Social Media Marketing

Listening and Amplifying

Agenda

What's social listening?

How do firms benefit from social listening?

What tools can be used for social listening?

Case Study 1: Textual listening (auto forum)

Case Study 2: Visual listening (images)

Social Listening

Social listening is how a firm track, analyze, and respond to conversations across the Internet

How do firms "listen" to customers traditionally?

How do firms benefit from social listening?



Discover new product ideas or enhancement
Identify your fans and haters
Identify your strengths and weaknesses
Help you manage brand reputation
Watch the competition
Find new leads (unhappy customers of a competitor)
Set strategic benchmark by industry standard





Alerts

Monitor the web for interesting new content



This will create an email alert for xitheory@gmail.com.

Create Alert Show options -

Google Alert

Alert preview

NEWS

Editorial: **HKU** head should be revoked honorary title for suppressing students | Apple Daily Taiwan

蘋果日報

Zhang suppressed **HKU** Students' Union. Zhang Xiang, a Chinese-born American, is an internationally renowned expert in materials science. His great ...

Hong Kong researchers say hepatitis C drug can prevent coronavirus from replicating, might help

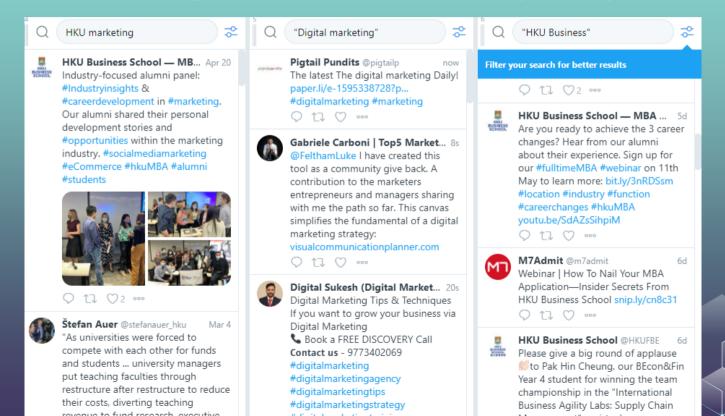
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South China Morning Post

... and overseas laboratories, led by two professors from Chinese University (CUHK) and the University of Hong Kong (HKU) has begun animal trials.

TweetDeck

https://www.youtube.com/watch?v=gnRUsQVtxas



socialmention*

Blogs Microblogs Bookmarks Images Video All

HKU

Search

Advanced Sean Preferences

Socialmention 6 hours avg. per

negative

building knowles 11408195e

2216507n

Top Keywords



Mentions about HKU

Sort By: Date
Results: Anytime

Results 1 - 15 of 73 mentions.

Is weiboscope down?

Weiboscope (https://weiboscope.jmsc.hku.hk/wsr/) is not updating since 19.04.2021. Is it down? submitted by /u/hwss28 to r/China [link] [comments] https://www.reddit.com/r/China/comments/n92yh8/is_weiboscope_down/ 12 hours ago - by /u/hwss28 on reddit

HKU 361W Finningley 17-9-83 (1262)

HKU 361W Leon of Finningley Leyland Fleetline Alexander at Finningley 17-9-83. This bus still exists in a yard by Blaxton railway crossing which is not very far from... www.flickr.com/photos/34194390@N02/51169640061/15 hours ago - by marktriumphman on flickr



© expectations on hearing back?

I applied for first year admissions at HKU in late March and just had a group interview this past week. They should be getting my SAT report very soon as well. I am ...

https://www.reddit.com/r/HKUniversity/comments/n8vsud/expectations_on_hearing_back/ 20 hours ago - by /u/LsftWr on reddit

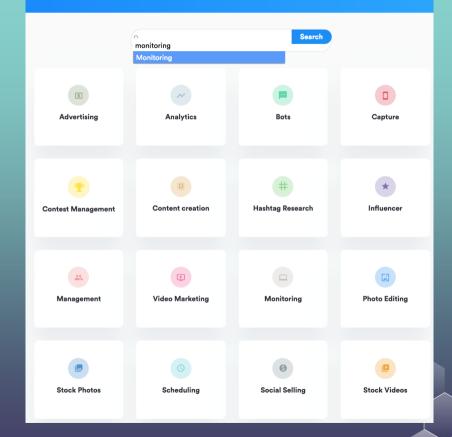
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More social media tools (both free & paid) can be found: https://smmartbox.iconosquare.com/

