

**COMMUNICATING TRUSTWORTHY INFORMATION TO REDUCE THE HEALTH
DISPARITIES OF UNDER-RESOURCED AFRICAN AMERICAN COMMUNITIES
DURING THE COVID-19 PANDEMIC**

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On my honor as a University student, I have neither given nor received unauthorized aid on this assignment as defined by the Honor Guidelines for Thesis-Related Assignments.

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ADDRESSING HEALTH AND RACIAL DISPARITIES TO DEVELOP EFFECTIVE MACHINE LEARNING METHODS FOR COMMUNICATING TRUSTWORTHY COVID-19 INFORMATION

Beginning in December 2019, a new strand of coronavirus known as COVID-19 plagued the world with millions of infections and deaths. The outbreak of the COVID-19 pandemic has significantly impacted the United States with nearly 29 million cases and 540,000 deaths (Centers for Disease Control and Prevention, 2021). Federal, state, and local governments have encouraged various prevention measures such as wearing masks and social distancing to reduce the transmission of the virus. Despite these efforts, there is substantial evidence that the pandemic has exacerbated the existing health and racial disparities in the United States (Cordes & Castro, 2020, p. 7). Overall, African Americans are disproportionately impacted by the virus with higher rates of infection and death when compared to White Americans (Mahajan & Larkins-Pettigrew, 2020, p. 446). Social risk factors such as low wages, uninsured health coverages, exposure to public spaces, and medical mistrust are significant barriers for under-resourced African American communities to comply with preventative measures and mitigate the transmission of COVID-19 (Bateman et al., 2021, p. 51). Worsening the situation, there is a prolific amount of false information surrounding the pandemic which has severely hindered efforts to prevent the spread of the disease among African Americans. In order to effectively combat existing health disparities and mitigate the impact of the pandemic, it is imperative to understand how COVID-19 is perceived in African American communities.

The STS research paper is a case study which explores the impact and perceptions of COVID-19 among under-resourced African Americans. The research further characterizes the spread of information in the African American community by exploring the relationships between the community and the various channels of information regarding COVID-19 using the

Actor Network Theory (ANT) proposed by Latour (1992), and Law and Callon (1988). By elucidating the current perspectives of African Americans, the ANT analysis can provide meaningful solutions to create and communicate trustworthy information regarding the virus. Furthermore, the investigation and analysis of this case study can improve the development of technical tools which provide information about the pandemic by enabling them to be more inclusive and community oriented. Ultimately, this case study strives to reduce existing health and racial inequities present in the COVID-19 pandemic.

The technical project provides information about the outcomes of the pandemic in local areas of the United States. Studies of these outcomes reveal that current COVID-19 models and statistics can be widely misinterpreted by civilians and elected officials, which may increase the spread of false information (Backhaus, 2020, p. 162). With these issues in mind, the project aims to mitigate the spread of COVID-19 by leveraging machine learning to accurately display the trends of the virus in U.S. counties. More specifically, the project forecasts cumulative infections and analyzes tweet sentiments related to prevention guidelines.

Coupling the technical project with the analysis of the STS research paper provides a meaningful and novel approach to communicate trustworthy information regarding the pandemic. As a global health crisis, COVID-19 requires every individual of society, especially world leaders, to be concerned with the accuracy of information regarding the virus. Machine learning models and statistical tracking of the virus are powerful methods to identify trends and areas of infections. However, the development of these technical tools and channels of communication must consider the communities burdened with structural inequities that require additional attention and resources. The perspectives of under-resourced African American communities must be elucidated to provide ethical health outcomes, resources, and experiences.

