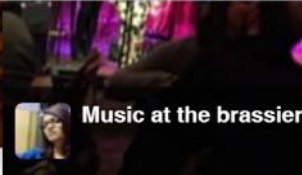




Competitive Analysis


Unlike Amazon, Yelp highlights key phrases


<https://www.yelp.com/biz/beat-brasserie-cambridge>


Harvard Square
[Get Directions](#)
Harvard Square Station [More info](#)
(617) 499-0001
beatbrasserie.com



 "I'd just recently gotten back from NOLA and having withdrawals, so having brunch with a Jazz **band** was fantastic." in 193 reviews
Music: Live

 "**Harvard Square**'s hippest new spot for a no-cover evening with live music, great food, and amazing drinks!" in 62 reviews

 "Hubby had the short rib lasagne and I had the **earth bowl** with skirt steak!" in 31 reviews

 "The **buffalo cauliflower** was OUT OF THIS WORLD - tasted like you were eating a 300000 calorie meal and was relatively healthy." in 22 reviews

Customers can also filter reviews by key phrases

This would be a nice to have feature in my review analyser

TripAdvisor also lets users filter reviews by key phrases

2,148 Reviews from our TripAdvisor Community

Read reviews that mention:

Search reviews

All reviews

beautiful gardens

well worth a visit

bamboo garden

top floor

full bloom

ferry stop

works of art

great place to visit

couple of hours

plants and trees

entrance fee

views over the lake

few hours

walk around

azaleas

villa

carlotta

artwork

canova

furniture

Having not just phrases but sentiments against phrases might be helpful too
e.g Watson Alchemy API shows sentiments:

https://alchemy-language-demo.mybluemix.net/?cm_mc_uid=85340472914014755712400&cm_mc_sid_50200000=1479224928

Entities	Targeted Sentiment Analyzes the sentiment of user-specified phrases from the document or webpage.		
Keywords	View JS		
Concepts	Target	Type	Sentiment
Taxonomy	gloves	positive	0.317335
Document Emotion	medium gray pair	neutral	
Targeted Emotion	Samsung Galaxy S4	positive	0.808974
Document Sentiment	smart phones	positive	0.72782
Targeted Sentiment	winter gloves	neutral	
Typed Relations	delicate design	positive	0.662514
Relations			

The following slides taken from research work also give interesting insight into the problem of classifying sentiments

I have annotated with red boxes

Feature-Based Sentiment Analysis

- Sentiment classification at both document and sentence (or clause) levels are not enough,
 - they do not tell what people like and/or dislike
 - A positive opinion on an object does not mean that the opinion holder likes everything.
 - An negative opinion on an object does not mean
- **Objective (recall):** Discovering all quintuples
$$(o_j, f_{jk}, so_{ijkl}, h_i, t_l)$$
- With all quintuples, all kinds of analyses become possible.

Feature-Based Opinion Summary

(Hu & Liu, KDD-2004)

"I bought an iPhone a few days ago. It was such a nice phone. The touch screen was really cool. The voice quality was clear too. Although the battery life was not long, that is ok for me. However, my mother was mad with me as I did not tell her before I bought the phone. She also thought the phone was too expensive, and wanted me to return it to the shop. ..."

Feature Based Summary:

Feature1: Touch screen

Positive: 212

- The touch screen was really cool.
- The touch screen was so easy to use and can do amazing things.

...

Negative: 6

- The screen is easily scratched.
- I have a lot of difficulty in removing finger marks from the touch screen.

...

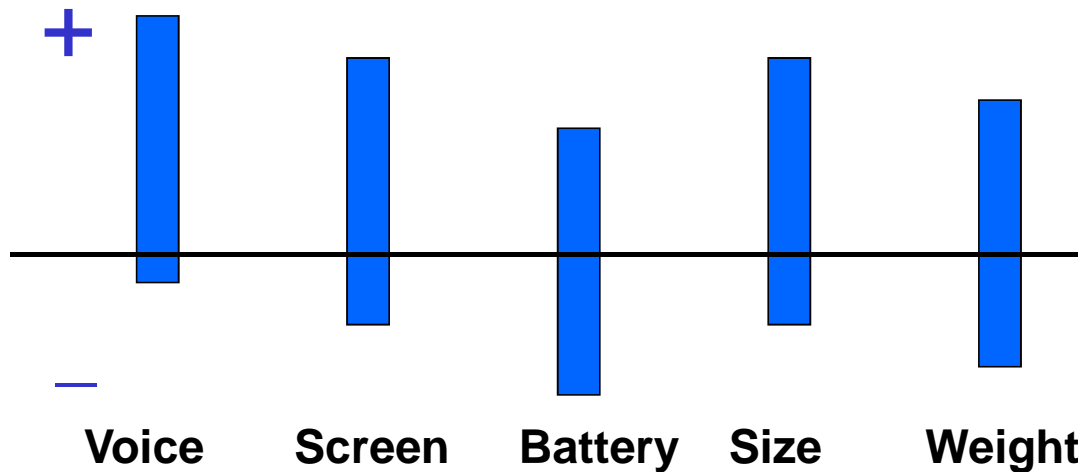
Feature2: battery life

...

