

## SOCIAL MEDIA AND DISINFORMATION: DIGITAL CRITICAL THINKING

Francis Hadley, University of Wisconsin-Superior  
Dr. Daniel Lawrence, PhD, Mentor

*Disinformation has come to public attention in the last decade, with the rise of social media and targeted, political advertisements. As computer technologies rapidly evolve, humans have struggled to develop methods to combat the effects of disinformation and have even struggled to understand how disinformation spreads. Despite this, very little conclusive data on how people interact with disinformation on social media in their daily lives exists. This study aims to look at how disinformation manifests itself on social media as perceived by those individual users. This study will examine some of the causes and effects of disinformation on today's world and begin to pose some solutions to fighting back against these technological actors.*

*The study explored digital literacy and disinformation across various generations using 30–45-minute qualitative interviews with participants across five different states. Respondents were asked about their social media use and digital critical thinking. Using inductive coding and analysis, the results show the impact of digital apathy across multiple generation as well as a lack of digital critical thinking when it comes to news stories.*

*The results suggest that digital apathy and a lack of digital critical thinking are fundamental elements in disinformation spread. Fearful of retaliation for going against the curated crowd, respondents would rather not waste their time or energy to correct false information. Digital sympathy and rhetorical thinking are crucial to fight back against rampant disinformation campaigns to protect the future generations of social media.*

### Literature Review

#### **Classical Rhetoric**

While public attention and scholars are only now beginning to scratch the surface of the disinformation phenomenon, ancient Greek philosophers understood the dangers and powers of persuasion. This literature review will cover key ideas from classical, contemporary, and digital rhetoric, and digital media theory, as these ideas can assist us with understanding the complex phenomenon of disinformation. To many, the term “rhetoric” brings images of long dead philosophers and graying legislatures launching verbal attacks against one another.

The term first meant an effective way of speaking and persuading. Scholars understand that the term “rhetorike” was first written by the Ancient Greeks of the 5th century and came into use in the democracies of Syracuse and Athens (Kennedy 1). In Plato’s dialogue Phaedrus, we see a critique of the Sophists and of making speeches that are not aligned with truth. It is in Phaedrus that we see a theory of rhetoric that demonstrates the significance of the alignment of speech and truth. Aristotle on the other hand, favored a more systematic approach to rhetoric, and laid down many of the terms and frameworks we still use today, such as the appeals of ethos, pathos, and logos. As we know, ethos, pathos, and logos are still widely used in college composition courses and in rhetorical analysis. These lessons from classical rhetoric can help us to analyze disinformation. With disinformation, as with speech, we can analyze a social media message for the character and trustworthiness of the speaker (Ethos), the logic of the argument (Logos), and the emotion evoked by the message (Pathos). These tools of classical rhetoric are still useful today in our contemporary understanding of speech, language, and media.

#### **Technology Problems**

As humanity advanced its level of knowledge and science, new devices, products, and skills followed suit. With each new wave of technology came a similar wave of fear and hesitance. Perhaps no time in human history has the power of speech been so evident as the 20th Century, which saw the rise of mass media technologies like radio and television. Powerful leaders took advantage of these tools and technologies to further their persuasion. By the 1940’s, people were beginning to see the power mass communications could have on the world, one of the biggest critics of these changing technologies being Martin Heidegger. He asked society to consider their relationship to technology and how that relationship may shape the future or define what it means to be human. Modern technology, according to Heidegger, is different because it challenges the forces of nature that humans previously were at the mercy of. Speaking on the transformative power of technology, Heidegger talks about the “energy” that is stored in the natural world. As new technology is developed, this energy is “unlocked” and “distributed” in ways not seen before (Heidegger 5). This distribution can have unforeseen consequences when we develop too rapidly.

