

# WHAT TO WATCH?

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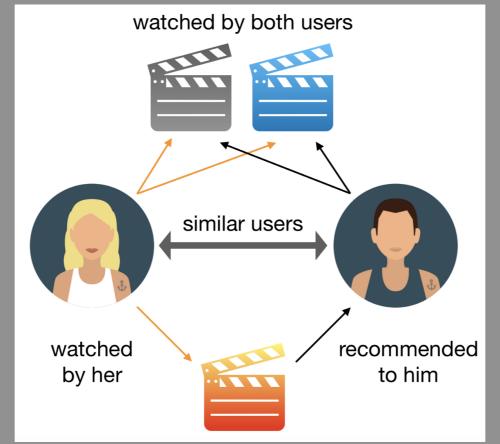
## BACKGROUND

- There are a bunch of great Korean TV series (a.k.a K-Dramas)
   out there and I think everyone should experience at least
   one of them.
- I often find myself wondering which show to watch next and I also have many friends that look to me to recommend their next show to watch.
- After suggesting what I thought was a great show to a good friend, disaster struck...



## PROBLEM STATEMENT

- A great way to take pressure off of myself and give the people what they want is to build a K-Drama, collaborative recommender system.
- This system will be based on how users of a popular streaming website Viki.com, rate shows and how the show ratings compare to each other.



## THE DATA COLLECTION

# RakutenVIK

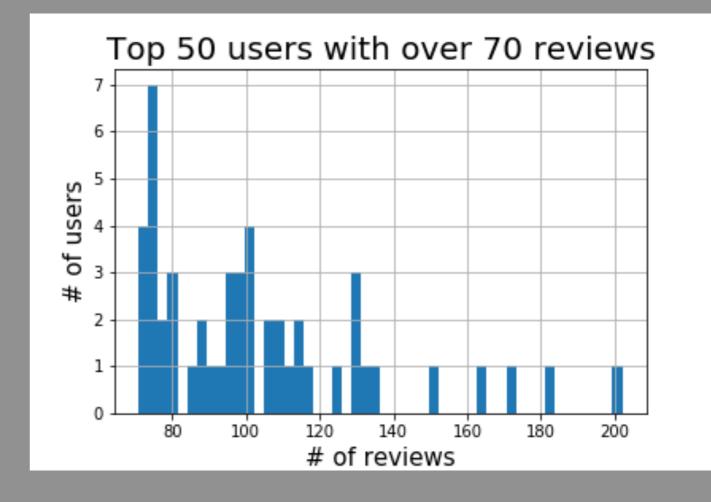


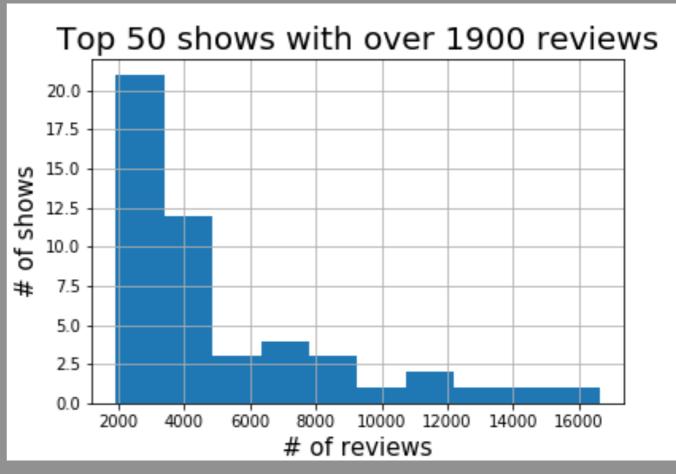


- All of the data collected was scraped from the above sites.
- Collection mainly came from the Viki API. Production info such as Directors and Writers were not available on Viki website, so information had to manually be added from the two wiki sites.

### DATA STATS

- 624 shows
- 183,650 users
- 402,426 ratings
- 171,580 users rated less than 5 shows
- Only ratings with written reviews were collected.





### THE RECOMMENDER SYSTEM

- I chose to create a collaborative recommender system, based on user ratings
- cosine similarities using pair wise distances
- Values between 0 and 1

title	109 Strange Things	12th Annual Soompi Awards	2 Days and 1 Night	2014 Idol Star Athletics Champio
title				
Your Honor	0.966719	1.0	0.954312	1.0
Your House Helper	0.979238	1.0	0.986439	1.0
You're Beautiful	0.982405	1.0	0.987525	1.0
Yu Huiyeol's Sketchbook	1.000000	1.0	1.000000	1.0
to. Jenny	0.967651	1.0	0.994297	1.0

### THE RESULTS

```
Boys Over Flowers
Average Rating 9.40739289446186
Number of Ratings 7656
Recommendations:
title
Playful Kiss
                             0.843600
My Love From the Star
                              0.890176
You're Beautiful
                              0.891456
Pinocchio
                              0.895207
The Legend of the Blue Sea 0.902742
Strong Woman Do Bong Soon
                              0.907004
Secret Garden
                              0.907130
Oh My Venus
                              0.907468
Coffee Prince
                             0.908676
Fated to Love You
                              0.912778
Name: Boys Over Flowers, dtype: float64
```

How do I know if the recommender works well?

## FUTURE ENDEAVORS

- My goal is to create a hybrid recommender system
  - Content- Based
  - Item- Based
- Look into Serendipitous Recommender Systems

