Brandwatch

The Twitter Happiness Report:

A Study on Positive and Negative Emotions Expressed on Twitter

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Contents

1.0 Introduction & Background

1.1 INTRODUCTION

The following study examines the nature of online conversations indicating either a positive or negative day. As leaders in the social media monitoring space, we believe that experimental studies like this play an essential role in advancing our knowledge of listening capabilities, social data applications and online behaviors.

All the insights in this study were performed using the Brandwatch Analytics platform.

1.2 BACKGROUND

Queries are designed to identify chatter around Good Days ("Today is the best day") or Bad Days ("This day was horrible") as well as stronger phrases on life quality such as Love Life ("I love life") or Hate Life ("Hate my life").

Comparing the ratio of positive conversations over negative ones sheds light on how such discussions differ across region, gender, topic or time. To keep the language simple, we've labeled the ratios as the "day positivity score" or "life positivity score" respectively:

Day Positivity Score = (Good Days / Bad Days)
Life Positivity Score = (Love Life / Hate Life)

A higher positivity score indicates that the given sample is more likely to report positively about their day or life than they are to publish negative comments.

Similarly, the ratio of conversations discussing the quality of a day (Good Days or Bad Days) over those discussing life (Love Life or Hate Life) provides some insight on whether a group is more prone to discussing their state in moderate day terms ("Today was pretty good") or stronger life terms ("I hate my life").

Quality of Day Terms = (Good Days + Bad Days)
Quality of Life Terms = (Love Life + Hate Life)
Likelihood of Using Day Terms = ((Good Days + Bad Days) / (Love Life + Hate LIfe))

While the differences between day terms and life terms are nuanced, one may interpret life terms to reflect a higher degree of emotion around a subject. Indeed, a qualitative scan of the topics within Love Life and Hate Life queries do generally reveal more emotionally charged discussions.

Although online behaviors are driven by real emotions, this study cannot determine whether someone expressing a negative day is truly having one.

As such, a high positivity score may be interpreted to reflect genuinely positive circumstances, a positive general attitude or greater societal pressure to publicly present a positive outlook. At the least, this study exposes correlations between certain groups or categories and the use of language related to positive, negative, day or life topics.

2.0 Key Findings

3.0 REGIONAL ANALYSIS

Global Analysis

- Examining English conversations from 52 countries, Greenland, Mexico, Spain, France and Argentina reported the highest day positivity scores

United States

- The West and South reported higher day positivity scores than the Northeast and Midwest did
- Georgia and Colorado had the highest day positivity scores while Delaware and West Virginia had the lowest
- Of the 20 cities examined, Denver and Los Angeles had the highest day positivity scores while Louisville and Fort Worth had the lowest scores
- There was no correlation between city population and either day positivity scores or life positivity scores

4.0 GENDER ANALYSIS

- Males had a higher day positivity score than females
- The life positivity scores for males and females were nearly equal
- Females are more likely than males to use life terms (Love Life or Hate Life) than day terms (Good Days or Bad Days)

5.0 LIFE CATEGORY ANALYSIS

- Discussions around Friends & Family and Money both had higher positivity scores than conversations around Work did
- Friends & Family conversations had higher life positivity scores than Work or Money did
- Conversations around Work were more likely to be discussed with life terms (Love Life or Hate Life) than day terms (Good Days or Bad Days) as compared to Friends & Family or Money

6.0 TIMELINE ANALYSIS

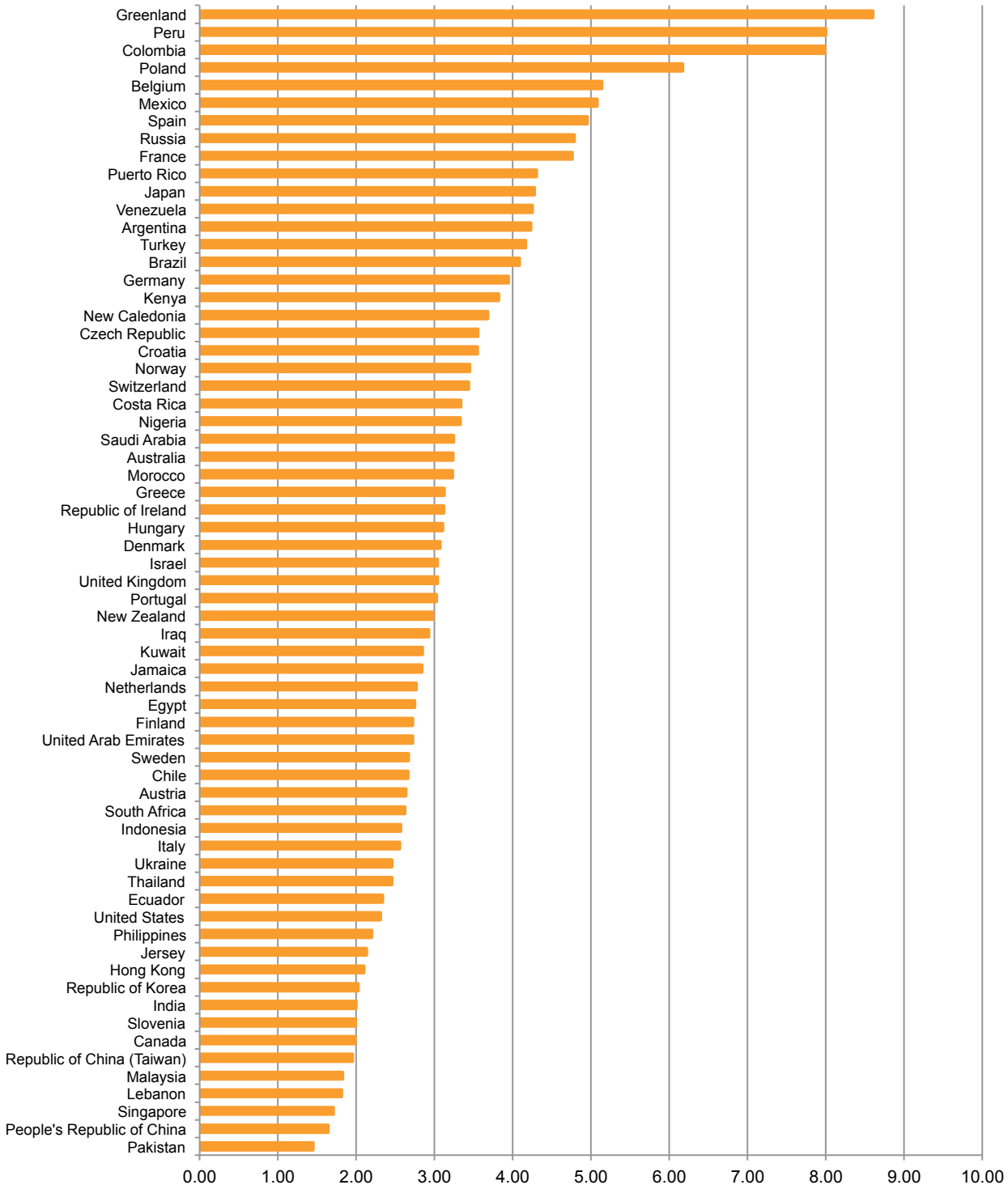
- Day positivity and life positivity scores are lowest throughout the work week, experience a slight uptick on Friday, and have a plateaued peak on Saturday and Sunday
- Users are more likely to report the quality of their lives than that of their day on Saturday and Sunday

