

Exploration of The Socio-Technical Relationship Between Voters and Social-media

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On my honor as a University Student, I have neither given nor received
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Introduction

During the modern digital era, social media has been used to connect more than 2.44 billion users with one another, share information globally, and entertain users (Guo, 2016). During the COVID-19 pandemic, young voters were drawn to social media platforms to voice their opinion about current political issues (Booth, 2020). At the same time, governments were attracted to social media's capabilities to spread information to the masses quickly. In general, the public was constrained to various social media sites to discuss their opinions on political events due to the mass quarantining during the pandemic. However, the social media platforms provided easy access to voters to learn current political information which allowed the spread of misleading political advertisements without knowing the authenticity of the source which eventually led to regulation changes on these platforms.

The socio-technical relationship between voters and social media has changed slowly over time, but the pandemic created a situation wherein voters were limited to debating political issues on social media sites, which led to the spread of misinformation and organized computational propaganda with the intent of manipulating public opinion (Khanday, 2020). This relationship is explored through the STS framework of actor-network theory by demonstrating an actor-network and evaluating how the actors influence each other in this socio-technical relationship. A secondary theoretical framework, co-production, showcases how the relationship between social media and voters is dynamically evolving. First and foremost, addressing this issue requires the formulation of a research question: How has the socio-technical relationship between voters and social media during the COVID-19 pandemic influenced their voting outcome?

Methods

To answer the research question, various sources such as research papers, scientific journals, and website articles relating to the interactions between social media and voters are consulted in order to build and organize the research. Also, social media policies that regulate political campaigning and discussions on platforms such as Instagram and Facebook are analyzed thoroughly. Then, a network is created to explore the relationships between the three major actors in the network: politicians, social media platforms, and the voters who use social media. Social media, political campaigns, misinformed political ads, political ad regulation changes, and voters are all key words helpful in collecting more sources. These are the most important words related to the central research question because they all act as separate entities, which have interacted with each other heavily during the COVID-19 pandemic. These various methods lead to a complex understanding and analysis of the socio-technical factors between social media and voters because they dissect the relationship and depict the interactions between the two entities as well as their interactions with entities outside of their relationship.

Background

In order to contextually visualize the socio-technical relationship between voters and social media it is important to acknowledge the heavy voter attraction to the various platforms in recent years where the byproduct is a vehicle for mass misinformation. During the past decade there has been a shift in social media, from being a free-to-download platform for friends and family to share their favorite moments and thoughts, to becoming a dominant tool in the political world for governments to manipulate public opinion globally. For instance, in the 2010s, Twitter became the main hub for political discussions between politicians, voters, and the press because

of its ability to circulate information rapidly to a large audience (Diana, 2019). During the 2016 Trump campaign, Twitter and other social media platforms became the gateway for misinformation to rapidly spread because the platforms were already used as the source of important announcements from Trump and other politicians. It became increasingly difficult for the public to decipher the truth from the “fake news” (Diana, 2019). Not only was the Trump campaign engaged in spreading misinformation, but they also profiled users to tailor advertisements in order to win their votes.

In early 2014, the Trump campaign created a system to utilize personal information of Facebook users in order to profile and store them in a voter database so that they received personalized advertisements that appealed to their character and manipulated them into voting for Trump and the republican party (Staff, 2020). Whereas Trump only manipulated users from the U.S. to follow his campaign, other governments realized they could utilize social media to manipulate public opinion anywhere in the world. In fact, political manipulation on Facebook reached a global audience when the Russian government purchased \$100,000 worth of Facebook ads to release political information that would sway politically sensitive Facebook users to be divided on controversial issues such as gun control and abortion (Shane, 2017). The Russian company, the Internet Research Agency, relayed the information to Facebook by creating more than 470 fake accounts to easily disseminate their propaganda. While that event occurred back in 2017, the COVID-19 pandemic showed the true difficulty in controlling the dissemination of misinformation because the “fake news” had the power to undermine the credibility of scientific claims.

