

A photograph of a restaurant table setting. In the foreground, a white plate holds a piece of seared fish (likely salmon) topped with a colorful salsa of diced tomatoes, peppers, and herbs. The fish is served over a bed of rice or quinoa. To the left of the plate is a silver fork. To the right is a silver knife. In the background, a glass of white wine is partially filled. Another plate with food is visible in the distance. The background is softly blurred, showing more of the restaurant interior.

Yelp Me Out: Finding Similar Restaurant Reviewers

Will Huguenin
Metis Final Project, June 23, 2016

Blog: www.huguedata.com
Github: [whugue](https://github.com/whugue)



OvTheMoon
Southport, CT
252 friends
902 reviews
Elite '15

- Share review
- Compliment
- Send message

★★★★★ 4/29/12

My husband and I had heard good things and just recently got around to trying it-- cannot recommend it highly enough!!! As magical as advertised. Right after giving birth I felt waves of maternal love wash over me which was totally indescribable. Was followed by several months of deep emotional bonding. This newborn is my entire reason for living and has brought such meaning to my life in a way nothing else has. Being a parent is so fulfilling on so many levels. Can't stop talking about it to everyone!! You are missing out if you don't try this!!!

"We wont be going there again."

○○○○○ Reviewed 3 March 2012

We went on Saturday night, walked in the get our table. loud and also with people talking had to shout at my wife me. Once we were seated after a while the meat came



Lotty Kenton
★★★★★

This place is really good...I.had baked artichoke and grilled salmon..delicious!!!!

Like · Comment · about 2 months ago



Katie Brown
★★★★★

The calamari was exceptional and the night bar to lounge to night club was quite fun!

Like · Comment · about 8 months ago



Joseph J DeSantis
★★★★★

A nice place to grab a bite. Strong drinks b

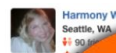
Like · Comment · about 2 months ago

★★★★★ 10/11/2011

Best place to load up on cheap beans and rice while the girl has to take her pet rabbit to the emergency vet around the weed stash while you were casually screwing her and you completely leave her there and trek back to Manhattan because the sex is good enough to keep having but still you need to the emergency vet but wait since a pot-eating bunny is not don't really know her well enough or care too much about a through the apartment and eats weed to stick around and h split the difference and chow down and maybe it is just the those good beans and rice.

Jerry B.
Chicago, IL
0 friends
3 reviews

Michael H. Martinez, CA
0 friends
5 reviews



Harmony W.
Seattle, WA
0 friends
0 reviews



★★★★★ 9/19/2014

I have never even been to this restaurant. I live in Chicago. fact, I had a dream that I ate there the seafood risotto. It tasted like a seafood risotto? No. I don't even v

Was this review ...?

Useful Funny 1

★★★★★ 9/19/2014

This is truly the best one star restaurant. I agree with Don N. Why no su

"innovative food, but terrible attitude"

○○○○○ Reviewed 12 July 2010

Went to Noma last Sunday. We were told by Mr Rene Redzepi to "either eat or leave" at the start of our meal because we arrived 10 minutes late and one of us also left the table to take a phone call, disrupting the service. Initially, a chef/waiter came to tell us off, and when I tried to tell the manager what happened, Mr Redzepi jumped in to tell us to "eat or leave". I could hardly think of circumstances under which diners would deserve this kind of treatment in ANY restaurant, let alone at a place with Noma's standing. Mr Redzepi's food is interesting, some are very good and some are experiments that may not be to everyone's liking. But there are many other restaurants opened by incredibly talented chefs that treat their customers with respect.

Oxo Tower Restaurant, The

Reviews

January 2008)

Many positive reviews so, I decided to take my dog up the Oxo Tower. I expect, I did have a little trouble getting in, but once inside, the service was breathtaking. It put to rest all my obvious fears regarding pet entry. The restaurant was a couple of adjacent onlookers who seemed overly concerned about the service my dog was receiving. It is possible, of course, that they were simply admiring the size of my portion, and were not being cynical about me being with a dog. This one thing could not ruin what was a wonderful and memorable experience for both parties. I have never seen my dog, Chalky's, tail wag so furiously.

