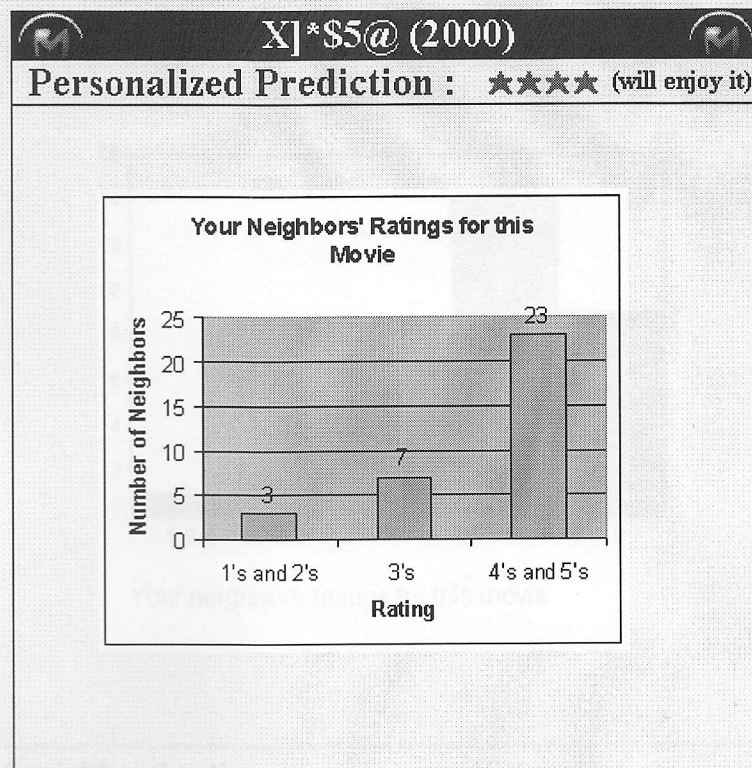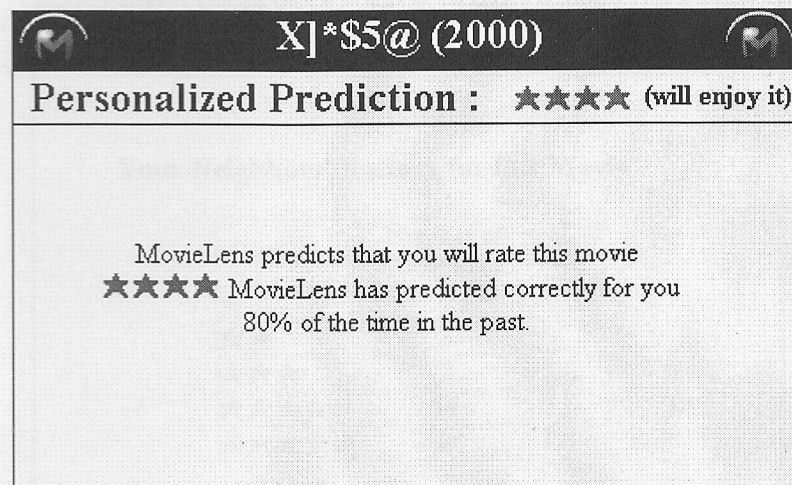# Appendix I: Depictions of all Explanation Interfaces Used in Chapter 5.

