Exploring Critical Media Literacy Skills of Adults on Twitter during the Coronavirus (COVID-19) pandemic in the United States in the spring and summer of 2020

Renee Thomas Woods
University of Missouri-St. Louis, rmtp63@umsystem.edu

Follow this and additional works at: https://irl.umsl.edu/dissertation

Part of the Adult and Continuing Education Commons, and the Educational Assessment, Evaluation, and Research Commons

Recommended Citation
https://irl.umsl.edu/dissertation/1101

This Dissertation is brought to you for free and open access by the UMSL Graduate Works at IRL @ UMSL. It has been accepted for inclusion in Dissertations by an authorized administrator of IRL @ UMSL. For more information, please contact marvinh@umsl.edu.
Exploring Critical Media Literacy Skills of Adults on Twitter During the Coronavirus (COVID-19) Pandemic in the United States in the Spring and Summer of 2020

by

Renee Thomas Woods

M.A. – Communication, St. Louis University, 2000
B.J.- Journalism, University of Missouri - Columbia, 1994

A Dissertation submitted to
The Graduate School at the University of Missouri – St. Louis
in partial fulfillment of the requirements for the degree of
Doctor of Philosophy in Education
with an emphasis in Teaching and Learning Processes

Advisory Committee
Judith Cochran, Ph.D.,
Chairperson
Perry Drake, Ph.D.
Alice Hall, Ph.D.
E. Paulette Isaac-Savage, Ed.D.
# TABLE OF CONTENTS

**ABSTRACT**

p. 5

**KEY WORDS**

p. 5

**ACKNOWLEDGEMENTS**

p. 6

**CH. 1 – INTRODUCTION**

p. 7

1.1 Background

p. 8

1.2 Problem Statement

p. 13

1.3 Statement of Purpose

p. 14

1.4 Critical Questions

p. 14

1.5 Summary

p. 16

**CH. 2 - LITERATURE REVIEW**

p. 17

2.1 Andragogy/Adult Learning

p. 17

2.2 Media Literacy & Critical Media Literacy

p. 23

2.3 Twitter & Social Media

p. 32

2.4 Coronavirus (COVID-19)

p. 38

2.5 Hostile Political Discourse Leads to Trump Twitter Ban

p. 43

2.6 Confirmation Bias

p. 48

2.7 Social Identity

p. 54

2.8 Alternative Views

p. 57

2.9 Summary

p. 59

**CH. 3 – METHODOLOGY**

p. 60

3.1 Research Design

p. 60

3.2 Critical Research Questions

p. 62

3.3 Study Participants

p. 65

3.4 Ethical Statement

p. 67
3.5 Instrumentation  p. 67
3.6 Data Collection  p. 69
3.7 Data Analysis Process  p. 70
3.8 Qualitative Research/ Grounded Theory  p. 71
3.9 Limitations  p. 77
3.10 Quality Standards: Trustworthiness Conclusions  p. 78

CH. 4 – FINDINGS/DISCUSSION  p. 81
4.1 Introduction  p. 81
4.2 Study Participants  p. 83
4.3 Data Analysis  p. 90
  4.3.1 Understanding Media Literacy  p. 92
    4.3.1.1 Focus Group #1  p. 92
    4.3.1.2 Focus Group #2  p. 93
    4.3.1.3 Interviews  p. 95
4.4 Findings Address Research Questions  p. 102
4.4 Evaluating Sources  p. 105
  4.4.1 Tweet #1  p. 111
  4.4.2 Tweet #2  p. 117
  4.4.3 Tweet #3  p. 122
4.9 Thematic Connections  p. 125
4.10 Analysis Using 4 Objectives for Critical Media Literacy Skill Set  p. 127
4. 11 Summary  p. 133

CH. 5 – DISCUSSION, LIMITATIONS & RECOMMENDATIONS  p. 137
5.1 Summary of Results  p. 137
5.2 Overall Significance of the Study

5.2.1 Gaps in Media Literacy and Critical Media Literacy Skills of Adults

p. 139

5.3 Relating Results to Literature Review

5.3.1 Andragogy

5.3.2 Media Literacy & Critical Media Literacy

5.3.2 Social Identity Theory

5.3.3 Confirmation Bias

p. 142

p. 144

p. 144

p. 146

p. 148

5.4 Limitations

p. 149

5.5 Implications for Future Application and Research

5.5.1 For Researchers

5.5.2 For Educators

5.5.3 Summary

p. 151

p. 151

p. 152

p. 153

REFERENCES

APPENDIXES

Appendix 1. Focus Group and Interview Protocol

Appendix 2. Study Participants Overview

Appendix 3. List of Figures

p. 155

p. 165

p. 166

p. 168

p. 169
**ABSTRACT**

The purpose of this study is to explore the self-directed learning behaviors of adult users of the social media vehicle, Twitter, through the lens of the Coronavirus (COVID-19) pandemic in the United States during the second wave, spring and summer of 2020. The objective of the study is to identify Twitter behavior and usage patterns to assist in determining adults’ awareness and use of media literacy and critical media literacy skills used with the social media content they consume. Two focus groups and six individual interviews informed this study. These group and individual interviews also included analysis of Twitter posts. The findings/results of this study will assist educators with assessing the gaps in media literacy and critical media literacy skills of adults with social media and determine the educational focus needed to improve awareness of the content and context of social media messages. This study was based on a qualitative research design using a constructivist approach.

**KEY WORDS:**

**critical media literacy:** focusing on helping people experience the pleasures of popular culture while simultaneously discovering the practices that work to silence or disempower them as readers, viewers, and learners

**media literacy:** the ability to analyze, augment and influence active reading of media in order to be a more effective citizen

**Twitter:** an internet-based social media vehicle designed for microblogging

**confirmation bias:** the tendency of people to interpret, remember, and specifically seek out information that confirms beliefs they already have

**andragogy:** the art and science of helping adults learn; student-centered, self-directed learning

**social identity theory:** the sense of self developed from group memberships and categorizations resulting in attitudinal and behavioral consequences

**popular culture:** a set of the practices, beliefs, and objects dominant or prevalent in a society at a given point in time. Popular culture also encompasses the activities and feelings produced as a result of interaction with these dominant objects.
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2\textsuperscript{nd} WAVE OF COVID-19 IN THE U. S.

\textbf{misinformation}: refers to incorrect or misleading information

\textbf{disinformation}: as false information deliberately and often covertly spread to influence public opinion or obscure the truth

\section*{ACKNOWLEDGEMENTS}

A sincere thank you to my dissertation chair, Dr. Judith Cochran, for your continued support and encouragement through this personal and academic journey. Thank you to my dissertation committee Dr. Perry Drake, Dr. Alice Hall and Dr. E. Paulette Isaac-Savage for your encouragement and insight which helped me broaden my reach. I would also like to thank my parents, Geraldine G. Thomas and Booker T. Thomas, for your unwavering support and for setting high standards for our family to follow. And finally, thank you to my wonderful husband, Henry, and my beautiful children Arriel, Tommy, Desmond, and Symone for being understanding and supportive as I sacrificed time with you to complete this work.
CHAPTER 1

INTRODUCTION

Social media plays a significant role in how people communicate with each other today. The information shared and acquired through social media outlets can impact how people think and behave. (Koltay, 2011). While examining how adults use social media to learn, it is essential to discuss how adults learn in general. Adults use media for a mixture of reasons including to learn about things, events, the world around them, to connect with people and experiences, and to be entertained (Vivian, 2015). In the learning process, there are differences between the way adults and children learn. Knowles (1972) developed the concept of adult learning and coined the term andragogy. He described andragogy as self-directed learning, the art and science of helping adults learn as opposed to the concept of pedagogy which is focused on the teaching of children (Knowles, 1972). This area of study focuses on adults being engaged in the learning process. Andragogy empowers adults by allowing them to choose what they will learn and how they will learn based on their own interests.

However, as adults use social media to gather information how do they use media literacy and critical media literacy to decipher and evaluate the information they consume? What drives them to learn more and dig deeper into the information to discover new ideas? How does andragogy guide this process?
**Background**

Langenbach (1988) discusses andragogy as student-centered learning with the student taking the initiative as opposed to pedagogy which is teacher-centered learning involving the transmission of knowledge from the teacher to the student. He goes on to say that andragogy includes lifelong learning and capitalizing on life experiences compared to the pedagogical concept of being taught. For adults, as well as children, self-directed learning empowers learners to take control of the learning process and delve deeper into the subject matter based on their own interests and needs.

Mackeracher’s findings correlate with Knowles’ ideas. Mackeracher (2004) said older learners, adults, can potentially experience more discord during the learning process than children due to life experiences accumulating over time. With their self concepts still being formed, new learning experiences for young people may vary but not threaten their self-concept unlike older learners according to Mackeracher. Older learners generally have strongly established mindsets and beliefs and can be less pliable. “Adults defend the ‘self’ against the threats inherent in learning activities until they perceive that the worst will not happen and that change in their self-concept can lead to positive results” (Mackeracher, 2004, p.40). Adult learning involves a certain level of self direction since adults generally tend to learn what they chose to learn based off of what is needed or desired. Learning can occur whether in formal or informal settings according to Tough (1971).
Henschke (2009) says the primary principle of andragogy is the desire, potential and ability for self-directedness by the learner. He identifies additional principles of adult learning as perceiving the learner’s experience as a resource, viewing developmental tasks of social roles as crucial to activate the desire and readiness for learning. However, when people chose only what they are interested in there is a potential for them to have a narrowed vision and perspective. This can potentially lead to confirmation bias which develops from people, consciously or subconsciously, seeking out information that lines up with their interests and beliefs and ignores evidence that challenges their interests and beliefs (Devito, 2016).

In today’s busy society people consume information at harried speeds and do more scanning and perusing than actually reading and digesting the information (Harshman, 2017; Bergstrom et. al, 2018). The convenience of aggregated news and information compiled into short newsbriefs and sound bites allows for quick consumption. Despite more access to information than ever before, due to technological advances, people spend less time reading or consuming media content with a critical eye (Kellner & Share, 2019; Guy, 2006; McChesney, 2015). There has also been a dramatic shift from traditional/legacy media sources (newspapers, radio and television) to digital media sources including social media. “In 2018, 81 percent of Americans used social media, up from 24 percent in 2008. Globally, there are 3.7 billion users. Just over 3 billion people used social media in 2018, up from just under 1 billion a decade prior,” according to Higdon (2020, p. 101).
Indeed, social media has opened up communication channels and the sharing of vast amounts of information amongst individual people. Social media as taken away a certain level of power and control from media conglomerates and given more power and voice to the public (Staton, 2018; McChesney, 2000). However, this becomes problematic when you consider that Gottfried and Sherer (2016) claim 60 percent of adults get their news from social media where more fabricated news is shared than news from actual news organizations with vetted and fact-checked information. The problem with this, as Higdon (2020) points out, is that most Americans cannot differentiate objective journalism from fake news. Kim, Moravec, & Dennis (2019) described fake news as news intentionally and confirmably inaccurate with the potential to mislead consumers of the message. The researchers believe the issue became more relevant recently due to the 2016 presidential election. “People had not previously been exposed to such a vast number and variety of fake news stories, or at least had not been aware of it,” according to Kim et al. (2019, p. 934).

Kim et al. (2019) identified three reasons why its harder to recognize fake news on social media than traditional media. First, they explained that people approach using social media from either a hedonistic mindset, fun and connecting with friends, or a utilitarian mindset, information gathering as with a news website (Johnson & Kaye, 2015; Hirschman & Holbrook, 1982). Therefore, those using a utilitarian mindset are more likely to think critically about social media content than those using a hedonistic mindset. The next reason why it is more difficult to detect fake news on social media is because on
social media, anyone can create news and whether true or not, it can spread quickly. And finally, users do not choose the source of the articles they see on Facebook. However, according to Kim et al. (2019), on traditional media people select the source first and then they are exposed to content presented by the source.

A multitude of media content creators such as media conglomerates, small media organizations and citizen journalists vie for the public’s attention. In light of the increased popularity of fake news, it is more important than ever to analyze the information consumed through media outlets. People make important decisions for their lives, and their families’ lives, based on information they digest through the media without knowing who created the information, if the creators are credible sources, why the information was disseminated, and if the information is accurate. This is not a new phenomena. However, the power and speed of social media adds a different nuance.

“Fake news has often played the catalyst for spreading fear that turns into mass anxiety, moral panic, and eventually violence and murder,” Higdon (2020, p.5) said. Throughout history there are numerous incidents of fake news including during the Colonial Era when articles were published to fuel a colonist attack on Native Americans ahead of the American Revolution, and during the Penny Press era with sensationalized stories to maximize profits with New York newspapers *The Sun* and the *Morning Hearld* (Higdon, 2020).

Kim et al., (2019) said more than 60 percent of adults get their news from social media and the numbers are increasing, and on social media more fake news articles are
shared than real news. “The prevalence of fake news has not only shaken the public’s trust in journalism but also stirred up criticism towards social media for not taking more proactive countermeasures,” (Kim, et al., 2019, p. 931). A recent Pew Research Center study supports this idea reporting that Americans’ confidence in journalists has declined some in past years. The study found in 2018 that 55 percent of Americans believed that journalists act in the best interests of the public “a fair amount” to “a great deal” (Gottfried et al., 2020). However, by 2020 the number had dropped to 48 percent.

There was also a drop in the public’s trust of journalists’ ethics. In the same year, 43 percent of U.S. adults said journalists have high to very high ethical standards, compared to a year earlier in 2019 when responses were 45 percent. (Gottfried, J., Walker, M, and Mitchell, A., 2020). This issue becomes extremely essential in times of national and international crises when traditional and digital media outlets distribute information regarding developments and implementing plans to assist citizens. Rogers (2013) explains that information from social media enhances the news reporting abilities of mainstream news outlets and become more significant during times of crises and emergencies. Social media can be a complement to news, but it's a poor replacement according to Sullivan and Mandel (2020).

Higdon (2020) contends that when people have no faith in the press, they have no universally trusted source to determine falsehood from fact. He discussed how many academics believe that by consistently privileging political narratives over facts, the press has conditioned audiences to view truth as subjective. “This creates space for politicians
to lie with impunity,” Higdon (2020. p. 5). Dvir-Gvirsman et al. (2018) found that during elections media tend to shape perceptions public’s opinion of issues and candidates. They also say that the relationship between public opinion perceptions and public expression focuses on harm where hostile opinions silence public expression.

**PROBLEM STATEMENT**

In contemporary times social media as a vehicle offers another mode of address. A mode of address is a way of examining information communicated between a text and its readers, according to Alvermann and Hagood (2000). Ellsworth (1997) explained mode of address as addressing any communication to someone and enticing a viewer into a particular position of knowledge toward the text. People are informed and influenced through media content (whether the content is true or not) with social media growing in prominence due to its relationship networking nature (Steffens et al., 2018; Kivran-Swaine et al., 2011). With social media, people connect with other people and share information within the network of people they know and random people who may follow them because they like the content they share. These contacts create a network of resources, relationships, and information. This social media information/content can be used to make important decisions for people’s lives and the lives of those with whom they connect. However, with an increased proliferation of fake news on social media, people need to be knowledgeable about where the information they consume comes from, the quality and accuracy of the information, and how the information could impact their lives.
STATEMENT OF PURPOSE

The purpose of this study was to explore the social media usage patterns of adults, specifically with Twitter, to understand what critical media literacy (CML) skills are used and how they are used to decipher and evaluate the social media content consumed. The study will be investigated through the lens of the second wave of the Coronavirus (COVID-19) in the United States during the spring and summer of 2020. Based in the qualitative research tradition of grounded theory, an interpretive or constructivism approach was employed.

CRITICAL QUESTIONS

This inquiry was guided by the central research question: How do adults use critical media literacy on social media when gathering important information to make decisions for their lives? The central research question was supported by five sub-questions:

1. How do study participants use Twitter to gather information on the Coronavirus pandemic? How are sources of information evaluated?

2. Do adults follow a variety of Twitter accounts to obtain a diversity of content and perspectives on the Coronavirus pandemic?

3. What motivates study participants to engage (click through, comment or share, seek information outside) with Twitter posts/Tweets about the Coronavirus pandemic?

4. How do study participants biases exist in the content presented to them on Twitter? Can they identify biases in Twitter?
As with several other countries, the U. S. federal, state, county and local governments put stay at home orders in place for citizens to follow in efforts to curb and flatten the virus’ infection rates. Information developed as a result of this study will be used to make recommendations to increase the critical media literacy skills of adults in formal and informal learning settings.

The ultimate goal of this research study will lead to recommendations to improve how adults are taught to analyze and evaluate media content and context with a critical eye. Many efforts have been implemented across the country to increase the critical media literacy of children in elementary and secondary education settings, however the same focus has not been dedicated to engaging adults in formal and informal learning environments. (Bergstorm et al., 2018; Redmond Wright, 2007; Bulger & Davison, 2018)

The data obtained through focus groups and person to person interviews will be evaluated using the framework of critical media literacy skill set objectives created by the Center for Media Literacy. The four objectives include:

1) Being able to access media content,

2) Critically analyze media messages,

3) Evaluate media representations, and

4) Create alternative media.
This study’s findings can contribute to the field of adult learning and media studies by filling some of the research gaps surrounding the need to increase the critical media literacy skills of adults. The information developed in this study aims to make connections between the trends emerging from social media messages on Twitter regarding the Coronavirus pandemic in the United States during the 2020 presidential campaign. This creates a better understanding and insight of what critical media literacy skills adults use to gather information and make decisions. Grounded theory will be used to evaluate the data collected and it will be analyzed with a constructivist approach. The findings will assist in determining what steps can be taken to improve adults’ critical media literacy knowledge and skills with media, traditional, and social.