UNDERSTANDING PERSPECTIVES OF COVID-19 AMONG UNDER-RESOURCED AFRICAN AMERICAN COMMUNITIES

EXISTING HEALTH DISPARITIES EXPERIENCED BY AFRICAN AMERICANS

The American healthcare system is complicated with issues of structural inequities which impose barriers on minority groups. Healthcare disparities researchers Fiscella and Williams (2004) stress that minority populations with low socioeconomic status are at most risk of experiencing disparities in the healthcare system. Among these minority groups, African Americans have experienced social, economic, and political exclusion which has resulted in poor health outcomes (p. 1139). These health outcomes are significantly different from those of White Americans. Since the mid-20th century, the United States government has documented that African Americans were more likely than White Americans to contract potentially fatal illnesses (Akintobi et al., 2020, p. 2). The nation has addressed and taken action on these issues beginning in 1986, but the gap between White Americans and African Americans for many health conditions still remains (Airhihenbuwa & Liburd, 2006, p. 488). This gap has existed throughout the COVID-19 pandemic. Many local and state governments report a disproportionate number of COVID-19 infections, hospitalizations, and deaths among the African American population (Townsend et al., 2020, p. 1807). African Americans in lower-income districts have fewer financial and educational resources than their White counterparts which results in their exposure to structural social risks, putting them at a greater disadvantage in protecting themselves from COVID-19 (Egede & Walker, 2020, para. 6). A study about the pandemic in New York City found strong positive associations between COVID-19 infections and African Americans, poverty, uninsured health coverages, use of public transportation, and rent greater than 50% of income (Cordes & Castro, 2020, p. 3). This analysis notably indicates that African Americans who are economically disadvantaged experience a greater burden of COVID-19 due to racial,

ethnic, and income inequalities. The Centers for Disease Control and Prevention (2005) emphasizes that these health disparities can lead to earlier deaths, decreased quality of life, loss of economic opportunities, and perceptions of injustice. The collective society will suffer due to these disparities as they translate to decreased productivity, higher healthcare costs, and social inequity (para. 7). Minority health experts provide evidence that factors such as culture, communication, and access to healthcare are responsible for existing health disparities (Thomas et al., 2004, p. 2050). Thus, in addition to providing equal health opportunities, the communication of health information must be examined in order to combat existing health disparities, improve quality of life, and limit preventable deaths. Furthermore, it is crucial that healthcare experts, lawmakers, government entities, and local community leaders consider the culture and history of minority neighborhoods to address the racial and socioeconomic inequalities in the healthcare system.

HISTORICAL AND CURRENT CONTEXTS OF MEDICAL MISTRUST

Mistrust in medicine provides a partial explanation for health disparities. A legacy of medical mistrust exists within the African American community as a result of historical and modern-day healthcare inequalities. Medical mistrust is defined as the “distrust of health care providers, the health care system, medical treatments, and the government as a steward of public health” (as cited in Bogart et al., 2021, p. 200). The concept of medical mistrust is a protective response against experiences of racism, stigma, discrimination, and pervasive structural inequalities (Jaiswal & Halkitis, 2019, p. 81). Renowned American writer and medical ethicist Harriet Washington explains that the American medical system has exploited African Americans for over four centuries which has led to persistent and extensive mistrust of healthcare and medical research among African Americans (as cited in Scharff et al., 2010, p. 880). The

existence of medical mistrust dates back to the medical experimentation that African Americans were subjected to during slavery (Gamble, 1977, p. 1774). African Americans were used as subjects of dissection experiments and autopsy studies (Kennedy et al., 2007, p. 59). More recently, the Tuskegee Syphilis study on African American males became a widely known example of medical racism from the United States government. From 1932 to 1972, the United States Public Health Service conducted an unethical medical study which involved deceiving participants and preventing treatment in order to study the natural course of untreated latent syphilis in African American males (Brandt, 1978). The study's mistreatment of African Americans paved the way for present-day mistrust in healthcare and medical research.

Medical mistrust largely persists today during the coronavirus pandemic. Medical researchers Bateman et al. (2021) conducted a study on COVID-19 and African Americans in under-resourced neighborhoods in Alabama. In this study, many members of the community explained their hesitancy to test for COVID-19 by referring to their deep mistrust of healthcare due to unethical historical events such as the Tuskegee Syphilis study. The participants of the study suggested that their mistrust of medical workers and government officials led to much of their misunderstanding of the importance of following prevention guidelines (p. 61). Mixed messages regarding COVID-19 information from different authorities extended the community's confusion and apathy towards complying with prevention measures (p. 55). In a similar study, behavioral scientists and medical experts Bogart et al. (2021) examined mistrust related to COVID-19 among African Americans with HIV. Supporting Bateman et al.'s findings, the researchers determine that there is significant medical mistrust surrounding COVID-19 which imposes a barrier for treatment and vaccination among the participants. In addition, the participants' mistrust may be exacerbated by the sociopolitical climate of the United States.