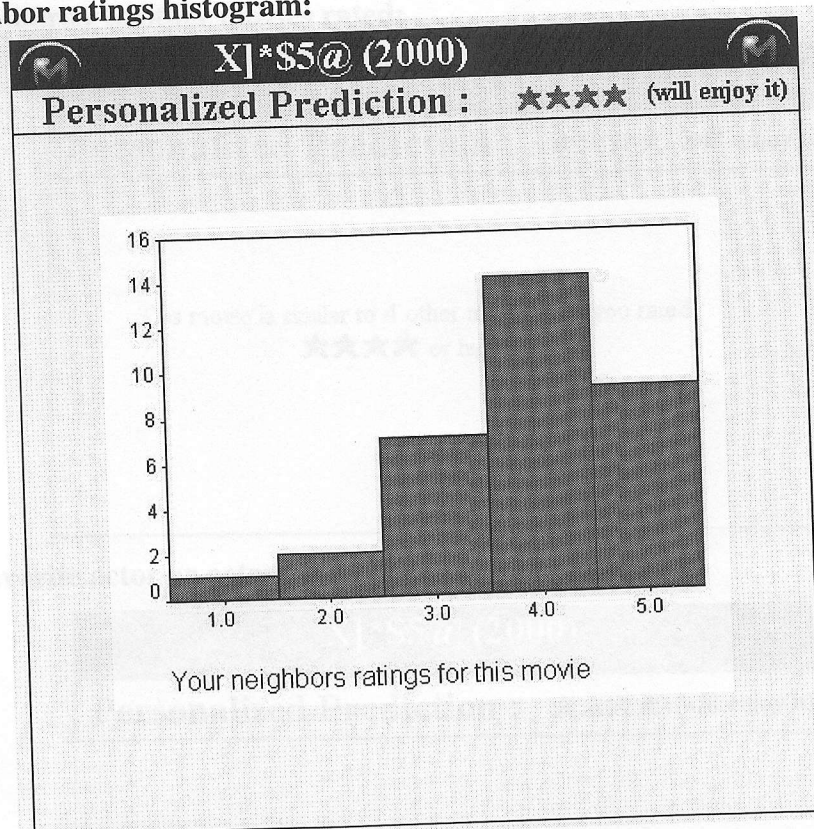1. **Histogram with grouping**

2. **Past Performance:**

3. **Neighbor ratings histogram:**

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

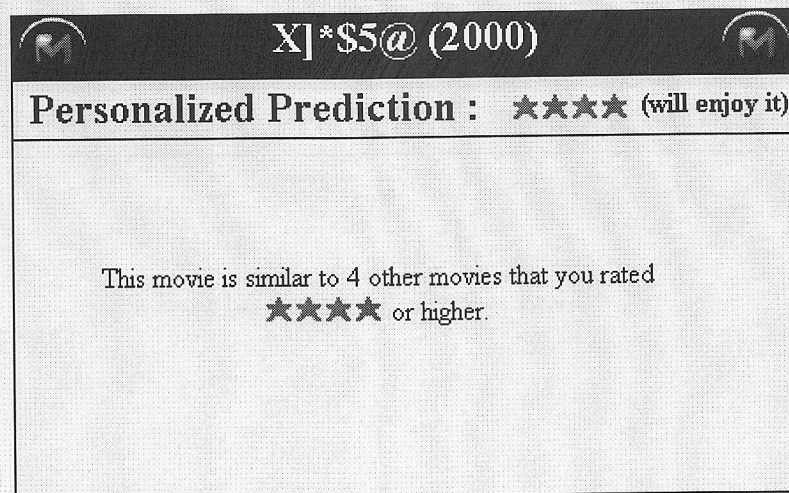Your neighbors ratings for this movie

4. **Table of neighbors' ratings**

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

Your Neighbors' Ratings for this Movie

Rating	Number of Neighbors
★	1
★★	2
★★★	7
★★★★	14
★★★★★	9

5. **Similarity to other movies rated:**
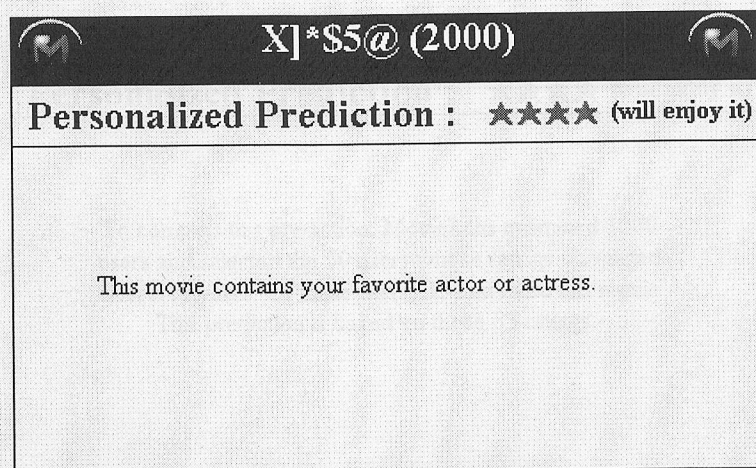
X] *$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This movie is similar to 4 other movies that you rated
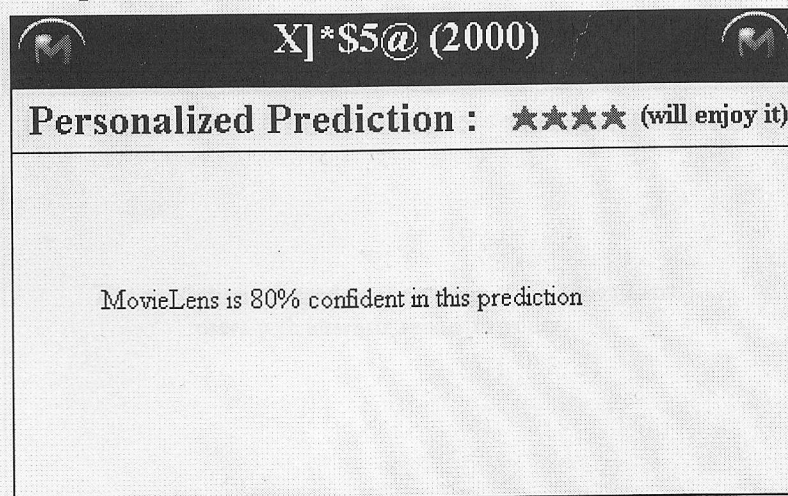★★★★ or higher.