This new wave of technological advances also brought about social change as well. Marshall McLuhan famously warned that “the medium is the message” (McLuhan 8). In other words, what mattered with these technological revolutions was not necessarily the content that people were consuming, but the medium through which it was being consumed. For example, the danger of television is not the violent shows a family watches-but the fact that a television now exists in the home and has changed our relationships with reality, with our families, and with society. In this sense, the television ‘invaded’ the world, and we haven’t been able to even fully grasp its influence on our lives as it has begun to fade into history. The idea that technology and advancement bears dangers to society is nothing new and it is no surprise the same echoes of these fears are being applied to the internet. Technology is more than a neutral facilitator, as discussed by Andrew Feenberg is his lecture on the philosophy of technology. Speaking of humanity and technology, “The goals of our society can no longer be specified in a knowledge of some sort” (Feenberg 5). The digital spaces created today are no longer simply libraries or archives-but living breathing spaces. And now, with the advancements in computer and internet technologies such as social media, smartphones, and targeted advertisements the exact place of technology in society remains a mystery, but it is a topic of discussion going into the future.

### ***Technology and Rhetoric***

As technologies advanced and continue to advance in the 20th and 21st Centuries, rhetoric as a field of study has been slow to keep up. 20th Century rhetoricians like Kenneth Burke demonstrated how all communication is symbolic and expanded the field of rhetoric beyond its rigid, classical bounds of oratory and speech. Scholars continued to push the field outward, with thinkers like Sonja Foss cementing a theory of visual rhetoric in the 1990s. Foss explains that the “study of visual imagery from a rhetorical perspective also has grown with the emerging recognition the visual images provide access to a range of human experience not always available” (Foss 143). A further study by Murray laid the groundwork for not only a visual theory of rhetoric, but all non-discursive rhetoric. This theoretical perspective on visual imagery is vitally important in the age of social media. With our feeds flooded with images and nondiscursive texts daily, it is important to know the power they hold over us. And yet, there is another set of forces that hold sway in the age of social media. One that is invisible and difficult to understand fully.

There are a variety of things that the

modern computer has brought into the world. One of those things is a large amount of rules and procedures that govern how people interact with the internet, or software such as video game and similar apps. Ian Bogost writes extensively on the persuasive power of such commands, many of which are invisible to the naked eye. Deemed “procedural rhetoric,” it is formally defined as “the practice of persuading through processes in general and computational processes in particular” (Bogost 3). These procedures are responsible for influencing millions of people simultaneously as they interact with and exist in digital spaces.

The effect of these procedures is starting to be seen in future generations. In one study, 97% of high school students failed to see a conflict of interest in a web page about climate change clearly marked as being written by a fossil fuel company (Breakstone). This work by the Stanford History Education Group inspired this study, by further documenting digital literacy in other age groups and exploring how disinformation functions in social media. The fundamental lack of critical thinking skills being applied to digital interactions such as these shows the power invisible procedures are having on the generations that grew up with them.

### ***Disinformation and the Future***

Bogost’s work on procedural rhetoric is so critically important because of the ubiquitous nature of algorithms in our daily lives. The same can also be said of social media platforms and the way information is spread today. Artificial Intelligence (AI) and algorithmic processes influence how we engage with the world on a daily basis. In a recent study, Kertysova talks about the double-edged nature of AI and disinformation. They speak on the rise of fact checking projects cropping up across the world, up to 188 projects over 50 countries (Kertysova 3). Given it’s impartial appearance, it would seem like AI is the key to countering disinformation, however. The problems arise when you consider the lack of human input in the censorship process. Purely AI systems can result in false positives, the over blocking of proper content, and keeps the dream of a fully automated AI fact checker distant on the horizon (Kertysova 5).