In the context of the pandemic, misinformation spread through social media was used to hide or discredit official healthy practices that would have helped reduce the spread of the virus (Hartley, 2020). However, there were also individuals on social media who tried to combat misinformation by disproving posts and claims on topics that either affected them personally or had extreme relevance at the time. On another note, Trump attended a white house briefing where he stated that laundry detergent or isopropyl alcohol would help combat COVID-19 if directly injected (Rogers, 2020). This statement was obviously false but when announced to a large audience, the fake news spread intensely throughout social media which resulted in a flooded health hotline with questions concerning whether it was okay to inject laundry products to stop COVID-19. This event portrays how a false claim stated by a trusted official can cause a mass spread of misinformation through social media resulting in public confusion.

STS Framework

In order to understand the socio-technical factors in this evolving relationship, the STS framework of actor-network theory is utilized to provide a unique lens to view the complex interactions between voters, social-media platforms, and other actors. Contrived by Bruno Latour, actor-network theory (ANT) depicts the idea that everything in the world exists in constantly evolving networks of relationships. However, critics such as Langdon Winner often claim that actor-network theory requires that the researcher judges which actors are integral in a network and which are not, but when actor-network theory is implemented, the assumption is that all actors are equally important in the network (Winner, 1993). This assumption is one of the main points of critique for actor-network theory as most critics say that the actor's importance should be determined by their position in the network and the interactions with other actors

(Kolli, 2020). Winner and Kolli agree that all actors are not equal and should have importance given to them based on their relevance in the network.

Jerzy Lepa utilized ANT as a socio-technical approach to understand the virtual network constructed on social media by older individuals and the interactions that occurred between them (Lepa, 2006). Lepa also described how the virtual networks consisted of all age ranges who interacted with the older people, but the network was centered around the older individuals. Lepa successfully utilized the socio-technical approach of ANT as he included actors who were not of the same age range as the older people on the virtual network and these younger actors were given a position in the network based on the relevance of their interactions, so Lepa's approach satisfied ANT's critiques about not allowing all actors to be equal in a network. In order to analyze the socio-technical relationship between voters and social media, ANT is utilized to construct an actor-network theory consisting of three major actors: government, social media, and voters who use social media to obtain information on political issues. Similar to Lepa's approach, these actors are not equal in power because they are central actors with very different roles, which are associated with other smaller actors such as social media policies, misinformation in political ads, and political campaigns.

Finally, Sheila Jasanoff created the STS framework of co-production to help understand the dynamic relationship between society and technology. Jasanoff said that co-production explores how technology evolves along with the representations, ideas, discourses, and institutions that give practical meaning to the ideas and innovations developed by society. For example, Justiina Dahl used co-production to analyze the growing interactions between science, technology, and society in global governance where one of the interactions was the development

and spread of social media technologies (Dahl, n.d.). Dahl and Jasanoff agreed on the fact that global experts should be more critical toward the politics of science and technology rather than the pros and cons of innovation. Dahl also argued that the spread of social media in global governance created a technologically driven social world where there are difficulties in choosing individuals who have the technical experience to speak about important technical matters. Co-production in this case ties back to the co-production between social media and voters where the evolving interactions between the two entities showcases the mutual relationship they have with each other. In order to analyze the mutual relationship between social media and voters, co-production is utilized to investigate the political ad policies that are continuously changing due to the mass influx of political ads and voter engagement on social media. Specifically, how Facebook and Instagram's political ad policies became more restrictive during the pandemic to better combat misinformation is investigated (Freedom Forum, 2020). Overall, co-production is used to explore the continuously evolving socio-technical relationship between voters and social media.

Results and Discussions

The socio-technical relationship between voters and social media has built up over the last decade or so where voters have gravitated toward social media for current political information, but the COVID-19 pandemic elicited a preoccupation with social media among both voters and politicians distancing policy during that time as well as social media's zero-cost nature and capabilities to publicize information quickly. As a result of the heavy voter attraction during the pandemic, various social media platforms were taken advantage of by governments and politicians to spread misinformation through ads and posts (Khanday, 2020). While the

pandemic was worsening, governments and politicians used their influence to propagate the misinformation, but to mitigate the risks of voter manipulation, the social media platforms were forced to enact regulation changes (Freedom, 2020). Specifically, insights into what misinformation was released on social media, how governments propagated the misinformation, and how social media regulated political discussions on the platforms in response to the misinformation illustrate the impact of the socio-technical relationship on voting outcome.