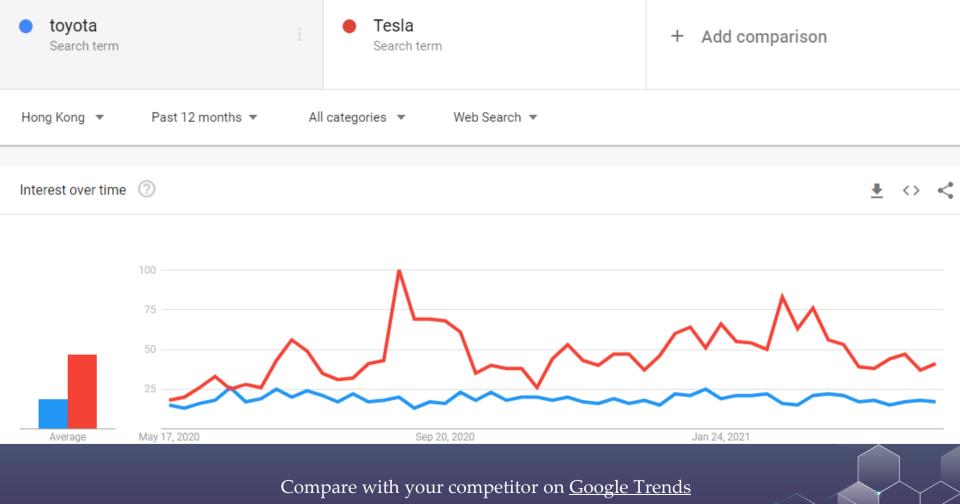
SMMartbox

A Curated Directory of 300+ Tools for Social Media Marketers













Analyzing tweets from Apr 27 - May 11, 2021



Tesla

@Tesla 📀



1.06M **FOLLOWERS**

TWEETS PER DAY

579 ENGAGEMENT PER TWEET @



46.0k

ENGAGEMENT PER TWEET (1)

9.46M **FOLLOWERS**

0.14 TWEETS PER DAY

Key Insights



Tesla takes the trophy for receiving 79x more engagement per tweet than **Honda**.



Tesla wins the day with 9x as many followers and higher engagement — Honda has their work cut out for them.



Crushing it! Tesla received 46x more retweets per tweet than Honda, which explains how they're leading the pack in tweet engagement.

In Class Activity

Identify a major competitor of the firm/brand you chose for the group project.

Go to https://www.rivaliq.com/free-social-media-analytics/

Do a head-to-head comparison on either Twitter, Instagram, or Facebook

Share what you find interesting

Case Study

MARKETING SCIENCE

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Mine Your Own Business: Market-Structure Surveillance Through Text Mining

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Mined textual data from online forums about cars. Investigated co-occurrences of brands-attributes in the chatter, to derive market structure.

Also looked at drivers of co-mentions of different brands.

Basic text-mining approach:

- 1. Download data.
- 2. Clean data and remove non-textual information.
- 3. Extract information about products and attributes.
- 4. Categorize text into units like threads, messages, and sentences.
- 5. Identify semantic relationships, such as co-occurrences.

This study focused on Sedan car models.

The data are collected from a Sedan car forum Edmunds.com



CarType: 2- Acura TL

MsgNumber: 2479 MsgTitle: r34 MsgAuther: r34

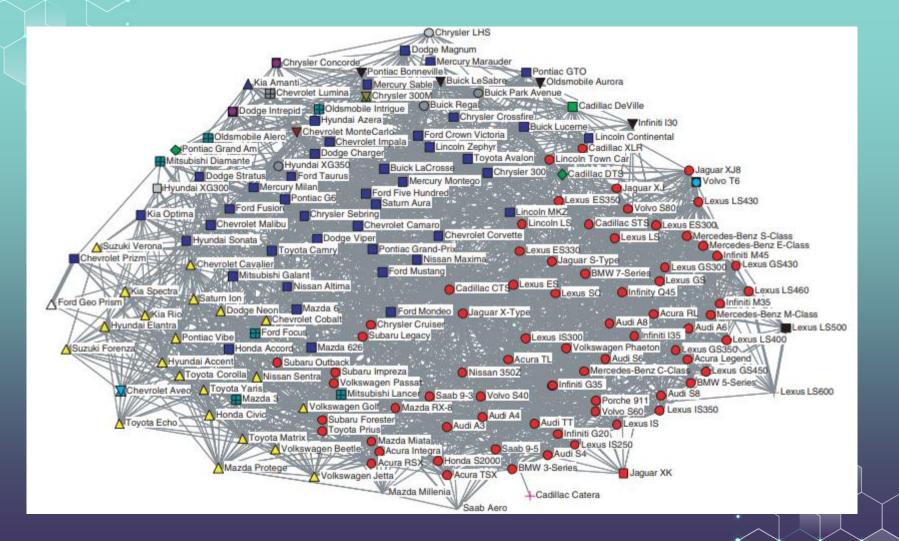
MsgDate: Jun 24, 2004 (11:38 am)