6. **Favorite actor or actress**

X] *$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This movie contains your favorite actor or actress.

7. **MovieLens percent confidence in prediction**

X] *$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

MovieLens is 80% confident in this prediction

8. **Won awards:**

> **X]*$5@ (2000)**
>
> **Personalized Prediction : ★★★★ (will enjoy it)**
>
> This movie has won several prestigous awards.

9. **Detailed process description:**

> **X]*$5@ (2000)**
>
> **Personalized Prediction : ★★★★ (will enjoy it)**
>
> To compute this prediction, MovieLens examined 1000 users and selected the 50 users whose ratings correlated closest to yours. Of these users, 33 had rated this movie. This prediction is based on those 33 ratings.
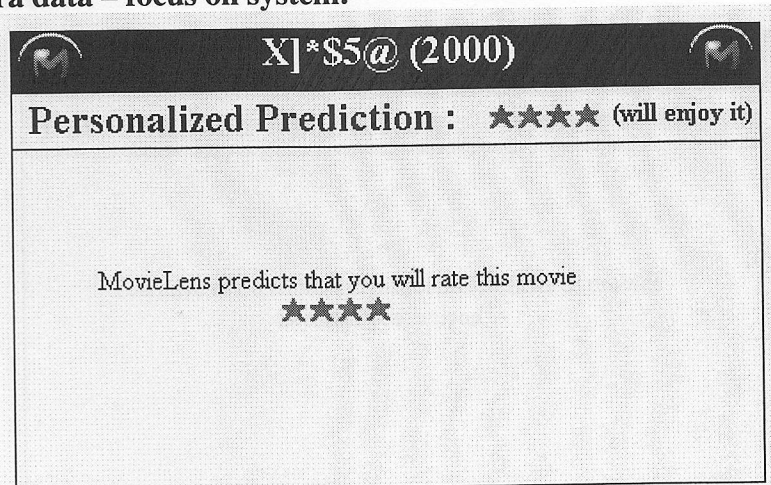
10. **Number of neighbors:**

> **X]*$5@ (2000)**
>
> **Personalized Prediction : ★★★★ (will enjoy it)**
>
> This prediction is based on the ratings of 33 MovieLens users with interests similar to yours.