Prior to the COVID-19 pandemic, communities of color were targeted to receive misinformation that would sway their voting outcome for the elections. For instance, on election day 2010 many Black households received pre-designed automated calls that instructed them to stay home because the governor had already won (Austin, 2021). These households received misinformation that led them to not even vote in the election. Moreover, during the pandemic, various misinformation themes worsened the problem for communities of color. For example, statements like “Black people could not die from COVID-19” and “COVID was man-made to achieve population control” were circulated using bots to amplify the messages on social-media (Austin, 2021). Generally, disinformation campaigns utilize social media to easily prey on voter’s uncertainty and emotional responses. As a result, the concept of media literacy was created to combat misinformation as it reduces the initial impact of misinformation on the voter and promotes critical thinking in relation to the sources of the misinformation and the content of the message itself. Essentially, media literacy is the ability to access, analyze, create, and critically think about the specifics of media sources and content such as styling characteristics, the content’s accuracy, the source’s authenticity, and the context for how the content is shared (Austin, 2021).

Media literacy and its purpose to combat misinformation became more apparent during COVID-19 because of the abundant amount of false information that was spread throughout social media. Furthermore, the scenario that arose presents an example of co-production within the socio-technical relationship between voters and social-media. For instance, while media platforms evolved with new trends of misinformation about COVID-19, voters started to exhibit media literacy which showed they still had firm intentions to participate in political discussions and were less likely to believe misinformation relating to the pandemic (Austin, 2021). Both technology and society have a mutual relationship in this scenario where if technology evolves with new forms of misinformation, then society will evolve to combat that misinformation.

The global organization of disinformation campaigns by various government regimes initiated before the pandemic worsened after the onset of the pandemic due to the increase of misinformation relating to the virus. Various political parties across multiple regime types utilized social media as a tool to release propaganda and influence both domestic and global public opinion (JIA, 2018). As a result of the increasing level of social media use, the difficulty to control the spread of misinformation arises. In fact, Lightfoot researched the effect of social bots on politics and how they have a crucial role in spreading misinformation on social media (Khanday, 2020). They found that in the 2016 presidential election, Trump used many bots to disseminate his propaganda on social media. Generally, scholars have understood that technology has evolved to a point where it can disrupt power and politics as well as constrain or enhance human rights. In relation to constraining human rights, governments around the world are spending significant resources on employing “cyber troops” which are government-backed

organizations that deliberately disseminate fabricated, misleading, and manipulated content on social media to influence both foreign and domestic public opinion (JIA, 2018). The propaganda distributed by these cyber troops is classified as a different type of misinformation referred to as disinformation which is defined as “the systematic and deliberate process to shape opinions, influence thoughts, and direct a person’s behavior to achieve the desired intention of a propagandist” (JIA, 2018). It is essential to note that cyber troops are highly coordinated by the government, so they are publicly funded and can create an abundant number of fake accounts to spread disinformation on social media (Bradshaw, 2021). These global disinformation campaign strategies disrespect the notion of democracy by manipulating the trust in public officials and media and acting as a tool to restrict the freedom of expression globally.

During the pandemic, the disinformation campaigns became intense and gained a bigger audience because both Russia and China disseminated dangerous conspiracy theories about COVID-19. Moreover, one of the conspiracy theories was about a plan for governments to use contact tracing to track their citizens and create a totalitarian regime (Johnson, 2021). Essentially, Russia and China prioritized their political interests over their own nation’s public health as well as civilians around the world. Additionally, cyber troop activity rose during the pandemic when Russia, China, and Iran disseminated COVID-19 disinformation to support anti-democratic narratives created to disrupt the domestic trust in public health officials and government organizations (Johnson, 2021). The disinformation campaigns and cyber troops are all classified under the concept of organized computational propaganda. Organized computational propaganda is generally defined as “the use of algorithms, automation, and human curation to purposefully distribute disinformation over social media platforms” (Howard, 2017).

This concept is an example of co-production because while social media became more popular for political discussions and sharing ideas during the pandemic, politicians and government regimes had to upgrade their technology to use smarter algorithms and better automation to spread more disinformation. Over the years, politicians and governments have evolved using technology to propagate information on social media leading to the mass influence of public opinion. This is allowed by the fact that technology has also evolved over the years along with the people who use it.