Summary

Chapter 1 gives an overview of adults using Twitter to educate themselves on the Coronavirus using critical media literacy to decipher through fake news to find accurate information from trusted sources guided by critical thinking and andragogic learning. The chapter also presents the key terms, significance of this study, research questions, and the theoretical framework. The following chapter examines andragogy, media literacy and critical media literacy, social learning theory, confirmation bias, and critical thinking and the impact they have on adult usage of social media and Twitter to gather COVID-19 information.
CHAPTER 2
LITERATURE REVIEW

Research contributing to the development of this study pulls from various areas including andragogy, media literacy, critical media literacy, social media, confirmation bias, and social identity theory.

**Andragogy/ Adult learning**

Differences exist between the way adults and children learn. Knowles (1972) developed the concept of adult learning and coined the term andragogy. He described it as the art and science of helping adults learn as opposed to the concept of pedagogy which is focused on the teaching of children. Knowles outlines four ways in which adult learners differ from child learners (Knowles, 1972, p. 62-65).

1. **An adult is self-directing.**

   The self concepts of the two groups are different. Adults identify as independent and therefore, self directing while children and youth identify as dependent and still developing.

   Knowles (1972) says that in our culture the ultimate test of adultness is the ability to run our own lives. This includes having a say in what and how they will learn. He acknowledges that adults are more motivated to do something about, and learn about, the things that they determine they themselves need or want. In addition, adults want to have an active role in planning and carrying out their own learning experience and want to be involved in the evaluation process.
2. An adult has accumulated more experience than children.

Adults define themselves in terms of their experiences and therefore, adult education should generally adapt to using more of a focus on experiential techniques of teaching rather than transmittal techniques of teaching. There are many things that adults know and understand from their lived life experiences and don’t need or want to be lectured to about things that they already know and understand.

However, it is important to make sure that adult students are made aware of the information and data they are expected to know and understand just in case all of the students don’t have the same shared experiences. Resources are provided for these adult students to review on their own to reorient themselves with the information which will then be used in discussions and activities to enhance the learning objectives and deepen comprehension. Adult students become empowered to use this new information in their lives and improve themselves and those around them with new knowledge acquisition. They are motivated differently than children for different reasons. On the other hand, because adults are older, many times they may be set in their ways and not be open to making changes, or transformative learning. Also, the brains of adults are different in that young people have the ability to soak up new information and stimuli quicker than adult learners.

3. An adult's readiness to learn is different than a child.

An adult’s readiness to learn is determined by his or her developmental tasks. The meaning of a task and how it meets a specific goal is necessary. Adults become ready to
learn those things that are required by his or her developmental tasks because they are motivated. And finally, the best way to find out what an adult wants to learn is to ask.

Knowles (1972) suggests that the andragogical learning process should actually begin with this, asking the adult learner what they want to learn. Then the educator facilitates the learning process to help them meet their learning goals. Knowles (1972) suggests that adult educators use “learning contracts” to assist the learner and the educator with determining what will be learned. This contract allows for mutual understanding and buy in from both sides which may help with making sure the learning goals are met.

4. An adult is Problem-Centered.

Knowles (1972) says that adults have a problem-centered orientation to learning, while children have a subject-centered orientation to learning. Adults have busy lives and want to be able to be efficient with their learning. They want to learn information they can use and implement in their lives. They want to gain information that will help them solve problems and meet their needs. They want immediate application of the knowledge gained through the learning process. Knowles (1972) suggest that educators do a problem census to understand the issues that adults are trying to solve through the education experience. He also says that by reinforcing the learning that takes place the learning and knowledge will become more permanent for the student. Part of the goal of andragogy is to create lifelong learners, to help motivate adults to want to learn new things and continue expanding their brains and experiences.
Mackeracher’s (2004) findings correlate with some of Knowles’ ideas. Mackeracher (2004) said that older learners can potentially experience more conflicts than children due to life experiences accumulated over time. Adult learning involves a certain level of self direction since adults generally tend to learn what they chose to learn based off of what is needed or desired, whether learning is formal or informal based on Tough’s (1971) research.

Many opportunities present themselves to learn in informal settings. Hill (2008) asserts that learning is a lifelong process of making sense of experiences. Learning is constructed through information, experiences and beliefs (Taylor & Lamoreaux, 2008; Taylor & Marienau, 1997). Even though he is not thought of traditionally as an adult education researcher, public opinion pollster Gallup (1953), said the opportunity to learn and raise mental statue is much greater in adulthood. He said the process of learning must continue throughout life. “We must realize that self education is all important and that formal education received in the schools is good only to the extent that it aids and abets self education” (Gallup, 1953, p. 475).

Mackeracher (2004) believes adults and children hold some of the same cognitive and physiological processes involved in learning which don’t change over time. “However, the social, emotional, developmental, and situational variables affect learning are different for adults and children” (Mackeracher, 2004, p.26). She goes on to say that past experiences and prior learning leads to adults developing personal models of reality. These models of reality incorporate meanings and values developed by an investment of lots of emotional energy. People usually place themselves at the core of their experiences
and tend to use energy protecting and defending their own model and sense of self according to Mackeracher (2004). “If we lack self-confidence and feel as if some part of our model has been rejected or discounted by others, we may feel rejected or discounted as a person and become distressed” (Mackeracher, 2004, p. 34).

With media content the same holds true. People tend to consume media content which confirms and supports what they already believe and think. But in exposing ourselves to media content outside of what we normally subscribe to we open options to new information and ideas. This new information can potentially challenge people’s beliefs and perspectives. Part of critical media literacy involves looking to various sources to confirm or validate information presented through media outlets.

As discussed earlier, adult learners use media as informal learning tools based on their own preferences and needs. Adults generally select the information to pay attention to, retain, and apply to their lives. Additional information which may be considered irrelevant is rejected. “Solutions to current problems, while often readily apparent to an observer, must come from within, be consistent with the individual’s model of reality, and be implemented from the individual’s own resources” (Mackeracher, 2004, p. 39).

Mackeracher (2004) continues to say that adult learners bring themselves, their sense of self, and their life experiences to the learning environment. They tend to protect their sense of self from potential threats that may arise from the learning experience. This concept can be applied to information communicated through media vehicles. She said our sense of self evolves from our experiences and interactions with others and are
internalized. Even with growth and changes, the “adult self” inner core keeps some consistency from childhood and adolescence (Mackeracher, 2004).

Henschke (2009) says the primary principle of andragogy is the desire, potential, and ability for self-directedness by the learner. He identifies additional principles of adult learning as perceiving the learner’s experience as a resource, viewing developmental tasks of social roles as crucial to activate the desire and readiness for learning. In addition, other principles of adult learners are that they need situation-oriented or problem-centered learning. Another principle is understanding that adult learners are internally motivated by the need to learn something, and they need a valid reason to learn something to appreciate its importance (Henschke, 2009).

Houle (1961) created three subcategories of adult learners: goal-oriented learners, activity-oriented learners, and learning-oriented learners. He described goal-oriented learners as generally engaging in learning activities to gain specific objectives through episodic learning. Activity-based learners participate for the sake of the activity. On the other hand, he said learning-oriented learners pursue learning for the sake of learning. Learning-oriented learners want to learn and grow through the learning activities, show consistency with their involvement, and tend to extend their learning throughout their lives according to Houle (1961). Social media consumers might consider becoming more learning-oriented learners to incorporate critical thinking as they interact with the social media content they consume.
Media Literacy and Critical Media Literacy

Stack and Kelly (2006) discussed the intersection of media, education, and citizenship. They said people can think critically about what they see and hear, and many entities influence those thoughts and how they come to know the world. In this sense, the media plays an essential role in recreating, maintaining, and challenging society. “Educators must model and offer rigorous media critique and opportunities for media production, not only in media literacy classes but across the curriculum and at the school level and beyond” (Stack & Kelly, 2006, p. 9). The idea of “beyond” hints at the need to incorporate this issue into everyday life including media.

Aufderheide (1992) created a definition for the context of the media in the United States. “Media literacy is the ability to analyze, augment and influence active reading (i.e., viewing) of media in order to be a more effective citizen” (Aufderheide, 1992, p. 26). She said analysis is a consumer skill that a media literate person can employ to recognize the active negotiation of media messages including the cultural, economic, and political factors involved. She goes further to say that influencing is a media content producer skill. This involves the ability to deliberately change the impact or meaning of messages and create narratives that support particular viewpoints. Silverblatt (2008) adopted Aufderheide’s media literacy definition and warned that even though there have been many developments in mass communication the traditional barriers or obstacles to media literacy have not yet been eliminated. These traditional obstacles to media literacy, according to Silverblatt (2008), include:
1. Elitism,

2. Affective nature of photography, film, television, radio, and digital media,

3. Audience behavior patterns,

4. Audience expectations,

5. Nature of programming,

6. Credibility of media, and

7. Complexity of the language of media.

Numerous organizations have formed over the years to advance the efforts to spread media literacy. The National Association of Media Literacy Education (NAMLE) formed in 1997 to assist educators with increasing the value of media literacy and practiced as an essential life skill.

Today’s information and entertainment technologies communicate to us through a powerful combination of words, images, and sounds. As such, we need to develop a wider set of literacy skills helping us to both comprehend the messages we receive and effectively utilize these tools to design and distribute our messages. (National Association of Media Literacy Education, 2021).

The Center for Media Literacy (CML) outlined five core concepts of media literacy which are fundamental to media literacy.

1) All media messages are ‘constructed.’

2) Media messages are constructing using a creative language with its own rules.

3) Different people experience the same media message differently.

4) Media are primarily businesses driven by a profit motive.
5) Media have embedded values and points of view (Center for Media Literacy, 2015).

These five concepts show evidence of the significance of media literacy’s reach beyond the surface of what people read in newspapers, magazines, or on the internet. It is more than what people hear on the radio or see on television and social media. Tolkay (2011) argues the importance of media literacy is justified by not only the quantity of media exposure, but also by the role information plays in the development of democracy, cultural participation, and active citizenship. The issue is so widespread and essential that the United Nations Educational, Scientific and Cultural Organization (UNESCO) added media literacy as a focus of its mission (United Nations Educational, Scientific, and Cultural Organization, 2018). UNESCO created a Communication and Information Sector whose mission is to “…foster freedom of expression, media development, and access to information and knowledge in line with UNESCO’s mandate to ‘promote the free flow of ideas by word and image’” (UNESCO, 2018). In addition, the organization works to combat online hate speech, disinformation, and misinformation.

Combating these harmful practices requires effort and information. Potter (2019) believes knowledge structures help build perspectives which require skills, knowledge, and personal locus (goals and drives). He defined media literacy as a set of perspectives that we actively use to expose ourselves to the mass media to process and interpret the meaning of the messages people encounter. He identified seven skills of media literacy as
tools to create, alter, and update knowledge structures. Potter’s seven skills of media literacy include:

**Analysis:** Breaking down a message into meaningful elements,

**Evaluation:** Judging the value of an element; the judgement is made by comparing a message element to some standard,

**Grouping:** Determining which elements are alike in some way; determining how a group of elements are different from other groups of elements,

**Induction:** Inferring a pattern across a small set of elements, then generalizing the pattern to all elements in the set,

**Deduction:** Using general principles to explain particulars,

**Synthesis:** Assembling elements into a new structure,

**Abstracting:** Creating a brief, clear, and accurate description capturing the essence of a message in a smaller number of words than the message itself (Potter, 2019, pp. 16-17).

While many media consumers may not be aware of Potter’s seven media literacy skills, they may use some of them unconsciously. For example, the skill of abstracting is the basis of how many social media vehicles operate such as Twitter. This occurs when users create content by condensing a message and post it for others to view.

The second building block of media literacy is knowledge structures according to Potter (2019). These are sets of organized information residing in people’s minds such as factual or social information. Goals and drives help define an individual’s personal locus, the third building block of media literacy, and impact their information processing determining what things are get filtered in and which get filtered out. Potter suggests this guides people’s information seeking and learning processes. Ultimately, he believes the
more aware a person is of their personal locus the more they can control media’s influence on them.

Thoman (1993) said media literacy centers on the principle of inquiry. Thoman, Executive Director of the Center for Media Literacy, created a list of essential questions to assist with investigating media content, context, and its impact on the public. The list of questions consists of the following:

1) Who created this message and why are they sending it?
2) What techniques are being used to attract my attention?
3) What lifestyles, values and points of view are represented in the message?
4) How might different people understand this message differently from me?
5) What is omitted from this message?

(Center for Media Literacy, 2015)

These questions encourage people to dig deeper, think more critically about media messages, and encourage utilizing media literacy skills. However, these ideas harken back to a concept created by Lasswell (1948) which attempts to explain how media works and empowers people to be mindful over the media they consume. He presented what became known as Lasswell’s Model consisting of a series of four questions used to assess mediated communication:

1) Who says what?
2) To whom?
3) Through which channel? And
4) With what effect?

Media literacy is taken a step further with critical media literacy which addresses the need to identify the motives of media message creators, the monetization of media messages and the profits that large media conglomerates earn. Koltay (2011) suggests the need to combine media literacy and information literacy in order to conduct critical evaluation of media messages. Information literacy, which is tied to verbal communication, requires people to recognize when information is needed and are able to identify, locate, evaluate, and use information to solve a specific problem (American Library Association, 1989). The term critical media literacy combines the ideas of media literacy and critical thinking. Willingham (2007) said critical thinking is a higher-order thinking skill which calls for teaching students to make better judgments and reason more logically. However, to engage in critical thinking people must first have adequate knowledge of the content.

On the other hand, Brookfield (2004) views critical thinking as a lifelong-learning project that is most learned and lived in adulthood. He explained that critical thinking can be explored as a purpose and a process. “As a process, critical thinking involves adults in recognizing and researching the assumptions that undergird their thoughts and actions,” said Brookfield (2004, p. 341). Critical thinking as a purpose, Brookfield (2004) explained, involves adults understanding the flow of power as a permanent presence and discovering hegemonic assumptions. These assumptions are embraced
due to people thinking these assumptions are in their best interest even though they may not be according to Brookfield (2004). Merging the two concepts of media literacy and critical thinking leads to more evaluative thinking about the media industry, media messaging, and their impacts.

With several scholars investigating the concept of critical media literacy, there is no one agreed upon definition. However, Kellner and Share (2005) offer a pretty cohesive explanation of the term.

Critical media literacy involves cultivating skills in analyzing media codes and conventions, abilities to criticize stereotypes, dominant values, and ideologies, and competencies to interpret the multiple meanings and messages generated by media texts. (Kellner & Share, 2005, p. 372).

Critical media literacy works to educate people, create awareness and to improve consciousness. “In the new multimedia environment, critical media literacy is arguably more important than ever,” says Kellner and Share (2019). They explain that critical media literacy not only teaches people to learn from media, but to also resist media manipulation. According to Kellner and Share (2019), this includes not only using media materials in constructive ways but also developing skills to create responsible citizens who are motivated and competent participants in society and the political process.

The definitions created to explain the critical media literacy concept vary based on many complex factors. Historically, Luke contributed ideas from critical literacy which later added to the critical media literacy concept. Luke (1999) said that teaching analytic skills in media attempts to develop new strategies for thinking about the
meanings media transmit and the meanings viewers create for themselves. However, adding popular culture to the critical study of media stands as a consistent thread between many definitions of the term.

Following that concept, Alvermann and Hagood (2000) describe critical media literacy as helping students experience the pleasures of popular culture while simultaneously uncovering the codes and practices that work to silence or disempower students as readers, viewers, and learners. Their definition recognizes the potential for media messages to empower students. This empowerment, or disempowerment, is based in the codes and practices of the culture which are presented through media. Freire (1970) discussed traditional education as a means of domesticating people instead of empowering them, dominating students instead of liberating them. He suggests educators and learners work together to set a path for the learning process rather than just a predetermined plan created by educators. This would allow room for the interests and needs of learners to be incorporated.

Tisdell (2007) describes teaching critical media literacy as helping students read the world and the words around them. By reading the world of media and popular culture, Tisdell (2007) says both can help people with resisting and/or reinforcing the interests of the dominant culture. Because popular culture, transmitted through the media, can affect our core values, educators should critically analyze media and develop critical media literacy, according to Thompson (2007). Her research has found that most theories about and related to critical media literacy usually focus on the unconscious effects of popular
culture and media influences and on ways of educating for increased consciousness. In addition, media literacy education can potentially have a positive impact on the self perceptions of audiences who are exposed to unrealistic media content (Bergstrom, et al., 2018).

Alvermann and Hagood (2000) defined critical media literacy as focusing on helping people experience the pleasures of popular culture while simultaneously discovering the practices that work to silence or disempower them as readers, viewers, and learners. Tisdell’s (2007) ideas complimented this line of thinking when she said popular culture and media are everywhere and that critical media literacy focuses on the unconscious effects of popular culture and media influences. Critical media literacy works to educate people, create awareness and to improve consciousness. Bergstrom et al. (2018) suggested that fostering critical thinking skills and encouraging analytical engagement with media are commonly communicated goals of media literacy implementation.