Beginning late May of 2020, the nation witnessed acts of police brutality targeting African Americans, which spurred nationwide protests involving the Black Lives Matter movement. Meanwhile, some federal leaders engaged with divisive conversations and rhetoric that supported other racist movements. These events may have led to further mistrust among the African American community (p. 203). Both studies conducted by Bateman et al. and Borgart et al. suggest that inaccurate COVID-19 information worsens the issue of medical mistrust, demonstrating that there is an important need for accurate information to reduce mistrust. At New York University and Stony Brook University, Jerit, Paulsen, and Tucker (2020) also conclude that false information leads to distrust of experts and scientific evidence (p. 11). This supports the notion that inaccurate health information fuels the concept of medical mistrust. Concurrently, the historical and contextual factors of medical mistrust involving systemic racism also contribute to an inaccurate perception of COVID-19 information (Chandler et al., 2021, p. 88). Thus, the direct relationship between medical mistrust and the inaccurate perception of COVID-19 information requires experts and government leaders to address this issue when deploying strategies to communicate trustworthy information and mitigate the spread of false information.

CHARACTERIZING THE INVASIVE SPREAD OF MISINFORMATION

The COVID-19 pandemic is surrounded by false and misleading information, also known as misinformation. The concerns and media exposure of the coronavirus have caused a crisis in which people are searching for information within the widespread dissemination of misinformation. In the group of misinformation, disinformation exists as a subtype that involves the strategic and intentional spread of false information which is often influenced by a particular agenda (Jaiswal et al., 2020, p. 2776). The Director-General of the World Health Organization

commented, “we’re not just fighting an epidemic; we’re fighting an infodemic”, raising concerns about the dangers of the proliferation of false information (Adhanom, 2020). Public health and infectious disease researchers Jaiswal, LoSchiavo, and Perlman (2020) attribute the political and social agendas of disinformation, misinformation, and mistrust in medicine as significant agents which worsen the public health response to COVID-19. The researchers note that disinformation regarding the virus reflects agendas involving white supremacy, economic and social issues, capitalism, and the former president of the United States Donald Trump (p. 2777). In support of this claim, political scientists Enders, Uscinski, Klofstad, and Stoler (2020) conclude that conservative self-identification and support for Donald Trump are strongly associated with health misinformation and conspiracy theories. This association is a result of the fact that Trump and his allies showed support for misinformation and some conspiracy theories (p. 3). In addition, many news sources use dramatic headlines and speculate the worst outcomes about the virus for the purpose of gaining viewership, which incites fear among the general public (Mian & Khan, 2020, p. 2). Furthermore, some news channels may be affiliated with a particular political party which influences them to report COVID-19 related information according to their political agendas (Jamieson & Albarracín, 2020, p. 5). Social media is another major channel of misinformation. The vast amount of misinformation about the pandemic on social media outlets influences society’s response to the virus (Papakyriakopoulos et al., 2020, p. 2). Political science, public policy, and computer science researchers Bridgman et al. (2020) evaluated the presence and impact of misinformation from social media posts, and they determined that users who are exposed to misinformation on social media tend to have more misperceptions about COVID-19. The researchers also noted that social media users reported less compliance with prevention guidelines such as social distancing (p. 3). Moreover, these types of false information provided

by uncredited sources muddle accurate information about preventing COVID-19 infections. Inequality-driven mistrust promotes beliefs of misinformation or disinformation, but the root of these beliefs cannot be characterized as simply believing in conspiracy theories. It is important to distinguish misinformation from inequality-driven mistrust in order to support the communities that are burdened by the inequities and unethical experiences which fuel their mistrust. It is equally important to understand the negative impacts of misinformation on communities that experience deep-rooted medical mistrust.