MsgRepliesTo:

That's strange. I heard many people complaint [sic] about the Honda paint. I owned a 1995 Nissan Altima before and

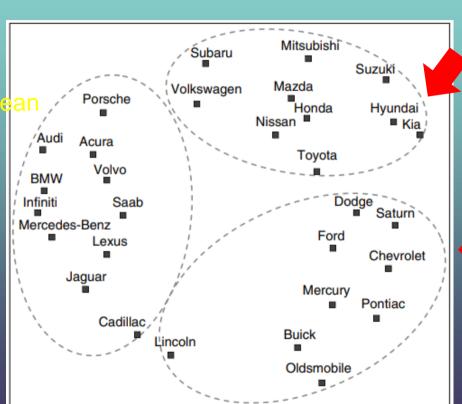
its paint was much better than my neighbour's

Accord (1998+ model). I found the Altima interior was quiet [sic] good at that time (not as strange as today's).



Clustering analysis: Using a clustering algorithms, we can classify the sedan models into different clusters. clusters are defined by groups of nodes that are densely connected within the cluster and less densely connected across clusters.

High-end luxury European and Japanese brands

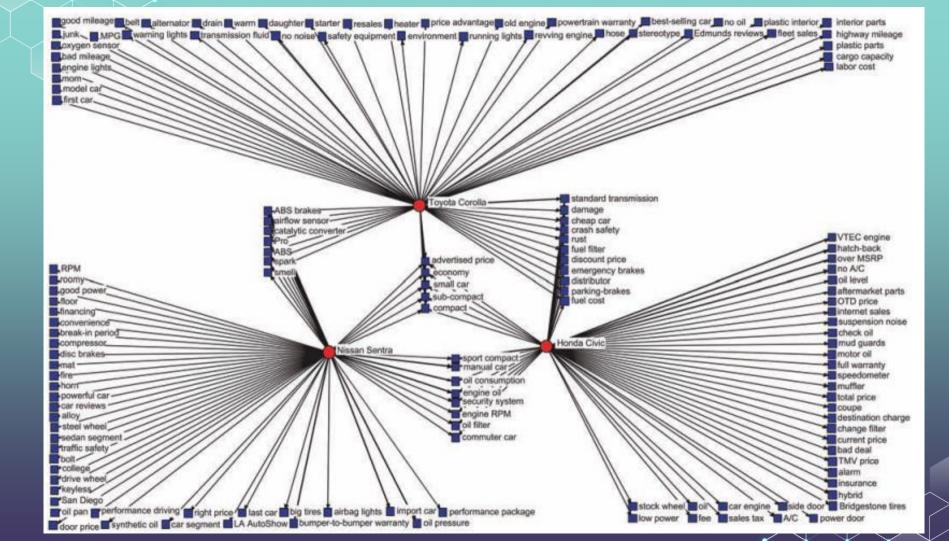


Mainstream Japanese Frands

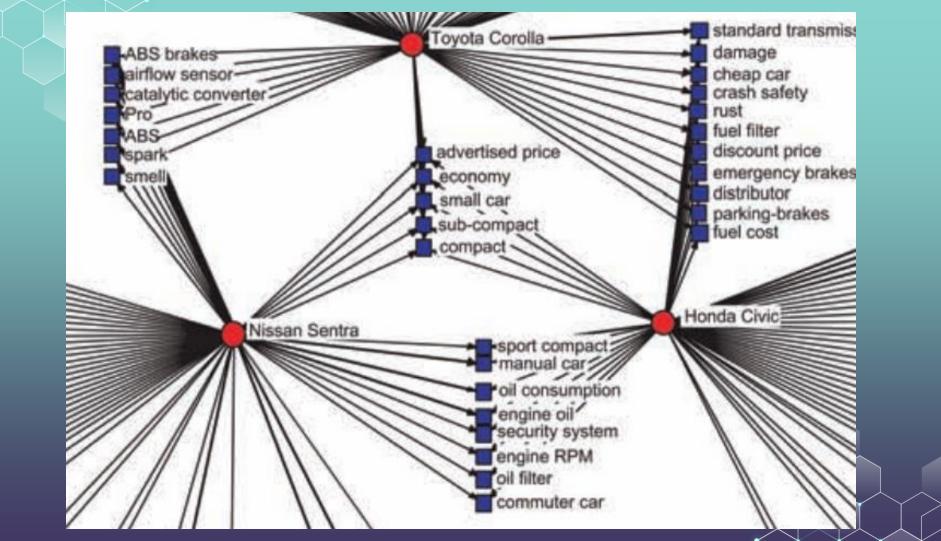
Most US brands here

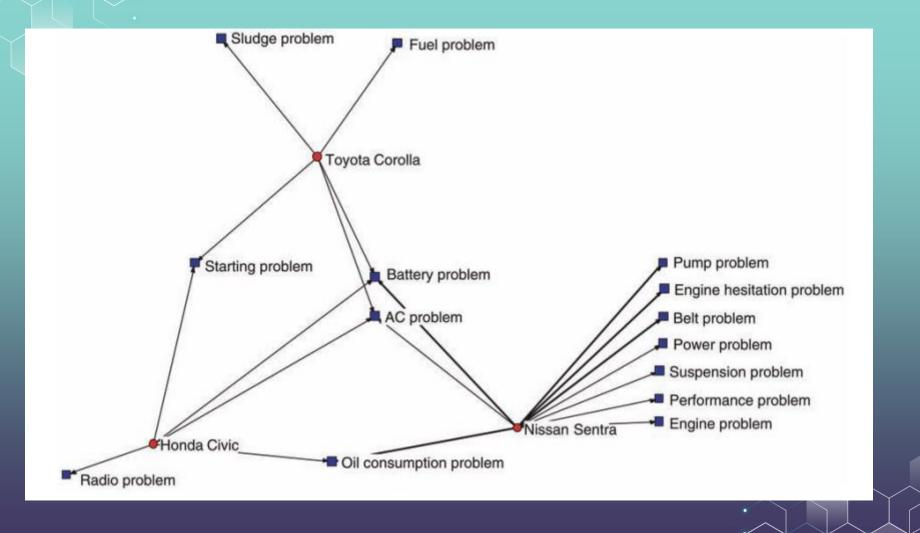
"Zooming In" on the Discussion

Thus far, we have analyzed the co-occurrence of car models with one another in the forum. However, one of the most promising aspects of the text-mining methodology is the opportunity to quantify what consumers wrote about each of the cars. This type of analysis allows us to drill one level deeper into consumers' discussions.



