Age of Uncertainty: A Content Analysis of COVID-19 Pandemic Online Artifacts

Author Biographies

Sam Celentano, Rebecca Groseclose, and Noor Yahya collectively authored this article after engaging in content analysis research of online COVID-19 artifacts as part of an assignment for Dr. Amy Pucino's *Introduction to Sociology* course. Sam is majoring in sociology and plans to eventually get his PhD and open up a nonprofit mentorship program that would bridge the gap between urban communities and local police departments. Rebecca is majoring in psychology and plans to pursue a social work degree at Towson University. Noor is majoring in dental hygiene and she plans to pursue a bachelor's degree from University of Maryland. More details about the authors are included in the "Reflexivity" section of this paper.

Abstract

Coronavirus Disease 2019 (COVID-19) has had an enormous impact on the United States. As of today's date (6/30/2020), there are 2,724,141 confirmed cases, with 130,083 deaths in the United States (Worldometers, 2020). In this paper we will talk about the sociological impact of COVID-19, focusing on three key elements, including social instability, social isolation, and inequality and discrimination. In order to come to our conclusions, we engaged in content analysis research, analyzing 177 different online artifacts, including memes, websites, info-graphics, and more, which were shared by our *Introduction to Sociology* classmates during April 2020. Our evaluation of the artifacts revealed three main themes: 1) the virus has created a lack of public trust in societal stability, 2) social isolation is a problematic outcome of the pandemic for particular age and social class groups, and 3) people of color and low income people are disproportionately affected by the virus and discrimination is to blame. The implications from our findings include the need for micro and macro level interventions. We propose more research on this topic. We also recognize that the healthcare system of our country will need an overhaul to be more equitable and we propose greater accessibility to technology to prevent severe social isolation.

Introduction

"We are in the middle of a pandemic." These are the words that greet us every morning on the news. A constant reminder of the current state of affairs. Not since the Influenza epidemic of 1918 has the world been in such fear over a pandemic. Entire countries have been forced to shut down. The economy is stagnating and unemployment is at an all-time high. And why is all this happening? A pandemic has arisen from a severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) which causes the coronavirus disease (COVID-19). The World Health Organization (WHO) declared COVID-19 a public health emergency of concern on January 30, 2020 and then reclassified it as a pandemic on March 11, 2020 (World Health Organization, 2020). Since then, many countries, including the United States of America, have taken extreme measures and precautions to slow the spread of the deadly virus. On March 19, 2020 California was the first U.S. state to issue a stay at home order (Friedson, Mcnichols, Sabia, & Dave, 2020). In the following weeks most U.S. states and territories followed suit issuing their own stay at home or shelter in place orders. These orders closed many businesses that were deemed as "non-essential" (McPhillips, 2020). The pandemic has been closely followed and reported on by the

media, government agencies, higher education systems and more. This has created a broad array of artifacts related to the pandemic, which come through our online newsfeed daily. The range of electronic information pumped out each day is vast, including articles, infographics, memes and more. When our *Introduction to Sociology* class moved from face-to-face to remote learning during the pandemic, we began collecting and analyzing the artifacts we were finding by way of a content analysis. In this paper, we will use sociology to explain the lack of public trust, the social isolation, and inequality and discrimination experienced during the COVID-19 pandemic.

Methods

Research for this paper was completed using a content analysis of COVID-19 online artifacts collected and submitted by the students of Dr. Amy Pucino's *Introduction to Sociology* class. A content analysis can be defined as,

> … a widely used approach to working with existing sources. Researchers look for recurrent themes or count the number of times that specific variables- such as particular words or visual elements-appear in a text, image, or media message. They then analyze the variables and relationships among them (Ferris & Stein, 2016, p. 55).

When our class was required to move from face-to-face to online learning, our professor required that each student post 10 "Coronavirus artifacts", which were defined as news articles, memes, infographics, etcetera that came through our online media during the month of April 2020. As a class, we created a database of these artifacts, which contained 177 total artifacts.