In response to the mass disinformation released on social media during the pandemic, various platforms created new restrictions for political posts and intensely monitored the accounts to stop the misinformation before it spreads. Starting with Facebook, the platform established a Current Ad Restriction Period where advertisers could not publish new issues or political ads after the polls closed on November 4th, 2020 (Freedom, 2020). During the pandemic, Facebook did not have enough regulators to authorize every new political post, so they chose to create political ad policies that affected all users. Generally, an insufficient number of regulators will lead to more misinformation because if a disinformation post is overlooked and not authorized and starts to spread, Facebook will have an even bigger problem of controlling that misinformation and mitigating its spread. Additionally, Instagram created a policy that requires social issue accounts like Black Lives Matter accounts to first complete an ad authorization process and include a 'Paid for by' disclaimer on the ads so that viewers can check the authenticity of the ad themselves (Instagram, 2020). Additionally, the restriction period that Facebook initiated for the 2020 election was established for Instagram so that new information related to the election has no chance of being identified as disinformation on either platform.

The current relationship between social media and voters can be investigated under the lens of actor-network theory because we have identified and described the three main actors: voters on social media, political propagandists, and social media platforms. It is essential to examine the motivations and incentives behind each of the three actors in this network. First off, voters are the most important actor in this network because they make up the majority in the network and have an incentive to learn about current social and political issues so they can have an impact on the election. However, due to social distancing policies, social media platforms were the easiest avenue for users to learn new information during the pandemic. Consequently, the massive influx of social media users during the pandemic led to the spread of disinformation since they were mostly young voters who had not developed sufficient media literacy (Circle, 2020). Media literacy is key to the interactions between voters and social media platforms in this network because it determines how impactful social media disinformation is on voting outcomes. A voter's media literacy on social media could either be low, leading them to believe the disinformation posts and sharing it with all their followers (which would spread the information even more) or it could be high where the voter checks the authenticity of the source and the content of the message with other posts before making a conclusion on the issue. Also, a voter with high media literacy could realize that the post contains misinformation and spread awareness to their followers as well as report the post so that the platform can handle the situation before it gets worse. Furthermore, an abundant amount of disinformation is released by political propagandists and in reference to the network, voters and the social media platforms must work in tandem to use media literacy and the regulations on political posts to combat that disinformation. Social media propagandists also have the incentive to spread disinformation to

promote their organization's ideals whether it is supporting a candidate or a certain position on an issue. Propagandists like the government and politicians have interactions with social media and voters through organized computational propaganda because that is the easiest way for them to disseminate an abundant amount of disinformation. Cyber troops are an example of those network interactions since they are the key to spreading the information to the public. Finally, social media platforms have an incentive to regulate the disinformation released through restrictive post policies and intensive account authorization. These policies are an example of the interactions between social media platforms, voters, and propagandists and affect both the voters and the propagandists immensely because neither can post any disinformation, or it is taken down. Overall, each actor in the network interacts with the other two by either mitigating the misinformation released with media literacy and political post regulations or promoting the disinformation disseminated on social media with organized computational propaganda.

There were not too many limitations for this project except for the fact that there was not a lot of information found pertaining to the specific content of the disinformation released by the cyber troops. It is already known that they had a geopolitical agenda to disseminate disinformation relating to the pandemic to undermine the domestic public official's credibility. However, specific cyber troop posts on social media were hard to find and this was most likely because the social media platforms deleted the posts already. Future researchers could use machine learning to track down more disinformation on social media. They can also contact social media platforms directly to find out more information about how difficult of a problem mitigating disinformation for them is.

Conclusion

During the COVID-19 pandemic, voters were attracted to social media to learn current political information, and as a result political propagandists took advantage of the social media platforms by disseminating disinformation through political posts. The government and politicians propagated the misinformation to further influence public opinion globally. Different social media platforms such as Instagram, Facebook, and Twitter had to enforce political post regulations that would prevent misinformation from spreading through the internet. On the voter's side, to combat misinformation it is important to have a high media literacy and stay up to date with valid current information. Also, it is essential to check the authenticity of the sources for the political posts before sharing it with everyone else. Finally, disinformation corrupts the socio-technical relationship between voters and social media because it leads to mass influence of voting outcome.

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