Torres and Mercado (2006) expressed concern with media’s use and abuse of power to control masses of people, especially children, for the profit of those who own media companies and their business and political allies. With the influence and power of media and politics, the influence of voters has been diminished according to Bagdikian (2004). However, with the internet and social media outlets, the average consumer has the capacity to take back some of this power by developing and distributing their own content.
Stack and Kelly (2006) write that critical media education provides an important means of signaling, generating, and building dialogue around power imbalances and inequalities. It engages educators and students in a search for pedagogical strategies aimed at promoting the democratizing of interpretation and the production of media. Students approach media content from different social, class, gender, and cultural positions according Luke (1999), all of which influences meaning construction and meaning making.

**Twitter & Social Media**

Twitter launched as part of the social media world in 2006 and became popular for enabling users to post messages of 140 characters. By 2017, it had 330 million users and increased its character count to 280 (Hanson, 2019). As a microblogging site, and the third largest social media site (Gabrielkov et al., 2016), Twitter provides a channel for users to share information with others and receive information posted by others they selected to follow. To begin, users join Twitter and agree to follow the social media platforms rules, policies, and terms. Users create Twitter handles which are unique Twitter usernames to represent their account. Accounts may be represented by whatever usernames people create, if they are not already taken by another account already in use. “With the advancement in technology comes the ability to create a new self, a new image, a new representation, which is ultimately a new identity,” (Ramelb, 2016, p.2).
Therefore, these account usernames can be real names or fake names created to represent the people or organizations behind the account.

The Twitter process happens when User A follows User B’s Twitter account and sees the information User B shares on their Twitter timeline. “Timeline is a space where tweets are displayed in chronological order for user consumption,” (Pang & Ng, 2016, p.439). User A can retweet, or share, content from User B’s account with all of those who follow her. User B’s content is now presented to all of User A’s followers whether they follow User B or not. This exposure may lead User A’s followers to then retweet the post from User B and/or create interest in them following User B’s account directly. And, the circle of sharing goes on and on. In addition, the hashtag “#” in front of a word or phrase labels the content of a post with a keyword or topic and helps people search topics (Pang & Ng, 2017). “Topical hashtags enable Twitterers to co-create fluid and dynamic discourse around a topic,” according to Pang and Ng (2017, p. 440).

According to Xu and Feng (2014), with every user being limited to 280 characters on Twitter posts, there is a level playing field when it comes to the ability of information production. Twitter is considered a public sphere with Twitter posts acting as a form of public opinion (Himelboim, Lariscy, Tink, & Sweetser, 2012). While sharing information from user to user can have very positive effects of informing and connecting people, dangers exist with spreading misinformation and disinformation. Misinformation refers to incorrect or misleading information, while disinformation is defined as false information deliberately and often covertly spread… in order to influence public opinion or obscure the truth. (Webster Dictionary, 2021). Pang and Ng (2017) found that the dissemination
of misinformation can mislead, create panic, and make it harder to manage a public emergency.

“Despite allowing users to have a private account where only approved followers can see one’s posts and activity, Twitter is known for being the most open social media platform on the internet,” according to DeCarlo (2019, p. 4). She went on to say this helps account for Twitter’s popularity with celebrities, politicians, reporters, and journalists. However, DeCarlo (2019) also claims that Twitter’s open nature format has led to spreading disinformation. This disinformation is shared through retweets and spreads quickly. Twitter has built in biases due to computer algorithms and confirmation bias (Acks, 2019). This process will lead to the same type of content being funneled to a user’s Twitter timeline in the future. In 2016, Twitter began using algorithms, a set of rules for the computer to follow which determines what posts people see on their feed. The posts they see are based on what the computer deems most compelling and interesting to a user based on what content they have liked or engaged with previously (Acks, 2019). Higdon (2021) asserts social media repetitively reinforce fake news with little to no counterevidence, constructing an information cave around users.

The rules used to determine what is seen on social media sites are not created by users, according to Acks (2019). “Rather they are designed by human programmers, and as such will reflect what the person or team (or company) thinks is relevant, which may not be the same as what the user thinks is relevant,” (Acks, 2019, p. 20). She explains that algorithms on social media show users more of what they already like which perpetuates
confirmation bias. According to Alsaad, et al. (2017), confirmation bias is a tendency to look at ideas in a one-sided manner, focusing on one possibility, not considering alternatives and leads to polarization. In their study, they found that social media can actually be a tool against confirmation bias since social media encourages exposure to diverse viewpoints and connect people to new ideas.

In addition, Twitter content can potentially be presented from biased angles and ultimately impact consumers’ interpretation of the information (Bagdikian, 2004; Frechette, 2002). Twitter provides the ability to quickly distribute information, receive feedback, and promote action. According to Acks (2019), Twitter suggests accounts to follow based off of contacts, people, users have in their cell phone address book, websites previously visited, accounts users have followed, and the content in the posts a user has liked, retweeted or commented on. Ess (2020), adds that Twitter also reveals a lot of data about relationships and with whom people are closest.

Gabielkov et al. (2016) conducted a study and compiled information from website visits over a month including datasets of 2.8 million shares, together responsible for 75 billion potential views on this social media, and 9.6 million actual clicks to 59,088 unique resources. They found that the web links with headlines and stories shared on Twitter from traditional media outlets with popular brand names (TV channels and networks, radio stations, newspapers and magazines), called primary URLs, only make up 2 percent of the URLs which get clicked on Twitter. And secondary URLs, those links retweeted or shared directly from the account of a traditional media or news account, don’t often
generate a lot of interest from the public either. However, those secondary URLs that do
get clicks are more successful than primary URLs with getting people to engage and click
on the links to go to the full story. (Gabielkov et al., 2016). Hence, people pay more
attention to what other people post on social media, than news organizations who may
have initially created or curated the information.

Carr and Hayes (2014) acknowledge the powerful marketing tool electronic media
have become with strategic branding. The two researchers assert that businesses’ and
organizations’ use of “intermediaries,” such as celebrity spokespeople and influencers, to
assist in influencing the public is not as visible as other marketing methods. “As online
reviewers are increasingly able to influence the public’s opinions of intents to purchase
products, opportunities are increasingly abundant for popular bloggers to monetize their
status as opinion leaders,” states Carr and Hayes (2014, p. 38). These types of strategic
marketing practices extend to technology companies like Google, Facebook, Apple, and
Amazon. They gather enormous amounts of data on consumers and use predictive
analytical software, based on algorithms, to micro-target individuals with tailored
messaging (Higdon, 2021). “In reality, these companies have been building an
infrastructure that collects data on every user twenty-four hours a day, not to enhance the
user experience, but to provide critical insight into consumers’ behaviors and attitudes,”
(Higdon, 2021, p. 98). Many people probably think they are making decisions
independently without realizing they are being targeted with subtle and not so subtle
marketing tactics.
Katz (1957) and Lazarsfeld (1955) wrote about the two-step flow model which claims that media affects people indirectly due to a limited number of people serving as gatekeepers who relay information and media messages to their personal connections and network. These gatekeepers, in turn, become opinion leaders who have the power to influence and impact an organization’s relationship with the public and how people think and behave. The two-step flow concept recognizes that the public considers people they know to be more credible than a media source. Carr and Hayes (2014) argue that with online communication and social media, opinion leaders are depersonalized compared with someone people know and associate with personally.

This bodes well for social media users, according to Carr and Hayes, since some opinion leaders earn compensation for influencing others. This brings into question opinion leaders’/gatekeepers’ authenticity and credibility. In line with this thinking, Pang and Ng (2016) found that people who retweet information may be more influential than the person or organization who created the content and posted the initial tweet. “Opinion leaders play an important role in propagating information, whether it is in support or in opposition of misinformation” (Pang & Ng, 2016, p.450).

Some dangers lie in how the social media platform, Twitter, operates. One possible danger is Twitter avoids making suggestions for following other Twitter accounts and topics it predicts a user may not like (Acks, 2019). This concept perpetuates a user’s confirmation bias. This bias leads people to, consciously or subconsciously, seek confirmation of their beliefs or choices (Cherry, 2017). Another danger is the prevalence
of misinformation circulating on Twitter. It is one of the most open platforms on the internet, according to DeCarlo (2019), and is prone to anonymous account holders, hidden agendas, and false news. “It’s important to remember that fake users, bots, and hijacked hashtags are abundant across all social media platforms,” said DeCarlo (2019, p. 33). Users cannot always easily identify what information has been doctored or manipulated on a Tweet. Thus, people may believe or even share misleading or incorrect information if they do not investigate further. Information is a powerful tool. While information sharing through social media may be very helpful and productive, sharing misleading information can potentially lead to harmful and devastating effects especially for health-related topics like the Coronavirus.

**Coronavirus (COVID-19)**

In the current deeply divided political climate, it is essential for people to be adequately informed about preventative health and economic measures from objective and accurate sources. This was crucial during the beginning of the Coronavirus pandemic with so much controversial decision making and divisive rhetoric surrounding responses to the virus. The virus baffled medical professionals around the globe as they sought answers on the virus’ origins, how it spread, its effects, how to effectively treat, and prevent it. On the other hand, business, economic, social, education, and government leaders deliberated on how to handle the national shutdown, and eventual re-openings. Unemployment numbers in the United States jumped to 33 million in two months from March to May 2020 amidst business shutdowns, bankruptcy filings, and looming food
shortages (Bacon & Flores, 2020). Those shutdowns included 400,000 permanent closures of small businesses by the end of January 2021 (Nicklaus, 2021).

By February 21, 2021, nearly 500,000 Americans had lost their lives to the Coronavirus. This sad benchmark occurred less than a year after the country’s first case was detected in Seattle, WA, in March 2020. This staggering number reflects more than the American lives lost in World War I, World War II and the Vietnam War combined (Bosman, 2021). Nationally, hospitals and frontline workers faced problems getting adequate protective materials for themselves, getting supplies to test people for the virus, and supplies to treat those infected with the virus (Jacobs, 2020). Disagreements rose between the White House administration, governors, and local officials on establishing state-at home orders which led to nonessential business and schools closing. Even tracking the numbers of COVID-19 cases and deaths drew criticism and conflict on national and state levels.

In an article published by The Washington Post, Hilary Babcock, an infectious-diseases specialist at Washington University in St. Louis and medical director for the infection prevention and epidemiology consortium at BJC HealthCare, said you get what you pay for. "The state of Missouri, like many states, has not been a big investor in public-health infrastructure, so we don't have great support for the kind of contact tracing that is really needed to be sure that potentially exposed people don't expose others," Babcock was quoted as saying (Stanley-Becker et al., 2020).
As of the first week of May 2020, Missouri reported 9,102 confirmed cases of COVID-19 and 398 deaths from the virus since the start of the outbreak. During the same timeframe, Illinois reported 68,232 confirmed cases of COVID-19, including 2,974 deaths (Heffernan, 2020). Nationally, 73,500 deaths and 1.2 confirmed COVID-19 cases were reported by John Hopkins University. In addition, the institutions records show more than 264,000 deaths internationally with over 3.7 million infected people by May 2020 (Bacon & Flores, 2020).

Bennett and Iyengar (2008) discussed how polarization can hinder effective democratic discourse in the interest of solving societal problems. And during times of crisis and emergency, such as a global pandemic, the sharing of and access to information is crucial for giving people instructions on health and safety. Concerns regarding the accessibility of the internet and technology to people brings to light the necessity of information sharing and the inequalities already existing in the country.

This democratic discourse was complicated even more when the country’s then President undermined and mocked safety guidelines and messages from scientists and health officials. President Donald Trump downplayed the virus in the early months of its surfacing in the United States. Even after a White House Coronavirus Task Force formed, under the direction of Dr. Anthony Fauci, the leading infectious disease expert from the National Institute of Allergy and Infectious Diseases (NIAID), Trump continued to mock the virus and mitigation efforts set by the Center for Disease Control such as mask wearing and social distancing. The former President verbally and publicly attacked Fauci,
other health professionals, and scientists who encouraged people across the country to take safety precautions (Stolberg et al., 2020). Trump repeatedly referred to the Coronavirus as the “Kung Flu” and the “China Flu” at rallies, speaking engagements, and on his Twitter posts (Slisco, 2020).

Trump reported contracting the virus in October 2020 and was treated at Walter Reed National Military Medical Center in Maryland, according to The Washington Post (Olorunnipa, 2020). However, a week after his hospitalization, Trump held events at the White House and traveled to re-election campaign rallies across the country without encouraging people to follow COVID mitigation steps like mask wearing and social distancing (Olorunnipa, 2020). In addition, the newspaper reported several members of his White House staff also tested positive for COVID-19. Eventually, the Trump administration’s vaccine development program, Warp Speed, successfully yielded a COVID-19 vaccine from Pfizer by December 2020. At the same time, COVID-19 deaths in the U.S. stretched past the 297,600 mark in nine months (Perrone et al., 2020).

The internet has played a huge role in information about the spread of COVID cases and deaths, as well as safety precautions and social and political discourse. Some information helped to protect people from contracting and spreading the virus by providing factual information and helpful precautionary tips. On the other hand, lots of misinformation and disinformation was spread across social media vehicles, as well as, hateful rhetoric, unproven treatments, myths, and unfounded statistics. Many social media users unknowingly contributed to the spread of misinformation and disinformation.
which they found on the internet. They may have shared information with others through social media and not detected inaccuracies.

An April 2020 Pew Research Center reported that 90 percent of Americans believe the internet has been a positive thing for them. However, respondents did not have the same level of positivity for the impact on society overall. The report showed a drop to 74 percent of Americans view the internet has a positive impact on society overall (Vogel, Perrin, Rainie & Anderson, 2020). While 53 percent of Americans said the internet was essential for them during the pandemic, another 34 percent said the internet was important but not essential (Vogel et. al, 2020). Another Pew Center study found that Americans are more likely to say media coverage of the COVID-19 pandemic is benefiting the public, rather than news organizations. They also thought the Coronavirus media coverage was helping the country overall, rather than hurting it (Gottfried, Walker, & Mitchell, 2020).

People view health information online differently than how they view other topics online. Kim, Moravec, & Dennis (2019) argue that people do not generally read health information for entertainment. They suggest that when reading health-related information people are usually in a utilitarian mindset of seeking information. People associate social media use with a pleasure-seeking mindset, according to Kim et. al (2019). “This difference in mindset means that users on social media may be less concerned with source reputation compared to those seeking health information” (Kim et. al, 2019, p.
They go on to say people are less likely to have a strong preexisting opinion on health information compared to fake news on social media.

**Hostile Political Discourse Leads to Trump Twitter Ban**

The Coronavirus (COVID-19) pandemic hit the United States at the same time as the campaigns for the presidential election season began. At the time, President Donald Trump downplayed the virus and its’ potential spread throughout the country. With the backdrop of shelter-in-place restriction fatigue, economic turmoil due to business shutdowns, a slowing global economy, and frustration from job losses, uncertainty grew throughout the country. On top of that, racial unrest and protests flared up across the country due to the high-profile killings of African Americans Ahmaud Arbrey in Georgia (Hodson, S., 2021), Breonna Taylor in Kentucky, (Wolfson, A., Costello, D. & Duvall, T., 2020), and George Floyd, Jr. in Minnesota (Fernandez, M. & Burch, A.D.S., 2020). The combination of these issues led to a volatile environment during the summer of 2020 when the second wave of COVID-19 started to surge. The political arena was ripe for a contentious campaign season as President Donald Trump braced for a second run for the White House.

Eventually, Joseph Biden defeated Donald Trump on Election Day, November 3, 2020 to become President of the United States. The Democratic Party regained a majority in the U. S. House of Representatives, as well as in the U. S. Senate. However, Trump
and his supporters did not accept the election results and claimed the elections were
rigged and that voter fraud was rampant across the country. Trump, the 45th President of
the United States, and the Republican Party began filing lawsuits in several states to
challenge the election results and get the election overturned (Haberman, M. & Karni, A.,
2021). His litigation efforts were not successful. The former President attempted to
convince Brad Raffensperger, the Secretary of State in Georgia, to “find” enough votes to
alter the outcome of the state’s election to give Trump a win over Biden (Haberman &
Karni, 2021).

Meanwhile, Trump spent lots of time rallying support from his loyal followers
through social media. Besides public speaking events, Twitter became Trump’s main
communication tool to speak to the public as well as to deliver information regarding
policy. While it was unconventional, this practice became the norm for this presidency
and people followed suit. Twitter, and other social media outlets such as Facebook and
Instagram, began fact checking and posting corrections to the former President’s
statements due to all of the false information or “alternative facts” spread through his
posts. For weeks leading up to the U.S. Congress’s ratification of the Presidential election
results, Trump used his social media accounts to invite his supporters to come to
Washington D.C. on January 6, 2021 for a “March to Save America” and “Stop the Steal”
rally in support of him and against the election results (Kanno-Youngs, Z. & Rosenberg,
This was the same day the U.S. Congress welcomed newly elected officials and joined together to certify the Electoral College votes from the November elections (Haberman & Karni, 2021). Historically, this is a constitutionally required and ceremonial event presided over by the standing Vice President. However, several Republican lawmakers voiced disapproval of the election results and planned to object to them (Fandos, N., 2021). Trump wanted his Vice President, Michael Pence, to reject the Electoral College votes as a way to block Joseph Biden from becoming President, even though the action was not constitutional and not within his power. Pence said he would not follow Trump’s request which would cause him to violate the U.S. Constitution (Haberman & Karni, 2021).