11. No extra data – focus on system:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

MovieLens predicts that you will rate this movie
★★★★

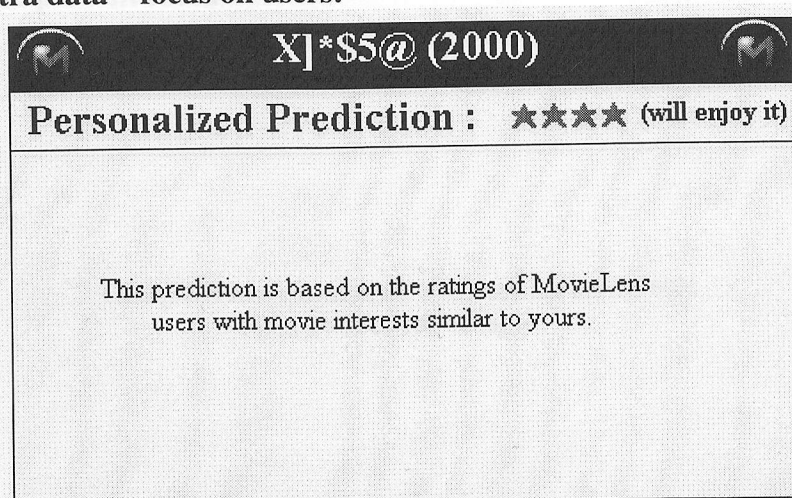**12. No extra data – focus on users:**

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This prediction is based on the ratings of MovieLens
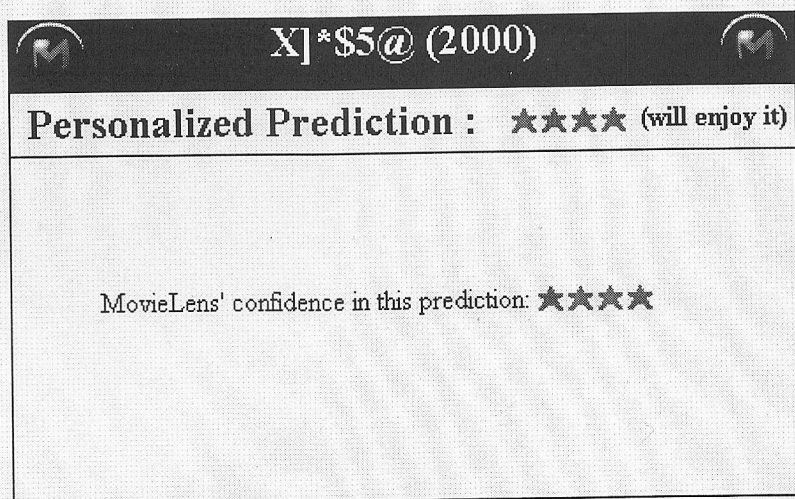users with movie interests similar to yours.

13. MovieLens confidence in prediction:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

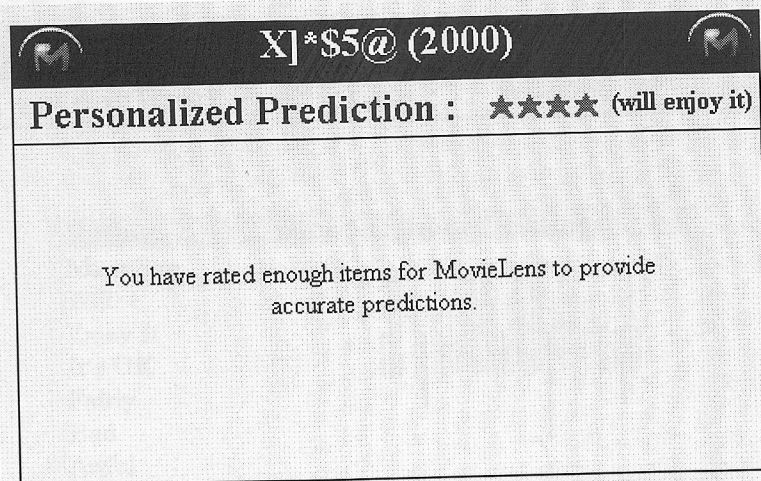MovieLens' confidence in this prediction: ★★★★
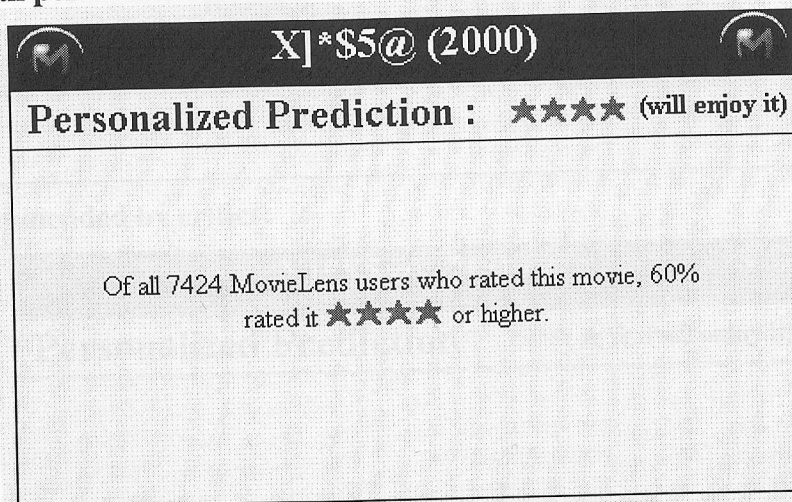
14. Good profile:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

You have rated enough items for MovieLens to provide accurate predictions.

