Polarized Review Summarization as Decision Making Tool

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THE PROBLEM   1

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.

Delicious but very expensive ★★★★☆	The perfect gem in the village ★★★★★
We had brunch on Sunday. Hamburgers, appetizers and beers. Came to over $330 including tips for 6 people. Expensive lunch. But good burgers. Only for special meal.	Romantic, convivial and delicious. This tiny Greenwich village resturant is one of our favorite places when we visit New York, The food is delicious and innovative and the service friendly and the ambience is , well - perfect. Just go!
Great food! ★★★★☆	Yummy Halibut! ★★★★★
I like the mix and the presentation. It's also accessible and easy to find. Food is great, but a bit pricey. But overall it was great!	Food was gorgeous, lovely wine, cosy, friendly spot. Lots of people taking snaps outside because its the friends building- unfortunately under scaffolding when we were there. Lovely part of town.
Exceeded expectations ★★★★★	Food and TV landmark ★★★★☆
Being fans of Friends we were keen to see the building, the meal and experience in the Little Owl sealed the day as a very special one. We had a lovely lunch (pre-booked via web-site) - 'sliders' (the restaurant special) as good as suggested and the rest of the food was delicious. Staff laid back and very welcoming - the interior slightly quirky and what you might hope for in Greenwich Village. Highly recommented.	The little owl is a cute name,the location is where you'd expect Central Perk to be.Its right at the bottom of the FRIENDS fictional location.For huge fans of the show,its worth a picture in front of the building and a great dinner/lunch there.We spent 10 years of our lives looking at the view every week.

How to reduce the decision making effort in domains where decisions are based upon the opinion of the crowd?
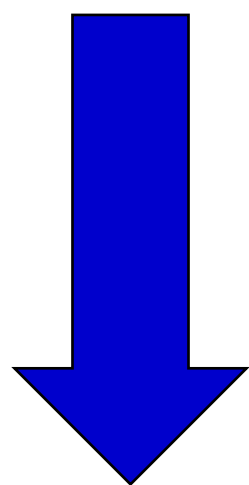
SUMMARIZATION TECHNIQUE   2

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

Different state-of-the-art summarizaion 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   3

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

Best Summarization technique:
Edmundson

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

summary

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

reviews

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

Radiance   About   Restaurants

Restaurants / Little Owl

Little Owl
90 Bedford St. New York City,

🍴 Book a Table

Reviews

👍 98.94% of people agree with:

My husband surprised me with a dinner 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 cupboard sized kitchen means everything was super fresh. So nice to experience such great service in a super busy city!. Nice cocktails and super service. The servers are super friendly and welcoming in a casual sort of way, you almost feel as if you've been invited over to their house to eat, its a good vibe all around. It was syrupy and super vanilla driven, and was great with the cheese.

👎 1.06% 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 rather surprised that it was our first visit and we were clueless about their menu and hence was asking about some of the dishes (the names are European, so we couldnt quite figure out the dish from the names). 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&staff! Tryin to be like my spot Kitchen, but not as cool.

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