[Respond to Author](#)

Review by Johnny R (23 January 2008)

I wouldn't call myself a regular visitor to the Oxo Tower. I've found the main courses a little on the dry side, however, the desserts were a different matter altogether. Their chocolate sauces were a particular speciality - it gets everywhere, but is definitely worth the mess!

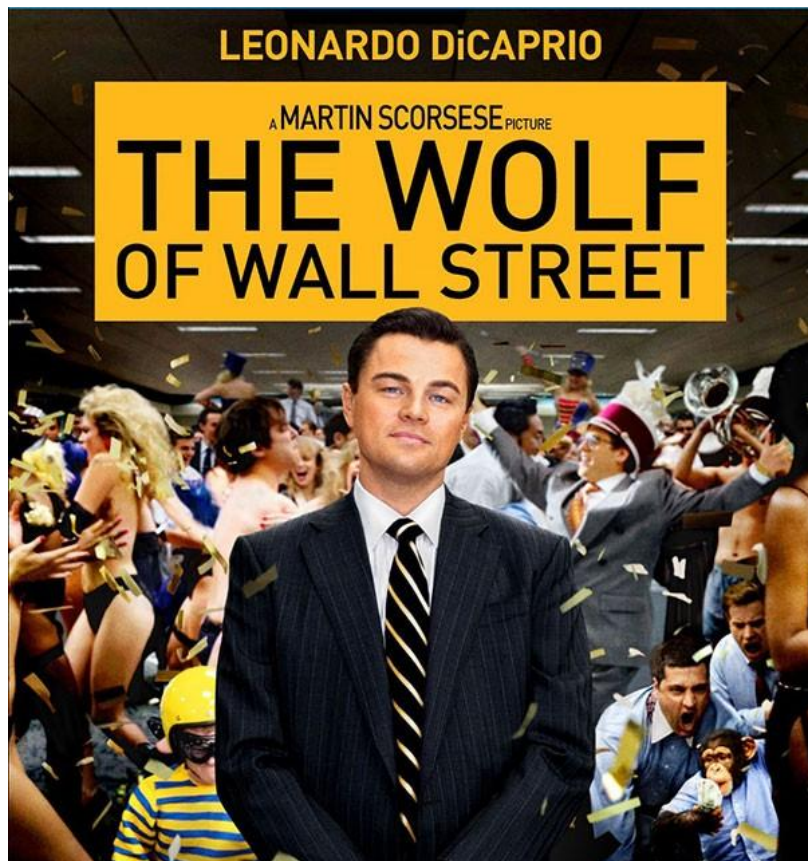
[Respond to Author](#)

Review by David K (22 January 2008)

I called there and although they were busy they managed to get us a table. My girlfriend had a portion of pork which she scoffed down rather hungrily, and I nibbled away on a fish pie which was very succulent. I found the view quite amazing and the whole experience very enjoyable. I realise it's not the cheapest establishment so I can leave the back pocket feeling quite tight. Overall it's definitely worth a visit up there.

[Respond to Author](#)

Not Always Helpful...



One Star

By Joe Watson - December 14, 2014

There were no wolves in the movie.