3.0 Regional Analysis

3.1 GLOBAL ANALYSIS

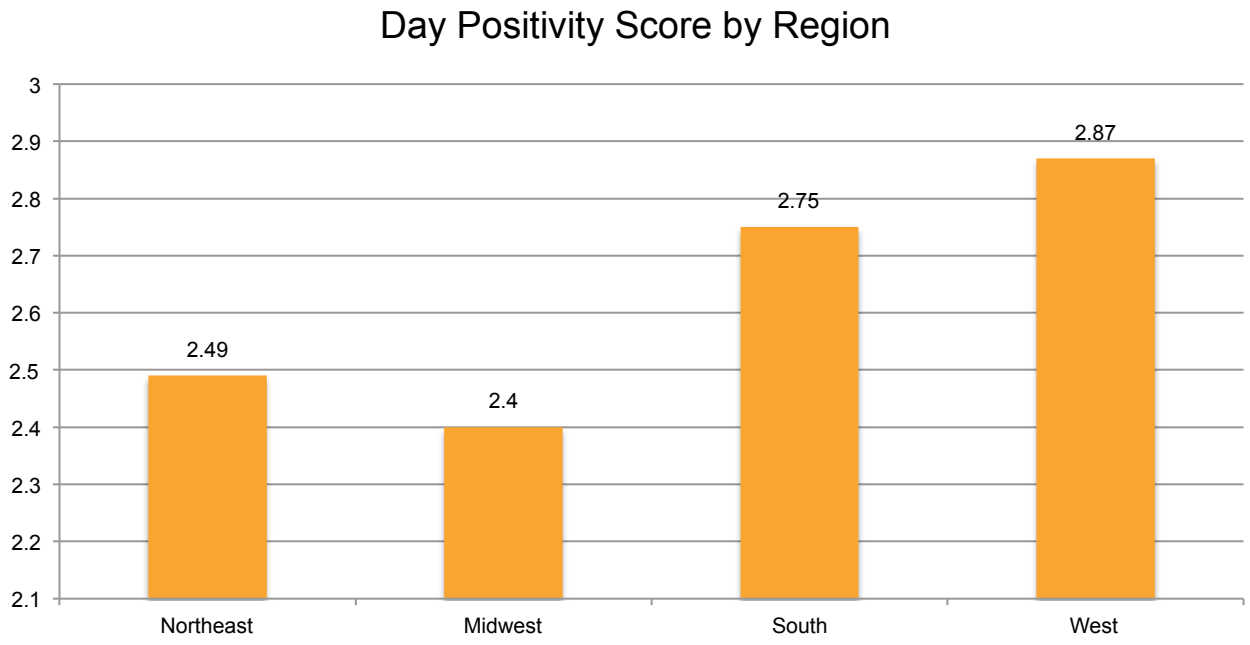
While Brandwatch offers some of the most comprehensive language capabilities and international data sources, for the purpose of this study we've only analyzed conversations in English. As such, the global data should be interpreted as online conversations from English-speaking Twitter users in the given country.