Misinformation in African American Communities

The issue of misinformation is debilitating efforts to reduce COVID-19 transmission in African American communities. In fact, the problem of misinformation is magnified for under-resourced African American neighborhoods because they are targeted by disinformation campaigns motivated by political participation tactics (Austin et al., 2021, p. 2). Senior campaign director at Color of Change, a nonprofit civil rights organization, Collins-Dextor (2020) identified the main COVID-19 narratives targeted towards the African American community: African Americans cannot die from COVID-19; the disease is man-made for population control; the virus can be combatted with herbal remedies; and 5G radiation is the root cause of the virus. The author noted that some of these narratives are classified as disinformation targeted directly at African Americans, while some are misinformation which were influenced within the African American community (p. 7). Health experts Chandler et al. (2021) conducted a study to evaluate the perceptions and sources of COVID-19 information among African American women. A majority of the participants expressed confusion, disbelief, and mistrust of information related to the pandemic. Many of the participants in the study also relied on social media and news sources to obtain information pertaining to COVID-19 (p. 88). A study published by the Harvard

Kennedy School determined that those who relied on social media and conservative news channels for information about the pandemic were more likely to be misinformed (Jamieson & Albarracín, 2020). Furthermore, much of the confusion regarding accurate COVID-19 information can be attributed to poorly coordinated government communication (Kim & Kreps, 2020). Adding to Chandler et al.'s findings, Bateman et al. (2020) determined that many of their participants described younger African Americans as apathetic towards following prevention guidelines because “they lacked or misunderstood information regarding the severity and prevalence of COVID-19 in their communities” (p. 61). The participants in Bateman et al.'s study represented African Americans in low-resourced communities with high concentrations of poverty, low education levels, and limited access to healthcare. The social and economic factors of under-resourced communities increase the risk of being susceptible to misinformation. Lower levels of education can lead to inadequate skills in literacy and health knowledge, which can empower the role of misinformation (Braveman et al., 2011, p. 386). Supporting this claim, health promotion and communication researchers Austin, Borah and Domgaard (2021) conducted a study on communities of color and determined that nonwhite participants who had stronger beliefs in COVID-19 disinformation had lower scores of science media literacy (p. 5). Therefore, inadequate access and lower levels of education must be addressed when discussing the role and impact of misinformation.

The spread of misinformation is pervasive among African American communities, and it is especially dangerous for individuals with inadequate resources. Misinformation surrounding the coronavirus pandemic leads to apathy towards COVID-19 safety guidelines (Bateman et al., 2020, p. 61). This issue may pose severe health risks and result in preventable fatalities. The sources of misinformation must be further explored and analyzed in order to promote an

effective health response and mitigate the role of misinformation in the African American community.

CHANNELS OF INFORMATION IN AFRICAN AMERICAN COMMUNITIES

There are many sources of communication which facilitate the spread of COVID-19 information among the African American community. The Actor Network Theory (ANT) can explore the sociotechnical relationships between agents of the communication channels in order to understand the impact of these relationships on the community's perception of COVID-19 (Law & Callon, 1988). Figure 1, on page 11, displays the application of ANT and illustrates the complication of having many diverse agents involved in the facilitation of COVID-19 information. The ANT diagram displays many diverse human actors that interpret and provide COVID-19 information. These actors can be grouped into local sources, mass media, government entities, and healthcare experts. The groups' perceptions of COVID-19 are then influenced by non-human actors and ideas such as misinterpretation, politics, mistrust, accuracy, bias and data models. Ultimately, the complex relationships between the human actors, non-human actors, and ideas create the diverse and complicated network of COVID-19 information.