0 of 3 people found this review helpful

102 Million
Reviews



102 Million Reviews



*...so how can Yelp find reviewers
with similar tastes and preferences?*

Approach: Semi-Supervised Topic Modeling

Step (1): Train Text Classifier on Human-Labelled Data



Approach: Semi-Supervised Topic Modeling

Step (2): Predict Topics for Each Sentence in Unlabelled Yelp Data



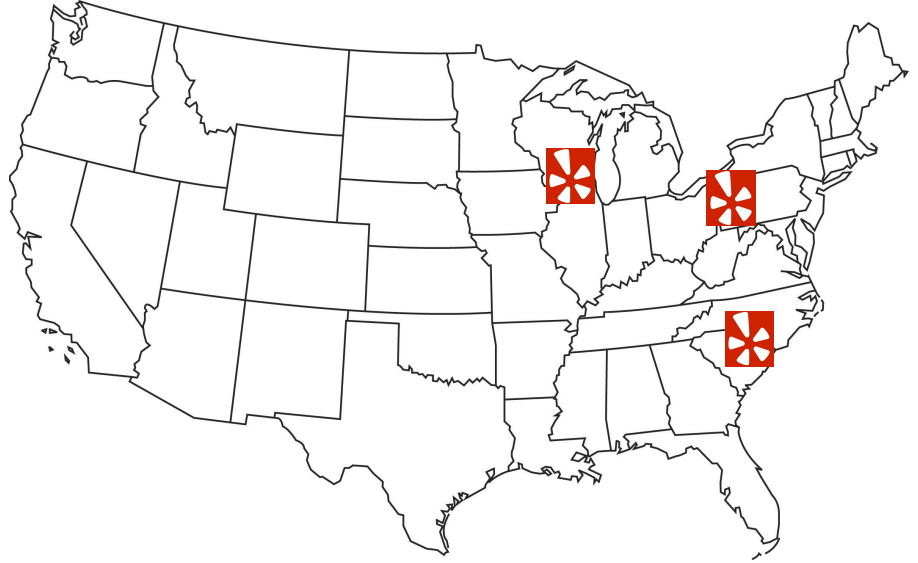
62,000



204,000

*"The trout was
heavenly but
the service was
terrible"*

1,800,000



Approach: Semi-Supervised Topic Modeling

Step (2): Predict Topics for Each Sentence in Unlabelled Yelp Data



62,000



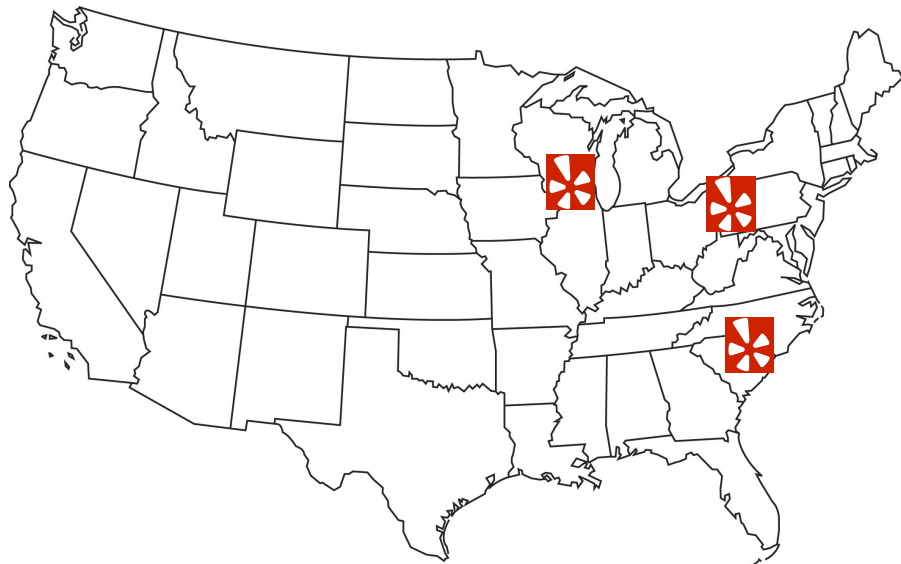
204,000

“The **trout** was
heavenly but
the **service**
was terrible”

1,800,000



Linear
SVMs



Approach: Semi-Supervised Topic Modeling

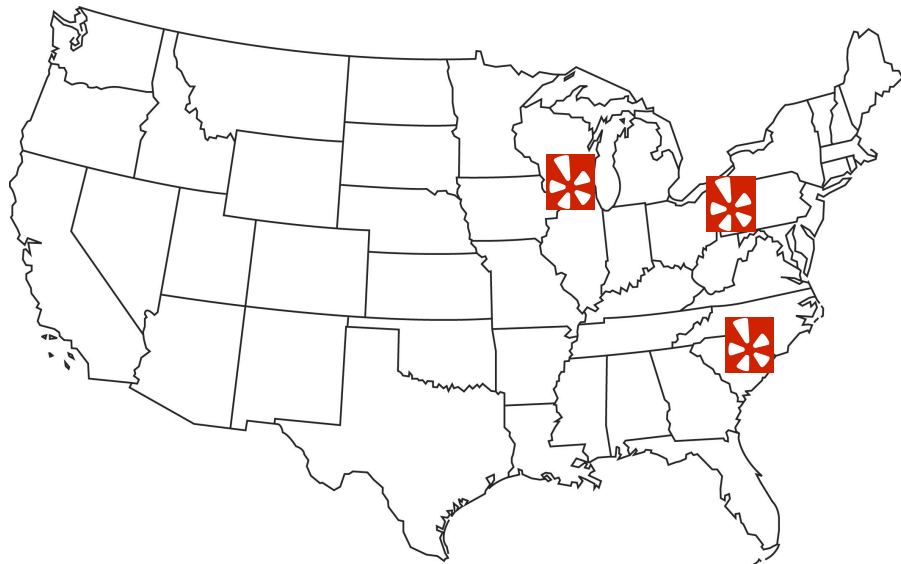
Step (2): Predict Topics for Each Sentence in Unlabelled Yelp Data