The exact process that we used to conduct the content analysis was to review all artifacts that students posted on the discussion board. Initially, each author went through individually and coded each artifact for type and content of artifact. The "type" codes were memes, videos, GIFs, articles, pictures, advertisements, infographics and charts. Then we coded the artifacts, naming the "content" of the artifact, including information, humor, political, social distancing, etcetera. We each evaluated the content to assess what themes emerged. When we collaborated with each other, we compared our codes and agreed on the coding categories by going through each artifact a second time together, using what resembled a constant comparative method. A few artifacts were noncodeable because they either contained a broken link or were of a personal nature related directly to the submitting student.

Findings

We coded a total of 177 artifacts. The codes and number of artifacts are included in Table 1. Note, some artifacts were given more than one code. Of the artifacts, we found 91 memes, 7 GIFs, 34 articles, 19 videos, 2 advertisements, 4 infographics, 9 screenshots, 1 letter/email, 1 website, and 9 items that were not codeable. Notably, most of the artifacts posted were memes, and most of the memes were humorous, making light of the pandemic. In fact, the most common content code was "humorous," as 97 of the 177 artifacts were coded humorous. Though many of the artifacts dealt with matters that were not serious, other artifacts showed important information about the pandemic that were deemed political (10 artifacts), scientific data (10 artifacts), current affairs (12 artifacts), and highlighting inequality (13 artifacts).
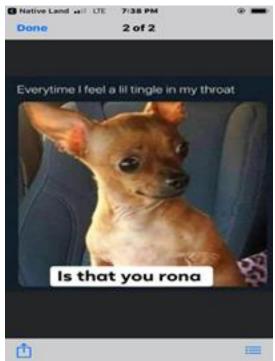
Table 1: Codes

Type of Artifact	#		Content of Artifact	#
Meme	91		Political	10
Gif	7		Scientific Data	10
Article	34		Inequality, Discrimination	13
Video	19		Emotional Support, Inspirational	5
Advertisement	2		Historical Context	3
Infographic	4		Current Affairs, News	12
Screenshot	9		Useful Tips	10
Letter/Email	1		Humor	97
Website	1		Informative	8
Not Codable	9		Public Trust	6
			Social Distancing/Isolation	8
Total	177			

Note: There were a total of 177 artifacts, and some of the artifacts were coded more than once for themes.

Several important social issues emerged from the analysis. First, the issue of social isolation was notable in the content analysis. There were 8 artifacts that showed this social issue of social distancing and social isolation. For example, one meme described: "No one cleans like Gaston, quarantines like Gaston, no one stops spreading COVID- 19 like Gaston. He is especially good at self-isolating. Three cheers for "good guy" Gaston!" Other artifacts discussed the social distancing orders. As an example, one artifact from an article found in USA Today reported, "Six counties across the Bay Area in California had issued a "shelter in place" order... for all residents – requiring roughly 6.7 million people to stay in their homes – in an attempt to slow the coronavirus outbreak" (Canon, 2020, para. 1). Another artifact from the Wall Street Journal described precautions being taken in Wuhan, China, which at the time of this study had been on lockdown, and authorities were tightening quarantine rules and asking people to stay home (Woo, 2020).

Another important social issue that emerged from the content analysis is a lack of certainty in societal stability. Some of the artifacts revealed that people are experiencing paranoia and are concerned about being sick. These two memes exemplify this paranoia:

Another artifact of note, an article in The Atlantic, exemplifies the long-term impact that the virus will have on the lives of young people, which is cause for concern and uncertainty:

Once people are let out into the world to rejoin their lives, the pandemic will continue to harm them for years to come. "Epidemics are really bad for economies," says Elena Conis, a historian of medicine and public health at UC Berkeley, laughing slightly at the understatement. "We're going to see a whole bunch of college graduates and people finishing graduate programs this summer who are going to really struggle to find work." If you're willing to risk your life to mop hospital floors or fetch abandoned carts in grocery-store parking lots, a paycheck, however meager, is certainly in your future (Mull, 2020, para. 6).

