Hashtag Quarantine: The Psychological Effects of Quarantine on Twitter Users

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Introduction:

"The very ephemerality of hashtags is what makes them easy and compelling to use in a fast-moving communication medium like Twitter," said the inventor of hashtags, Chris Messina, highlight that the easy and compelling use of hashtags have facilitated the ability to efficiently search and find a massive amount of information. (Cooper, B., 2020). Hashtags have become an integral part of Twitter, acting as a categorical device used to label tweets and as an effective term to find desired information. Hashtags have helped Twitter grow into a powerful platform where users can spread awareness and invoke change throughout society by bringing current, sometimes uncomfortable issues to focus.

In our current climate, the global sphere is talking about the CoronaVirus pandemic and Twitter is no exception. With the popularity of the hashtag, there have been an enormous amount of tweets tagged with #Quarantine. Many communities are within a state-mandated isolated confinement period in order to reduce the spread of the virus. This poses the question of the possible effects one could have while living in a prolonged state of isolation. The notion that a person's psychological state can be negatively impacted by quarantine seems apparent within the news and various social media. Therefore, this essay will aim to analyze a corpus of tweets with the hashtag #quarantine focusing on the psychological consequences caused by prolonged isolation.

Methods:

A collecting tool was used to gather tweets and user information in a spreadsheet. For this paper, the tweets chosen by the program had to meet the following criteria: had to have #Quarantine within the tweet, the tweet had to be posted on Monday the 22nd of 2020, and the user posting the tweet had to have a following greater than or equal to 10000. The criterion of limiting the following base of the user was created in order to focus on tweets that were
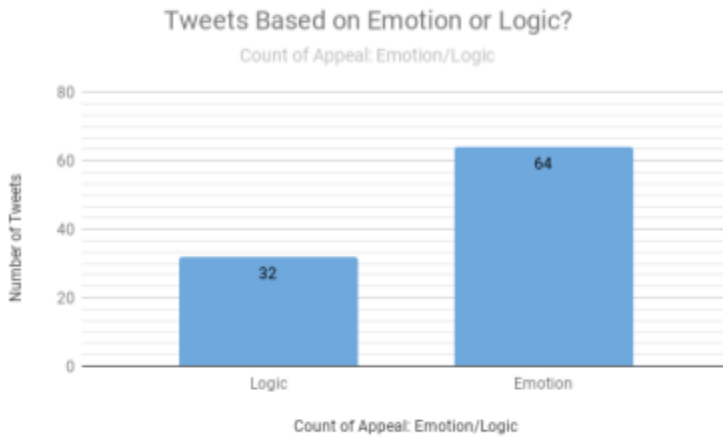
expected to reach a larger audience. With these criteria, "TAGS" generated a list of 1327 tweets while also filtering out the retweets. Next a randomized sample of 96 tweets were chosen using the randomized sorting tool within Google Sheets.

Lastly, I coded the list of 96 tweets into categories, keeping in mind the mechanics of coding which emphasizes the use of codes that are separated into descriptive and analytic. Descriptive codes answer the questions of "What is going on?", "What are people doing?", "What is the person saying?", while the analytic codes answer "What do these actions and statements take for granted?" and "How do structure and context serve to support, maintain, impede or change these actions and statements. (Gibbs, G. R., 2007). With this in mind I created seven categories that aimed to answer both the descriptive and analytic questions while also focusing on topic-specific questions. The codes developed were: the rationale behind the tweet (emotional or logical), who the poster was (individual or an organization), the type of communication the tweet sought to achieve (social, advertisement, or informative), the type of activity associated with quarantine (outdoor or indoor), the user's stance on staying home (for or against), whether the user wants to stay in quarantine or look to reopen, and finally the users age range. However, the user's age descriptive category has limited data entries due to the high amount of organizational tweets that could not be age identified. After all 96 tweets were coded, I created a variety of column charts and pivots tables used to present the data in a clear, readable way.

Data Analysis:

In Figure 1, "Tweets Based on Emotion or Logic?," the column chart shows the distribution between the users whose rationale was primarily pathos or logos. The X axis is the user's rationale and the Y axis measures the number of tweets. As highlighted by the chart, the emotional appeal category is double the logic appeal category, indicating that when making a tweet about quarantine the majority of users have a primarily emotional response. This demonstrates that quarantine has a significant effect on a person's psychological state.