62,000



204,000



“The **trout** was
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1,800,000



Linear
SVMs



Tagged Topics:
Food, Service

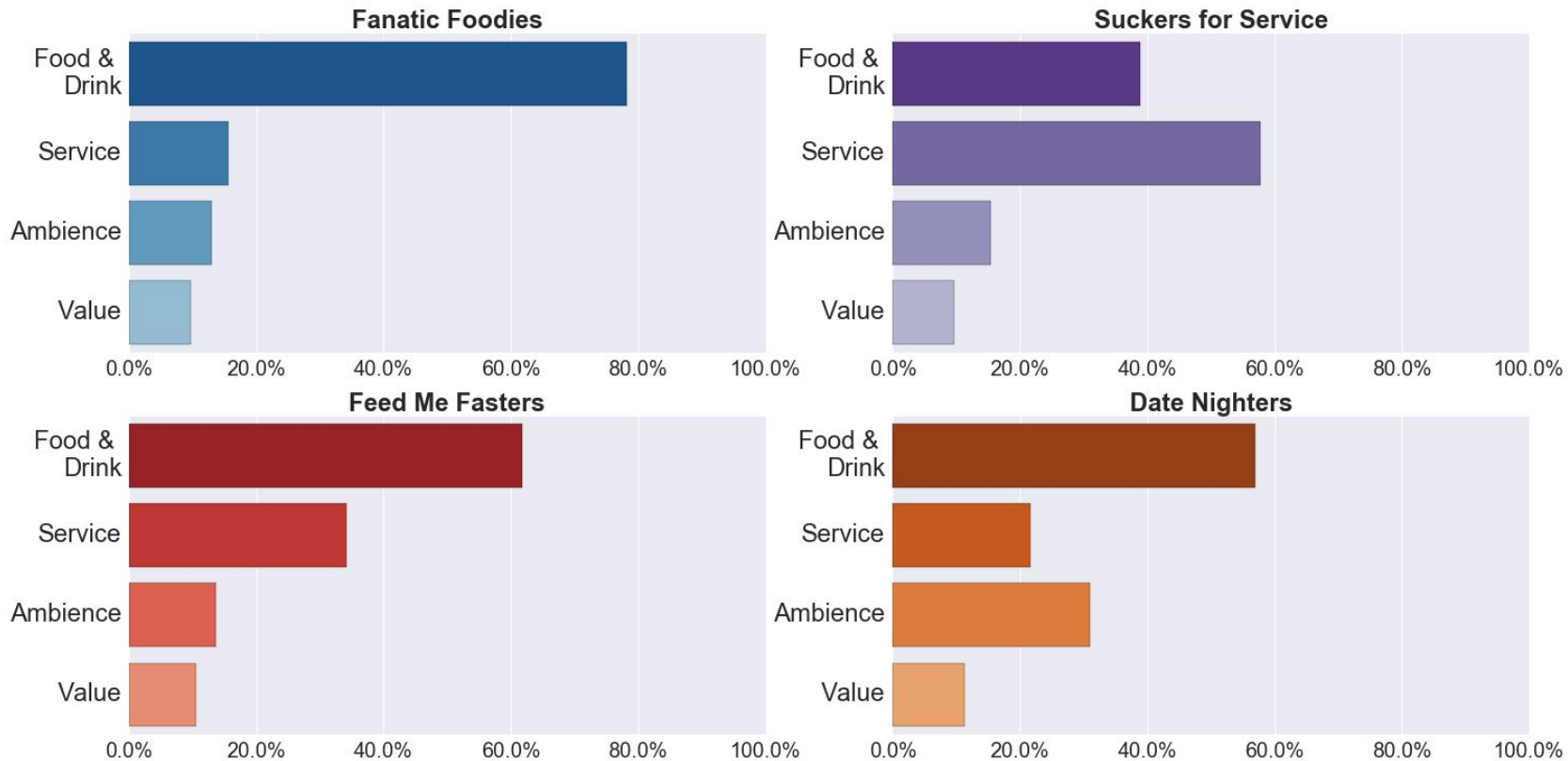
Approach: Semi-Supervised Topic Modeling