Day Positivity Score by Nation



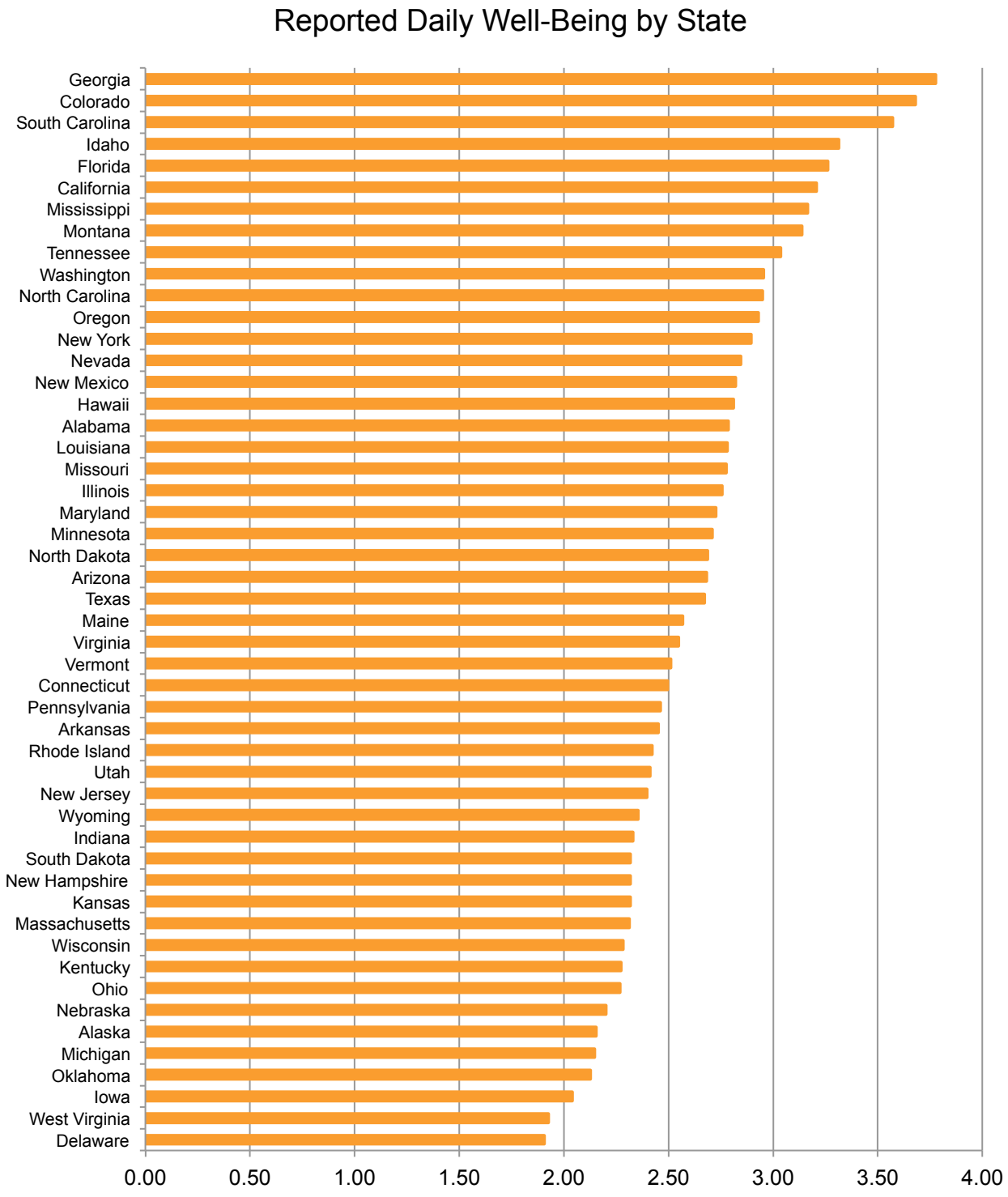
NOTE: Countries with fewer than 200 data points were removed to reduce random error biases from smaller samples.

3.2 US REGIONS



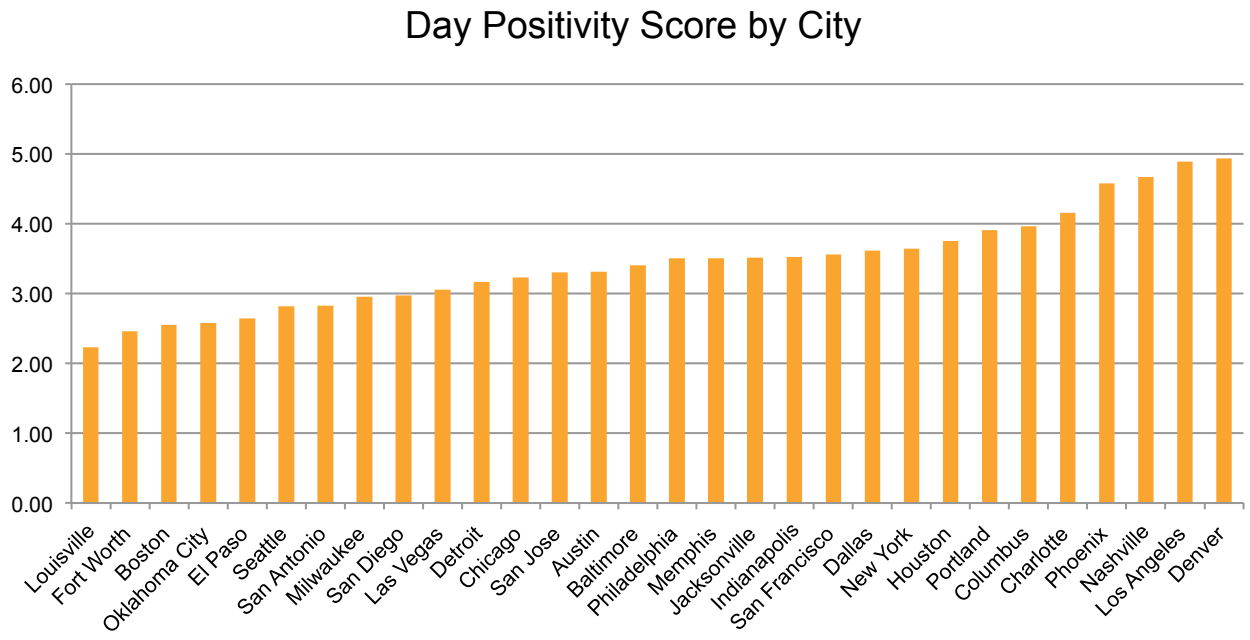
The South (2.75) and West (2.87) have higher ratios of Good Days mentions than the Northeast (2.49) or Midwest (2.40).

