is all about connecting people to the movies they love. To help customers find those movies, we’ve developed our world-class movie recommendation system: Cinematch<sup>SM</sup>. Its job is to predict whether someone will enjoy a movie based on how much they liked or disliked other movies. We use those predictions to make personal movie recommendations based on each customer’s unique tastes. And while Cinematch is doing pretty well, it can always be made better.

Now there are a lot of interesting alternative approaches to how Cinematch works that we haven’t tried. Some are described in the literature, some aren’t. We’re curious whether any of these can beat Cinematch by making better predictions. Because, frankly, if there is a much better approach it could make a big difference to our customers and our business.

So, we thought we’d make a contest out of finding the answer. It’s ‘easy’ really. We provide you with a lot of anonymous rating data, and a prediction accuracy bar that is 10% better than what Cinematch can do on the same training data set. (Accuracy is a measurement of how closely predicted ratings of movies match subsequent actual ratings.)”

*[<http://www.netflixprize.com/rules.html>]*

- due date:** 01.07.2018 (EOB)  
**no. of students:** 2  
**deliverables:**
1. Implementation (including source code(s))
  2. Documentation (max. 10 pages)
  3. Presentation (10 – max. 15 minutes)