Step (3): Aggregate Data to User Level

User	Percent of Sentences Discussing...			
	Food & Drink	Service	Ambience	Value
Bob B.	75%	15%	8%	2%
Christie L.	72%	10%	10%	8%
Tamara T.	50%	30%	5%	15%
Phil K.	35%	45%	6%	14%
...				

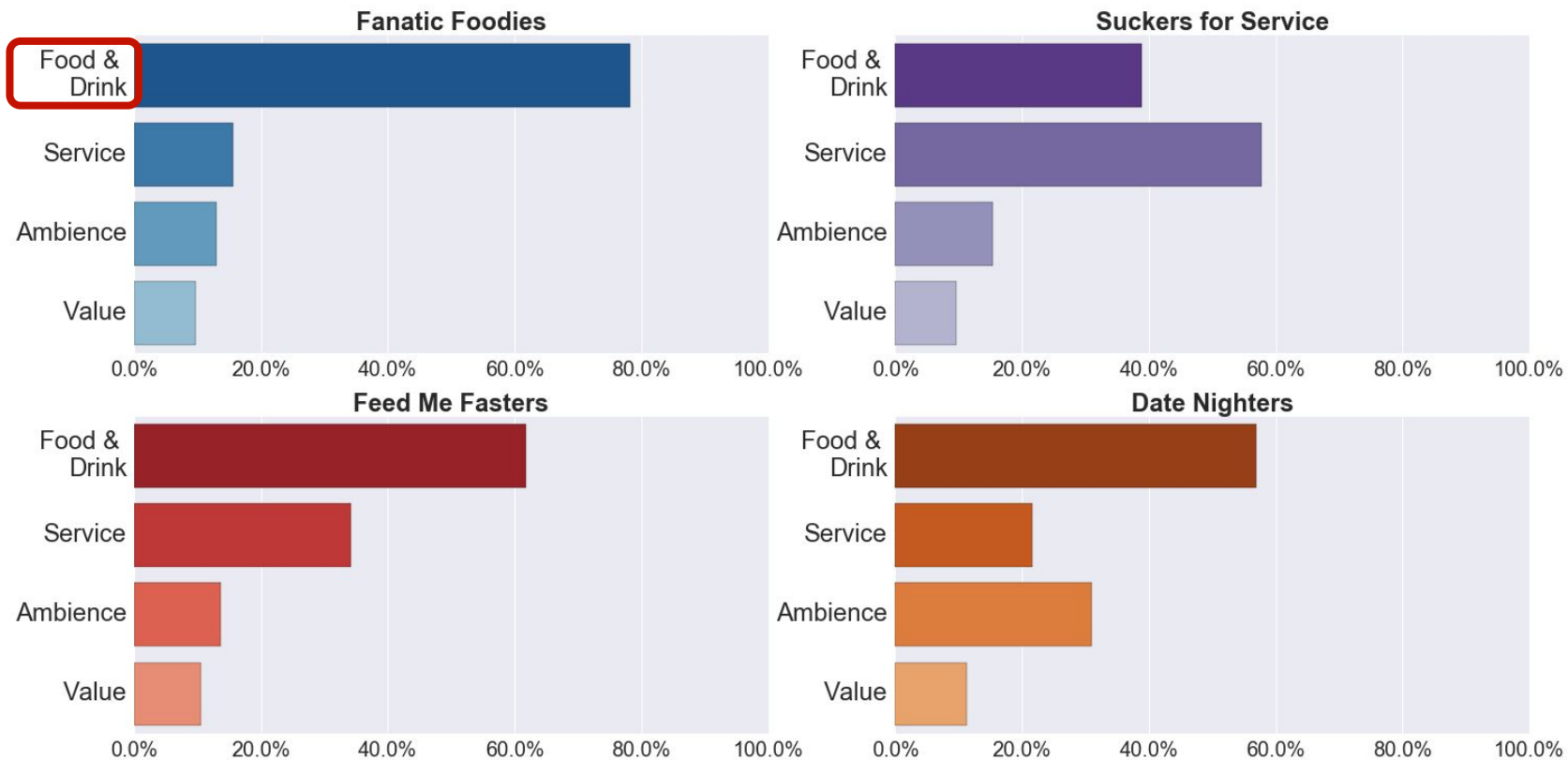
Approach: Semi-Supervised Topic Modeling