An additional social issue found as a theme in our artifacts was inequality and discrimination. There have been many noted instances of discrimination toward minority populations in the United States during the COVID-19 pandemic. The content analysis revealed 13 artifacts related to inequality and racism during the pandemic. Five of those artifacts were directly related to issues and events happening in the United States. For example, the Washington Post article "More Than 80 Percent of Hospitalized Covid-19 Patients in Georgia Were African American, Study Finds", highlighted the data from a Centers for Disease Control and Prevention (CDC) study that sampled data from 8 Georgia-based hospitals (Weiner, 2020). Another artifact was a video interview posted on MSNBC's website with Marc Morial, President of the National Urban League, and Dr. Selwyn Vickers, Senior Vice President and Dean of the School of Medicine at the University of Alabama at Birmingham, in which they discussed Dr. Vicker's op-ed article posted in USA Today. In the article Dr. Selwyn calls the disparity of hospitalizations and deaths from COVID-19 among the African American community "a crisis within a crisis" (Vickers, 2020). This is not unique to Georgia, as another artifact revealed that "Black people make up 15% of the state population but represent 35% of people diagnosed with COVID-19… and 40% of all deaths statewide" (Ray, 2020, para. 2). Notably, our research highlights this stark inequality, showing that Black people have been disproportionately impacted by the Pandemic and draw attention to the disparities in healthcare.

Discussion

The research on 177 COVID-19 artifacts posted by our classmates showed that many people are viewing comedic memes related to the pandemic. As mentioned, the majority of the artifacts (97) were humorous in nature. Several reasons for this phenomena are possible. Important to note is that humor might be one way that people cope with the uncertainty of a pandemic. That said, we did not analyze the demographics of the students, nor did we assess the social media platforms from which the artifacts were coming. Future research should explore this type of data, which might help us uncover why most of the artifacts were funny.

Though the majority of artifacts posted were humorous, many artifacts also revealed alarming public issues, including a loss of public trust in societal stability, a concern about social isolation, and inequality. The issue of public trust is important as it is a reflection on greater society as a whole and the trust people have in the government, public health systems, each other, and more. Many were under the false sense of security that the United States is the most powerful nation in the world with ample technology and resources, such that an epidemic wouldn't affect us. But during this pandemic, people learned that wasn't the case. The medical system quickly became overwhelmed and is still experiencing intense pressure. According to BGR.com, we are approaching a critical stage with the recent surge of infections,

> But if the infections continue to increase at the current rate, it's only a matter of time before crisis care standards come into play and doctors are forced to prioritize patients that have a higher chance of survival and leave others without adequate care (Siegal, 2020, para. 6)

People are concerned and unsure of how to move forward. The root source of this uncertainty may come from a lack of information and inconsistent information. There has been a major disconnect between the government and media outlets. Much information has been delayed, causing panic and uncertainty amongst the general population. While people are paranoid, they are unable to access adequate information to potentially lessen their concerns.

The concern about stability may also be related to the immense societal changes taking place. These changes have led some to experience social isolation. Social distancing and social isolation emerged as an important theme from our content analysis and deserves a sociological explanation, looking at the impact on particular social groups in society. Demands to social distance require people to stay at home and leave their jobs, which may result in unemployment. The transition from "employment to unemployment heightens the risk of poverty and social isolation" (Gallie et al., 2010, para. 1). This issue impacts health, men, women, people in poverty, and - important to us - students. This virus isn't only affecting us currently but will likely do so for years to come as social cohesion weakens. Children across the world have been relegated to their homes, learning online. Our class, once used to meeting face-to-face, moved online.

The absence of social contact can lead to social isolation, a theme that emerged from our research. Social isolation can be defined in the following manner:

> Social isolation is a state of being cut off from normal social networks, which can be triggered by factors such as loss of mobility, unemployment, or health issues. Isolation can result from staying at home for lengthy periods, having no access to services or community involvement, and little or no communication with friends, family, and acquaintances (No Isolation, 2017).

Not only can social isolation feel lonely, but it can be linked to physical and mental health problems, like heart disease, diabetes, anxiety, and depression (No Isolation, 2017). And, status group affiliation based on age and social class of people may differentially impact their experience of social isolation.