This drew sharp criticism from Trump and his supporters who gathered by the thousands blocks away from the U.S. Capitol. Hundreds of people from the crowd headed toward the Capitol building at the direction of Trump. Unfortunately, the group of protesters quickly became rioters who fought and injured Capitol Police, breached barricades around the Capitol and forced their way into the building while Congress was in session (Associated Press, 2021 & Zak, 2021). The rioters vandalized the Capitol building, including offices of elected officials. Vice President Pence, Congress members, and their staffers were evacuated to safety while some sheltered in place and others tried to hide in the House Chamber (Associated Press, 2021). These shocking and terrifying acts resulted in five deaths including one Capitol Police officer.
This historic and controversial event was deemed anarchist, an insurrection, and a threat to the democracy of the United States of America. Never before had a seating President called upon the country’s own citizens to launch an attack on itself (Associated Press, 2021; Zak, 2021). After a delayed security reinforcement, National Guard members were called in to help support Capitol Police in retaking the U.S. Capitol and to restore order. The House and the Senate reconvened later that evening and continued the work of certifying the Presidential election results. “To those who wreaked havoc in our Capitol today: You did not win,” said Former Vice President Pence as he regained control over the Congressional session (Zak, 2021, p.4).

Many faulted Trump for calling protesters to Washington D.C. to protest confirming the election results and for inciting and escalating the group into a riotous mob (Associated Press, 2021). Twitter, Facebook, and Instagram responded by suspending Trump’s social media accounts indefinitely to prevent him from persuading his followers to cause any more damage or inflict harm (Associated Press, 2021; Zak, 2021). Three days after the insurrection, Twitter announced a permanent ban of Trump from their outlet. Twitter said in a statement, “After close review of recent Tweets from the @realDonaldTrump and the context around them we have permanently suspended the account due to the risk of further incitement of violence,” (CNN Wire, 2021). After banning Trump’s personal account, Twitter later permanently banned his campaign account @TeamTrump. Twitter’s statement said this account was being used to evade the ban on the former President’s personal account, @realDonaldTrump. “In the context of
horrific events this week, we made it clear on Wednesday that additional violations of
the Twitter Rules would potentially result in this very course of action (CNN Wire, 2021).

Users of Twitter agree to abide by the social media’s platform policies, guidelines and
rules when they sign up to join as a user of the social media platform. Included in its policies is a Violent Threats Policy which states, “You may not threaten violence against an individual or a group of people. We also prohibit the glorification of violence,” (Twitter Help Center, 2019). The policy says Twitter promotes healthy conversations and has a zero-tolerance policy on violent threats. Twitter defines violent threats in statements as those with intent to kill or inflict serious physical harm on a person or a group of people. This is reinforced with Twitter’s Hateful Conduct Policy.

You may not promote violence against or directly attack or threaten other people on the basis of race, ethnicity, national origin, caste, sexual orientation, gender, gender identity, religious affiliation, age, disability, or serious disease. We also do not allow accounts whose primary purpose is inciting harm towards others on the basis of these categories. (Twitter Rules and Policies, Twitter Help Center, 2019).

Civil rights leaders from the Anti-Defamation League and Muslim Advocates went on record to support the decision to permanently ban Trump’s accounts, along with some Democratic and some Republican lawmakers (CNN Wire, 2021). However, others denounced the move claiming it was a violation of First Amendment rights and could set precedent for future social media bans of anyone. Germany’s Chancellor, Angela Merkel, voiced her concerns about the move, even though she condemned Trump’s actions on
January 6 (Newsweek.com, 2021). Merkel’s spokesperson, Steffen Seibert, said, “This fundamental right can be intervened in, but according to the law and within the framework defined by legislators-not according to a decision by the management of social media platforms,” (Newsweek.com, 2021). In an attempt to hold Trump accountable for the January 6 insurrection, the U.S. House of Representatives moved quickly to hold a successful vote to impeach Trump for a second time, while the U.S. Senate voted to acquit the former President for a second time. While some social media companies moved to enforce their rules and policies put in place to reduce potential harm, they were also criticized for allowing contentious rhetoric and messages to proceed for some time while their companies benefitted from the traffic and exposure (Tracy, 2020; Edwards et al., 2019). Critics argued that the sensationalism of these heated exchanges on social media platforms brought more people to the sites to find out what was going on. The more people on these sites, the more exposure companies earn from people viewing the advertisements posted on the sites leading to increased ad rates and profits.

**Confirmation Bias**

In a rush for convenience, often people focus on the information they are interested in or information that connects with their perspective and opinion. This convenience can lead to a narrowing of exposure to ideas. According to Stroud (2008), confirmation bias happens when individuals select messages more often or spend
significantly more time with messages aligning with preexisting opinions over information that challenges those preexisting views. Acks (2019) explained confirmation bias as the tendency of people to interpret, remember, and specifically seek out information that confirms beliefs they already have.

Westerwick, A., Johnson, B. K., and Knobloch-Westerwick, S. (2017) found that people may process information differently based on their perspectives and beliefs, the message content and the source cues. In addition, they suggest that people may initially shield their attitudes against influence from content they don’t agree with from biased sources. People may forget about the oppositional source and thus eventually be affected by the content itself (Westerwick et al., 2017). However, what people see on social media and other media tends to validate and reinforce what they already believe. DeCarlo (2019) said it is a common feature for users to control who they follow, friend, or interact with on social media. This limits interactions with and exposure to others on social media who may be outside their reference group or, “bubble” according to DeCarlo. This kind of self-censorship aligns with the concept of selective exposure.

Vivian (2008) explained selective exposure as people choosing some media messages over others. Silverblatt et al. (2014) said selective exposure is based on personal, values, and interests while avoiding messages with differing perspectives. Thought to have both short- and long-term effects, selective exposure leads people to have more immediate attitude reinforcement according to Westerwick, et al. (2017). They also found that attitudes weakened the more time people spent with media content, from
unbiased sources presented with differing perspectives. This allows people to begin to break out of their information bubbles. However, cognitive dissonance reflects the negative emotions people experience when they are faced with anything suggesting a prior decision has undesirable implications (Garrett & Resnick, 2011). People tend to avoid information which challenges or disconfirms their own thoughts or beliefs. Garrett and Resnick (2011) said one of the strategies used to do this is to discriminate among different types of information based on one’s attitudes or opinions while seeking information that reinforce their prior decisions or avoid information which refutes their prior decisions.

Using social media messages to shape attitudes and opinions are keys to influencing people’s behaviors (Sigurdsson et al., 2019). Information bubbles resulting from selective exposure may lead to issues. Lasswell (1948), a political scientist who researched propaganda, historically proposed the idea of social movements gaining power by propagating “master (or collective) symbols” gradually over a period of time through the use of media vehicles. According to Lasswell (1948), these symbols are associated with strong thoughts and emotions which can be used to trigger action amongst mass audiences. He said that once the meanings of these master symbols are well established, they could be used in propaganda in various ways including manipulating people’s attitudes and behaviors with politics and purchasing decisions.

Political parties build propaganda machines to control and influence people’s thoughts and behaviors, according to Higdon (2021). In line with Brookfield’s (2004)
ideas of using critical thinking to discover hegemonic assumptions, Higdon described a propaganda machine as a hegemonic force that organizes people and resources to construct and spread dominant messages in order to achieve their intended result. An essential part of that machine are political propaganda apparatuses. Higdon (2021) defines them as a group of connected individuals and resources loosely organized to achieve political domination through the manipulation of public opinion. They develop consistent messaging, distribute throughout their group, and use media to push the message forward on a grand scale. “Hyperpartisan entertaining content, especially on the internet, is a cost-saving substitute for journalism because it requires less resources than investigative journalism,” (Higdon, 2021, p. 55).

Economic demands and the hyperpartisan formula of news outlets sharing overlapping interests with political parties have resulted in motivating some media outlets to transform into extensions of political propaganda apparatuses according to Higdon (2021). He claims the work of political party propaganda apparatuses prove that American democracy can be directed by fake news if the electorate confuse political propaganda with journalism. “This points to the need for news consumers to develop the skills to distinguish journalism from fake news or risk becoming dependent upon political party narratives to inform their vote,” (Higdon, 2021, p. 68).

Kim et al. (2019) found that fake news takes advantage of information bubbles where people are more likely to believe and share articles that align with their beliefs due to confirmation bias. A Harvard study by Benkler, Faris, and Roberts on news
consumption patterns, shows evidence of this. They found that Right-leaning news consumers were more likely to consume polarized content aimed at humiliating ideological opponents and misinforming consumers. The findings suggested that with Right-leaning voters the spread of fake news goes unchallenged. With Centrist and Left-leaning voters, fake news still spreads, however, it is often recognized and the errors are corrected. “Liberals tend to have more faith in gatekeepers such as government and professionals, whereas conservatives tend to be skeptical of gatekeepers,” according to Benkler, Faris, and Roberts (as cited in Higdon, 2021).

Because it is an important problem facing society information systems researchers have an obligation to mitigate the problems created by the spread of fake news on social media according to Kim et al. (2019). Seaman (2016) advocates for people getting more educated about journalism, media, and the laws that govern them. He said distinguishing between good and bad information is vital for democracy. “If people can’t differentiate between good and bad information, they can’t make sound decisions,” (Seaman, 2016, p. 32).

Confirmation bias, according to Devito (2016), can lead people to limit information searches merely to confirming evidence and to avoid evidence that would disconfirm their preconceived choice. He goes on to point out that the disconfirming evidence could potentially lead to a more careful, thorough, and unbiased analysis of information. Alsaad, et. al. (2017) agrees that social media strengthen confirmation bias. “Many psychologists say that the social media can deepen users’ preexisting biases, as
the personalization and filter algorithms used by social media websites show users what
the websites think they want to see but not necessarily what users need to see,” (Alsaad et
al., 2017, p. 42). People become entrenched with what is comfortable and familiar in their
information bubbles. They don’t like to be challenged or be made to feel uncomfortable.

On the other hand, social media users don’t always voluntarily stay in these
“bubbles” of the familiar. “These filters have the effect of isolating people in information
bubbles only partly of their own choosing and the inaccurate beliefs they form as a result
may be difficult to correct,” (Alsaad, et al., 2017, p. 42). They claim the danger in this is
the potential for the development of systematic biases which could lead to ideological
isolation, psychological prison, and potential lone wolf extremism. This validates True
and Morales (2019) findings that people find a piece of information which supports the
credibility of their preexisting beliefs and ignore information that opposes their beliefs.
Kim et al., ‘s (2019) research findings connect with these same ideas. “Unfortunately,
users tend to believe articles that align with their beliefs due to confirmation bias making
them more gullible when faced with posts crafted to their point of view,” (Kim et. al,
2019, p. 931).

Source credibility plays an important role in traditional and social media. It
determines believability, interpretations, and perceptions of value and relevance.
Armstrong and McAdams (2010) reflected on how source credibility was studied 40 to
50 years ago with the focus on knowledge, trustworthiness, attractiveness, and
dynamism. They suggest that the more contemporary focus centers on believability, topical interest, and source-selection evaluations.

Knobloch-Westerwick, Mothes, & Polavin (2020) suggest that the social identity approach implies that people favor positive news about their own group. Their research shows evidence that people are wired to watch out for threats in the interest of survival and respond more strongly to negative stimuli with greater attention and stronger emotional responses. “But overall, the general preference for U.S.-critical messages contradicts the social identity framework- it appears that the ingroup bias was overridden by an interest to watch out for problems for one’s own group along the lines of the negativity bias,” (Knoblock et. al, 2020, 119). The perceived threat of negative information about an ingroup connected to one’s social identity seems to dominate on social media.

However, the real threat may be in one’s inability to think critically about the messages, sources of messages and the purpose of the messages people consume.

One does not simply accept the ideology of the other without question, but instead actively learns by asking probing questions and engaging in a dialogue about the subject matter with the other. ‘Free thought’ begets other ‘free thought.’ In today’s age of social media, absence of thought is not an option (Stanton, 2018, p. 215).

**Social Identity**
The concept of confirmation bias feeds into social identity theory suggesting that people categorize themselves, and others in their group, as the “ingroup” and those not in their group as, “others,” or the outgroup. Therefore, an “us” and “them” distinction is created (Tajfel & Turner, 1979). People tend to connect and gravitate toward messages, people, and organizations which align with their “ingroup” ideas and opinions. Abrams and Hogg (1990) explained social identity as our identification with social groups and their importance to us based on various social contexts and settings. Social identity is an essential part of people’s self-concept, how individuals see themselves or the image they have of themselves (Dobkin & Pace, 2003).

Whether in reality or digitally, people have a need to connect with and identify with a group, a community of other people. According to Alvermann and Hagood (2000), identities are formed in relation to the values and discursive practices of a discourse. Essentially, identity is formed through communication and interaction. “Discourses produce meaning about appropriate actions and interactions of individuals that inhabit the discourse. Those actions, or discursive practices, regulate and control ideas about conduct of the body, mind, emotions, desires, and pleasures deemed acceptable within the discourse,” (Alvermann and Hagood, 2000, p.199). Brewer (1991) found that people are inclined to gain a positive social identity by associating themselves with groups, perceived as high status, which promote their positive status.

On the other hand, people tend to dissociate themselves from groups that negatively impact their image or identity. “Surrounding the core identity is a role identity,
which includes a set of social expectations and behaviors of how one is to think and behave in a particular social position, and a social identity, which includes what it means to be part of a group (e.g., organization, occupation, profession, family, community, and so on),” (Turner & Onorato, 1999). A person’s identity is the outcome of the dynamic interactions between one’s personality and the social context (Korte, 2018). Korte goes on to say that identity impacts how one sees the world and processes information.

Ess (2020) discusses the Buddhist and Confucian concepts of the self in direct relation to defining memberships of families and larger communities. “The sense of selfhood thereby stresses the importance of sustaining harmonious relationships with the family and larger community, and includes an exquisitely developed attention to the moods and wishes of others,” (Ess, 2020, p. 63).

Then, she elaborates on this idea further to discuss the connections between the culture and the self. Ess explains that in the African language of the Zulu tribe, the word ubuntu, means “humanity to others” and the concept that “I am what I am because of who we all are.” (Ess, 2020, pp.106-107). Ess points out that developers of the LINUX computer operating system adopted the word ubuntu as the name of their most popular software distribution system reflecting an emphasis on the wider community developed through the connections the system creates. This evidence further supports an individual’s identity being intricately linked to a larger, social, interdependent environment or culture.
On social media platforms, people may create a new persona, or identity, to represent themselves. Ramelb (2016) argues that a relationship exists between identity and social media. He suggests that social media users create identities based on things like who they are, their environments, and social standings and use these identities to build reputations with targeted audiences. “It will allow them to develop an identity for themselves and give the opportunity to express how they truly feel, which will show what their real identity is,” (Ramelb, 2016, pp. 7-8).

This dynamic mirrors the connection humans seek with others in the real world.

Steffens et al., (2018) assert that attitudinal and behavioral consequences of the sense of self come from the categories with which individuals align or associate. People begin to see themselves and others through the gaze and the lens of societal labels of those ingroups and outgroups. Shared group memberships can lead to the basis for social and political behaviors with the potential to influence and be influenced by others (Steffens et al., 2018). These ideas align with Makeracher (2004) who said even though adults are more self-directed in their learning compared to children, they are socially influenced by others regarding their beliefs, values, and attitudes. These influences may carry over into the social media world as well.

**Alternative Views**

Some communication and media researchers take exception to the idea of critical media literacy and media literacy education. Some researchers say that media literacy education is a leftist ideological perspective on media systems in society (Hobbs &
Jensen, 2009). They believe these theories to be more political in nature than educational. However, it is actually about teaching people to make more informed media choices which line up with their own values and create a broader perspective of information. Frechette (2004) asserts that critical media literacy and media literacy education are about people becoming critical consumers of informative and persuasive media messages. It is about encouraging people to become critically engaged citizens.

Another objection to the concepts of critical media literacy is the idea that media literacy education takes a protectionist approach according to Friesem (2018). This happens when teachers guide learners into taking the teachers’ personal perspectives, instead of allowing the students to develop their own ideas and learn how to support them. “Protectionism in education bears the influence of scholarship on media effects; both are based on the idea that media texts can have direct influence on audiences, and that this impact is often problematic,” said Friesem (2018).

Guy (2007) makes a point to say he avoids imposing his views and analysis on students, to respect their individuality and social and cultural context. He said adult educators are challenged to facilitate the process of their own learning, and that of their students, by critically examining messages of popular culture as presented through media vehicles.

This protectionist approach tries to shield students from negative media effects due to instructors’ interpretations. However, the goal of media literacy education is to be closer to the empowerment model which aims to help students use media text and tools to
their full potential. Frechette (2004) said the empowerment model aligns with the goals of critical pedagogy which includes encouraging students to identify their own ways of creating new possibilities. In addition, it includes ways of helping students learn to understand society, culture, identity, and knowledge.

Higdon (2021) claims the media industry exerts lots of influence over the media literacy education movement by trying to control the direction through educators and advocacy organizations. He suggests that organizations like the National Association of Media Literacy Education (NAMLE) persuade educators to adopt media industry marketing content as media literacy curricula materials for their classrooms. Therefore, some of the fake news producers are now shaping media literacy education according to Higdon (2021). “Citizens need to question how the ideology and vested interests of media producers shape their content,” (Higdon, 2021, p. 139).