Terms mentioned commonly with all three cars often describe the cars' category; Only Nissan and Honda are described sporty compact. Another interesting term associated with Nissan alone is college, which possibly suggests that Sentra is perceived as a college car.





Understand Brand Perceptions from Social Images

Case Study



MARKETING SCIENCE

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Visual Listening In: Extracting Brand Image Portrayed on Social Media

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Liu et al. 2020

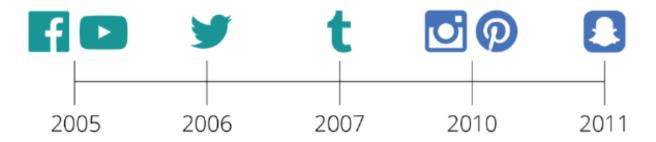
Images are close to surpassing text as the medium of choice for online conversations. They convey rich information about the consumption experience, attitudes, and feelings of the user. This study proposes a "visual listening in" approach (i.e., mining visual content posted by users) to measure how brands are portrayed on social media.



Photos are new online conversation

Image-based social media platforms are on the rise

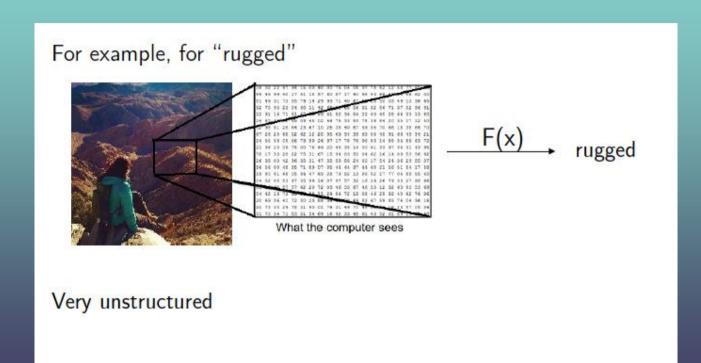
- E.g., Instagram has 700 million monthly active users
- 95 million photos/videos uploaded daily¹



"How are brands portrayed along intangible brand attributes?"



