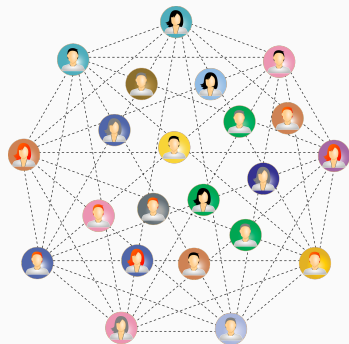


Friendship-Based Recommender Systems

University of Illinois at Chicago

- Friends **influence** vs stranger influence
- Needs a dataset that also has a **social component**
- Movie example (Could be in any domain)
- MovieTweatings
- **Most Similar Friends**
- Privacy-preserving friendship-based recommender systems [Q Tang, 2018]



¹Image from <https://riich.me/blogs/view/778>

- MovieTweetings dataset
- IMDB
- Ratings from Twitter
- I rated IMDb
- Following in tweeter!



Experiment Setup

We use a dataset that is a subset of collected data.
In this subset the users has rated at least 10 movies and follow at least 10 users.

Total number of ratings

821,657

Number of unique users

60,772

Number of unique items

34,636

Total Ratings

20316

Users with at least 10 friends

508

Item

3481

We divided the data to 80 percent training and 20 percent test data

Table 1: Results on Test Dataset

Method	MSE
Matrix Factorization	2.4607
Matrix Factorization + Friends	2.4582

Questions?