3.3 US STATES



Georgia (3.78), Colorado (3.68) and South Carolina (3.57) have the highest ratio of Good Days to Bad Days mentions of American States. Delaware (1.91), West Virginia (1.93) and Iowa (2.04) have the lowest.

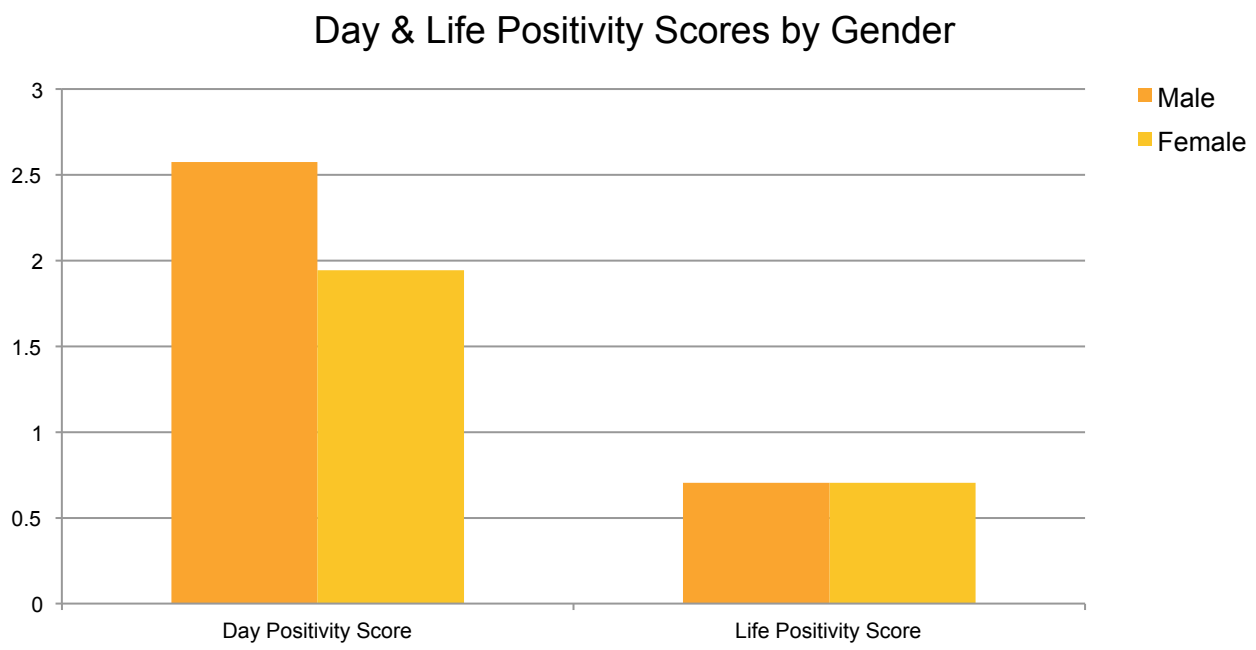
3.4 US CITIES



This analysis looks at 30 American cities with high populations. Denver (4.94), Los Angeles (4.89) and Nashville (4.67) reported the highest day positivity scores while Louisville (2.23), Fort Worth (2.46) and Boston (2.55) have the lowest. There was no correlation between city population and either the day positivity score (R^2 = .109) or the life positivity score (R^2 = .163).