Deeping Learning Algorithm is becoming useful



Deeping Learning Algorithm is becoming useful

Input image



y = +1This photo is rugged

Color

RGB histogram (red, green, blue) HSV histogram (hue, saturation, value) L*a*b histogram

E.g., percentage of green color

Shape

Lines and corners Edge orientation histogram Histogram of oriented gradients

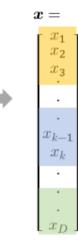
E.g., whether there are straight lines, direction of lines

Texture

Local binary pattern Gabor filter

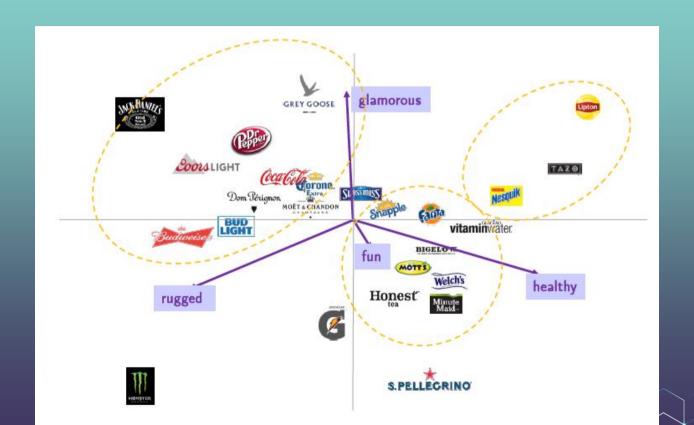
E.g., does it feel smooth?

Feature vector



$$y = +1$$
This photo is rugged

An application to beverages



Identifying Gaps in Positioning

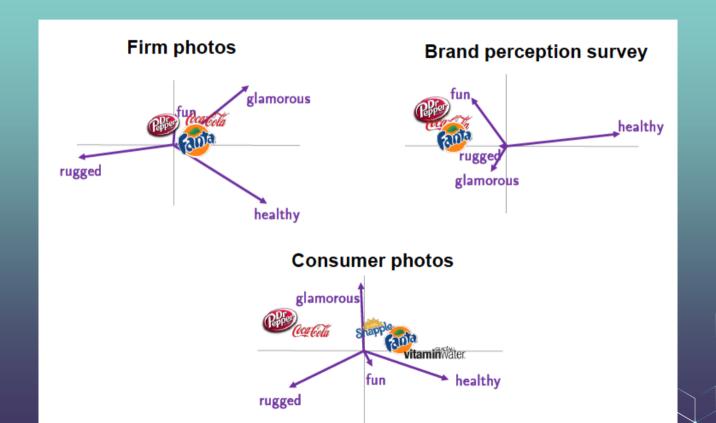
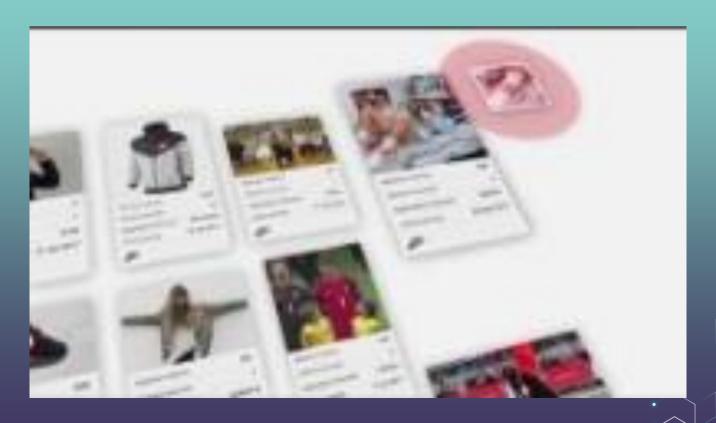


Image Analysis using Brandwatch



Takeaways

Social media isn't just for amplification. It's also an incredible listening device.

Social listening can help you identify competitors and key attributes across brands as revealed by text mining of online forums.

Fueled by big data, advances in machine learning and AI, marketers are able to go beyond listening to textual information as image & video analyses become feasible.



Amplifying

How to leverage influencer marketing?
Study: Which agents should be targeted to generate word-of-mouth?