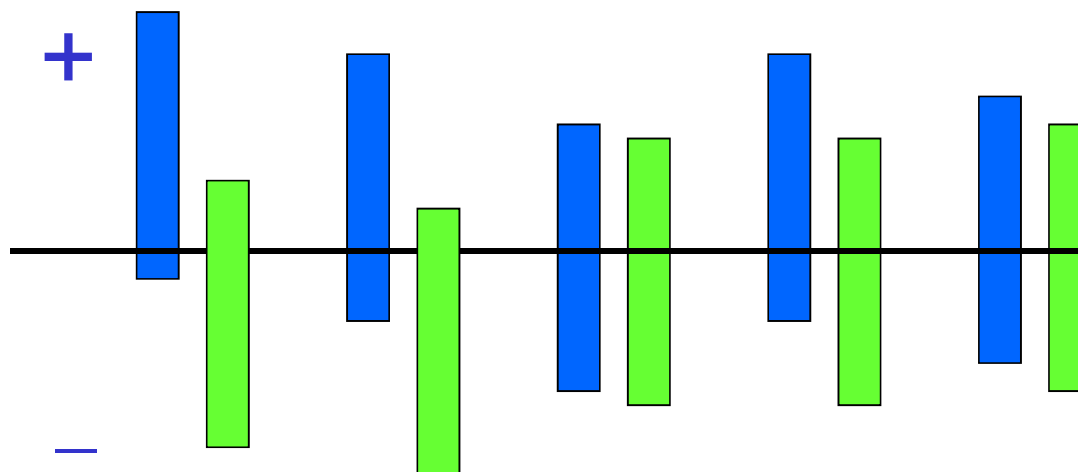
Note: We omit opinion holders

Visual Comparison (Liu et al. WWW-2005)

- Summary of reviews of
Cell Phone 1



- Comparison of reviews of
Cell Phone 1
Cell Phone 2



Feat.-based opinion summary in Bing

Feature based opinion summary would be a nice to have feature (maybe in later releases of my analyser)

The screenshot shows the Bing Shopping interface for an HP LaserJet 1020 printer. On the left, under 'POPULAR FEATURES', there are horizontal bar charts for various attributes: Affordability, Speed, Print Quality, Reliability, Ease Of Use, Brand, Installation, Size, and Compatibility. The 'Speed' feature is highlighted with a blue background. The main product listing shows the HP LaserJet 1020 printer with a price of \$179, a 3% Bing cashback offer, and 177 user reviews. Below the product image, there are tabs for 'user reviews', 'product details', 'expert reviews', and 'compare prices'. The 'user reviews' tab is selected, showing a 'speed' feature with a 96% positive rating. Below this, there are three user reviews: one from Love Reading (3/17/2006) praising quality and speed, one from Arthur L. Taylor (2/5/2008) mentioning a quick transaction, and one from Muffinhead's mom (1/9/2007) noting the printer's compact size and reliability.

bing HP printer

ALL RESULTS Shopping

SHOPPING

HP LaserJet 1020 - printer - B/W - laser, 15ppm, USB

from \$179 (2 stores) Bing cashback - 3%
★★★★☆ user reviews (177)

The HP LaserJet 1020 Printer, an excellent laser printer for the cost-conscious user, providing high-quality LaserJet printing in a compact size, and at a price you can afford.

user reviews product details expert reviews compare prices

user reviews view: positive comments (44)

speed 96%

The quality is as good as any laserjet printer I've used and the speed is fast.
Love Reading www.amazon.com 3/17/2006 [more...](#)

Quick and fast transaction.
Arthur L. Taylor www.amazon.com 2/5/2008 [more...](#)

It's small and fast and very reliable.
Muffinhead's mom www.amazon.com 1/9/2007 [more...](#)

Sentiment Analysis is Hard!

- *“This past Saturday, I bought a **Nokia** phone and my girlfriend bought a **Motorola** phone with **Bluetooth**. We called each other when we got home. **The voice on my phone was not so clear, worse than my previous phone.** **The battery life was long.** My girlfriend was quite happy with her phone. I wanted a phone with good sound quality. So my purchase was a real disappointment. I returned the phone yesterday.”*

Senti. Analy. is not Just ONE Problem

- $(o_j, f_{jk}, so_{ijkl}, h_i, t_l),$
 - o_j - a target object: Named Entity Extraction (more)
 - f_{jk} - a feature of o_j : Information Extraction
 - so_{ijkl} is sentiment: Sentiment determination
 - h_i is an opinion holder: Information/Data Extraction
 - t_l is the time: Data Extraction
- Co-reference resolution
- Relation extraction
- Synonym match (voice = sound quality) ...
- None of them is a solved problem!