15. Overall percent rated 4+:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

Of all 7424 MovieLens users who rated this movie, 60% rated it ★★★★ or higher.

16. Complex graph: count, ratings, and similarity:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

Rating	Your Neighbors' Ratings
Must See	
Will	
Enjoy It	
It's OK	
Fairly	
Bad	
Awful	

Strong
Neighbors
(very similar)

Weak
Neighbors
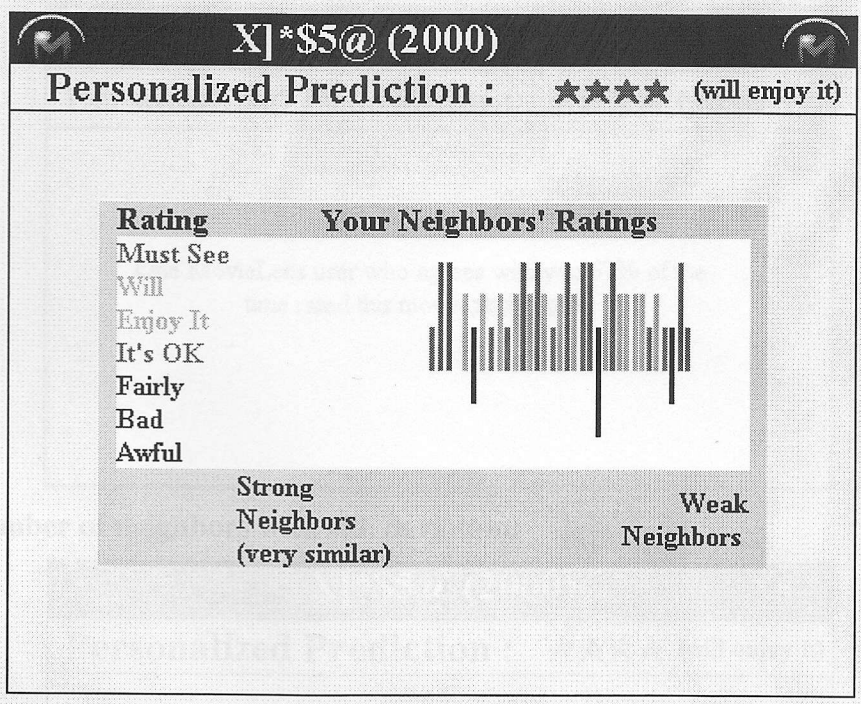
17. Recommended by critics:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This movie has been recommeneded by several well
known movie critics.

18. Rating and % agreement of closest neighbor:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

One MovieLens user who agrees with you 67% of the
time rated this movie ★★★★

19. Number of neighbors with std. deviation:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This prediction is based on the ratings of 33 MovieLens
users with interests similar to yours. Your neighbors'
ratings had a standard deviation of 1.