When it comes to the various problems disinformation can cause, the exact details are still hazy. According to a study done by McKay and Tenvoe, online disinformation campaigns have become the defining political communication of our time (McKay 1). Further, they pose that if left unchecked, these campaigns threaten any hope deliberative democracy has to survive. In the wake of the 2016 presidential election in the United States, it is clear

that one of the main fears is that such disinformation campaigns threaten the outcomes and legitimacy of elections. But it is more than that. These campaigns also look to weaken social institutions and trust in those who we should be looking to in times of crisis. McKay continues, describing a deliberative system, one that has “two general spaces: one where informal political discussion take place, and a core where deliberation is focused... such as legislatures” (McKay 2). Disinformation campaigns targeted to social media platforms take advantage of social media’s ability to take fringe information normally weeded out in the first sphere and launches it squarely into the second. They also highlight that the most troubling thing about disinformation campaigns is that they are participatory, meaning they spread “through – and with the help of – online crowds and other information providers” (McKay 5).

The study continues, talking about three specific areas of harm caused by disinformation: corrosive falsehoods, unjustified inclusion, and moral denigration. Corrosive falsehoods are misperceptions that can undermine those with “epistemic quality.” This is the quality given to those who work in the higher sphere of the deliberative system, those who have been empowered through their expertise. When disinformation spreads such misperceptions, it can cause those outside of the empowered sphere to question any findings without using facts or logic. A good example of this is the recent Anti-Vaxxer movement causing problems across the US (McKay 6). This can sometimes lead to “Unjustified inclusion” or actors without empowerment inserting themselves into democratic discussions. If left unchecked, pervasive inauthenticity can occur. This is where a majority of people fear normal discourse has broken down due to too many accounts being bots or foreign agents sent to change outcomes (McKay 7). Lastly there is moral denigration, where nefarious agents use “false claims, chauvinistic language and visual imagery to stoke moral revulsion towards particular individuals” (McKay 7). A deliberative system only operates when they can successfully promote mutual respect among citizens. When disinformation campaigns come into play, the breakdown of the entire system is immediate.

Disinformation is a problem that threatens all aspects of life in the age of social media. In a study, Rubin discussed the idea that disinformation could be classified as an epidemic or plague devastating the world. They touch briefly on the idea of Aristotle’s ethos as becoming dominant in today’s world. Disinformation relies heavily on appeals to emotions rather than grounding in any logic of fact-

based argument (Rubin 3). The problem of proliferation of dis/misinformation on the internet continues to explode due to social media sites. These sites remove news from it’s source and weakens the value of reputation in fact checking. It also allows users to stop checking sources entirely, simply taking anything that appears as a news story posted to Facebook as true. Rubin goes on to apply the disease triangle, a conceptual model from the 1960’s, to the disease of disinformation.

The original triangle had three components: A virulent pathogen, a susceptible host and a conducive environment. The pathogen is the easy one, as it is the campaigns themselves. The host is, quite simply, the overloaded masses with too much information coming at them too quickly with little way to sort fact from fiction. According to Rubin, “few news readers have the time and energy to fact-check every piece of information they come across” (Rubin 9). And lastly the environment takes the form of complacent platforms that willingly allow false information to be posted and spread across them. This is all due to a problem of turning clicks into revenue. “In a media economy based on user engagement, each hit on a web page translates directly into dollars” (Rubin 8).

There is quite a bit of quantitative data concerning disinformation. All of the studies conclude with the idea that more information is needed. None of this data alone seems to bring us closer to tackling the problem of how to remove large disinformation campaigns from digital spaces such as social media. The individualized nature of social media necessitates that a more qualitative approach reveal fundamental aspects of social media and disinformation in everyday life.

## Methods

The methodology I used came from two main sources: First, I approach the problem of disinformation from an interdisciplinary perspective, using rhetorical analysis, the philosophy of technology, narrative, and creative non-fiction to address the complex problem of disinformation. I couple this overall approach with the analysis and review of responses from a qualitative ethnographic study to further the pool of knowledge on such a cumbersome and difficult topic.

Rhetoric is the art of persuasion founded in Ancient Greece regarding the effects of good and persuasive speech. Rhetorical analysis investigates how texts, media, speakers, etc. articulate messages to achieve particular goals. Modern rhetorical studies have expanded to include the analysis of visual, digital, and other non-discursive forms that influence us. I use contemporary rhetorical theories such

as Bogost’s procedural rhetoric to explore how disinformation manifests and interacts with the public.