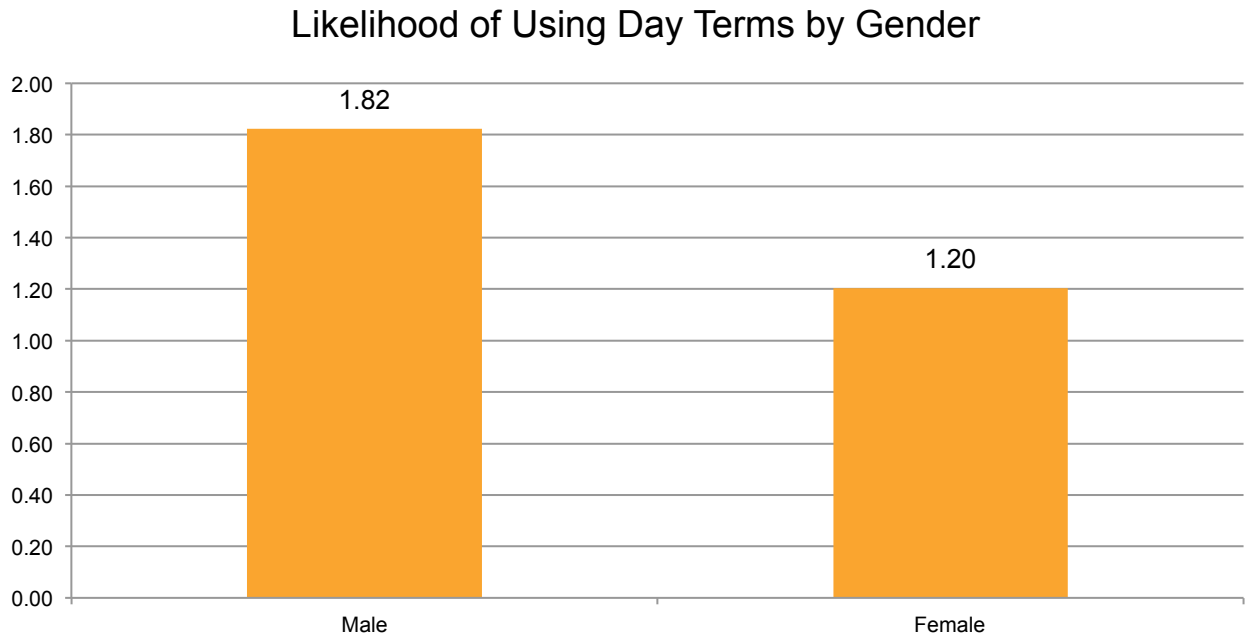
4.0 Gender Analysis

4.1 GENDER POSITIVITY



Males are more likely to discuss Good Days than Bad Days as compared to females. However, there was little difference (.002) between their life positivity scores.

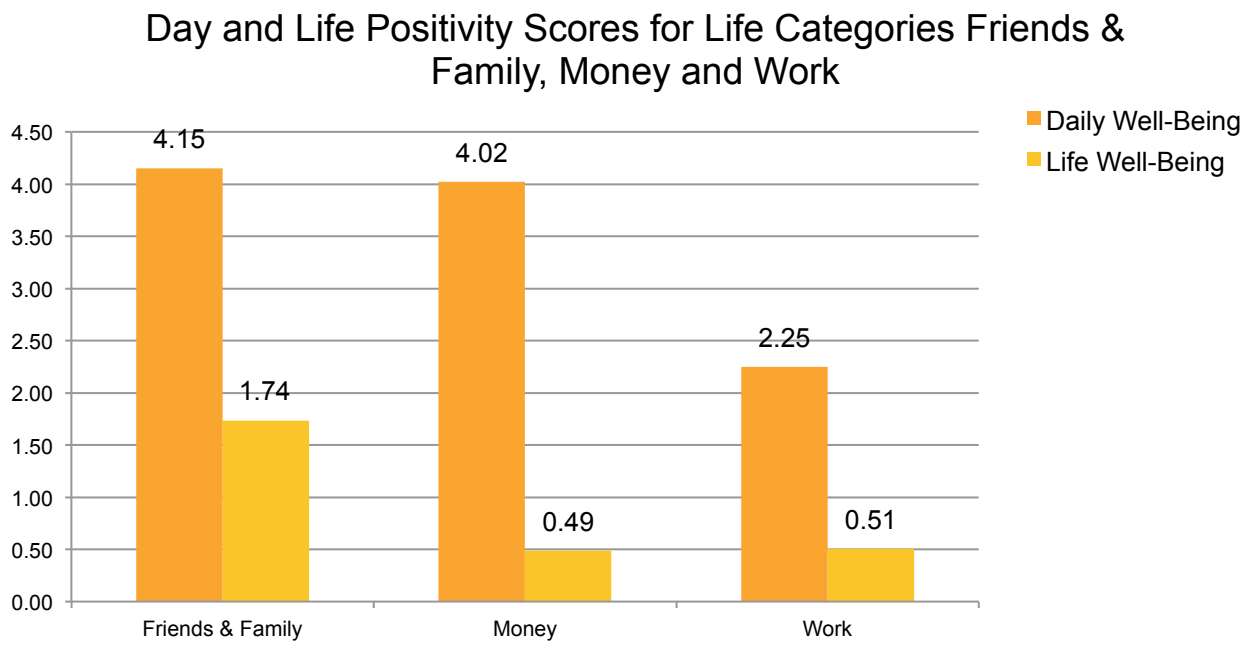
4.2 LIKELIHOOD OF USING DAY TERMS



Females are more likely than males to use terms relating to the quality of their life (“I love life” or “I hate my life”) than terms relating the quality of their day (“best day ever” or “today sucked”).