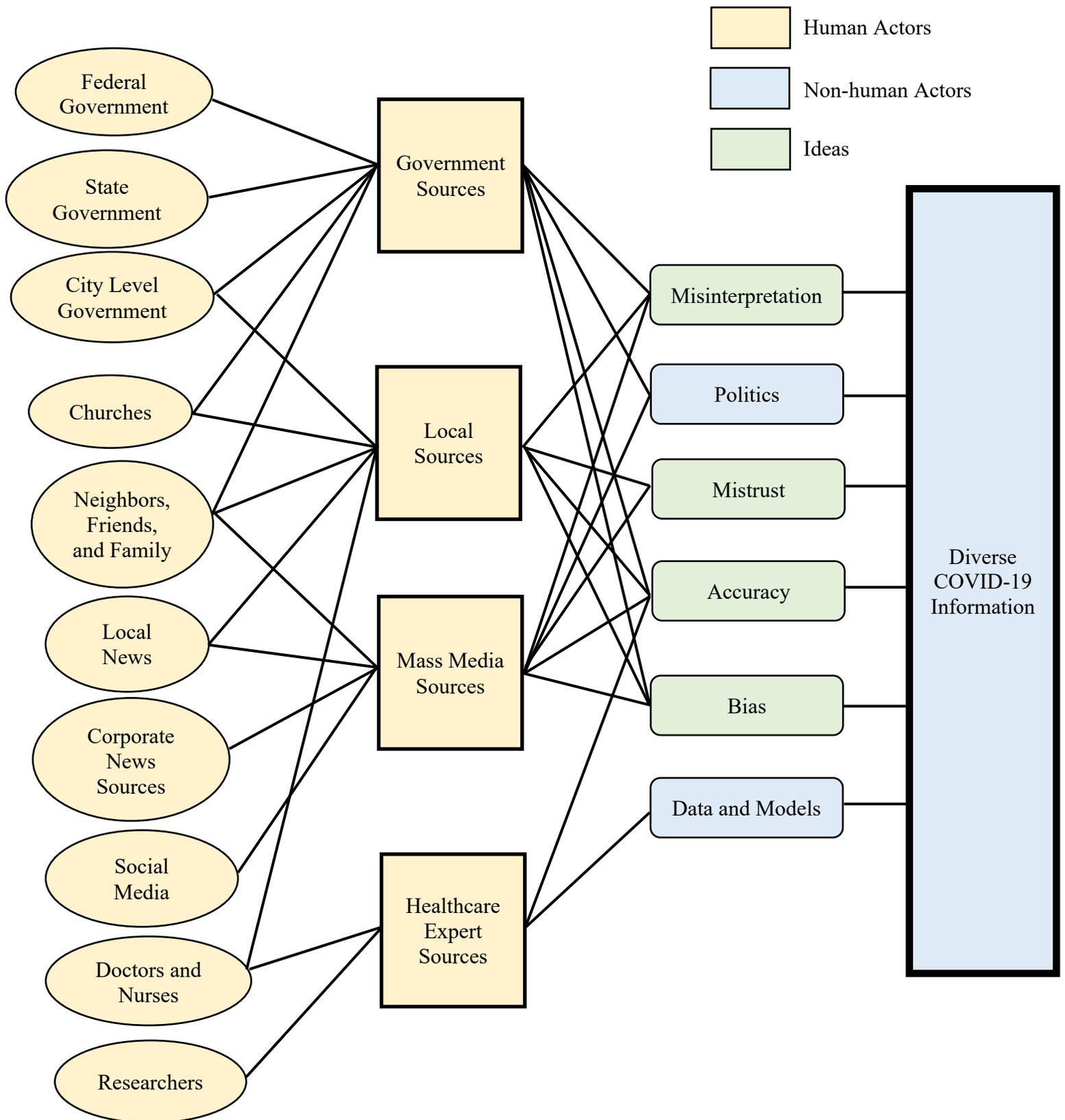


Figure 1: Actor Network Model: The diverse channels of communication which conflict the accuracy and trustworthiness of COVID-19 information. This model investigates the complex relationships between the actors which construct and perceive COVID-19 information (Kun, 2021a).