The main reasoning behind my methods were due to disinformation’s intangible quality. Disinformation campaigns can take a variety of forms, and nearly everyone has come in contact with them on social media platforms. The tricky part is that everyone interacts with this information in different ways. This again makes quantitative data not only difficult to collect, but also lacking in the depth of analysis to begin to understand this disinformation. While knowing how these campaigns can spread and how fast they do so is helpful, that does not begin to break down the social reasoning behind why people share or interact with the stories. It is for these reasons that a smaller, qualitative data collection method was selected.

My research method was qualitative ethnographic interviews. As part of my formal research, I conducted seven personal interviews with participants, either in person or over a virtual software such as Zoom. Review by the University of Wisconsin—Superior IRB showed that the question being investigated would cause no more than minimal risk to the participants. In addition, all participants were provided an informed consent form to review and fill out before continuing with the process. All interviews were recorded with permission.

Participants were chosen across a wide range of age groups to help show how disinformation campaigns affect them differently. Participants were found through word of mouth and snowball sampling from prior participants. Once completed, the recordings were reviewed, and patterns began to emerge, forming the basis of the conclusions drawn in this paper.

Potential limitations ran into included where to find participants and the nature of the interview questions. It proved difficult to find and word questions that got at the heart of the research question without leading participants to a specific response. Future studies may wish to expand their sample size greatly and seek participants from a wide variety of backgrounds and geographic locations.

## Results

The ethereal nature of disinformation in the digital world led this study to be set up for qualitative results. As such, the participants were each asked 10 questions regarding their social media use. Each interview brought about a different narrative and snapshot of a presumably typical digital user. Because of that, the results were quite varied across multiple areas of interest. Once all the data had been collected, it was first sorted using open coding. From these codes, patterns began to form and gather,

which is explored further in the discussion section.

Several themes emerged from the open coding of the interviews. For this study, participants were divided into three broad age categories: From ages 18-24 were considered Gen Z. Ages 25-39 were considered Millennials, and age 40 and older were Gen Xers. When asked about their age and what generation they identified with, one participant said they were part of Gen X, three identified as millennials, and one identified as Gen Z. One person identified themselves as “half millennial, because I am technologically compliant. But I do like the do your own thing kind of Gen X way.” (OP Interview). Generational identifiers were collected to learn more about the relationship between digital literacy and age group. There is a common misunderstanding that ‘young people’ are more digitally literate, but this is not always the case.

Participants were asked about the social media sites they used most frequently. There were a few common sites, such as Facebook, Twitter and Tiktok that came up across all interviews. Table 1 has the full breakdown all of the social media sites the participants said they used most often.

Social Media Site	Mentions in Interviews
Facebook	44
TikTok	21
Twitter	11
Instagram	8
Reddit	7
Snapchat	6
YouTube	4
Tumblr	3
MySpace	3
Discord	2
BuzzFeed	1

**Table 1:**

*Breakdown of social media sites mentioned during interviews*

Traditional News Source	Mentions in Interviews
BBC	11
Local News	8
NPR	4
New York Times	4
Wall Street Journal	3
Fox News	1

**Table 2:**

*Breakdown of traditional news sources mentioned during interviews*



Over the course of the interviews, participants all spoke about news sources that they trusted. 3 of the 7 mentioned their local news as a primary source they trusted. Two of them mentioned CNN or NPR while a others talked about Fox News in regard to trust. Table 2 has the full breakdown of all the news sources mentioned.

Five of the seven participants spoke about how social media had had an overall negative impact in their lives, while only three of them mentioned the positive impacts directly. One of the participants, an elder millennial named Nevada, talked about how dark the internet had become over the last decade:

There was a, there was one time I followed one of those (Reddit) threads. And as I scroll down, I started getting into, like, really, like, really dark stuff, like, things the average person really doesn't need to take in, you know. And when I say that, I mean, I don't think people were ever meant to have this amount of bad news thrown at them at once.