Figure 1

Tweets Based on Emotion or Logic?
Count of Appeal: Emotion/Logic

Number of Tweets

32

64

Logic   Emotion

Count of Appeal: Emotion/Logic

Figure 2, "Are User's Participating in Outside or Indoor Activities During Quarantine?," shows the relationship between those who decide to participate in an indoor or outdoor activity during the course of their individual quarantine. The overwhelming majority of twitter users who use #quarantine are participating in indoor activities. The indoor activities column can be divided by the outdoor activity column 4.05 times indicating a significant majority for indoor
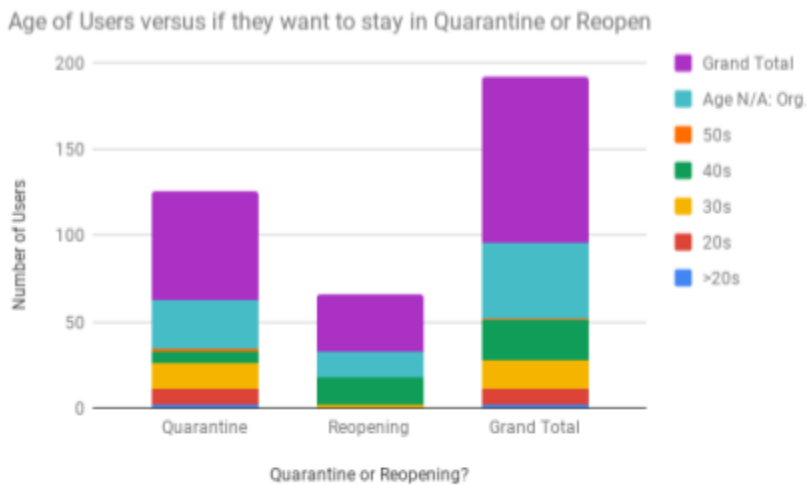
Figure 2

Are User's Participating in Outside or Indoor Activities During Quarantine?
Quarantine Activities

Number of Tweets

19

77

Outdoor Activity   Indoor Activity

Count of Quarantine Activities
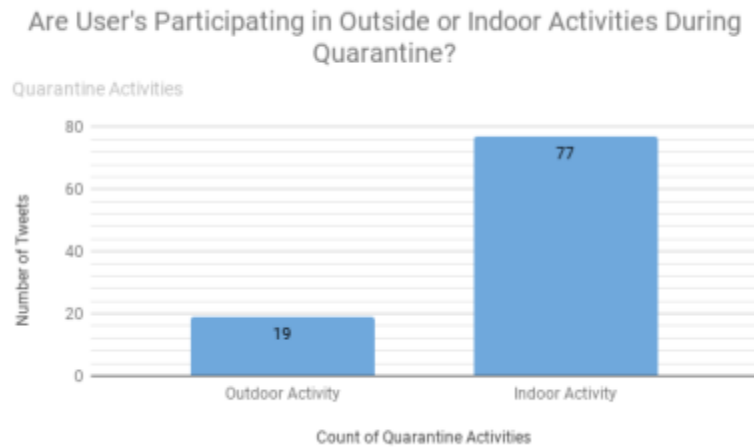
activity. Health organizations such as the CDC have published information encouraging those who are living in an isolated confinement to continue outdoor exercise as a healthy coping mechanism for the effects of quarantine (Mental Health and Coping During COVID-19., 2020). It has also been shown that "The severity of COVID-19 in an individual's home city predicts their life satisfaction, and this relationship is contingent upon individuals' existing chronic health issues and their hours of exercise." (Zhang StephenX., Wang YiFei, Rauch, A., & Wei Feng., 2020). This published report about life satisfaction one month into the COVID-19 outbreak in China furthers the notion that outdoor activity like exercise is vital to a sustained satisfaction of life especially during a quarantine. However, figure 2 shows that the majority of user's are participating in indoor activity theorizing the presence of a negative emotional state.

Lastly, figure 3, shows the relationship between age range and if the user would rather reopen or stay in quarantine. The younger users, 40 and under, make up the majority and nearly all would like to stay in quarantine. However, most users, 40 and over, would like to reopen their community. This is interesting since older people have a greater risk of contracting the virus.

Figure 3

Age of Users versus if they want to stay in Quarantine or Reopen

However, a week after the tweets were collected every US state is reopening and only seven of fifty states meet the criteria to safely reopen. "They should see a two-week drop in coronavirus cases, indicating that the virus is actually abating. They should have fewer than four daily new cases per 100,000 people

per day — to show that cases aren't just dropping, but also below dangerous levels. They need

at least 150 new tests per 100,000 people per day, letting them quickly track and contain

outbreaks. They need an overall positive rate for tests below 5 percent — another critical

indicator for testing capacity. And states should have at least 40 percent of their ICU beds free

to actually treat an influx of people stricken with Covid-19 should it be necessary." (Lopez, G.,

2020). This criteria was developed for the safety of our population and state governments in the

US are disregarding the importance of quarantine. Residents of these communities are eager to

get back to work and be able to shop and dine leading to dangerous consequences. Some

states have had to extend their phases of reopening or have had to fall back a phase due to

unprecedented spikes in confirmed CoronaVirus cases. According to the U.S. Bureau of Labor

Statistics the median age of public administration employees is 45.8, resulting in the older

population having the power to reopen. (Employed persons by detailed industry and age 2020).

As shown in figure 3, the majority of users over 40 want to reopen, disregarding the risk of

infection.

Discussion:

The CoronaVirus pandemic has completely shifted the global sphere. Many communities

were forced into a state-mandated quarantine to fight the contagious spread of the infection.