The population of older adults may suffer social isolation at higher rates than other people. The National Academies of Sciences, Engineering, and Medicine (NASEM) points out that,

> More than one-third of adults aged 45 and older feel lonely, and nearly one-fourth of adults aged 65 and older are considered to be socially isolated. Older adults are at increased risk for loneliness and social isolation because they are more likely to face factors such as living alone, the loss of family or friends, chronic illness, and hearing loss. (CDC, 2020)

Studies reveal that social isolation and loneliness reported by older adults may be associated with having poor physical and mental health (Cornwell & Waite, 2009) poor cognitive performance (Cacioppo & Hawkley, 2009) and potentially a higher risk of mortality (Steptoe, Shankar, Demakakos, & Wardle, 2013). Social isolation for older adults isn't a new problem, but the pandemic can exacerbate the problem for people most vulnerable to social isolation.

Working class individuals also have experienced greater complications than others around whether to work or experience limited resources and social isolation. The working-class make up about 30 percent of the population and "members typically have a high school education and generally work in manual labor or blue-collar jobs, as well as in the service industry" (Ferris & Stein, 2018, p.190). In the Atlantic article, *How the Coronavirus could Create a New Working Class*, author Olga Khazan (2020) describes that many working class workers, like grocery clerks, are working in close quarters without sick leave. If they choose not

to work, they may experience social isolation and no income. On the other hand, white-collar workers can often work from home. The pandemic has more deeply revealed societal inequities.

Problematically, some of the hardest hit among us were already experiencing societal disadvantage:

> …In societies where the virus hits, it is deepening the consequences of inequality, pushing many of the burdens onto the [disadvantaged] of today's polarized economies and labor markets. Research suggests that those in lower economic strata are likelier to catch the disease. They are also likelier to die from it. And, even for those who remain healthy, they are likelier to suffer loss of income or health care as a result of quarantines and other measures, potentially on a sweeping scale… (Fisher & Bubola, 2020)

Specifically, people experiencing homelessness endure great burdens, as they are more likely to experience hunger, vulnerability to illness, poverty, and harsh environments. Additionally, they are less likely to have a safe place to sleep, shower, and wash their hands. Some are staying in shelters in close quarters with other people (Vissing & Nilan, 2020).

The third theme that emerged from the content analysis was inequality and discrimination. Notably, the pandemic has revealed the inequality in the experience of health and access to adequate healthcare. In the United States Black people are five times as likely to be hospitalized for COVID-19 (CDC, 2020) and over two times as likely to die (APM Research Lab, 2020). Notably, one of the posted artifacts showed this inequality in Georgia. Despite making up only 30% of the total population, a Washington Post article cites a study that states Black people in eight different Georgia hospitals made up more than 80% of those hospitalized due to complications from COVID-19 (Weiner, 2020).

Such examples cause us to point to the problem of institutional discrimination. Institutional discrimination is a systematic practice that occurs when large groups and programs employ discriminatory practices that alienate groups of people based off factors such as race, ethnicity, sex, gender, sexual orientation, and more (Ferris & Stein, 2018, p. 225). This is a major issue in the United States where 27.4% of the Black population lives in poverty compared to only 9.9% of the White population (Mishel et al., 2013). This creates a disparity in the Black community being able to receive adequate health care. *Health Insurance Coverage in the United States: 2018* (2019) reported a total of 8.5% of all Americans were uninsured. It also indicated that only 5.4% of the white population is uninsured, in contrast to the Black population, which comes in at 9.7% uninsured (Berchick et al., 2019). This means that a Black person is almost twice as likely to be without the means to access healthcare.

The CDC states that the "risk of severe illness from COVID-19" is higher in individuals with certain chronic health conditions like hypertension, obesity, and type 2 diabetes. These conditions are also more prevalent in Black individuals in the United States because of the lack of accessible and affordable preventative health care (CDC, 2017). Black Americans represent a large portion of low-wage essential front-line positions, which continues to put them at a higher risk of contracting COVID-19 from exposure (Rho et al., 2020). Other factors that continue to cause poor health in Black communities are issues like lack of access to fresh food, lack of trust in public figures (i.e. health care professionals), low quality segregated housing (section 8), living in "food deserts" (areas that lack access to affordable fresh food), environmental pollution, and lack of private or public transportation (Noonan et al., 2016).