Most talked about a feeling of distrust towards posting because no matter what they would be attacked.

Everyone was able to identify one good aspect of social media, with the dominant idea being a sense of connection. All of those interviewed admitted to actively using social media for multiple hours and day. Four of the seven mentioned that it was nice to fill time when they were bored. When asked about deleting their online accounts, every participant said that it would be too difficult or would be bad if they did so. One person worried about the idea of a "phantom profile" lingering out in the digital world. All study participants were in some way aware of the algorithmic or procedural processes that influence the types of content that is delivered to their social media feeds.

Apathy was a strong theme across all of the interviews. Five of the participants discussed some form of disengagement when interacting with social media posts. For most, this took the form of simply avoiding the post causing them distress, while for one gen Xer, Oakley, they became more aware of posts that made them upset. "I had to just be aware that whenever something like that came up, like some of the creepy stuff you see on the internet just to be on the lookout for anything." Others were concerned with their mental health due to their social media use. The idea that they were comparing themselves to what they were seeing on their feeds ran deep and caused negative emotions. Only Kennedy, a Gen Z participant that identified as the last of the millennials, was able to articulate the "rose colored" lens that social media is viewed through:

I think I can say this confidently, in that I

feel like social media, most of the time has more of a negative impact. Mostly because I think the things that were shown by both friends, family and outside resources, only show positives and only show the best side of someone or something. And so I think social media glosses over the negative aspects of life. You only see people putting their best foot forward, and it makes you feel bad, because of course, not everything is perfect all the time.

## Discussion

### *Generational Differences*

All study participants were not confident of their own generational identifier, yet seemed to consider it an important part of their digital identity. The lines blur quite a bit between these defined groups, however. Enough so that when asked, participants all struggled to even pronounce which generation they identify as. This blurring of lines leads to generational confusion and perceived isolation. How millennials are killing industries and Gen Zers have humor that does not make sense. Millennials reside in an interesting middle ground. They grew up in a world before the digital but were also there to pioneer it. They exist in both worlds, and bring with them a healthy amount of skepticism. They hold with them a sense of pride having been a part of shaping their digital spaces, through sites like Myspace or the original Facebook.

### *Social Media's Impact*

Social media and it's design is something that is not going away anytime soon. A number of participants said that social media was here to stay, and getting rid of it permanently would prove to be difficult. Whether that was a fear of a profile still lingering out there, or simply losing the connection to loved ones, the idea of not having social media is too much for most people.

When talking about social media, most participants indicated some form of dependency or addictive behaviors. Multiple participants talked about using social media apps to "kill time" or something easy to do when they were bored. Many of them check social media sites multiple times a day and are active on these sites for multiple hours. Jaron Lanier discusses the idea of technology "lock-in" in his book *You Are Not a Gadget*. As technologies continue to build upon one another in a near linear path, once a technology or design has been around for a while, it becomes difficult to change them. This is because so many other designs rely on said design that it would be a logistical nightmare to retrofit

all of them (Lanier 7). A good example of this is in modern social media designs; an endless feed, and curated posts have become the standard for all new social sites. Social media as a concept has been locked-in to our everyday lives and lays the foundation of our interactions in the digital world, even if the individual site designs may differ. For some, however, the line between the digital and the real blurs a little too well.

The digital world is growing bigger every day, but that doesn't mean that our digital lives reflect our reality. It is too easy, as one participant points out, to forget that social media pages such as Facebook and Instagram are idealized versions of people. For the most part, the best pictures and words are chosen to represent us in the digital space. How simple it is, to forget there is a person with troubles and problems on the other side of the screen. The idea of comparison came up a few times in the discussions, a digital version of keeping up with the Joneses that has no perceivable end to it. One participant, a millennial named Kennedy, talking about outside validation:

When you post and feed off of a social media presence, that reflects in wanting outside validation, wanting people to see how happy you are, how attractive you are, how well you are doing

There are strong emotions tied to social media use, from the fear of a dissenting opinion to an unnerving distrust that something isn't quite right. Most of the people spoken to said that social media had had a negative impact in their lives in one way or another.