Twitter user's have taken to the app to describe their experiences using #quarantine. One user

created an entire series of tweets documenting life in quarantine, "Alan Self isolation, day 5,

Zero Gravity . https://t.co/xPgbn2Qfi9 #Quarantine #QuarantineLife #boredinthehouse

#SelfIsolation #SocialDistancing #lockdown #StayatHome #LockdownLife #AlaninLockdown,"

(Monahan, 2020). Another user wrote, "A #Chabad school in Safed was closed on Monday after

a teacher was confirmed as infected with the #coronavirus. Staff and students who were in

contact with him entered #quarantine," (Jerusalem Post, 2020). The tweet describes one

instance of schools being closed in Israel. A different user tweeted about safety measures,

"🌸✋🌼😷🌸🤲🌸😷🌼✋🌸#facemasks #facemasks4all#gifts #shoppingonline #healthandsafety#onlineshopping #socialdistancing #Quarantine CDC recommends the use of cloth face coverings to supplement social distancing in fight against spread of #covid19," (Hiller, 2020). This emphasizes the importance of decreasing the spread of the CoronaVirus.

The data above is a small, randomized sample and cannot not accurately match every single community's thoughts with 100% confidence, however the data does give good insight to the emotions of those who are vocal on twitter. Also, twitter has become a place of global updates about the virus. One user describes the results of the CoronaVirus in Thailand, "#CoronaVirusUpdate: #Thailand #Coronvavirus #COVID19 #โควิด19 NEW CASES: 3 TOTAL CASES: 3,151 NEW DEATHS: 0 TOTAL DEATHS: 58 All new cases are of Thais returning from #India and already in #quarantine," (Wong, 2020).

For those who are or have been in quarantine, "Studies reported on general psychological symptoms, emotional disturbance, depression, stress, low mood, irritability, insomnia, post-traumatic stress symptoms (rated on Weiss and Marmar's Impact of Event Scale–Revised), anger, and emotional exhaustion. Low mood (660 [73%] of 903) and irritability (512 [57%] of 903) stand out as having high prevalence." (Brooks, S. K., Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J., 2020). These attributes can be seen throughout the twitter analysis due to the large amount of tweets backed with an emotional rationale. Moreover, many of the tweets describe the concept of "the quarantine fifteen" which is a term used to describe the weight much of the population is gaining throughout quarantine due to stress-eating and boredom. For example, tweets state, "Sometimes you just want that deep dish. Anyone else stress eating??? #food #pizza #quarantine #covid19 #stillinquarantine" (Mooking, 2020). As well as, "Anyone gain the #quarantine 15?" (Montgomery, 2020). The tweets indicate that users are having negative responses brought on by stressors.

Obviously the effects of quarantine will differ from person to person and situation to situation. The CDC describes, "How you respond to the COVID-19 pandemic can depend on your background, your social support from family or friends, your financial situation, your health and emotional background, the community you live in, and many other factors. The changes that can happen because of the COVID-19 pandemic and the ways we try to contain the spread of the virus can affect anyone." (Mental Health and Coping During COVID-19., 2020) Many people are experiencing loss of employment and therefore income which adds to the added stress of a pandemic and can lower the satisfaction of life. Support is extremely vital within our current term of quarantine. User's are using Twitter to send motivational messages like, ""We may be apart, but never at heart. 🏠❤️ #Always #together #everyday #Quarantine," (BT21, 2020). As well as, resources for those struggling with depression, "#Depression Is Much More Than #Sadness #MentalHealth Issues During #COVID19 #Coronavirus #Lockdown #Quarantine #MentalHealthAwareness," (InfoGujarat, 2020).

"There are Constitutional reasons why restricting interstate travel is fraught. There's also a legal challenge to Hawaii's quarantine requirement for visitors overall," (Ozawa, 2020). A tweet made by a Hawaiian native questions the legality of a state-mandated quarantine and restriction of travel referencing the right to freedom written in the constitution. However it has been noted, "Under any ethical tradition, well-designed, evidence-based quarantines are permissible. Individuals have freedom of movement only until they pose a significant risk to others." (Gostin, L., 2020). State-mandated isolated confinement is a necessary and overall an ethical step to limit the spread of a sometimes fatal disease. Also, quarantine is a legal precaution that can be used to reduce danger. While it may seem that the 2020 quarantine is the first quarantine we have experienced, there have been other instances of quarantine specifically with the 2003 outbreak of SARS in primarily China and Canada. (Brooks, S. K.,

Webster, R. K., Smith, L. E., Woodland, L., Wessely, S., Greenberg, N., & Rubin, G. J., 2020). This quarantine was proven successful and the majority of twitter users are for quarantine and value the health and safety of themselves and their neighbors.

Conclusion:

Overall, the fear and effects of quarantine are affecting the psychological state of users at a negative rate and it can be seen through the contents of the tweets as well as the twitter analysis where there is less outdoor activity, more emotional rationale, and user's fighting for an unsafe end to quarantine. The hashtag has become an efficient way to search for information about a particular topic or subtopic of that event. #quarantine has been tagged in tweets where users can be seen struggling with quarantine and trying to uplift others. Although quarantine can lead to negative psychological consequences, the majority of users understand the dangerous implications of a contagion like the CoronaVirus and will continue to be safe and support others.

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