Communication channels involving local sources refer to groups of actors who provide direct information at a local level, such as immediate friends and family, church members, city level government, and local news stations. Local members who are friends, neighbors, or family members often receive COVID-19 information from media sources and government officials. The local sources interpret available information about COVID-19 and communicate their perceptions as well as their biases, mistrust, and misunderstandings to members of their community. These local channels can have a direct and major influence because of their close vicinity and relationship to the community. Alongside local channels that provide COVID-19 information are healthcare experts composed of doctors, nurses, and medical researchers. Medical researchers can be defined as the initial producers of COVID-19 information, as they are the authors and conductors of research regarding the virus. Healthcare personnel, such as doctors and nurses, can use their trained medical knowledge to interpret the information provided by researchers in order to offer insight to their patients about COVID-19. Another significant agent is composed of data and models which supply information for the human healthcare experts. Government entities provide another significant channel of communication regarding the pandemic. The entities are separated by the federal, state, and local levels of organization. Furthermore, each government body provides their own insights, plans, and mandates regarding the pandemic which are received by all other sources of information. Mass media sources such as social media and major news channels often report messages from the government as well as their own perceptions of COVID-19 to the public.

The overall construction of the ANT model displays the diverse sources of COVID-19 information which determine and relay their own interpretations about the virus. Diverse information sources do deliver more information to individuals, but it often leads to the spread of

inaccurate and biased information (Shin & Thorson, 2017). Understanding and communicating accurate information regarding the pandemic should be the primary objective of these channels of communication. However, this objective is complicated by personal biases, politics, data and information misinterpretation, and medical mistrust which influence the spread and beliefs of misinformation. The distribution of COVID-19 information is further muddled by the complex relationships between the information sources. The process of understanding COVID-19 information becomes difficult and confusing with the multitude of perspectives provided by the diverse and potentially biased information sources. Information that is perceived with bias and shared with political motivations contributes to an unethical form of communication based upon unintentional and intentional deceptions. Individuals rely on these information sources to make reasonable decisions about the pandemic. Due to the severe nature of the pandemic, the relevant actors of the network share the responsibility and moral obligation to deliver clear, accurate, and trustworthy COVID-19 information.

ETHICAL CONCERNS IN THE NETWORK OF COVID-19 INFORMATION

The complexity and inefficiency of COVID-19 communication channels present challenges in protecting the public welfare from misinformation and subsequent infections. There is empirical evidence, provided by a multivariate model, suggesting that trusting scientific information can predict an individual's compliance with the COVID-19 guidelines, which can help prevent outbreaks of infections (Plohl & Musil, 2020, p. 8). Thus, it is necessary to provide trustworthy information to combat further transmission of the virus. Furthermore, lacking an accurate perception of COVID-19 is a dangerous factor that influences the existing health disparities among African American communities (Bateman et al., 2021). The existence of health disparities is a moral wrong that must be addressed according to many ethical theories, such as

Kantian ethics and utilitarian ethics, since health disparities reflect historical and persisting systems of injustices based on race and socioeconomic class (Jones, 2010). Thus, reducing health and racial disparities is a moral duty to protect the public welfare of minority communities. To meet this moral obligation, it is imperative to communicate accurate and trustworthy information about the virus. Further supporting this notion, ethics experts Martin and Schinzinger (2010) emphasize that truthfulness is a key component among many ethical theories. Duty ethics and rights ethics express that truthfulness respects autonomy and an individual's rights to exercise their autonomy in order to guide their own reasonable conduct. Moreover, truthfulness is essential to avoiding harm by any forms of deception, which can result in financial losses, injuries, and death (p. 171).

The spread of COVID-19 disinformation, intended to deceive the public, is a clear violation of the ethical principle truthfulness. Along with disinformation, the general messages of misinformation obstruct the moral obligation of eliminating health disparities. Furthermore, the network of COVID-19 communication sources provides conflicting and diverse information regarding the pandemic and consequently creates confusion and misperceptions about the virus. Many sources of these communication channels directly contribute to the spread of misinformation and disinformation. Towards the beginning of the pandemic, U.S. government leaders had access to information about COVID-19, but they did not acknowledge the serious warnings, seek expertise from medical and health experts, or acquire necessary resources (Kim & Kreps, 2020, p. 4). This lack of preparation resulted in negative economic and health outcomes. Moreover, the downplay of the virus led to the failure of constructing an initial collective channel of trustworthy communication for the country. Instead, diverse and unstable channels were created from multiple perspectives and political motivations of the government.