That doesn't mean that widespread social media use is a bad thing. All of the participants spoken to brought up a number of positive things social media has brought forth. The most common theme was staying connected to those that matter to them. Some met their significant others through social media, while others found comfort in the feeling of being connected to the wider world. Oakley Peters, a gen Xer, talked about the unique event of comforting a dear friend across the country. They talked about a family from years ago that had suffered the death of a loved one. Speaking on the positive event of sending them flowers, they said: "And, you know, it was like one of those things where had I not logged in, I wouldn't have seen that-I wouldn't been able to keep up with them." As social creatures, these social bonds form a foundational part of how to navigate our realities. During times of crisis, such as the COVID-19 pandemic that swept around the world, staying connected through social media was a lifeline many had to rely on. In today's world, some people's entire careers revolve around social media, creating jobs in the digital world, as was the case for some of the participants.

## *Digital Apathy*

All across social media, strong emotional responses abound. Companies across the new digital world have distilled these emotions and seem to be trading them in for profit or political power. Whether it is fear of going against the perceived crowd, or becoming angry when they read a news headline, emotions drive almost everything that happens across social media today. This imbalance of pathos with little logical drive brings us back to the ancient days of Aristotle and Plato. The art of rhetoric is lost to the masses that only think with their heart. This is the same heart that disinformation seeks to control. Disinformation relies on a strong emotional response from people, which explains why it thrives on social media.

One of the more common responses seen was that of apathy towards anything posted on social media. Such digital apathy seems to stem from a few different places. First, there was an exhaustive feeling when participants were discussing social media use. There was simply too much content being generated for them to consume regularly. This causes tension when it runs into the need they had to stay connected with others or belong to a community. The fear of missing out led them to exhaust themselves trying to keep up. This content overload also led people to question, if only slightly, the impact their posts had on the digital world. Multiple participants said that they were not "interesting enough" to matter in social media spaces. When talking about why they stopped posting as much, Oakley said "I just fell out of it, because just nobody cares that I had a tuna sandwich or something... it was getting to the point of oversharing."

Another place that apathy popped up quite a bit was when faced with posted information that was incorrect. Everyone said, in one way or another, that it wasn't their place or worth the time or effort to try and correct someone who had posted something false or misleading. Kennedy Tatham, mentioned earlier, said "I don't feel like calling someone out for posting something's that's wrong changes how they actually feel about something. And so I just don't." Even if, and particularly, that person was a loved one or a close acquaintance. The very connections that people treasure in their social media use were causing them to hesitate in confronting someone spreading mis/disinformation. The fear of being "attacked" or "jumped on" by a perceived wall of opposing opinion caused people to find it not worth the effort to try and deal with the problem. Marlyn West, a self-identified "Elder Millennial," talked about a common event for them. Reading an article about a recent court sentence, the comment section ignites,

And the people in the comments, were all

like, this is an outrage, the justice system isn't serious, and everybody gets a slap on the wrist. And so I was like, commenting down there and like, you realize that if you lock this lady up, she's just gonna be sitting in a jail cell. But if you give her probation, she's gonna be like working a job and like earning money that's going to go back to pay the restitution... And then people were like, jumping all over me in the comments. And I'm like, okay, whatever. And I just kind of I just disengaged at that point, because I was like, these people are idiots and are not worth my time.

The fear of going against the crowd is a powerful deterrent for a lot of people in the digital world. Most participants spoke about how it wasn't worth it because they knew that they wouldn't change the mind of the original poster, so what was the point of trying to. They completely neglected to realize that in doing so, they were allowing something they knew was wrong to continue to persist on the internet, to be able to be seen by countless others as it spread.