20. Number of neighbors with average correlation:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

This prediction is based on the ratings of 33 MovieLens
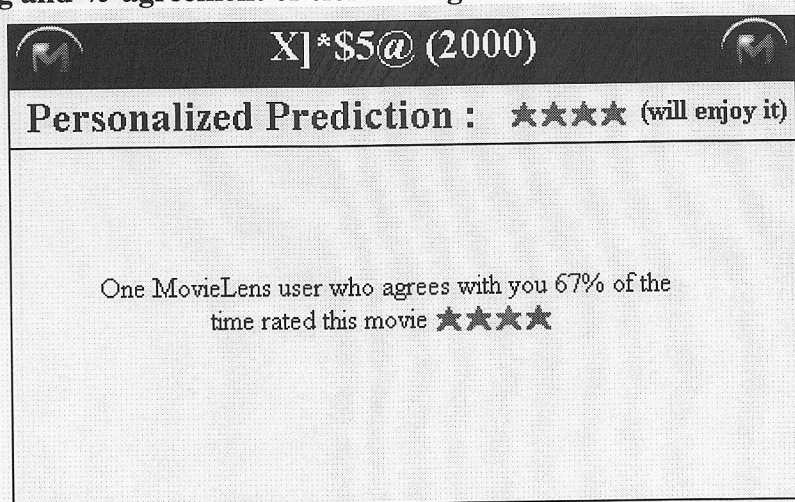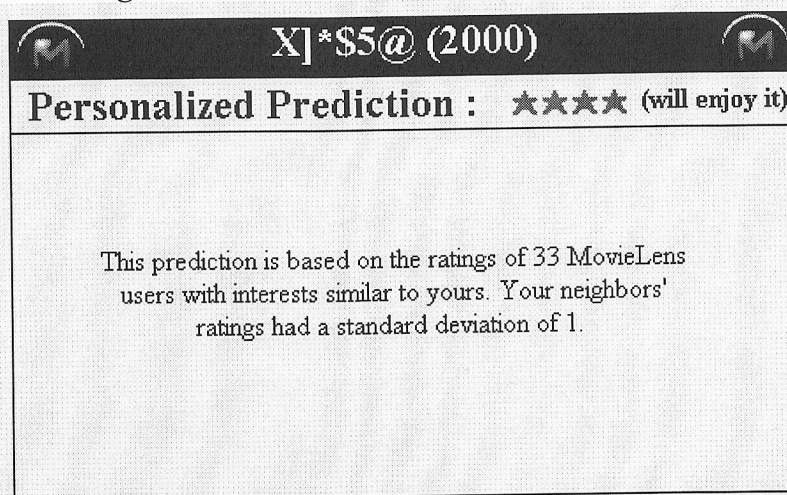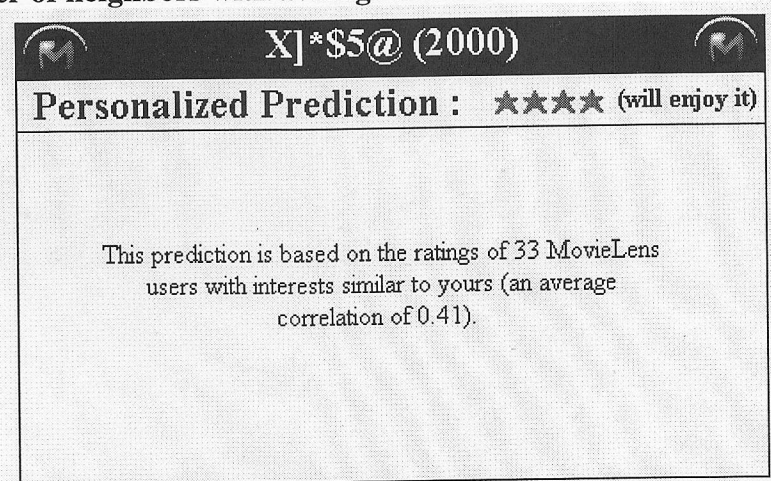users with interests similar to yours (an average
correlation of 0.41).

21. Overall average rating:

X]*$5@ (2000)

Personalized Prediction : ★★★★ (will enjoy it)

Of all 7424 MovieLens users who rated this movie, the
average rating was 3.6 stars.

1. Bochan... ...riments of the Stanfor...

2. Lauer,T... ...ment. Lawrence Erlbaum...

3. Giraszz... ...Erlbaum and Associat...

4. NetPerce...

5. Aggarwal,C.C., Wolf,J.L., Wu,K.-L., Yu,P.S., 1999. Horting Hatches an Egg: A New Graph-Theoretic Approach to Collaborative Filtering. *Proceedings of ACM SIGKDD International Conference on Knowledge Discovery & Data Mining.*

6. Balabanovic,M., 1998. An Interface for Learning Multi-topic User Profiles from Implicit Feedback. *Proceedings of the 1998 Workshop on Recommender Systems 6-9.*

7. Balabanovic,M., Shoham,Y., 1997. Fair: Content-Based, Collaborative Recommendation. *Communications of the ACM 40 (3), 66-72.*

8. Baudisch,P., 1998. Recommending TV Programs: How far can we get at zero effort? *Proceedings of the 1998 Workshop on Recommender Systems 16-18.*

9. Belkin,N., Croft,B.W., 1992. Information Filtering and Information Retrieval: Two Sides of the Same Coin? *Communications of the ACM 35 (12), 29-38.*

10. Billsus,D., Pazzani,M.J., 1998. Learning collaborative information filters. *Machine Learning Proceedings of the Fifteenth International Conference (ICML'98).*

11. Billsus,D., Pazzani,M.J., 1998. Learning collaborative information filters. *Proceedings of the 1998 Workshop on Recommender Systems.*

12. Breese,J.S., Heckerman,D., Kadie,C., 1998. Empirical analysis of predictive algorithms for collaborative filtering. *Proceedings of the 14th Conference on Uncertainty in Artificial Intelligence (UAI-98), (pp. 43-52).*

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