**SUMMARY**

While people scramble to find information on Coronavirus through many sources, more than ever it is imperative to consider the validity of the information and credibility of sources. This chapter discusses how individuals and organizations distribute media content for several purposes including from subjective or objective angles. The public needs to be conscious and aware of the dangers of being led by biased media content. This is often difficult to do through social media vehicles such as Twitter. Individuals can learn to analyze and decipher the reliability of information, through the use of critical media literacy skills, when they cannot determine how or why social media content is
presented to them (Bulger & Davison, 2018). Currently, many people use some of these skills, however, with quick, sophisticated media messaging techniques, people need to arm themselves with additional critical media literacy skills in order to combat being falsely led by biased-media content. Chapter 3 will cover the methodology of this research study. This discussion includes the research design, problem, and questions, as well as the theoretical framework. In addition, participant criteria and recruitment will be outlined.
CHAPTER 3

METHODOLOGY

Research Design

This doctoral research project will be based on the qualitative research design of grounded theory with a constructivism interpretive paradigms. This plan includes conducting an eight to ten person focus group and four, one-on-one interviews to reach an information-rich body of data. The verbal data collected will focus on what critical media literacy skills adults use on social media, specifically, Twitter during the spring and summer of 2020 during the Coronavirus pandemic in the United States. I believe this is the best direction to gather information to interpret and construct meaning from the patterns observed. Data gathered from a focus group and person-to-person interviews, with a semi-structured interview protocol, will create a point of cross comparison between the two data sets. Using these two different data gathering methods will assist in determining if there is consistent or inconsistent data corroboration (Gall, Gall, & Borg, 2007). This research will be based on activities between the months of June and July.
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING
THE 2nd WAVE OF COVID-19 IN THE U. S.

2020. The information gathered with this research design will assist in answering the following critical research questions.

**Critical Research Questions:**

1. How do study participants use Twitter to gather information on the Coronavirus pandemic? How are sources of information evaluated?

2. Do adults follow a variety of Twitter accounts to obtain a diversity of content and perspectives on the Coronavirus pandemic?

3. What motivates study participants to engage (click through, comment or share, seek information outside) with Twitter posts/Tweets about the Coronavirus pandemic?

4. How do study participants biases exist in the content presented to them on Twitter? Can they identify biases in Twitter?

5. How do study participants decode messages in Twitter posts? What critical media literacy skills do study participants use when using Twitter to gather information on the Coronavirus pandemic?

With this grounded theory study design, the data gathered during the information seeking stage will be coded and thematic analysis will be used to determine the findings. Findings will produce data for rich, detailed, and thick description. This design is appropriate for this study to identify and analyze behaviors we see in the study population. This is an appropriate methodology for this study because as information is gathered about social media behaviors, ideas, and opinions surrounding those behaviors,
the information can be synthesized and interpreted. This will help in developing understanding the connections between the trends that emerge and lead to generating insight on social media habits and attitudes towards social media. By seeing what currently exist, it will be clearer what steps can be taken to improve adults’ critical media literacy knowledge and skills.

Corbin and Strauss (1990) assert that grounded theory should explain and describe the social phenomena studied. “Thus, grounded theory seeks to not only uncover relevant conditions, but also to determine how the actors respond to changing conditions and to the consequences of their actions” (Corbin & Strauss, 1990, p. 5).

Merriam (2009) suggests a constructivist approach when a researcher wants to understand the constructed meaning a phenomenon has for participants involved and to make sense of their lives and experiences. A constructivist approach will help determine how people interpret their experiences, how they construct their worlds and the meaning they ascribe to their experiences. This will be done by looking for recurring patterns in thoughts and behaviors, finding, and interpreting meaning (Merriam, 2009).

According to Merriam (2009), in grounded theory research the investigator is the primary research tool, engaging in interviews, focus groups, and surveys. The information gathered through these activities will yield results that can be categorized and interpreted to find comparisons and contrasts to help determine meaning. Merriam (2009) says gathering detailed, rich description is one of the goals of grounded theory. Corbin
and Strauss (2007) explain that what distinguishes grounded theory from other types of qualitative research is its focus on building theory.

As the primary research tool, the researcher will act as the focus group moderator in order to purposefully direct the discussion to extrapolate the desired information from the participants (Merriam, 2009). Flick (2014) describes focus groups as a group of five to 12 people who generally meet only once, to discuss an issue related to a study. A moderator uses an interview guide to direct the discussion. During the discussion, the context and interactions of the group might prompt additional information which may not have been revealed through an individual interview or survey (Flick, 2014). Lindlof and Taylor (2002) suggest that in a group setting participants are stimulated by the ideas and experiences expressed by others within the group discussion.

In addition, four one-on-one, or person-to-person, interviews will be conducted to gather additional information that may be more in-depth, detailed and more personal. The focus group and interviews will be guided by a semi-structured interview protocol. There will be some slight differences given the variations between a group and one-on-one interview. A subset of questions from the focus group interview protocol will be used for person-to-person interviews. As needed, a generic follow-up question will be asked of interviewees to extract additional information and data. Subjects will also be asked to engage in a critical practice exercise which would involve them examining and discussing their reactions to three actual Twitter posts/Tweets on COVID-19 retrieved
from real Twitter accounts. Participants would be asked to describe what actions, if any, they would take in relation to the content presented in the posts.

Merriam (2009) said interviewing is a necessity when we are not able to observe behaviors, thoughts, feelings, or how people interpret the world around them. Without the influence of others in the discussion, one-on-one interviews may provide the sharing of information on Twitter usage behavior that people may not be comfortably shared in a focus group setting. Gall et al. (2009) said some of the major advantages of interviews are adaptability, high completion rates, and the ability to explore topics through open-ended questioning. Interview participants will not be selected from the focus group participants. Data from the focus group and the interviews will be compared to find commonalities and differences, outstanding trends, and phenomena.

**Study Participants**

The population targeted for this study were adults who use the social media platform, Twitter. Two focus groups with 5-8 participants were held through video conference calls. Then, six one-on-one interviews were completed to get more in-depth information on Twitter usage. This additional information will assist with comparing information found between the two sources of data sets. Participants will be identified in the study by alphabetical letters and will be categorized in three different groups: college age (ages 18-24), working age (ages 25-64), and retirement age (age 65+).
Research study group members were adults from across the United States, with the majority of them from the Midwest. The participant criteria are:

1. Must be 18 years of age or older
2. Must have a Twitter account
3. Must use Twitter regularly (minimum of three times a month)
4. Must have some college education
5. Must have used Twitter to search for or share content on COVID-19.

A convenience sampling of participants will be used for the focus group. Convenience sampling, a type of purposeful sampling, allows for researchers to find participants who fit the purpose of their study allowing for a richer description of experiences. According to Merriam, (2009) purposeful sampling is the most appropriate sampling strategy since it is based on the idea that researchers want to discover, understand, and gain insight on a particular topic or issue. This method requires identifying and describing an audience or population to which results can be generalized. (Gall et al., 2007). While Marshall (1996) said convenience sampling may result in poor quality data and lacks intellectual credibility, he recognized the need for qualitative researchers to have rich informants to provide insight and understanding on complex social and behavioral issues.

The next step was finding participants matching the criteria needed to reflect the study’s purpose. Participants were recruited via inquiries distributed through Twitter networks and informal contacts. The selection process went beyond just those who were
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.

accessible, it included a specifically targeted group of people actively involved with the key elements of the study enabling them to adequately and productively answer the research questions.

**Ethical Statement**

The proposal for this research was submitted to and approved by the University of Missouri-St. Louis Institutional Review Board (IRB). The IRB approved the study at the exempt level, under the limited IRB review category, and at the minimal risk level. In addition, the board approved the participant invite letter used to recruit research subjects. They also approved the interview protocol to be used for the focus group discussions and the one-on-one interviews. Participants completed Informed Consent Forms, however, the IRB determined they were not necessary due to there being little to no risk of mental or bodily harm to research subjects.

**Instrumentation**

The instruments used in this study include:

1. A participant invite letter to be emailed to potential participants,
2. An interview protocol for group and individual interviews, and
3. The Center for Media Literacy’s Four Objectives for a Critical Media Literacy Skill Set

Verbal data was gathered through focus groups and individual interviews. Questions developed for the focus group and one-on-one interview protocol were primarily experience- and behavior-based with a few opinions- and values-based questions to add clarity. The robust discussions yielded detailed and rich data regarding participants experiences with Twitter interactions. Their previous Twitter activity helped to produce thorough responses. As the primary researcher, Renee Thomas Woods, conducted both the group and individual interviews. Her experience as a trained journalist, public relations professional with experience in marketing research, she developed interviewing skills which have prepared her to serve as moderator and lead interviewer for this research study.

Flick (2014) describes focus groups as a group of five to 12 people who generally meet only once, to discuss an issue related to a study. A moderator uses an interview guide to direct the discussion. Generally, the researcher acts as a moderator of the discussion where the context and interactions of the group might prompt additional information which may not have been revealed through an individual interview or survey (Flick, 2014). In a group setting, participants are stimulated by the ideas and experiences expressed by others within the group discussion, according to Lindlof and Taylor (2002).
A list of 16-20 potential focus group participants was developed from Twitter and personal contacts, considering that more than half would not be available. Individuals were contacted to determine their availability and willingness to participate in the research activity. Those not available to participate in the focus group would be considered for the individual one-on-one interviews. Merriam (2009) suggests between six and ten focus group members. Although focus groups develop rich data for research projects challenges may arise. Jensen (2002) warns that responses from focus groups are merely biographical representations of what people think is true or false, and the interaction with the interviewer may influence participants’ responses. He says that people don’t always say what they think or mean what they say. The resulting data collected becomes a source of information through analysis and interpretation. Questions developed for the focus group were primarily experience- and behavior-based with a few opinion- and values-based questions.

With this study using the epistemological perspective of constructivism to interpret research findings, it is understood that social reality is constructed and constructed differently by different people (Gall et al., 2007). Gall et al. (2007) say this ultimately means that individuals do not have an objective real self and that each person constructs their own self, or selves, based on with whom they are interacting. “In fact, we construct multiple selves, for example, a created self that is totally private to us, and a social self that is created through our style of dress, mannerisms, and other devices displayed to others,” (Gall, Gall, & Borg, 2007, p. 23). And people represent or identify
themselves differently on social media. In addition, people experience social reality on Twitter differently constructing their own perspectives and truths.

**Data Collection**

Since the research was conducted during the COVID pandemic, all focus groups and interviews were held virtually through video conferencing calls. The video calls were conducted through Collaborate, a video conferencing feature on the Blackboard learning software platform. All focus groups and interviews were recorded, saved, and then transcribed. The data sets (recorded video and transcripts of focus groups and individual interviews) were saved on flash drives (USB drives) and on the primary researcher’s laptop computer. A transcriptionist was hired and given the flash drives to watch and produce transcriptions of the recordings.

**Data Analysis Process**

After transcriptions were made each was read through in its entirety and compared with the researchers notes taken during each of the focus group and interview sessions. Next, line-by-line open unit coding was completed to identify reoccurring and relevant terms and ideas to begin the data analysis process. Units (words and phrases) were circled and underlined to highlight them. Labels were created in order to begin grouping these words and phrases from the transcript. Notes were taken in the page margins to assist in connecting ideas from the interviews, secondary research and the researchers’ thoughts. The second round of coding involved writing units of marked words from the transcript
onto 3x3 sticky note papers. Then, the words and phrases were placed into various categories of themes from broad to specific codes and descriptions. Each sticky note was placed under one of the broad categories/themes and a Concepts to Codes chart was created to organize the data.

Axial coding, also known as analytical coding, was completed to discover categories or themes and their relationships to each other. Merriam (2009) said the challenge is to develop categories or themes that capture recurring patterns across the research data. Each category was assigned an alphabetic letter. Then, words or phrases which fell into those categories were arranged. More specific codes were given numbers. A Code Book was created from broad to specific codes organized into Categories, Subcategories, Properties, Sub-properties and Dimensions.

In an effort to make more sense of the information gathered the selective coding phase began to help clarify relationships between codes and their meanings. Interesting relationships between codes and findings were discovered. However, a second scan of the data set was completed to determine if there were additional interesting points that may have been missed in the initial data analysis.

After the focus group and interview discussions using the prepared questions from the interview protocol, a critical practice element was presented to have participants actively engage in textual analysis of real Twitter posts about COVID-19. This created an opportunity for participants to exhibit their approach to interacting with social media content and to explain their behavior and decision making. Alvermann and Hagood
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.

(2000) explain critical practice as the space to make connections between the textual readings and the subjective historical and social features which tend to stay unknown until negotiated through discussions. “Meaning is made through the audiences’ various perspectives of identifying what is present and absent in relation to their expectations and desires of their textual readings” (Alverman and Hagood, 2000).

**Qualitative Research – Grounded Theory**

The ontology, the nature of reality, of this research is adults learn better through social media when they independently engage in topics they are interested in and ones they themselves deem relevant for their lives. The epistemology, how people know what is known, for this study can be described as interpretive or constructivist. The axiology, inclusion of people’s values, for this study is based on the adult learning concept. Adult learners should have input and some control over what they learn and how they learn it. The methodology, the nature in which research emerges is a qualitative approach focusing on grounded theory.

Merriam (2009) identified constructivism as a basic qualitative study designed to understand the meaning of a phenomenon which is constructed not discovered. In this type of interpretive research, data are gathered through interviews, observations, or document analysis according to Merriam (2009). “The overall interpretation will be the researcher’s understanding of the participants’ understanding of the phenomenon of interest” (Merriam, 2009, p.24). The goal of qualitative research is to understand how
meaning is constructed, to uncover meaning and to interpret meaning. The constructivism theoretical perspective is a qualitative research method which fits well with researching issues related to adult learners and critical media literacy.

Clinton and Richer (2010) call constructivism a theory of learning and a strategy for education which includes the concepts of social learning. They identify some of the elements of constructivism including cooperative learning, discovery learning, self-directed learning, teaching problem solving strategies and critical thinking skills. The constructivism approach to communications research explains how people adjust and adapt their communicative strategies (Lindolf & Taylor, 2002). Chen (2003) outlines the two aspects of constructivism: 1) as learning is a process of knowledge construction rather than absorption, and 2) knowledge is related to the learner’s environment. She goes on to state constructivism provides a conceptual foundation for rethinking and redesigning teaching practices. This works well with the ultimate goal of this research leading to the idea of rethinking how educators teach media literacy and critical media literacy. Chen (2003) acknowledges conceptual knowledge cannot be transferred from teacher to students by telling. This disputes the traditional didactic teaching strategies that consist mainly of lectures.

The principle that knowledge exists in meaningful contexts, not just in individual heads, challenges teachers to present concepts through meaningful experiences and to provide situations where multiple, interrelated concepts apply so that students have the opportunity to construct a comprehensive understanding (Chen, 2003, p. 26).
In recognizing the changing roles in education, Brandon and All (2010) assert that educators become facilitators and coaches in a constructivist approach to teaching and learning. Teachers encourage students to continuously assess how activities help them gain understanding and lead to life-long learning skills.

The phenomena to be studied is the influence of social interactions on social structures and individuals’ self identity. And the selected epistemological research approach is interpretive or constructivist, describing the nature of knowing. This approach acknowledges that reality is socially constructed and that multiple realities and interpretations exist (Merriam, 2009). The media was identified earlier as the culture industry which impacts and helps shape society. Since the study of how people interact with social media is the focus of this study this could be considered as following the cultural studies or popular studies and critical-theory qualitative research tradition.

Lindlof and Taylor (2002) suggest that it is essential for cultural studies theory to include structures and practices that constitute living and feeling in a modern world. They recognize that by studying cultural activity, cultural studies scholars emphasize a number of historical influences, including revolutionary advances in technology; the industrialization of mass production; the rise of consumerism; the development of mass media and now new media systems to name a few. Gall et al. (2007) describe cultural studies as a branch of critical theory, beginning in the 1920s from scholars at the Institute of Social Research in Frankfort, Germany. “Thus, educational researchers who work within the cultural studies tradition analyze the power relationships that are ignored or
taken for granted by most educators, but that are central to the operation of educational institutions” (Gall et al., 2007, p. 509).

Media vehicles and messages are considered tools in perpetuating the hegemonic power structure of American culture and society since they distribute messages throughout the society through the content of media products. The goal of this research is to discover, describe, and interpret the media usage and behaviors of adult learners with social media content generated and distributed through traditional media outlets.

According to Merriam (2009) in grounded theory research the investigator is the primary research tool, engaging in interviews, focus groups and surveys. The information gathered through these activities will yield results that can be categorized and interpreted to find comparisons and contrasts to help determine meaning. Merriam (2009) says gathering detailed, rich description is one of the goals of grounded theory. Corbin and Strauss (2007) explain that what distinguishes grounded theory from other types of qualitative research is its focus on building theory.

Glaser and Strauss (1967) developed the grounded theory research approach with very specific procedures for data collection and analysis. “The procedures of grounded theory are designed to develop a well-integrated set of concepts that provide a thorough theoretical explanation of social phenomena under study. A grounded theory should explain as well as describe.” (Corbin & Strauss, 1990, 5.) The researchers built the principles of change and determinism into the foundation of this research methodology.
Glaser and Strauss (1967) claim phenomena constantly changes in response to the environment.

