Polarized Review Summarization as Decision Making Tool

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THE PROBLEM

When choosing an hotel or a restaurant many people rely on the reviews available on the Web.

Huge amount of opinions → difficult to make an optimal decision.

SUMMARIZATION TECHNIQUE

Approach: provide users with a summary. Most used summarization technique: extractive.

Different state-of-the-art summarization techniques:

- LSA
- Edmundson
- TextRank
- LexRank
- Luhn

Subproblem: find out the best among them

User experiment to assess the best summarization technique for the target domain

SUMMARIES AND DECISION MAKING

First empirical study:

- 33 participants
- borda count
- 6 different extractive summarization techniques

Second empirical study:

- Full sized simulation of Tripadvisor.com (except payment)
- Users were asked to simulate the booking of a restaurant
- 108 participants aged between 20 and 40
- A/B testing: Summary / Reviews

Users with the summary:

- spent half of the time (on average) on each the restaurant detail page
- explored more restaurant choices before making the reservation

Best Summarization technique: Edmundson

Users were presented with only reviews which mimic the Tripadvisor user experience. They can be filtered by newest, most critic and happiest.

Users were presented with a positive summary and a negative one that respectively summarize positive reviews (3+ stars) and negative reviews (1-2 stars)

radiance

About

Restaurants

Little Owl

90 Bedford St, New York City

Reviews

98.94% of people agree with:

We went for a Sunday brunch. The wait time was over 30 min, and when we were finally seated, our table was assigned to a very rude waitress who looked either supplanted that it was our first visit and we were clueless about their menu, and hence was asking about some of the dishes that were served (European, so we couldn’t quite figure out the dish from the menu). Finally, when the order came, the portion sizes were so tiny that we were thinking of heading to another restaurant to complete our meal. And they don’t have a dessert menu for brunch! Super service!!! Try to be like my spot Kitchen, but not as cool,

Little Owl

90 Bedford St, New York City

Reviews

98.94% of people agree with:

My husband surprised me with a diner out at Little Owl during our recent trip to NYC and it is a date that I will not soon forget. The place is super small, so we were very lucky. A short menu prepared from a kiosk, the chef/owner is very polite. The food is super fresh, super tasty and super vanilla. And great with the coffee.