### ***The Power of Curation***

Almost all of the participants mentioned algorithms in one way or another. This means that in general, people are aware that there are forces at play on the internet that influence them. Many mentioned the idea of curation, or a feed that is customized for just them. No one, however, seemed to grasp the power they held in their hands. Each acted as if they were under the thumb of these algorithms and simply had to accept what the computer thought they wanted to see. Most were aware of targeted advertising being directed at them when they clicked on a item or made a search and all were frightened or creeped out by this fact. They had completely lost the idea that if they want to change their page, they have that power. By being deliberate with their searches and digital consumption, they could create a space more to their liking.

The power of curation means that one could create a space they feel safe and comfortable in. To be able to find that connection and community so many are looking for. Being able to think about technology as a tool, instead of a looming mysterious giant is the core of the digital critical thinking needed in today's world. Without it, technology will continue to grow and evolve and leave humanity behind.

### ***Digital Critical Thinking***

As the digital world continues to become dominant, it is becoming harder and harder to keep track

of our own behavior as we are accessing it while tech companies seem to develop new ways everyday. Awareness of what we post on the internet is no longer enough. Our existence in these digital spaces is something we need to be aware of as well. As more and more of our activity on social media is being monitored, turned into data and monetized, being able to identify the warning signs of nefarious practices is paramount to success.

It was clear that people are aware of social media's design and function being just a little off. All participants were able to articulate that they knew social media was designed to be personalized, but no one was able to articulate how. Some talk about how they themselves were becoming a product, many mentioned algorithms and curated content for them. No one, however, was able to give specific examples of what those algorithms or designs looked like. This lack of digital literacy is worrying, as hundreds of thousands of people are interacting in a space they don't fully understand in a way that is highly influential to them.

Another problem unique to the current digital space is the differences in social cues. When all you see is word across the screen, it is easy to forget that another person is, supposedly, on the other end. This cuts both ways, as it is too easy for someone to hide behind their screen and either cause mischief or spread strong emotions. On the other side, you have people who are simply too afraid to stand against a crowd of digital phantoms that they perceive lurking just on the other side of the glass.

Procedural rhetoric up until now has been contained within the realm of video games, to describe the way designs and structure of electronics persuade and influence people. The data collected in this study begins to show that the designs and structures of social media sites is being harnessed by a variety of actors with the common purpose to influence people. Left unchecked, social digital illiteracy, or how we behave in digital spaces, could get worse as technology gets more sophisticated.

All the participants said that they were frustrated with loved ones who were perceived as not fact checking a news story before posting it or sharing it through social media. Those same participants also willingly admit that they themselves do not, or rarely, fact check a news story that they come across. Many indicated that reading a story outside of their "wheelhouse" or area of interest makes them less likely to do any sort of fact checking. If the news source in question is one that is trusted as reputable and the story sounds within the realm of possibility, participants were willing to accept it at face value.

All of this demonstrates a fundamental lack of digital critical thinking. People are interacting with

and being influenced by the procedures and designs of the internet every day. None of the participants, however, seemed to put more than a passing thought into how or why they are consuming this information in the digital world. Even knowing that social media's algorithms exists was not enough to spur participants into trying to figure them out. They would rather, it seems, wallow in their apathy filled with endless instant gratification.

In the digitizing of the world, fundamental skills have been left behind. Such digital critical thinking returns to the roots of classical rhetoric. People are not considering the basic questions proposed by classical rhetoricians. They instead consume messages as they are given to them without thought. This form of digital sophism has blinded society for too long. Rediscovering the core concepts of ethos, logos and pathos and applying them to the messages we encounter in the digital world is crucial to its survival. As the messages start to be analyzed, it will become easier for us to see the procedures and other rules in place, taking them out of the dark to be dealt with. Once this happens, solutions will become more obvious and clear. Things in the digital world are very similar, but not quite the same as the physical world. The relationships laid out in one may not transfer perfectly to the other, but it is a start. Forming a framework for the connections between the message, the sender and the method of sending will allow digital rhetoric to flourish. Perhaps procedures will be created that will prevent further spread of disinformation. Reclaiming basic skills such as these will begin to inoculate the viral spread of problems across these digital spaces.