People of color, in and out of the Black community, have also experienced individual discrimination during the pandemic, which was revealed in our content analysis research. Individual discrimination occurs when individuals who belong to positions of power or have membership to non-minority groups mistreat and abuse those belonging to minority populations (Ferris & Stein, 2018, p. 225). Two artifacts showed such individual discrimination which has been widely reported across news media. For example The Asian Pacific Policy and Planning Council (A3PCON), an organization that advocates for Asian American and Pacific Islanders rights and needs in Los Angeles, CA, received over 14,000 reports of discrimination directly related to COVID-19 in the first month that they created a public reporting center (Hu et al., 2020). Hu et al. (2020) said the reports range from Asian Americans getting spit and coughed on to not being allowed entrance to public spaces to verbal harassment to physical assault. According to an article in the Dallas Morning News (2020), one such incident occurred on March 14, 2020 at a Sam's Club warehouse store in Midland, Texas. A man stabbed a family that included 2 children and 2 adults over fears that they were spreading COVID-19 (Ramirez, 2020).

The Black community is also experiencing instances of individual discrimination during the pandemic. Before masks were officially recommended by the CDC, two Black male individuals were wearing surgical-type masks and were asked to leave a Walmart by a law enforcement officer (Taylor, 2020). On April 3 National Public Radio (NPR) reported that the CDC officially endorsed wearing face masks in public whether individuals were showing symptoms or not (Dwyer & Aubrey, 2020). A week later on April 10, 2020, a medical doctor in Miami, Florida was detained in handcuffs in front of his own home while wearing a mask by a law enforcement officer who was not wearing a mask (Diaz, 2020).

Reflexivity

Though the authors of this paper share the status of student, our experiences with the pandemic are varied and contribute to unique perspectives on this research. One researcher is an employee with an essential company and has been practicing social distance during work with other co-workers. Her experience helped this research process while she also worked to use the beginner's mind.

Another author has had extremely limited contact with anyone other than their family. Both parents have been out of work, and he has enjoyed spending time with them. This author has a lung condition, so while their job is actually open, they've been home on medical leave. They think their experience could be a shared one for many other people with medical conditions as there is a societal state of fear and paranoia about being sick. They think that played a big role in their observations. They tried to take an outside perspective when conducting their research in order to piece together a bigger picture. To use a beginner's mind, they just tried to look for the deeper meaning in the content.

The third author of this paper is a single white parent to a biracial (Asian/white) elementary school aged child. They live in a predominantly Black neighborhood within Baltimore City, Maryland previously the author has lived in middle-class suburban areas that were predominately white. She is part of the LGBTQ+ community and is disabled. She is a non-traditional student that is working toward a degree in psychology.

Conclusion

From a broader perspective, COVID 19 has shaken the very foundation of our country. It has exposed income inequalities, racial disparities, fallacies of our healthcare system, and many other issues with which this country grapples. This content analysis of 177 COVID-19 online artifacts posted by our *Introduction to Sociology* class during April 2020 revealed themes of public issues of lack of public trust in societal stability, a concern about social distancing and social isolation, and a deeper revealing of social inequality. Sociology offers useful tools for helping us make sense of society during such a time. More research should be done on the information individuals receive online and how it impacts public wellbeing.

As a society, we need to get creative about how to address the problems revealed by our research: lack of public trust, concerns about social isolation, and inequality. The damage to the public trust is fixable but is going to take time and both macro and micro-level interventions. In terms of macro solutions, we suggest more transparency from the medical community and from the government. We are inundated with much conflicting information. If information were streamlined and accurate, a safe and equitable solution could be reached.

Additionally, social isolation and social inequality and racial disparities in health and healthcare have been exposed during this pandemic. With such awareness, people can start working towards figuring out these issues, too. Our healthcare system needs adjustments, particularly for the most vulnerable. So too does our accessibility to technology. To overcome the challenge of social isolation, people should have adequate access to the Internet, and technology like smartphones. Individuals are encouraged to connect with members of their communities. Most importantly, as individuals, we can work to educate ourselves and each other to address social problems of trust, isolation, discrimination and inequality. We can seek to make contact with those who might experience social isolation, and we can engage in efforts like voting to make society more equitable.

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