Federal leaders facilitated the spread of disinformation using social media platforms, which instilled misperceptions and mistrust among the general public (Rutledge, 2020). Social media platforms became a major epicenter of COVID-19 misinformation (Jamieson & Albarracín, 2020, p. 2). The spread of misinformation and disinformation enabled by social media platforms and government entities is a clear violation of truthfulness. This violation obstructs the obligation to communicate trustworthy information and leaves minority communities burdened with health disparities vulnerable to misleading health information. These ethical concerns within the COVID-19 communication channels must be addressed.

COMMUNITY-ORIENTED TECHNICAL APPLICATION TO IMPROVE COMMUNICATION OF COVID-19 INFORMATION

The current COVID-19 communication channels lack clarity, accuracy, and trustworthiness. The weaknesses in the network of communication inhibit efforts to provide clear and accurate information to African American communities in under-resourced areas that are significantly burdened by the impacts of the pandemic. Studies conducted by Bateman et al. (2021) and Chandler et al. (2021) on the perspectives of African Americans in under-resourced parts of Alabama and African American women express concerns about misperceptions and confusion regarding COVID-19 information. The participants explained that these misunderstandings present challenges in adhering to prevention guidelines. Both studies emphasize the urgent need for access to clear, comprehensible, and accurate information that members of the community find trustworthy, in order to encourage prevention behaviors related to COVID-19. In addition, the studies highlight the importance of trusted community leaders or organizations who can guide individuals through the process of navigating the healthcare system and disseminating accurate and trustworthy information about the virus. Figure 2 proposes a

solution to communicate trustworthy COVID-19 information for African American communities.

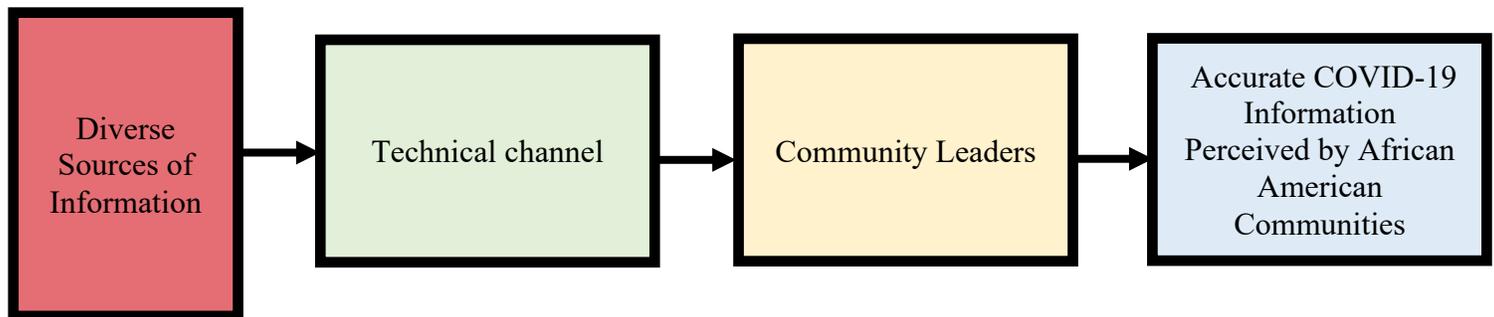


Figure 2: Technical and community-oriented solution to provide trustworthy COVID-19 information. This model proposes a solution which utilizes a technical channel to filter information about COVID-19 in order to communicate accurate information to African American communities (Kun, 2021b).