## Conclusion

The increased spread of disinformation in the modern world is alarming. There is a lack of data to help show where these dangerous campaigns are coming from. This study shows that digital apathy plays a large role in how disinformation spreads so quickly. It also revealed a concerning problem involving the lack of critical thinking that goes on in digital spaces. As more and more of the world is becoming digitized as technology is spreading, now is the time we need to start educating ourselves in the same critical thinking skills that exist in our physical reality. The digital world is just the next stage of evolution for the field of rhetoric. Now more than ever, the ways in which people influence each other is paramount to our success in this new frontier. The difficult part is operating in a world where not all of the influence can be seen or heard. What is clear is that without the transfer of these critical thinking skills into the digital world, the disinformation problem will only continue to worsen. By

once again learning to look at the messages being presented, we can begin to cure the problem of widespread disinformation.

## Bibliography

- Bogost, Ian. *Persuasive Games: the Expressive Power of Videogames*. MIT Press, 2010.
- Breakstone, J., Smith, M., Wineburg, S., Rapaport, A., Carle, J., Garland, M., & Saavedra, A. (2019). Students' civic online reasoning: A national portrait. Stanford History Education Group & Gibson Consulting. <https://purl.stanford.edu/gf151tb4868>
- Feenberg, Andrew. "What is the Philosophy of Technology?" *Kombua, Japan*. June 2003.
- Foss, Sonja K. , "Theory of Visual Rhetoric" , in *Handbook of Visual Communication* ed. Ken Smith , Sandra Moriarty , Gretchen Barbatsis and Keith Kenney (Abingdon: Routledge, 03 Nov 2004 ), accessed 19 Oct 2020 , Routledge Handbooks Online.
- Kennedy, George Alexander. *A New History of Classical Rhetoric*. Princeton University Press, 1995.
- Kertysova, Katarina. (2018). Artificial Intelligence and Disinformation. *Security and Human Rights*. 29. 55-81. 10.1163/18750230-02901005.
- Lanier, J. (2011). *You are not a gadget: a manifesto*. Penguin.
- Martin Heidegger, "The Question Concerning Technology," in *Martin Heidegger: Basic Writings*. Edited by David Farrell Krell. (New York: Harper & Row, 1977), pp. 287-317. This translation slightly edited from the original English translation in Martin Heidegger, *The Question Concerning Technology and Other Essays*. Translated by William Lovitt. (New York: Harper & Row, 1977), pp. 3-35. The German text appears in Martin Heidegger, *Vorträge und Aufsätze* (Pfullingen: Günther Neske Verlag, 1954), pp.13-44.
- Manovich, Lev. *The Language of New Media*. MIT Press, 2000.
- McLuhan, Marshall, et al. *The Medium Is the Massage: an Inventory of Effects*. Gingko Press, 2017.
- McKay, Spencer & Tenove, Chris. (2020). Disinformation as a Threat to Deliberative Democracy. *Political Research Quarterly*. 106591292093814. 10.1177/1065912920938143.
- Murray, Joddy. "Chapter 1: Non-Discursive Symbolization." *Non-Discursive Rhetoric: Image and Affect in Multimodal Composition*, by Joddy Murray, SUNY Press, 2009, pp. 11–30.
- Plato, , and Stephen Scully. *Plato's Phaedrus*. Newburyport, MA: Focus Pub./R. Pullins Co, 2003. Print.
- Rubin, Victoria. (2019). Disinformation and misinformation triangle: A conceptual model for "fake news" epidemic, causal factors and interventions. *Journal of Documentation*. ahead-of-print. 10.1108/JD-12-2018-0209.