One of the signature elements of grounded theory is the process of constant comparison. Gall, Gall, and Borg (2007) describe this process as creating distinctions between core categories of data, linking them together by a theory, and deciding which categories are most important to study. The goal is to reach theoretical saturation, when no new data emerges, leading to open, axial, and selective coding to attempt to interpret the meaning of the phenomena observed.

“Thus, grounded theory seeks to not only to uncover relevant conditions, but also to determine how the actors respond to changing conditions and to the consequences of their actions” (Corbin & Strauss, 1990, 5). Phenomena identified through this study will help with analyzing changing conditions in the media landscape and messages and observe how people respond to these changing conditions.

Flick (2014) describes focus groups as a group of five to 12 people who generally meet only once, to discuss an issue related to a study. A moderator uses an interview guide to direct the discussion. Generally, the researcher acts as a moderator of the discussion where the context and interactions of the group might prompt additional information which may not have been revealed through an individual interview or survey. (Flick, 2014.)
**Limitations**

This study is a qualitative study of data of adult users of Twitter. As with any qualitative study, utilizing focus groups and interviews, there are limitations with generalizing the findings and results of the study. The limited number of participants in the focus group and interviews may yield in-depth details and information and contribute to the understanding of trends and behaviors, however, it prohibits generalizing across populations. Information produced cannot be extrapolated to predict behaviors in a larger population due to the qualitative research design and the small numbers of participants.

Next, the focus groups and interviews were conducted through video conferencing calls. Due to the health restrictions on public gatherings due to the pandemic, it was not possible to gather in groups or one-on-one in person. The video conference call set up may have reduced some of the group interactions which may have taken place during a face-to-face focus group. Some of the nuance of the interaction and discussion of a face-to-face group interview is missed when it is done through a virtual setting. Study participants still have the ability to respond to each other, however. Also, Twitter is a microblogging social media outlet which may be more popular with a younger demographic age group than middle-aged or more mature people.

Twitter algorithms present information to accounts Twitter users based on previously viewed content and on the accounts that a user follows (Acks, 2019). This pattern may create a confirmation bias for Twitter users without their knowledge. Algorithms dictate what content Twitter users see on their timeline based on their
previous Twitter activity. This practice creates limits to people discovering new information, topics, and perspectives. And finally, the moderator/interviewer may influence the outcome of the discussions. The moderator/interviewer acts as the primary research tool for focus groups and interviews and tries to uncover a person’s lived experiences (Merriam, 2009). Participants may pick up on the interviewer’s biases or uncertainty and respond to those instead of the questions and content of the conversation. There is also the potential for focus group members to just reply to the moderator instead of engaging with other group members.

**Quality Standards: Trustworthiness of Conclusions**

There are two quality standards used to measure the trustworthiness of this study’s conclusions, internal validity/credibility/authenticity and external validity/transferability/fittingness. Internal validity is the extent to which the researcher controls the external variables so that any observed effect can be attributed solely to the treatment variable (Gall et al., 2007). Many elements were used to ensure internal validity for example, using an interview protocol with consistent questions for both the focus groups and the one-on-one interviews.

The information developed in this study is credible to the audience due to the frequency of fake news content and hostile messages on social media and the majority of adults who use Twitter, and other social media platforms, have probably encountered
fake news content and hostile messages. Also, social media users have probably interacted with someone from the 60 percent of adults who only gather news from social media platforms (Gottfried & Sherer, 2016) and believe the rumors, misinformation, and disinformation they consume. Thus, they may not take the time to confirm the accuracy of information from reputable sources.

Detailed descriptions of the study participants from the focus group and interview discussions were presented to give a clear understanding of the sample (see Figure 15). The results seem convincing and makes sense given the demographics of the sample, the setting and the topic of the study. The data presented in the findings link to the theories of critical media literacy, social identity theory, confirmation bias, and information bubble concepts. In addition, alternative views to teaching media literacy and critical media literacy were presented in the research report demonstrating the diversity of thought on this issue.

The second quality standard used to demonstrate the trustworthiness of study conclusions is external validity/transferability/fittingness. Gall et al., (2007) explained external validity as the extent to which the findings of a case study can be generalized to similar cases. However, Miles et al., (2014) say that grounded theorists believe methodology develops concepts and abstractions which support transferability. Even though this research study was not based on a case study, external validity can be used to measure the trustworthiness of the results due to its transferability. The concept of this study can be transferred to exploring the use of media literacy with other media outlets.
like Facebook or Instagram or other social media vehicles such as television, radio, newspapers or magazines. The demographics of the participants in the study could be switched to another age group, and the setting for interviews could be changed to face-to-face discussions. Comparisons can be made between this study’s participants, settings, processes, and other studies because of the detailed descriptions provided.
CHAPTER 4
FINDINGS/DISCUSSION

Introduction

The objective of the overall study was to see if adults are aware of media literacy, if they use critical media literacy skills when using social media, and what skills do they use. The research concept was narrowed down to approach the topic through the lens of how adults use the social media vehicle, Twitter, in relation to the Novel Coronavirus (COVID-19) during the second wave of the virus during June and July of 2020. To evaluate the skills of the participants in this study, results of the study will be evaluated using the Center for Media Literacy’s objectives for media literacy skills.

Seventeen people participated in focus groups and one-on-one interviews to gather the information used to develop this research report. While some of the study findings were not surprising some were a bit unexpected.

- Younger study participants did not follow Twitter accounts of traditional/legacy media outlet as much as older study participants.
- Those with higher levels of media literacy were more willing to follow Twitter accounts of people who did not share the same opinions and ideologies.
- The majority of people did not follow Twitter accounts of those with differing opinions and ideologies to avoid constant exposure to divisive and hostile
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.

rhetoric. However, many of them did claim to visit those accounts periodically to stay aware of their views and reasoning. Not following accounts which reflect alternate perspectives and opinions, may reduce the effectiveness of self-directed learning.

- Prior to COVID-19, more people followed and engaged with Twitter accounts of people and organizations with differing opinions and ideologies.
- Source credibility, trust, and accuracy were key characteristics for people to follow and engage with Twitter accounts regarding COVID-19 information. These factors guide users self-directed learning as they research data and developments related to COVID-19
- Study participants knowledge levels of media literacy were lower than they thought or displayed.
- Many respondents are aware of their own biases, generally, and were not as willing to step too far outside of their information bubble as a self-preservation tactic against negative and hostile messages.
- Several respondents felt a responsibility to keep others informed of accurate information encountered on Twitter about COVID-19 due to the spread of misinformation and disinformation on the social media platform.
- Social media behavioral changes resulting from Twitter content on COVID-19 were minimal but notable. The three changes include:
1) participants unfollowed accounts which posted hostile comments as well as, accounts posting information the participants found inaccurate or disturbing,

2) a few respondents began following accounts of subject matter experts such as local, state, and national COVID Task Force members in order to get current and reliable information,

3) and, respondents started following accounts of local, regional, and state-elected officials whom they had not followed previously.

**Study Participants**

To gather information, two focus groups were conducted. Thirty-one (31) potential study candidates were contacted about participating in the research project. The initial plan was to conduct one focus group and four individual one-on-one interviews. This combination would provide a nice depth of information from the focus group discussion and the intimacy of the individual interviews. It would also create a level of corroboration of information between the two different types of information gathering (Gall et al., 2007). Seven out of 16 people confirmed their participation in the virtual focus group. However, only five people logged in. This number of participants would be too low to create any validity or credibility for the data collection process. According to Merriam (2009), most writers suggest between six and 10 participants in a focus group.
Therefore, it was necessary to organize a second focus group. The contact group was expanded from the convenience sampling of people originally targeted by the primary researcher, from interactions on Twitter, to include the “Ask a friend” method of recruitment. People contacted for the second focus group were asked to suggest people to participate in the research study who they knew are active on Twitter. The potential participant group for the second focus group also included those who were not available for the first focus group. As a result, of the 19 people contacted to participate, six people confirmed and logged in for the second focus group. In conclusion, Focus Group #1 consisted of five (5) people and Focus Group #2 involved six (6) participants. Six (6) individual interviews were also held to gather additional information from the remaining group of people who were not available to log into the focus group discussions (See Study Participant Overview Chart, Appendix 2).

The virtual format of the focus groups and interviews allowed for a more diverse group of people to participate than if the interactions had taken place in-person or face-to-face. Age was one factor contributing to group diversity as shown in Figure 1. Seven people (41 percent) were 20 to 29 years old. Four participants fell in the 30 to 39-year-old group, making up 24 percent of participants and the remaining seven (41 percent) were 40 to 50-years-old.
Figure 1

All of the study participants had some level of college education (see Figure 2). One participant (6 percent) was a current college student while two (12 percent) held Associates degrees. Twenty-nine percent (5) had bachelor’s degrees. The majority of the group, fifty-one percent (9) of respondents held Graduate degrees (see Figure 2).

Figure 2
There was some diversity in the racial makeup of the group even though it skewed heavily black/African American. The racial breakdown of the study respondents includes one Latino/Hispanic (6 percent), four White/Caucasian (23 percent) and 11 Black/African American (65 percent). However, one female is Asian and Black/African American and has been categorized as Asian (6 percent).

**Figure 3**

![Racial Breakdown Chart]

Figure 4 shows the gender makeup of the group. Females made up 70.5 percent, or 12 participants, of the study subjects while males made up the remaining 29.5 percent, 5 people. As for political positions, the majority of participants, 88 percent, identified themselves as Democrats, and two (12 percent) claimed to be Independents with one identifying as a former Republican as seen in Figure 5.
Both of the focus groups had a slightly diverse make up. Focus Group #1 consisted of five African-American members with four females and one male. While three people were in the 40 and older age group, the remaining two group members were in the 20 to 29 age group. Three were from the Midwest while one lived in the East (see
Figure 6). One member of Focus Group #1 identified herself as politically independent while the other four members identified themselves as Democrats.

Six African-American females participated in Focus Group #2. Two were from the South, three were from the Midwest and two were from the East. Two were in the 40-year-old and older group, one was in her 30s, and the 20-year-old group made up the last three group member spots. All of Focus Group #2 members identified as Democrats. So, while both groups were relatively homogenous ethnically and politically, there was some diversity in age (see Figure 1) and geography (see Figure 6). This variety would not have been possible with traditional in person focus groups and interviews.

**Figure 6**

![GEOGRAPHY Chart](image)

Six people joined this research study as individual one-on-one participants (see Appendix 2). This group was more diverse than the two focus groups. Interview Participant A is a
male, Latino/Hispanic with bachelor’s, master’s, and law degrees. In his 40s, this study respondent lives in Chicago, IL (North) and works in the health care industry. Interview Participant G is in his 40s and is a White/Caucasian male with an associates degree. He works in the broadcast industry and lives in St. Louis, MO (Midwest). Also from St. Louis, MO, Participant H is a Black/African American male. He is in his 20s has an associates degree and a bachelor’s degree. He works as a security specialist and as a freelance writer and video and broadcast production person. In her 30s, Participant I is a White/Caucasian female. She earned a bachelors and a master’s degree and works in the broadcast industry. Participant J lives in New Mexico (West) and is a White/Caucasian female. In her 20s, she works as a librarian in a research organization and holds associates, bachelors, and master’s degrees. Living in San Diego, CA (West), Participant T is a White/Caucasian male working as a behavioral scientist, writer, and public speaker. He is in his 30s and holds bachelor’s degree.

After the focus groups and interviews, research participants engaged in an application exercise. This critical practice consisted of snapshots of (3) three actual Twitter posts about the Coronavirus from (3) three different media outlets. Critical practice activities can have an interventionist effect. Grossberg (1994) says that students gain understanding of their own involvement and discussing texts invites them to reconstruct and rearticulate their worlds differently. In addition, Luke (1999) viewed critical practices as an chance for people to think about how a text might attempt to
position them as media consumers, identify the intended audience of a text, analyze whose interests the text serves, and identify whose voices are present or absent from the text. Essentially, critical practice segments present an opportunity to go beyond the questions on the semi-structured interview protocol and allow research respondents to display their thoughts and actions as well as to explain the justifications for their process.

Strauss and Corbin (2008) suggest that process represents actions and interactions of people within a structure and by combining the two allows for some of the complexities within relationships to be revealed. “Process and structure are inextricably linked, and unless one understands the nature of their relationship…, it is difficult to truly grasp what is going on,” (Strauss & Corbin, 2008, p. 127). The efforts of the focus groups and interviews helped reveal information and dynamics which provide answers to the critical research questions at the center of this study. The process of communication, represented by the actions and interactions of people on Twitter, lies within the structure of Twitter itself. Hence, studying these interactions help to reveal the complexities of relationships people experience within the construct of the social media platform.

**Data Analysis**

It was no surprise that amongst the study participants the 20-year-olds were less likely, than those over 30 years old, to follow the accounts of traditional/legacy media outlets such as newspapers, magazines, radio stations, and television stations or networks. Younger participants more often followed the accounts of people like celebrities, influencers, activists, artists (visual, music and writers/poets), friends, family, and media...
personalities. Study participants over 30 years old followed some of the same types of accounts as those under 30. However, this group was more apt to follow politicians, industry and business leaders, journalists, news organizations (both digitally based and traditional media outlets), non-profit organizations and political organizations.

An interesting find in the data is that amongst focus group members, those over 30-years-old followed more accounts and had more followers than those under 30 years old. For example, Participant C from Focus Group #1, who is in her 40s, had 4,543 followers and followed 1,959 accounts compared to a millennial (within the 20-year-old group) had 409 followers and followed 444 accounts. In Focus Group #2, Participant M had 3,095 followers and followed 2,102 accounts. While another member of Focus Group #2, in her 20s, had 2,056 followers and followed the accounts of 834 people and organizations. This may be due to the numerous social media platforms available for people to use. A few study respondents mentioned using other platforms such as Facebook, Instagram and YouTube in addition to using Twitter. The majority of their social media activity may occur on other social media platforms. As new platforms emerge, younger people generally adapt to using them quicker than more mature social media users.
Understanding Media Literacy

Focus Group #1

Only two of the five people in the focus group attempted to define the term media literacy. However, only one partially defined it. Participant D said not all people are media literate and determining objectivity and subjectivity is difficult. She also acknowledged that with smartphones anyone can claim to be a journalist and post information on social media which tends to be more objective. Participant E explained media literacy as the act of interpreting news or media.

Even though most could not define the term accurately, all felt they used media literacy when they were on Twitter. By and large, people in the group thought they used it on Twitter with fact checking, checking source credibility and validity, questioning if Twitter posts’ make sense, searching for content origination, analyzing trending (popularity of the topic) keywords and phrases, accessing opinions from comments, and recognizing posts from Russian and Chinese “bots” (computer-generated posts with controversial and divisive comments to create dissension and banter between people on social media). Participant C discussed the importance of looking at content more closely. “So, I think you just have to be more discerning about it and feel like on Twitter it’s easier to do that and catch it (bots),” Participant C said. She said she sees more “bot” activity on Facebook where she thinks it becomes a problem with older people who may not be as media literate with social media. She continued to say the older generation was used to trusting news media personalities, like Walter Cronkite, Dan Rather or Ed
Bradley, to tell the facts and not their opinions. Participant C went on to say she believes media outlets like Fox News Network state their opinions or their form of the facts, with no facts or research to back up the information. “I feel like that people see that and think that’s news,” she said. “I feel like that’s why we are kind of in the mess that we are in right now.”

All Focus Group #1 members said they had been exposed to media literacy while in school. One person learned about it in graduate school while studying journalism, three others said they learned about it in undergraduate school. High school was where one person said they learned about media literacy.

Focus Group #2

Overall, this group also did not know much about media literacy. Only three of the six group members offered explanations of what they thought it meant. Participant K said this was her first time hearing the term. Participant N guessed that media literacy was about people talking slang while explaining something. The closest definition came from Participant M. She said media literacy was when people view something in the media and determine whether or not it is from an effective and well-researched source as opposed to whether or not it is fake news.

Focus group members said they did not think they consciously used media literacy on Twitter. Participant N said, “I don’t think about if I’m using media literacy or
not. I usually just post it.” This action reflects Potter’s (2019) concept of automatic routines defined as sequences of behaviors or thoughts learned through experiences then applied repeatedly with little effort. Potter (2019) compared the brain to a computer and the mind to the software that programs the mind and tells it how to function. Little mental effort is involved with this process. “We encounter almost all media messages in a state of automaticity; that is, we put our minds on ‘auto pilot’ where our minds automatically filter out almost all message options,” according to Potter (2019, p. 7). And while he recognizes the advantage of automatic routines as efficiency, he also points out two disadvantages. The first disadvantage is people may miss many helpful and important messages. Focusing on efficiency may lead to losing opportunities to expand experiences and make better decisions (Potter, 2019). Secondly, message fatigue kicks in overtime and people may feel overwhelmed. Potter (2019) says the effect of this is people narrowing their focus and filtering out even more messages. This could lead to repeated exposure to the same type of message and the value of the message being diluted according to Potter (2019).

Group participants believe they use media literacy skills with Twitter in a number of ways including questioning the content of posts, verifying and assessing sources, reading stories instead of just focusing on headlines and cross checking Twitter buzzwords with Google to see what other familiar news outlets are saying about the topic. Discussing her media literacy approach on Twitter, Participant M said in Focus Group 2, “I think when you’re on Twitter, well speaking for myself, you have to question
“everything you read. You just can’t take it for face value as being true.” Participant H gives another example of using media literacy on Twitter in his interview. “I don’t just jump on headlines. I’ll look at the article and look at another Tweet or link,” he said. Other respondents said they recognize clickbait which is content posted to entice people to click on the post and the link embedded within it.