The diverse sources of information, represented in the ANT network, can be funneled and filtered using a technical channel which would only provide accurate information regarding COVID-19. Misinformation will still exist outside of the technical channel through the original sources of information, including government entities and mass media. However, the technical channel will not display messages of misinformation. The technical channel can be represented in the form of a simple web application that displays current trends of COVID-19, advice and guidance provided by experts, testing locations, vaccination resources, and other key information about the pandemic. All of the information provided by the technical channel will be compiled by experts from various backgrounds such as public health, infectious disease research, minority education, medical ethicists, and health disparities research. The information displayed will exclude medical or technical jargon in order to convey messages that are clear, simple, and accurate. Community leaders would then use the technical channel to disseminate information among members of their community. In order to address issues of medical mistrust, health disparities, and inadequate resources, community leaders must be the bridge between health

information and African Americans who experience socioeconomic burdens. African American churches are among the trusted leaders in a community that have resources and influence that can contribute to the promotion of public health practice, such as wearing masks and social distancing (Austin & Harris, 2011, p. 124). For almost three decades, these churches have been trusted centers for lifestyle intervention programs, and they have led effective responses for community crises (Bruce, 2020). A Wall Street Journal reporter Levitz (2021) emphasized that African American Boston church leaders have made significant and effective efforts to address health disparities by encouraging African American adults to get vaccinated. Following their pastors' guidance, many community members received the first dose of the COVID-19 vaccine despite their initial distrust (paras. 21, 29). The efforts of the Boston pastors clearly demonstrate that church leaders have a strong impact in promoting vaccinations among African Americans. Furthermore, African American churches have large memberships of people who can address health disparities with the creation of a health committee that will provide resources and information (Austin & Harris, 2011, p. 132). Trusted community organizations, such as African American churches, can provide information and resources that are tailored to the specific needs and issues of a community. This solution creates a new and ethical network of communication that is both empathetic and trustworthy in order to help combat existing racial and health disparities.

FUTURE IMPLICATIONS FOR COMMUNICATING TRUSTWORTHY COVID-19 INFORMATION AND REDUCING HEALTH AND RACIAL INEQUITIES

The findings of the STS analysis provide a foundation to understand the perspectives of African American communities during the pandemic and their perception of COVID-19 information. During the dangerous climate of this pandemic, it is crucial to establish trustworthy sources of information. Furthermore, information and research surrounding the pandemic has exposed and exacerbated structural inequities in under-resourced communities and marginalized populations (Cordes & Castro, 2020). The investigation of existing health disparities, medical mistrust, misinformation, and the COVID-19 communication channels using Actor Network Theory led to the solution of providing trustworthy information to the African American community.

The solution of the ANT analysis incorporates the use of a technical channel which filters diverse communication and presents accurate information regarding the pandemic by eliminating messages of misinformation. Although the purpose of technical research project was to construct an application to mitigate the transmission of the virus, it cannot serve as the solution for the ethical concerns and issues of the current COVID-19 communication network. Instead, it can be incorporated into the solution of the technical channel to provide trends of the virus in a local area and support community leaders and residents in understanding the state of COVID-19. Further research must explore new technical methods to filter multiple communication sources to effectively display accurate COVID-19 information. This future project must incorporate ethical principles and the perspectives of minority communities. The responsibility of this project should be shared among a group of health experts, ethicists, engineers, and community leaders. Moreover, the project requires extensive collaboration with residents of under-resourced cities to gain feedback, adjust features of the technical channel, and iterate accordingly.

Overall, the STS research project addresses and aims to reduce health and racial disparities experienced by under-resourced African American communities. There is no one solution to the problem of health and racial disparities, but this issue must be at the forefront of designs, implementations, and discussions in all aspects of society. Although this research provides only one approach to this problem through the lens of an STS analysis, it has laid the foundation to construct a novel and effective network of trustworthy health communication. Furthermore, the project exposes the current ineffective system of communication and its unethical qualities of untruthfulness. The investigation of this system and the proposed solution contributes to the necessary discussion of health inequities experienced by marginalized populations. The construction of a trustworthy network of communication led by influential and trusted leaders will lead to a tremendous improvement in ethical health outcomes for under-resourced African American communities.

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