

Introducing Nonpersonalized and Stereotyped Recommendation

Introduction to Recommender Systems

Why Non-Personalized?

- New users – we know little about them (*cold start*)
- Simple but beneficial
- Online communities around common displays (e.g. Reddit, Slashdot)
- Applications & media where personalization is impossible

It can be remarkably effective.

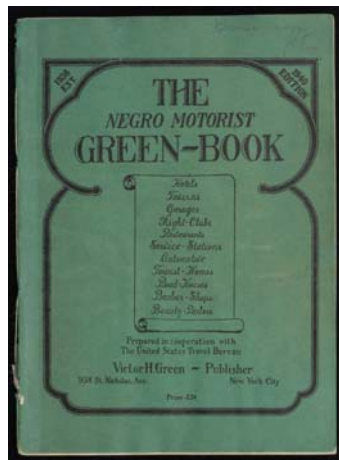
Intro: Recommendation in Print

Long tradition of recommendation in print

- Book, movie, and music reviews
- 'Goings On About Town' in *The New Yorker*
- Michelin restaurant guides

Each of these is *editorially selected*

Print Recommendation



*The Negro Motorist
Green-Book*

Listed
accommodations
friendly to African-
American travelers in
segregation-era U.S.

From The New York Public Library, via Digital Public Library of
America

Aggregate Opinion: *Zagat Survey*

Most print recommendation is editorial

Zagat Survey aggregated opinions about restaurants from individual reviewers

- Produced 30-point aggregate ratings on multiple dimensions
- Textual review compiled from individual reviewer reports

Example

The Clay Pit

Indian | Downtown

FOOD	DECOR	SERVICE	COST	
25	23	22	\$24	

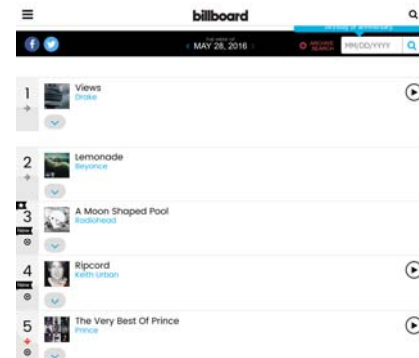
This Downtowner has been pleasing crowds of politicians, students, families and couples with "outstanding" Indian lunch buffets and à la carte dishes, including "lots of vegetarian and vegan options", for nearly two decades; it's "warm and inviting" (and sometimes a tad bit "loud") in the "beautiful" old brick building, especially in the romantic, cavelike basement.

Zagat reviews are compiled from individual user reviews. [Write a review for The Clay Pit](#)

Aggregated Behavior: *Billboard*

Billboard Top 200

- Derived from sales and radio play
- Albums and songs rise based on last week's activity
- Computed over nationwide data



Many Other Examples

- E-commerce rating & review summaries
- Box office charts
- 'Popular Now' on any news site



From The Atlantic

Weak Personalization

Sometimes we know a little about a user

- Zip code or location
- Age, gender, nationality, ethnicity

This can be used for first-pass '*stereotyped*' personalization

Product associations allow recommendations based on current page/item/context

In This Module

- Summary Statistics
 - Computing and displaying
 - Using for non-personalized recommendation
- Lightly Personalized Recommendation
 - Demographics and Stereotypes
- Identifying Related Items

Assessments and Assignments

- Assignment to compute basic recommendations
- Module quiz over topics
- Honors track: programming assignment to implement some covered algorithms

Learning Objectives

- Understand the value and drawbacks of non-personalized recommendations
- Be able to compute nonpersonalized and weakly personalized recommendations using
 - Aggregated preferences
 - Product associations
 - User demographics
- Design basic user experiences around simple aggregation and recommendation algorithms

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