Overall, Focus Group #2 members had varied exposure to media literacy. Only half of the members said they learned about media literacy in school. Two shared that they learned a little about media literacy in high school. Another person said they learned about it while earning her bachelor’s degree.

**Interviews**

Six interview participants gave a variety of responses on defining media literacy and how they use media literacy with Twitter.

Participant G discussed how media has evolved over the past 10 years with social media and it is important for media consumers, the public, to evolve as well and become more aware. He also talked about the need for people to be aware of who produces the information they consume as well as their intentions and biases. “I think our younger people are starting to become more media literate just by necessity,” Participant G said. He explained that satire sites and smartphones enabling anyone to produce and distribute content to mass audiences has made it essential to increase media awareness and
understanding. He said he uses media literacy on Twitter on newsworthy topics like COVID cases and mask mandates, but not on lighter topics like entertainment-based topics. While he did not give a clear explanation or definition of media literacy,

Participant G shared that he cross checks with other digital media outlets to help verify information. Community college courses introduced him to the concept of media literacy.

Even Participant H, who has two degrees in mass communication/media studies, did not offer a clear explanation of definition of media literacy. However, he did say that one of the ways he uses media literacy with Twitter is questioning the story behind a headline to get a clearer meaning rather than relying on just a headline. “Then I’ll check another article or another tweet, or link you know just to make sure the legitimacy of that article is right,” Participant H said. He remembered being taught about media literacy in school, but not until he got in community college.

Participant I explained media literacy as understanding the primary concept of storytelling, that everything is framed and rooted in some kind of premise or mythology. In that framing, she says it’s important to understand from whose view the story is framed and what is left out of the frame and why. Participant I said she thinks using media literary on Twitter helps her pause so that she does not act immediately. She mentioned, “I always take another step or two to confirm the question, to verify, to decide is the perspective changing anything about the facts, about this case, or is it verifiable?” According to Participant I, these types of questions provide a filter and helps her stay
mindful. She explained that for some situations Twitter played an influential role as a reporting source before local and national news coverage.

Next, Participant A explained media literacy as understanding the sources of the information that exist in the media to communicate either news, data, or information. He also discussed understanding modes of media outlets (social media, newspapers, television, cable television) and the ways in which entertainment and news are communicated and reach the end user, the media consumer. Participant A discussed his thoughts about the paradoxical connection between people who create and distribute content and those who consume it.

“It seems like a lot of people can consume the tweet so it can be this whole universe of people, and yet there is a real chance that they can directly communicate with you on a one-on-one basis,” he said. As far as learning media literacy, Participant A said he was exposed to it first in undergraduate school while earning a journalism degree. He acknowledges media is much different today than 25 years ago when he was studying to earn his bachelor’s degree. “I remember from Journalism School… I don’t remember who it was now that I think about it, but I think the line was, ‘The medium is the message.’ Marshall… That made sense to me then, and it totally makes sense to me now, even more so now I think,” Participant A said.

The term media literacy can mean many things according to Participant T. He defined media literacy as a person’s ability to consume information appropriately understanding its velocity. According to Participant T, “It’s about, like, how do you take
in and evaluate information?” He adds that media literacy also involves questioning when people take in information, and how appropriately people weight that information given the factors about that information? He said, “Evaluating information on Twitter, like, isn’t all that different than evaluating information from anywhere.” Participant T went on to explain that it is really about information literacy and it requires knowing some details about how Twitter works. He said he learned a little bit about media literacy in high school through experiences when he studied abroad for a few years. When he returned to the States, Participant T said the U.S. news media landscape had changed from homogenous with three networks to media polarization with cable networks added.

Participant J explained media literacy as being able to look at the news and media like television and radio, newspaper, and being able to judge veracity of information, the writers’ perspective and where biases exist. She also adds that media literacy also includes how well-informed or misinformed the information is and how people absorb it into your own life. She really didn’t explain how she used media literacy on Twitter. Participant J said she first learned about media literacy in community college and in graduate school.
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING
THE 2nd WAVE OF COVID-19 IN THE U. S.

Figure 7

Of all the study participants in both focus groups and the six one-on-one interviews, only six out of 17 respondents could effectively define or explain what the term media literacy means (see Figure 7). This includes those who studied media and mass communication in college. On the other hand, the majority of study participants believed they practiced media literacy when using Twitter, despite not being able to define or explain the phrase. More people were able to describe how they used media literacy while on Twitter. In the focus groups, this may have happened due to people hearing other group members explain media literacy and were able to identify that their Twitter activity aligns with media literacy skills. This reflects Lindlof and Taylor’s (2002) discussions about group interactions stimulating thoughts and ideas based on others’ expressions of their experiences.

It is important to state that there is a difference between people knowing the definition of media literacy and being able to display media literacy skills. Nadler (1982)
identifies a three-domain taxonomy of learning objectives. The first domain, psychomotor, includes observable skills requiring practice and performance. The second domain reflects people’s ability to know something, knowledge, but not act on it. In this cognitive domain, knowledge is required for a certain level of performance. The third and final domain is affective meaning attitude or value and inferring states of mind.

Nadler’s discussions on different types of learning also offer some insight into differences between being able to define a term from memory and displaying a skill and not being able to define it. According to Nadler (1982), training, education, and development are all three different types of learning with different purposes. He said that training is learning related to a person’s job or occupation. Education, on the other hand, is learning someone undergoes in preparation for a future job. Finally, development is the third type of learning associated with a person’s or organization’s general growth. It is therefore possible for people to be able to display a skill and not be able to recognize or define the actual skill based on their learning orientation.
Figure 8

![LEARNED MEDIA LITERACY IN SCHOOL](image)

Even those who acknowledged that they earned degrees in media studies, mass communication, or related fields, did not always provide clear definitions of the term, nor specific examples of their use of the media literacy skills in their Twitter use (see Figure 8). As far as exposure to media literacy in school, there was a variation. Some people had never been exposed to media literacy. Several respondents said they learned about media literacy in high school. However, of this group a few said they actually learned some of the skills related to media literacy through classes like English and social studies. Finally, there were five people with degrees in the field who said they learned about media literacy in college courses.

The responses of study participants center on the research questions that drive the focus of this research study. Information gathered from focus groups and interviews
Findings Address Research Questions

1. How do study participants use Twitter to gather information on the Coronavirus pandemic? How are sources of information evaluated?

The majority of participants reported that they checked Twitter daily to get updates on the Coronavirus. They used Twitter as a surveillance tool to see what is going on and what people are saying about the pandemic and issues related to it.

Several people said after COVID began they stopped following some accounts which posted alternate perspectives than their own. One respondent, Participant M from Focus Group #2, said at the beginning of the virus she checked Twitter everyday. However, she stopped due to the spread of misinformation and divisive rhetoric which became disturbing and overwhelming for her. She says she looks at Twitter every day but only post content about once a month. “I see a lot of negativity and a lot of ugliness that I don’t want to be brought down by,” said Participant M. Likewise, Participant O said she stopped following some accounts because she did not agree with them and did not want
their posts on her timeline. However, study participants sought information on Twitter about many topics.

TWITTER TOPICS SEARCHED BY PARTICIPANTS

They were interested in the general topics such as business news, entertainment, science and politics. They wanted to stay up-to-date on COVID-19 testing, symptoms, trend analysis on number of cases and deaths locally, statewide, nationally, and internationally (see Figure 9). For instance, Participant K from Focus Group #2 said she might go Twitter to see what’s going on mainly with COVID. Study participants were also interested in knowing about hot spots, where numbers of cases had spiked, as well as vaccine development. A few
respondents said they specifically looked for information in areas where they had lived previously or in places where they had friends and relatives.

In addition, respondents searched for information from trusted sources such as White House COVID Task Force members Dr. Anthony Fauci and Dr. Deborah Birx, as well as Center for Disease Control (CDC), American Medical Association (AMA), Johns Hopkins University, Washington University in St. Louis, and non-US perspective like World Health Organization and European sources. Some participants said they started following local and county health department directors and sought science-based discussions on causes and mitigation as a result of the pandemic.

For some participants, the search for COVID related information also focused on articles and information on the virus’ impact on vulnerable communities, effects on women and black women. And one respondent said they wanted to see uplifting stories related to COVID and efforts to defeat the virus.

Yet, Participant T interacts with Twitter completely differently. He said in his interview, he doesn’t go to Twitter to learn new things. In his interview, he said he goes to Twitter to get input and feedback if he has an expertise question. He explained an expertise question to direct to an expert or to see if an expert had addressed a question he had. If he had a general question, he said he would go to Google.
**Evaluating Sources**
Source credibility and reputation are very essential for the respondents. Research participants seem to follow sources based on who they trust, verified accounts, sources/accounts providing factual- and scientific-based information. They also follow media outlets, celebrities, influencers, health professionals and elected officials who established themselves as trustworthy and knowledgeable prior to the pandemic or after the pandemic began. People are definitely mindful of the people and organizations they follow and from which they get information. There are a number of ways in which people evaluate sources they follow. Participant M, in Focus Group #2, said if she clicks through a link on a Twitter post and is not familiar with the sources she discounts the content. From Focus Group #1, Participant F said, “I trust verified accounts. If it has a check I take it seriously.”

Checkmarks in blue boxes, called a verified badge, is placed beside account holders’ display names. According to Twitter’s website, accounts with verified badges, called verified accounts, distinguish accounts identified by Twitter as “notable and active” (Twitter Help Center). Twitter created six categories of notable accounts including government, companies, brands and non-profit organizations, news organizations and journalists, entertainment, sports and esports, activists, organizers, and other influential individuals. Twitter allowed users to submit accounts to be considered for verified status, however, the policy changed in November 2017 and the company no longer accepts public submissions to get accounts verified (Twitter Help Center).
In his interview Participant T attempted to explain how some people decide who they trust and follow on Twitter. He said, “People often view Twitter as ‘I trust this person so I trust them on Twitter based on what they’ve done in past or said in the past.’ But its layers of things that build to develop trust, not just one thing.” Building trust amongst people on Twitter can be a complex issue.

Study subjects valued the veracity of the information shared and the validity of the accounts —of the people, organizations, and websites behind the accounts. They also said they would follow accounts with opposing views if they were respectful and civil. Participants said they would not follow accounts which were uncivil, childish, unfair, “trollish,” or shared false, absurd and sensational information or content such as Fox News Network, Donald Trump, One America Network (OAN). In his interview, Participant H mentioned that he would not follow accounts like Fox News. He said, “I don’t want to see their continuous output, and I don’t feel like I need to see it because I understand their viewpoints and where they’re going to come from.”

Trust is a big factor in the sources people choose to follow. The content posted and the reputation and credibility of sources play a role in developing trust between accounts and audiences which follow them. Participant N said she trusts sources who have had personal experience with the virus. “A personal experience as if some has passed with it, or if someone gives the test out to people, or have taken the test or I have it,” said Participant N. She said she tends not to trust second-hand information.

Some of the trusted and reliable sources participants mentioned they looked for were CNN, White House COVID Task Force members Dr. Anthony Fauci and Dr.
Deborah Birx, as well as the Center for Disease Control (CDC), American Medical Association (AMA), Washington University in St. Louis, and non-US perspective like World Health Organization and European sources. They also trust and follow heads of health departments and state health departments. Participant A said in his interview, “I follow accounts that have some gravitas and rigor to give information that’s data driven, backed by science.” Similarly, Interview Participant I said, “I want facts and data, something that says they know what they’re talking about before I trust the source. I will try to verify anyway.”

2. Do adults follow a variety of Twitter accounts to obtain a diversity of content and perspectives on the Coronavirus pandemic?

While research subjects generally followed accounts which had similar interests and views as theirs, a small majority either followed accounts or actively checked in on accounts producing content with differing views to learn and stay aware of other perspectives. However, they didn’t feel the need to follow the accounts or see the information on their timelines on a regular basis. Participant I said, “It can be interesting to see other perspectives and the framing of those perspectives. I question what they were thinking.” Along the same lines Participant G said, “I think it’s good to invite other points of view in. You can’t argue a position if you don’t know the other side.” He continued on to say that it is dicey to hold a mindset without knowing all of the information.
In addition, he believes you can be civil with someone you don’t agree with. Conversely, Participant N from Focus Group #2 said, “I don’t follow accounts that disturb my peace or universe. I follow people who share the same point of view.” This respondent is not open to other perspectives and ideas as a form of self-protection. Even though people may focus on media reflecting their own political identities, they may not blindly follow or support the opinions presented in the coverage of these news outlets (Xu and Feng, 2014).

Still, three to four people said they followed accounts with differing views and a diversity of opinions. While they admitted this was not always a comfortable or easy position to regularly see content on Twitter challenging their beliefs, they saw it as being important to see and understand others even if they don’t agree. One respondent explained one reason why he follows people with whom he doesn’t always agree. “People are complicated.” He said you can agree in more than one area and disagree in another.

An interesting fact that stood out is that those who actively followed accounts of people and organizations with differing opinions, were very knowledgeable about media literacy and/or had experience working in the media field. They believed they could learn from the content shared from the accounts with differing positions. While they did not contend that information from these accounts would change their own opinions or ideas, they acknowledged that the content could help them understand someone else’s thinking and opinion. The content might also provide new information, data, or angles that may
not be shared on accounts normally followed with the same interests and perspectives. In his interview Participant G shared, “I like seeing a diversity of viewpoints. Somewhere in the middle you find, not reality because that’s subjective, but closer to the truth.”

Of all of the study participants, only about one-third of them said they could be influenced or persuaded to change their opinion based on information from a Twitter account with a different or opposing perspective. Participant T said he could be influenced to change his thoughts or opinions on COVID if the source thinks in a variation of what he thinks. Participant P said information from a differing point of view helped her to take the pandemic more seriously. She said, “Because in the beginning, because I’m a younger person, I was like, ‘Okay it’s not going to impact me.’ But seeing people’s experiences and articles on my timeline helped me take it more seriously.”

Participant K talked about how she was swayed by Twitter accounts with differing ideologies and perspectives in the beginning of the pandemic. She said the media focused on trying to be first to get information out and it was not always accurate. Participant K said, “It persuaded me to do my own research because there was so much different information the media put out…it was confusing.”

In addition, Participant M discussed how she remembered hairdressers protesting because they felt like they should stay open during the COVID-19 shutdown. She said she thought everyone should stay home but then she said she changed her attitude. “Okay, if someone really wants to be out there, let them take their own risks. It doesn’t change what I’m
going to do. I’m still following all the precautions, but I decided instead of thinking everyone should do it,” Participant M said.

On the other hand, Participant A said he was not convinced to change his opinion from information from differing accounts. “I pay attention to scientific information and less persuaded by things from political realm. The sources I follow have some gravitas and rigor to give information that’s data driven, and backed by science,” explained Participant A. In a similar manner, Participant J said their opinion has not changed from the opposing side’s information since the beginning of COVID-19. Participant H said, “There’s no swaying me on my health or the health of other people around me.”

3. What motivates study participants to engage (click through, comment or share, seek information outside) with Twitter posts/Tweets about the Coronavirus pandemic?

Of the 17 study participants 7 said they engage with Twitter content regularly and another 7 categorized themselves as engaging in Twitter frequently. However, there were a few people who were on the opposite extremes of the larger study population. Twelve percent acknowledged they engaged with Twitter posts seldomly and another one respondent identified himself as engaging extremely frequently with Twitter posts.
When it came to engaging with Twitter content, there were various amounts of activity amongst the group. For this study, engaging with Twitter content involves four different activities (see Figure 10):

1. clicking links provided in posts to access additional information,
2. commenting or replying to someone else’s post,
3. sharing or retweeting someone else’s post with their own followers/audience,
4. or seeing a Twitter post but not engaging with it but checking the accounts, (Twitter, Google, Instagram, or websites) of others related to the content seen in the initial Twitter post.

From the discussions it was clear that what causes the respondents to engage with Twitter is based on their interest in the content and the source who shared the content. They also engage with content based on what knowledge they can gain, what they can
learn from observing others’ posts (conversations and interactions on Twitter), as well as their ability to connect and socialize with other people. When observing others’ posts on Twitter, participants were interested in engaging with content about information/data, statistics, and trend analysis about their local area, nationwide as well as internationally. Participant A said, “If I see Johns Hopkins I’ll click or RT. I like reading about data, usually not opinions.” Kim et al. (2019) suggest believability influenced how much people engage with articles, and confirmation bias plays a role in whether people engaged with articles and if they were believed. A few respondents acknowledged that the brevity and quickness of Twitter’s structure can lead to short messages and eye-catching images without the context of complete information. Participant I said, “I don’t just jump on headlines. I’ll look at the article and look at another Tweet or link.” In line with this thinking, Participant H compared Twitter’s fast reporting to a sound bite instead of the whole story.

Respondents wanted to hear updates from local and national leaders on COVID, progress on testing and vaccines. Participant M, from Focus Group #2, was motivated to engage with Twitter content when she saw posts about her neighborhood, Prince George County in Maryland. She said, “I started following local politicians and health organizations.” This is consistent with Pang and Ng’s (2017) findings that opinion leaders play an important role in propagating information, whether it supports or opposes misinformation.
A few people were interested in finding information on COVID to share with others. They wanted to keep others in their network up-to-date with the latest information. Participant D from Focus Group #1 said, “It was daunting to see the number of new cases.” The study subjects recognized that in the early months of the pandemic, the First Wave beginning in March 2020, information about the virus changed frequently as scientists and elected officials learned more about the virus.