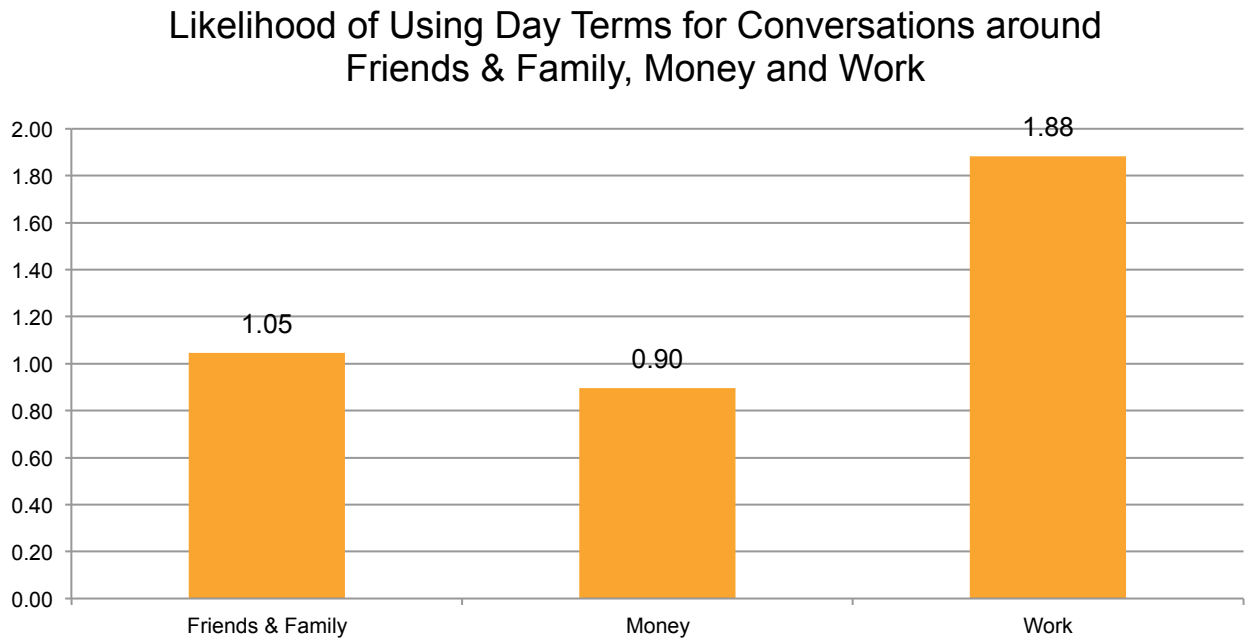
5.0 Life Category Analysis

5.1 GENDER POSITIVITY



For both conversations around Friends & Family and Money, the day positivity score is far higher than it is for Work. Looking at life positivity scores, Friends & Family have a much higher ratio than Money or Work have