Step (4): Segment Users Based on Topics Most Discussed (Most Talkative Quartile)



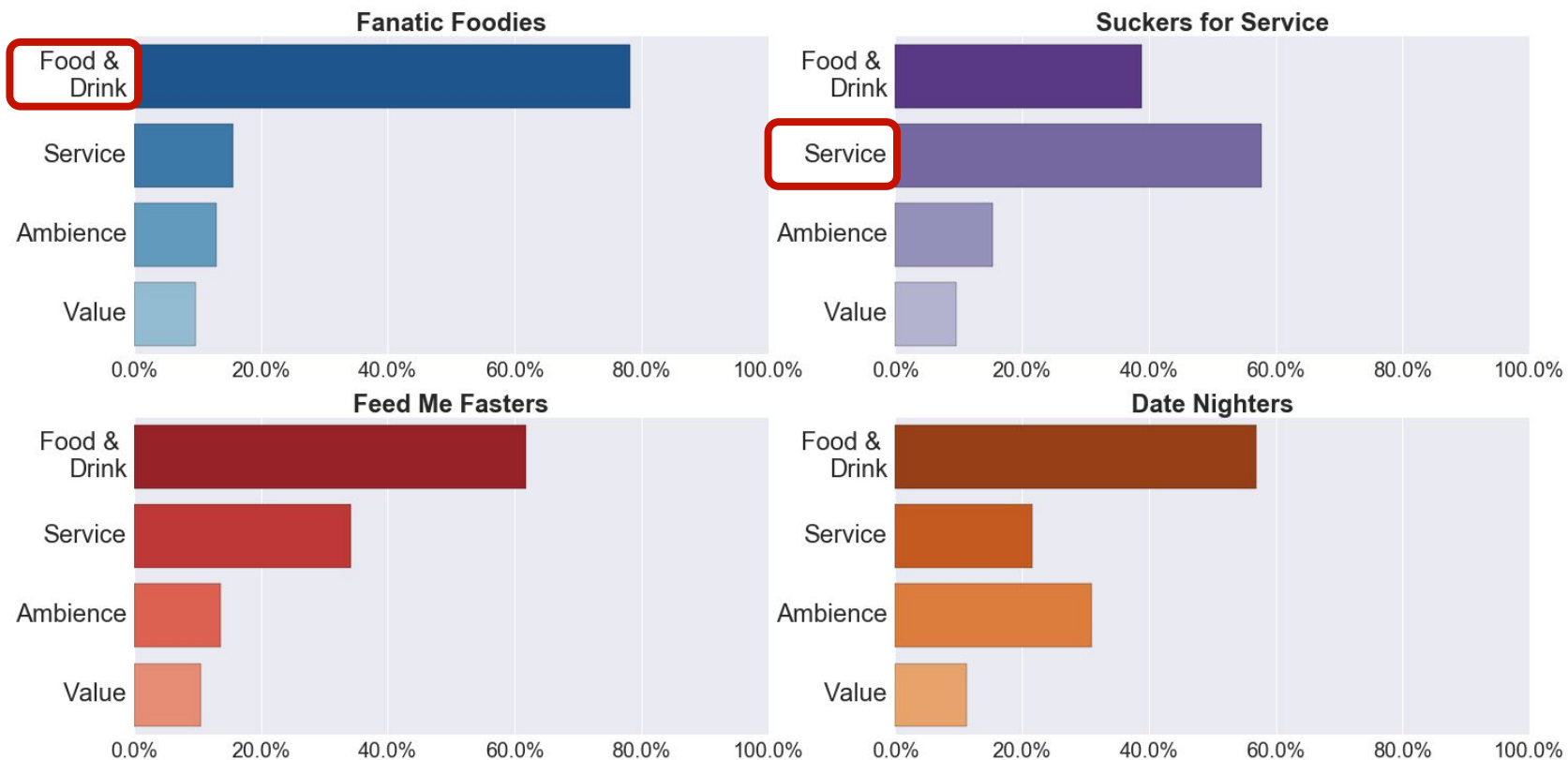
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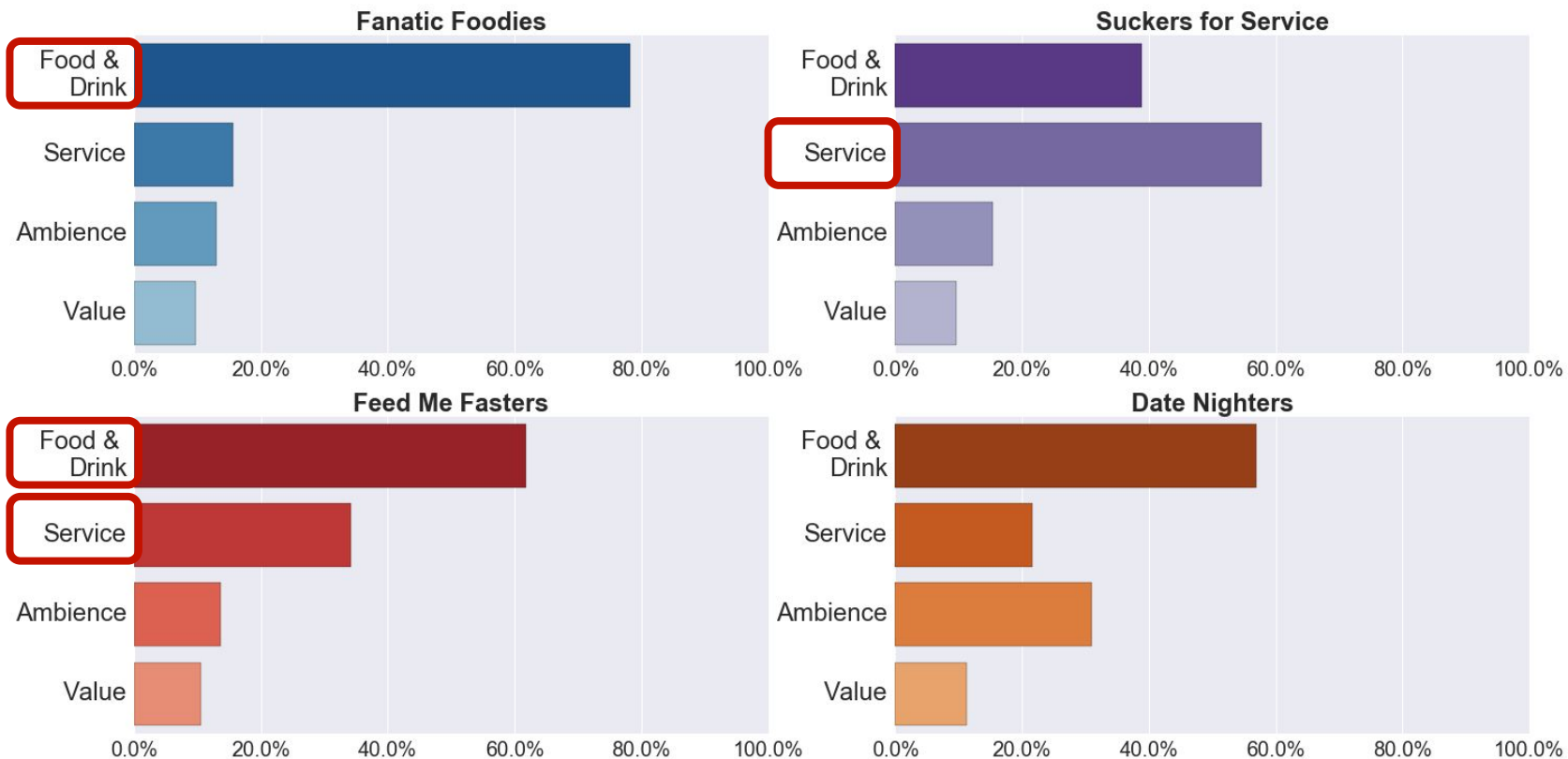
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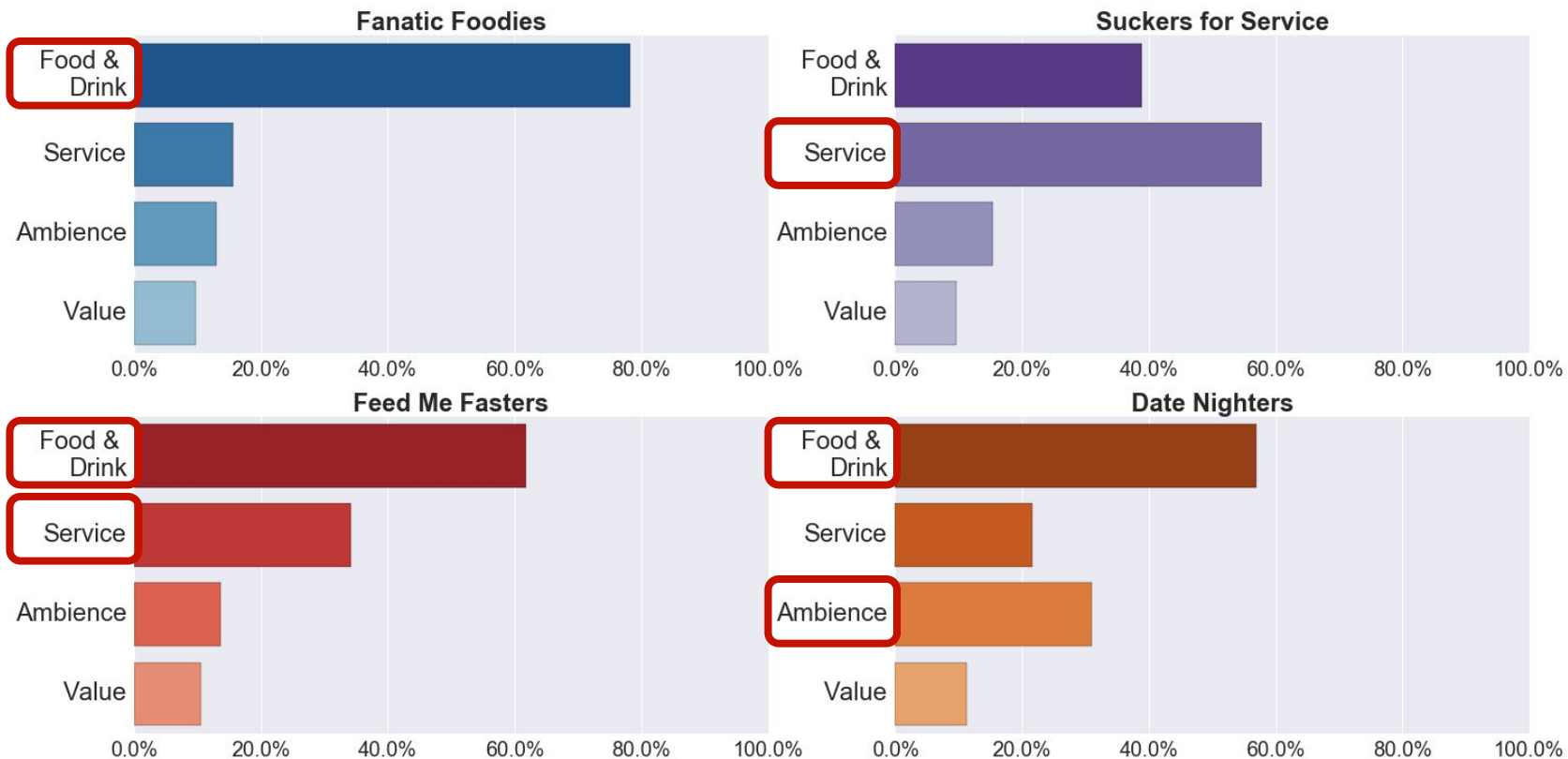
Approach: Semi-Supervised Topic Modeling

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Approach: Semi-Supervised Topic Modeling

Step (4): Segment Users Based on Topics Most Discussed (Most Talkative Quartile)



Use Cases

- **Rank Reviews:** Show reviews from people in a user's cluster first
- **Customize Average Star Ratings:** Weight reviews according to cluster
- **Market Analytics:** Help Yelp businesses better understand customer base

Thank you!



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