User-generated content Study: economic impact in movie industry Sentiment analysis

Influencer & UGC can take your social strategy to the next level

92% of people trust recommendations from individuals (even if they don't know them) over brands. (Nielsen 2010)

47% of online customers use ad block technology. The way to reach them is to provide content they want from people they trust. (Reuters Institute 2018)

51% of marketers believe they get better customers from influencer marketing. That's because the relationship began with trust in the influencer. (Tomoson 2015)

On average, businesses make \$6.50 for every dollar invested in influencer marketing. (Tomoson 2015)

37% better retention is reported for customer acquired through word-of-mouth advertising. (Forbes 2014)

Word of mouth generates 2 times the sales of paid advertising. (McKinsey 2010)

Influencer marketing is about building trust

Who are influencers: someone whose opinions are trusted by those that follow them

Could be a celebrity, a blogger, a sport personality, even a pet or fictional character (e.g., Kellogg's Tony the Tiger)!

Influencer marketing: when brands utilize influencers to promote their product

Back to 1890



The Davis Milling Company was one of the first companies - if not THE first company - to introduce an influencer into their marketing efforts. This influencer was called Aunt Jemima, a jovial woman with a big grin who appeared on all their packaging and advertisements, even to this day.

To further personify their brand, they brought in Ms. Nancy Green to act as a real-life Aunt Jemima for the company. Ms. Green continued to play this role for over 30 years, until her death in 1923. There have since been a string of different women hired to portray the now well-loved character, with the last making appearances as late as the 1960's.

Types of Influencers

Celebrity influencers

Need to go through agencies, length contracts, and strict rules Care more about \$, also expensive

Industry influencers

People with celebrity status within a specific industry Care about ways to build their own influence as well as \$

Micro influencers

Everyday people with large and passionate audiences Relatively cheap to work with Can be found through influencer network

Local influencers

Local news anchor, local band, local sports figure, etc. High chance to be free

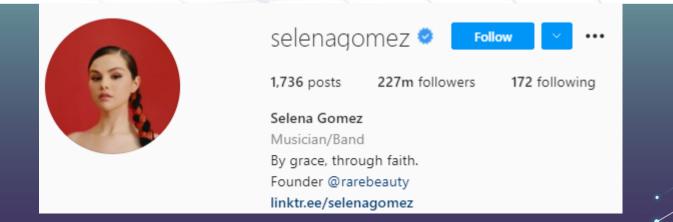


Commission
Upfront fee
Gift card
Per click
Cost per engagement
Invitations to events

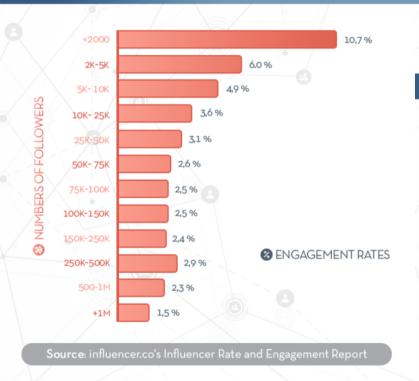
Social Media Influencer Cost to Advertise on Instagram:

- 2,000 to 10,000 Instagram followers: \$75 to \$250 per post
- 10,000 to 50,000 Instagram followers: \$250 to \$500 per post
- 50,000 to 100,000 Instagram followers: \$500 to \$1,000 per post
- 100,000 to 500,000 Instagram followers: \$1,000 to \$3,000 per post
- 500,000+ Instagram followers: \$3,000+ per post

Selena Gomez is said to be the highest paid Instagram influencer with 122 million followers on her Instagram account. Her Instagram sponsored posts cost brands \$550,000 per post!

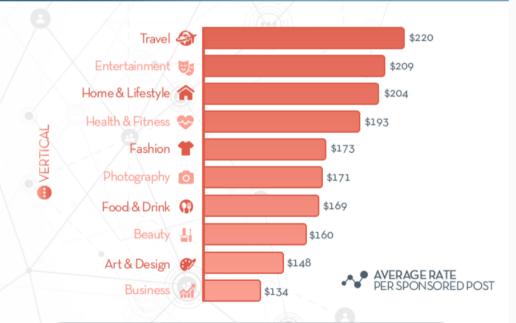


influencers with smaller followings have higher engagement rates.





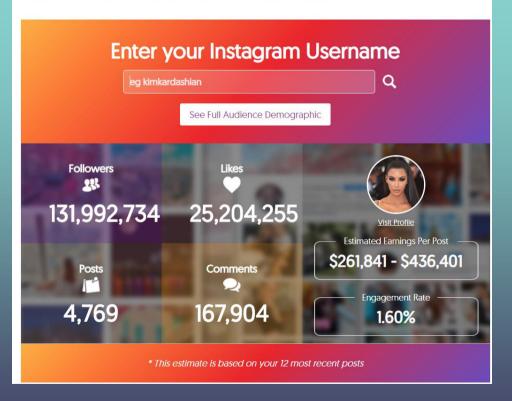
* Travel, entertainment, and home/lifestyle influencers have the highest sponsored post rates.