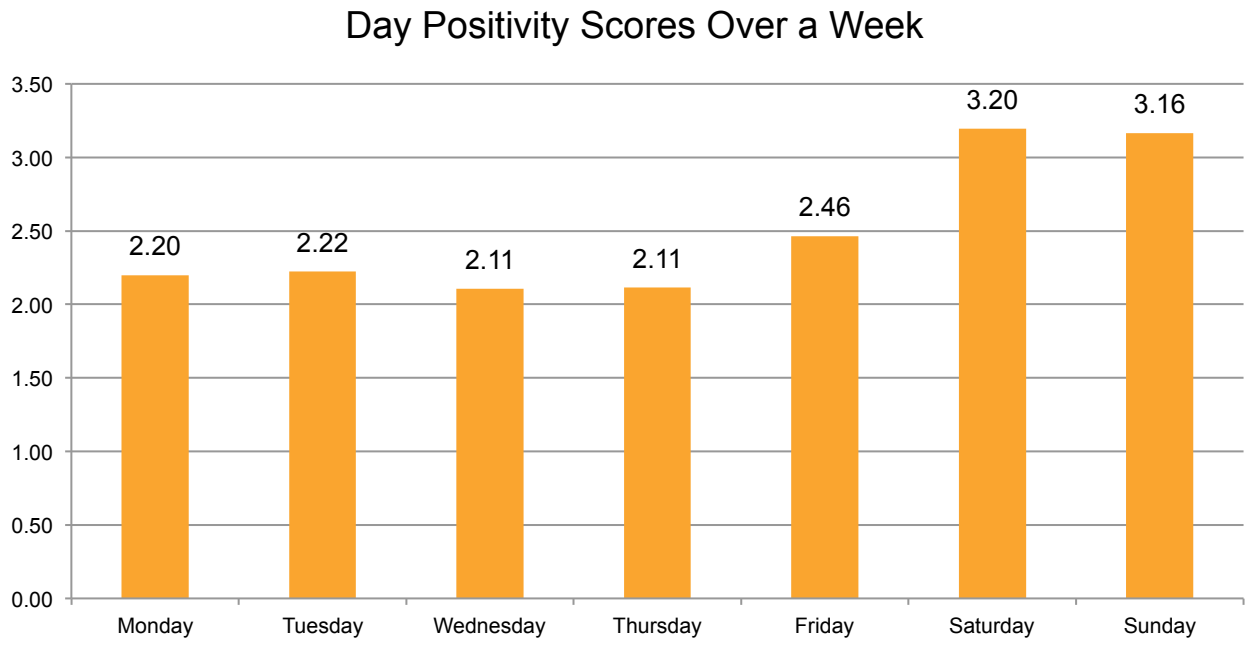
5.2 GENDER POSITIVITY

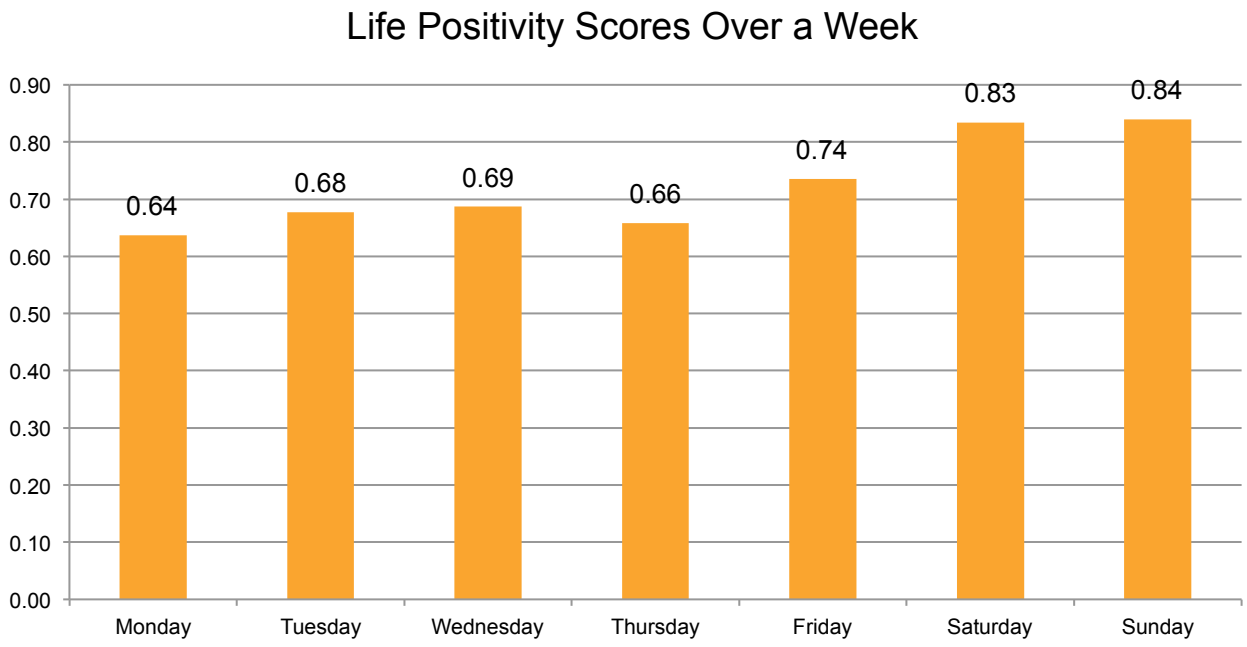


Conversations around Work are more likely to be discussed with life terms (Love Life or Hate Life) than day terms (Good Days or Bad Days) as compared to Friends & Family or Money.

6.0 Timeline Analysis

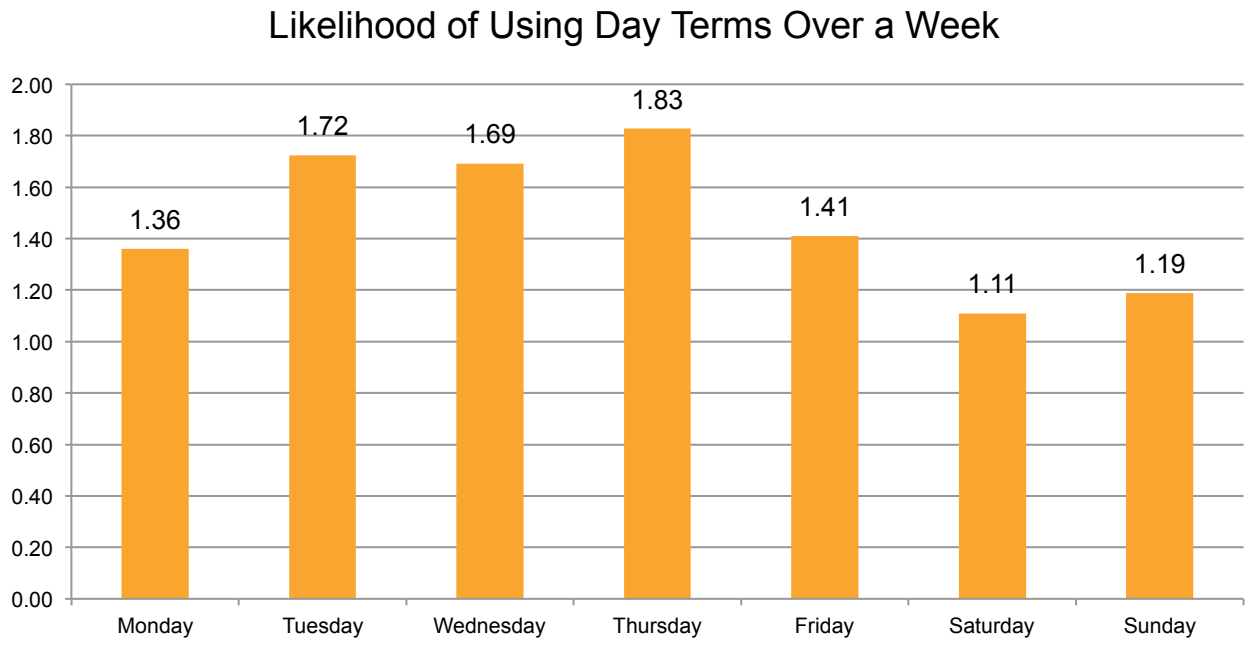
6.1 POSITIVITY TIMELINE





Users' day and life positivity scores are lowest during the week, picking up slightly on Friday and peaking on Saturday and Sunday.

6.2 LIKELIHOOD OF USING DAY TERMS TIMELINE



Users are more likely to report the quality of their lives (Love Life or Hate Life) than that of their day (Good Days or Bad Days) on Saturday and Sunday.

7.0 Methodology & Limitations

7.1 METHODOLOGY

Brandwatch's renowned analytics platform allows users to refine searches to pinpoint conversations and eliminate unwanted noise. The ability to "test" queries and filter spam after the initial data collection process facilitates accurate sample collection and makes studies such as this one feasible.

However, while the ability to refine queries is theoretically limitless, the queries, categories and rules in this study do not capture all the different ways that people discuss having good days, bad days, loving life, hating life, friends & family, work or money. Instead, the sample of social data collected is designed to be an effective representative of the larger conversation around each category.

7.1 LIMITATIONS

Social media conversations comprise only a portion of the total conversation out there. Although inferences may be indicative of the behaviors of overall communities, they must be considered to reflect specifically the online community analyzed.

