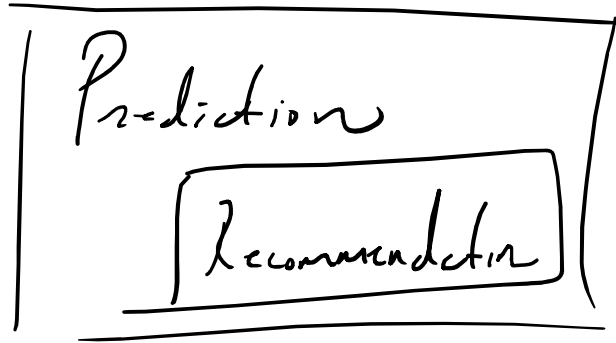


⇒



⇒ Recommendation: list of Predictions



Occurrences

Expectation



Statistics

Probability = Event

→ Prognostication

⇒

Recommendation

Collaborative
Filtering



Content-based
Filtering



01 1 1 1 1 1



Shrek
Godfather
Godfather II
12 Angry Men
Dark Knight

⇒ User-Based Nearest Neighbor Recommendation.

	11	12	13	14
Alice	5	3	4	4
Bob	3	1	2	3
Chris	4	3	4	3

⇒ Pearson's Correlation:

$$\text{sim}(a, b) = \frac{\sum_{p \in P} (r_{a,p} - \bar{r}_a)(r_{b,p} - \bar{r}_b)}{\sqrt{\sum_{p \in P} (r_{a,p} - \bar{r}_a)^2} \sqrt{\sum_{p \in P} (r_{b,p} - \bar{r}_b)^2}}$$

$$\sqrt{\sum_{p \in P} (r_{u,p} - \bar{r}_u)^2} \sqrt{\sum_{p \in P} (r_{u,p} - \bar{r}_u)^2}$$

p - Selected single product ; P - List of all products
 r - recommendation \bar{r} - Average Recommendations