Source: influencer.co's Influencer Rate and Engagement Report

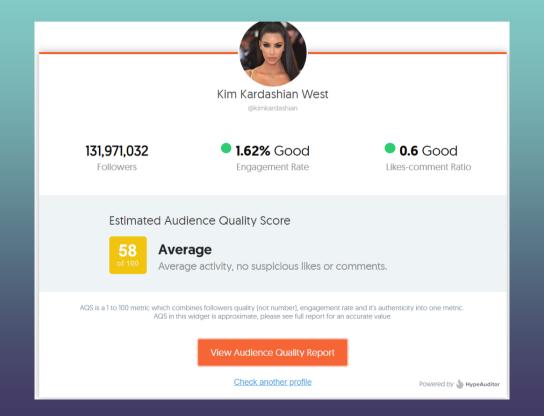
Instagram Influencer Earnings Calculator

The tools below are not official Instagram tools and not in any way associated or endorsed by Instagram. This tool was developed to provide earning potential guidelines to influencers.



https://influencermarketinghub.com/instagram-money-calculator/#toc-0

Check extent of fake followers



How can influencers work with your brand?

Share brand content you've created Share brand content they've created Sponsored posts that feature the influencer Contests/competitions Live streaming events with face-to-face contact with influencer Get a testimonial from the influencer Interview influencers and include their commentary or quotes

Influencer Networks

revfluence

HYPETAP









FANBASE













Firm generated online WOM



Harnessing online WOM

If WOM has awareness generation properties, shouldn't marketers focus on planting the WOM seed and initializing online discussions/mentions?



Example: NBC

In September 2005, NBC launched the second season of its reality show about weight loss, *The Biggest Loser*.

In preparation for the new season, NBC ran ads in early August asking viewers to fill out a survey at a website. Out of all the applicants, 1,000 "biggest" fans were chosen to throw parties during an advanced screening of the show's premiere. The hope was that this, along with the resulting word of mouth (WOM), would generate interest in the show (O'Malley 2005).



Example: POX

Hasbro in 2001 launched a new handheld video game called POX. To do so, they ran surveys in Chicago area elementary schools to find the "coolest" kids in each school. Once 1,600 kids were chosen, they were each armed with a backpack filled with samples of the game to be handed out to their friends



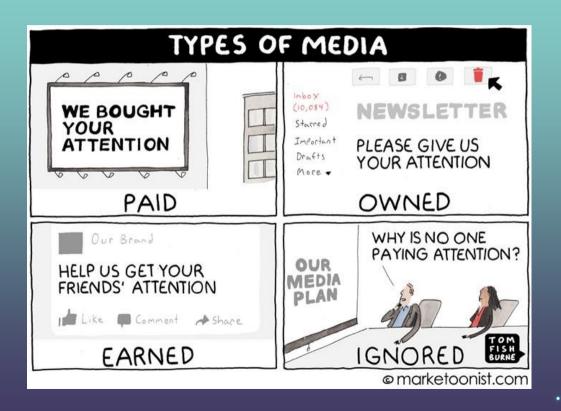


Types of WOM

Offline: face to face phone Online: email blog/tweet posting on website/social network reviewer comments tagging (like, etc.) Votes (thumbs up or down)



UGC is a type of earned media





Does UGC/WOM really matter?



Case Study

Whose and what chatter matters? The effect of tweets on movie sales

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^c University of Texas at Austin, McCombs School of Business and Department of Economics, United States

Overview

Idea: Examine how Twitter online WOM affects movie sales.

Two effects, a direct effect and an indirect effect



Twitter patterns: What chatter matters

Pre-consumption

I plan to watch Spider-Man

Post-consumption

I watched Spider-Man

Twitter patterns

Pre-consumption

Post-consumption

Direct

Indirect

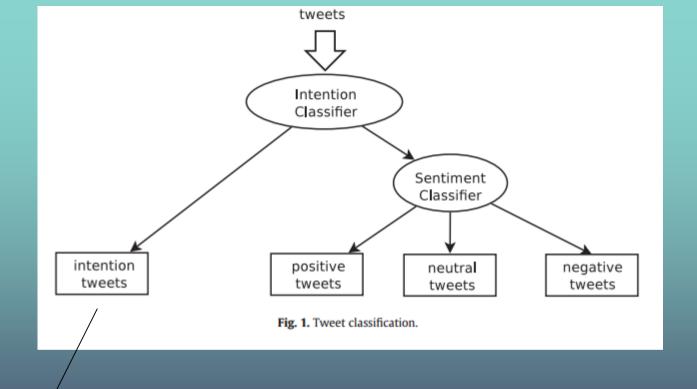
Indirect

Data

Movie revenues from BoxOfficeMojo.com for movies released between June 2009 and Feb 2010.
Tweets directly from Twitter.
Over 4 million tweets mentioning the 63 movies.
For each tweet, observe content, time posted, and number of followers author has.