Furthermore, social media data does not identify genuinely felt emotions. In this study, a user describing a bad day may or may not actually be feeling poorly about the day. However, these conversations do suggest that a genuine underlying emotion drives users to tweet positively or negatively about their day.

8.0 Queries, Categories & Rules

8.1 QUERIES

Good Day

Date Range: 11/17/13 – 11/17/14
Volume: 432k mentions
Regions: Global
Language: English
Source: Twitter
Query: (((today OR todays OR "this day" OR "this days") NEAR/3f ((best OR great* OR good OR amazing OR awesome OR incredible) NEAR/1f (day))) NOT ((not NEAR/1f (best OR great* OR good OR amazing OR awesome OR incredible)) OR ("day for" NOT ("day for me" OR "day for my")))) NOT ("no good" OR terrible OR awful OR "the only good thing" OR (not NEAR/4f ("good day"))) AND site:twitter.com

Bad Day

Date Range: 11/17/13 – 11/17/14
Volume: 178k mentions
Regions: Global
Language: English
Source: Twitter
Query: ((((today OR todays OR "this day" OR "this days") NEAR/3f ((worst OR terrible OR bad OR miserable OR horrible) NEAR/1f (day))) NOT (((not OR wasnt OR "wasn't" OR isnt OR "isn't") NEAR/2f (worst OR terrible OR bad OR miserable OR horrible)) OR ("day for" NOT ("day for me" OR "day for my")))) OR ((((not" OR ((not OR isnt OR "isn't" OR wasnt OR "wasn't" OR "will not" OR "may not") NEAR/1f ("going to be" OR "so" OR "such" OR "having" OR "havin" OR "have a" OR "been" OR "what i call" OR "really having a" OR "gunna be" OR "gonna be a" OR "ah" OR "be" OR "make" OR "an" OR "had" OR "a particularly" OR b OR "gon be" OR "gonna b" OR "gone be" OR "going be" OR "ganna be" OR "gona be" OR "make for" OR "feeling like" OR "having such" OR "have a very" OR "much of a" OR "bouta be a" OR "gon' be" OR "have been" OR "a sign of" OR "signs of" OR "looking like" OR "predict" OR "actually" OR "goona be" OR "have one" OR "be havin" OR "be having" OR "been having a"))) NEAR/1f (("a good" OR good OR "very good" OR "a very good" OR "really good" OR "a really good" OR "a real good" OR "real good " OR great OR "a great" OR greatest OR "the greatest" OR "the best") NEAR/1f day)) NOT ("day for" NOT ("day for me" OR "day for my")))) OR ((((("this day" OR today) NEAR/1f (sucks OR sucked OR blows OR blowed OR stinks OR stunk)) NOT ((i OR you OR he OR she OR it OR we OR yall OR they) NEAR/1f (sucked OR blowed OR stunk))) NOT (raw:("today." OR "today!")))) AND site:twitter.com

Love Life

Date Range: 11/17/13 – 11/17/14
Volume: 179k mentions
Regions: Global
Language: English
Source: Twitter

Query: ("i love my life" OR "im loving life" OR "i love life") AND site:twitter.com

Hate Life

Date Range: 11/17/13 – 11/17/14
Volume: 246k mentions
Regions: Global
Language: English
Source: Twitter
Query: ("hate my life" OR ((i OR me) NEAR/2f (hate NEAR/1f (life OR "my life")))) NOT (("i don't hate" NEAR/4f life) OR "dont hate my life" OR "do not hate my life" OR "cant hate my life" OR "can not hate my life" OR "cannot hate my life") AND site:twitter.com

8.2 CATEGORIES & RULES

Brandwatch Analytics allows users to create rules to separate specific types of conversations within a query. These "queries within a query" can then be assigned to categories, making it simple to compare the nature of different groups of conversations.

In this study, we've created the following rules to identify conversations about Friends & Family, Money and Work within the queries for Good Days, Bad Days, Love Life and Hate Life:

Friends & Family

Rule: ((family* OR brother* OR sister* OR mother* OR father* OR son OR daughter OR wife OR husband OR hubby OR wifey) OR (friend* OR pal OR pals OR buddy))

Money

Rule: (money OR cash OR funds OR finance* OR salary OR salaries OR wage OR wages OR rich OR riches OR wealth OR wealthy OR rent OR bills OR pay OR paying OR paid)

Work

Rule: ((job OR work OR office OR boss OR manager OR director OR CMO OR CEO OR CFO))

Now You Know.

It's important as a marketer, or anyone else working in social media, to remember that data is always more than just numbers. Often, those graphs and tallies represent real people, with real moods, real preferences and real opinions.

Brands and other organizations that are able to adapt, adjust and customize the activity they conduct in line with these quirks in consumer behavior will be those best positioned to succeed in this digital age.

There are seasonal trends, daily nuances and hundreds of other insights that can be gleaned through social research, and by undertaking analysis of the people your organization is trying to target, you'll be able to make effective, informed business decisions.

We'd love to show you how you can understand more about the people that matter to your business.

For a free consultation about how you can benefit from insights gleaned from social listening technology, go to

brandwatch.com/demo

Brandwatch is one of the world's leading social media listening and analytics technology platforms. Gathering millions of online conversations every day and providing users with the tools to analyze them, Brandwatch empowers brands and agencies to make smarter, data-driven business decisions, and is used by over 1000 brands and agencies, including Whole Foods, Verizon, Whirlpool, Pepsico, British Airways, Papa John's, and Dell.

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