Use computer program to automatically identify

intention tweets.



"Wow! I wanna see the lovely bones!!"
"DAMN IT!!! Didn't make it... Sold out tickets for Avatar!!!"

```
\begin{aligned} \textit{Revenue}_{it} &= \alpha \textit{Revenue}_{i,t-1} + \beta_1 \textit{Totaltweets}_{i,t-1} \\ &+ \beta_2 \textit{Type-2 tweetsratio}_{i,t-1} \\ &+ \beta_3 \textit{Intention tweets ratio}_{i,t-1} \\ &+ \beta_4 \textit{Positive tweets ratio}_{i,t-1} \\ &+ \beta_5 \textit{Negative tweets ratio}_{i,t-1} + \eta_i + \nu_{it} \end{aligned}
```

Revenue	Movie gross box office revenue
	from Friday to next Thursday
Total tweets	Total number of tweets mentioning the name of the
	movie i from Friday to next Thursday
Type-1 tweets	Total number of tweets with followers less than
	400 (fewer audiences) from Friday to next Thursday
Type-2 tweets	Total number of tweets with followers more than
	400 (more audiences) from Friday to next Thursday
Type-2 tweets ratio	Ratio of Type-2 tweets in a week
Intention tweets ratio (%)	Total number of tweets showing intention of
	seeing movie i from Friday to next Thursday
Positive tweets ratio (%)	Ratio of tweets with positive sentiment in a week
Negative tweets ratio (%)	Ratio of tweets with negative sentiment in a week

Variable	Estimate						
Lag Revenue	0.30						
Total tweets	5.34						
Type-2 tweets ratio (%)	76,349						
Intention tweets ratio (%)	157,905						
Positive tweets ratio (%)	125,881	Revenue	Movie gross box office revenue				
Negative tweets ratio (%)	- 137,451	Total tweets	from Friday to next Thursday Total number of tweets mentioning the name of the				
		Type-1 tweets	movie <i>i</i> from Friday to next Thursday Total number of tweets with followers less than 400 (fewer audiences) from Friday to next Thursday				
		Type-2 tweets	Total number of tweets with followers more than 400 (more audiences) from Friday to next Thursday				
		Type-2 tweets ratio Intention tweets ratio (%)	Ratio of Type-2 tweets in a week Total number of tweets showing intention of				
		, ,	seeing movie i from Friday to next Thursday				
		Positive tweets ratio (%) Negative tweets ratio (%)	Ratio of tweets with positive sentiment in a week Ratio of tweets with negative sentiment in a week				

Variable	Estimate
Lag Revenue	0.30
Total tweets	5.34
Type-2 tweets ratio (%)	76,349
Intention tweets ratio (%)	157,905
Positive tweets ratio (%)	125,881
Negative tweets ratio (%)	- 137,451

1 tweet from the previous 7 days leads to a \$5.34 increase in movie revenue for the current week

Variable	Estimate
Lag Revenue	0.30
Total tweets	5.34
Type-2 tweets ratio (%)	76,349
Intention tweets ratio (%)	157,905
Positive tweets ratio (%)	125,881
Negative tweets ratio (%)	- 137,451

1% increase of tweets with over 400 followers from the previous 7 days leads to a \$76,349 increase in movie revenue for the current week.

Variable	Estimate
Lag Revenue	0.30
Total tweets	5.34
Type-2 tweets ratio (%)	76,349
Intention tweets ratio (%)	157,905
Positive tweets ratio (%)	125,881
Negative tweets ratio (%)	- 137,451

Pre-consumption tweets are more helpful than post-consumption tweets in generating movie sales.

Variable	Estimate
Lag Revenue	0.30
Total tweets	5.34
Type-2 tweets ratio (%)	76,349
Intention tweets ratio (%)	157,905
Positive tweets ratio (%)	125,881
Negative tweets ratio (%)	- 137,451

Positive tweets help movie sales while negative tweets hurt movie sales. Moreover, the downside of a negative tweet is more than the benefit of a positive tweet.