Participants also acknowledged that a lot of misinformation and disinformation was distributed from elected officials, influencers, and average citizens who seemed to discourage others from following safety guidelines and virus mitigation steps, given by the Center for Disease Control, local, state and national health departments and professionals, to protect themselves from the deadly virus. This caused frustration for many people since COVID cases and deaths rose across the country during the Second Wave of the Coronavirus. Therefore, some study participants felt a responsibility to share accurate information with their Twitter followers/audience, as well as friends and family outside of social media, about ways of contracting the virus, symptoms, numbers of cases, COVID testing locations, and vaccine development. This connects with the idea of learning being a communal experience. Merriam and Kim (2008) contend that learning is the responsibility of all in a community because each member can develop from the knowledge learned and shared. On the other hand, Kim, et all (2019) suggest people are more apt to believe and share articles aligning with their beliefs because of confirmation bias. These researchers also say fake news takes advantage of this practice.
This was especially true for at least three study participants who were particularly interested in the impact of the virus on minority communities and women who participants believed bore the brunt of the virus in larger numbers than other communities. When there was a personal connection or impact some study participants felt a responsibility to engage more in order to help others. Most respondents said they scrolled to survey trending and hot topics on Twitter. One focus group member said, “I scroll. I used to (before COVID-19) have conversations with people in different parts of the country, but not now like I used to.” She said she changed her engagement activity due to lots of negativity on Twitter and did not want to be emotionally brought down by negative content.

The majority of participants said they “liked” Twitter posts from others based on if they were interested in the topic. The “Like” function also provides users the options to save time. This is convenient when people are scrolling through their Twitter feed quickly and don’t have much time to spend engaging with Twitter posts they might be interested in. While the “Like” function on Twitter can show support or acknowledgement of a post, it also marks the post, like a bookmark, to remind people of what to come back to read later.

4. How do study participants biases exist in the content presented to them on Twitter? Can they identify biases in Twitter?

The vast majority of participants are aware of their biases. And most of them only follow people with similar interests and perspectives. They consciously don’t follow people with differing perspectives as a means of self-preservation and self-protection.
Respondents set boundaries from uncivil communication as rhetoric and discussions regarding COVID became more politicized and hostile. In Focus Group #1, Participant D said, “I know what my limits are. I don’t need to be overwhelmed with everything.” She went on to explain her boundaries with following Twitter accounts. “So, when I’m ready to be informed, I’m ready to be informed.” With a job in the media industry, Participant D has a responsibility to consume lots of media and produce and distribute media messages. She is aware of her biases, and the biases of others, on Twitter and manages her exposure to those dissimilar biases when she does not have to be exposed to them on her own time. While a few respondents say they don’t follow accounts of people or organizations with differing perspectives, it does not mean they completely ignore those accounts. These study participants say they do look at Twitter accounts with differing ideologies and perspectives to see what they are saying and thinking. They do not feel the need to be constantly exposed to the content and perspectives of these accounts as reflected in Participant D’s comments.

A few people said they follow accounts of people with whom they may or may not agree. Participant M explained that it was not intentional that she followed people with the same political mindset. In Focus Group #2 she said, “I follow people based off of the industry and technology versus based off of knowing them. Because of where people are located who work in technology they tend to be more in metropolitan areas, higher educated, so that can be more progressive.” She thinks these factors contribute to her following people who share many of her ideas and beliefs. Participant P explained her openness to differing perspectives. In Focus Group #2 she commented, “I feel like on
Twitter I follow some media personalities and some of them don’t have the same views as me. But for the most part, I feel people I follow on Twitter are kind of… have the same viewpoint.”

Three people say they intentionally follow Twitter accounts of people or organizations with differing perspectives and points of view. This allows them to stay aware of others’ perspectives and can learn from them. They admit this is not always comfortable, but they see it as necessary. It is also a way to check or gauge their own ideas and perspectives.

Participant J said she did not follow accounts of those with opposing views, but she makes a conscious effort to follow accounts of people who are demographically different from her. She said in her interview, “I follow non-white, cis gender, people with disabilities to know more about the experiences we share. I don’t want my feed to be an enclave of people who look like me.” Participant J is aware of her biases and works to expose herself to other people who are different from her to give her alternative positions to consider.

5. How do study participants decode messages in Twitter posts? What critical media literacy skills do study participants use when using Twitter to gather information on the Coronavirus pandemic?

Three Twitter posts from three different media outlets’ Twitter accounts were selected for study respondents to conduct a content analysis. This critical incident, or critical practice, was chosen to help determine what media and critical medial literacy
skills people use when on Twitter. Analyzing these Twitter post examples, enables study participants to engage in the critical thinking process as they display their media literacy skills. This content analysis revealed that source credibility, image, headline, and summary blurb content (used to explain the article) were all important in study participants’ analysis of Tweets. However, source credibility appeared to be a dominant element.
The five people involved in Focus Group #1 were given one minute to view the Tweet. Then, they were asked to discuss if they would engage with the post, and if so how they would engage. The media outlet which produced the Twitter post was TMZ. This is a media outlet focused on entertainment and celebrity gossip through a television show and a website. Overall, the focus group participants disclosed they would not
engage with the Tweet on the grounds of not trusting the source, content and/or, the image.

Respondents D and E immediately said “No” they would not engage with the Tweet. They said they didn’t trust it for a few reasons. First, TMZ is not known for serious news. Then, they mentioned that the image looked doctored or manipulated. Respondent D followed up and said she doesn’t care enough Donald Trump (featured in the picture of the Tweet) to pay attention.

Respondent C had a different view. She said she’d click to read the story because even though it is TMZ, their reporting is usually true. So there was a level of trust in the source even though their main focus is generally fluff, gossip, and entertainment and celebrity news.

Respondent B said he wouldn’t engage because he generally keeps his comments light and funny. He said if he retweets its because he wants people to notice the information in the Tweet, but he doesn’t do much commenting when he retweets. Respondent F doesn’t trust the Tweet because “It doesn’t look right.” She thinks the image looks suspicious.

Focus Group #2 participants held similar views as Focus Group #1 participants for the TMZ Tweet. Of the six people in Focus Group #2, three said they would not comment or engage. Participant K said she would “Like” TMZ, but she thinks Trump is a negative person and that’s why she would not engage with the Tweet. This shows there
is some source credibility, however, there is a negative reaction to the content. “I know that’s biased of me,” said Participant K. The respondent acknowledges her bias. There was more negative reactions to the content. Participant N said, “I stay away from information about Trump. He’s childish.” Another Focus Group #2 member, Participant L, commented that even though it is TMZ they are usually up to the minute with current information. This shows there is some trust in the source and a certain level of reliability given the media outlet’s track record.

With the one-on-one interviews there were a variety of comments shared about the TMZ Twitter post. Participant A was not very familiar with TMZ but said other source would probably report the information. Participant H was noncommittal about whether he would engage with the TMZ Tweet. He seemed a bit hesitant due to the source’s reputation of sensationalism. Participant T said he might Retweet with a comment praising the cancellation. He went on to say, “Regardless of my opinion on the person, right things are right no matter who says them.”

Participant J said she’s not a fan of political topics and would probably not engage with this Tweet. Participant I thought the image was unreliable. “I’d trust the headline but not the image.” She said the media outlet, TMZ, has become more reliable over the past few years. So again, this outlet has shown a level of source credibility.

After Focus Group #1 was completed, I realized I may have selected a Tweet for them to analyze that may have been too polarizing. It was not clear if it was people’s reactions to the source or their reactions to the content that seemed to overshadow their
opinions and behaviors. A more balanced reaction and discussion was needed for a more comprehensive understanding of people’s thoughts, reactions, and behaviors. This lead to finding additional Tweets to add to the critical practice activity in order to get a more well-rounded view of peoples’ thinking and actions. Adjusting this aspect of the study may allow for a deeper understanding of what kind of content study participants might engage with and why they would engage with it. Therefore, I searched for additional Twitter posts from other media sources regarding COVID to create a more balanced approach to the Focus Group #2 and interview discussions.
Overall, Focus Group #2 members said they would not engage with Tweet #2 from Fox News due to source credibility and content. There was a lack of trust of the source according to four group members. The majority stated they would not follow or click on anything from them or wouldn’t engage at all. “Fox News is unfair and one-sided. I’d bypass,” said Participant L. While Participant K commented, “I don’t trust them.”

On the other hand, one group member cited issues with the content. Participant M said, “I just wouldn’t care. There’s lots of info about cases being tweeted. I have no interest in the same info.” This respondent would not engage because they seek new details on COVID.
With one-on-one interviews Participant H said they would definitely not engage with this Tweet citing that the source was sensational. “I know their stance and they spread misinformation,” said Participant H. He went on to say he would only engage with the Tweet if he was comparing them with information from another media outlet.

Participant T said he would be unlikely to engage with this Twitter post because he knows their position or perspective and does not agree with this. On the other hand, Participant J was conflicted. She said she would not engage with the Tweet because she does not give Fox News credence, but she does give credence to Johns Hopkins University. “I’d probably go to the Johns Hopkins site instead of clickin’ on the Fox News Tweet or link,” Participant J said.

Next, Participant I said she was surprised that Fox News reported on this story. She said even though the Tweet looks like a comprehensive story, she would not be lead to engage with it. Participant I continued, “Great that we have a lot of different platforms that people can amplify their voices. We need to keep hearing individual stories.”
Figure 13

**TWEET #3: [www.twitter.com, 2020]**

![Tweet Image]

Tweet #3, from *The New York Times*, received very positive reception from Focus Group #2. All group members said they would engage in one way or another. This indicates a high level of trust amongst the participants. In addition, the subject matter of statistics grabs their attention. All but two people said they’d share/Retweet the post with others. One person said they would read the article and share the link with their family. Another person said they would Retweet the post to their followers then share the post on Facebook. The next focus group participant only said they would share, or Retweet, the post to their followers. Of the two remaining group members who did not mention they
would Retweet the post, one said they would Like the post. The other study participant responded that they would click on the article link presented in the Tweet.

Of the six interviewed subjects, two said they would not engage. Participant A found the Tweet interesting due to the statistics and graphic representation. However, he would not Retweet the post since people already have access to the information. Participant T also found the information in the Tweet interesting but would not engage because the data is not new.

Next, Participant J said, “I’d look at the story. I trust them.” She mentioned she would click the link to look at the story and then make a judgment call about sharing the article. “I’m one of the few people in my family who reads the news so I feel obligated to tell them what’s going on,” said Participant J. She felt a sense of duty to keep her aware of what’s going on with the COVID-19. She said, “Being informed is literally a matter of life or death.” Participant H said he would definitely engage with The New York Times Twitter post presented because the newspaper is vetted and he trusts them. Participant I would probably engage by clicking on the link to know more.

**Thematic Connections**

From the data collected group and individual interviews, 280 codes were developed leading to numerous themes/categories. Through the coding process, three main categories emerged Media, Twitter Accounts Followed, and Adult Twitter Users.
These categories were edited down to two main categories, Media and Audiences. Since, Twitter is a social media outlet, the category Twitter Accounts Followed fit under the Media category very well. The subcategories branching out from the Media category are Source Characteristics, Traditional/Legacy media, Internet/Digital and Content Topics/Issues. From the Audiences category, the subcategories which emerged were Demographics, Twitter Activity, Media Literacy Skills, and Psychographics/Worldview.

Figure 14  

**Thematic Concept Map**

The Concept Map (see Figure 14) displays three paths of connections between the Media and Audiences categories. First, Audiences’ subcategory of Twitter Activity connects with Media’s subcategory Content/Topics/Issues. These are some of the main
things which help determine users’ connections to others on Twitter. Next, Twitter Activity connects with Media’s sub-property Twitter, which falls under the property Social Media Vehicles and the subcategory Internet/Digital. Basically, Twitter activity takes place through the Social Media Vehicle, Twitter, based on the Content/Topics/Issues presented in Twitter posts. Therefore, Content/Topics/Issues is the second path of connection.

The third path of connecting Audiences and Media is the relationship between the property Media Source and the subcategory, Source Characteristics. Media Source branches out from the subcategory Media Literacy Skills, which falls under the Audiences category. Essentially, Audiences use their Media Literacy Skills to decide which Media Sources they will engage with based on their Source Characteristics including trust, trustworthiness, fairness, and accuracy.

**Analysis Using Four Objectives for Critical Media Literacy Skill Set**

Created in 1989, the Center for Media Literacy (CML) works to promote and support media literacy education as a framework for accessing, analyzing, evaluating, creating and participating with media content. Founded by Elizabeth Thoman, the Center for Media Literacy says it also operates to help citizens, in particular young audiences, build critical thinking and media production skills needed in the 21st century media culture. The ultimate goal of the Center for Media Literacy is to assist people with making wise media choices. The Center for Media Literacy created four objectives for a
critical media literacy skill set to help people to do just that. The skill set includes (Center for Media Literacy, 2015):

1) Being able to access media content
2) Critically analyze media messages
3) Evaluate media representations
4) Create alternative media content.

These objectives will be used to assess the critical media literacy skills of the study participants. First, clearly all of those involved with the study have mastered the skill of accessing media content since they use social media, specifically Twitter. Most of the participants actually use more than one social media outlet on a regular basis.

The second objective for a critical media literacy skill is the ability to critically analyze media messages. Participants demonstrated various levels of critical analysis of media messages. Analyzing the content of Twitter posts would involve looking at who created and who posted a message, questioning who the intended audience is, deciphering the meaning of the message composed by the written words and visual images together, and thinking about what the potential results of the content could be. Study participants efficiently displayed this skill as they worked to identify sources of content in the Twitter posts they saw and used their previous experience with and exposure to sources to determine reliability and validity of content.
The skill of critically analyzing a message was also shown when people discussed not being influenced by sensational headlines and images in posts which were built to get people to engage with Tweets. Study participants recognized attempts to manipulate audiences with words and images. The message analysis process participants reportedly used reflects the historical process created by political scientist, Harold Lasswell (1948), which attempts to explain how media works. He presented what became known as Lasswell’s Model (Lasswell, 1948). It consisted of a series of four questions used to assess mediated communication: Who says what? To whom? Through which channel? With what effect? This analysis structure offered a means of empowering people over the media they consume. The questions posed create an opportunity for media consumers question media and to think critically about the media and media messages they are exposed to.

People are right to be resistant to these types of posts. Higdon (2021) claims that due to their economic goals, social media platforms privilege fake news on their platform over fact-based content due to the algorithms that shape what appears on users’ timelines. “Fake news is some of the most engaging content because it appeals to strong lower emotions that have been shown to increase user engagement, such as fear, disgust, and surprise,” (Higdon, 2021, p. 105). And by presenting engaging content, Higdon (2021) suggests algorithms keep users on the social media platform. The longer users’ stay on social media platforms, the more advertisements or paid content they are exposed to. He correlates this with B. F. Skinner’s (1974) concept of behavioral modification where
rewards result in cognitive stimuli which can lead to the exploitation of a person’s behavior (Higdon, 2021).

Study respondents displayed their use of the third critical media literacy skill, evaluating media representations, when they made decisions about what accounts they would follow and not follow. Evaluations were completed to decipher which accounts would produce the kind of information they would be interested in consuming on a regular basis. Even if the evaluations were completed within seconds without any research to find out more about an account, there was a conscious and/or subconscious evaluation of what accounts to follow or not to follow. In addition, people display their ability to evaluate which posts they would engage with, and how, based on the posts’ significance or worthiness. In addition, some respondents decided if and how they would comment based on if they could provide value to the Twitter conversation. This was shown with the three critical practice Tweet samples presented at the end of the study interviews and focus groups, as well as when participants discussed their Twitter engagements. There are times when the skill of evaluating media representations could be improved especially for people who do not follow accounts due to opposing points of view. Some value may be found in being exposed to information from these accounts despite the desire for protection against negativity and challenges to their own ideologies and opinions.

The fourth critical media literacy skill of creating alternative media content can be seen in the creation of respondents’ own original posts and comments to other Twitter
users. With technology, there are more opportunities for individuals to create their own media content. In addition, people can submit their content to media companies for them to publish, such as photos, videos, or even posts with hashtags included allowing the posts to be easily searched, found, and possibly selected for publication (Pang & Ng, 2017). Sienkiewicz (2014) defined citizen journalism by three characteristics: (1) members possess a wealth of contacts both among mainstream journalists and individuals involved in the creation and uploading of citizen reports; (2) members develop long-term commitments to a specific location or story, pursuing it even when mainstream sources have moved on; and, (3) members’ work dependently on active collaboration, through user-oriented online tools such as interactive wiki-maps, “open newsroom” forums and popular social media platforms like Twitter and Facebook. Sienkiewicz (2014) suggests citizen journalism may need interpreting since content is often published without scrutinization or context and may not be clear.

Everyday citizen’s involvement in the media and posting their original content has contributed to developing a whole new industry of social media influencers and bloggers. They have helped to alter the digital content business with product endorsements and paid promotions (Carr & Hayes, 2014). Focus group and interview participants actually do create their own media content as they post comments and images on Twitter. Creating their own content takes form in the content they post as original Twitter posts, Replies and Retweet with Comment to Twitter posts created by other users.
A few study members take their media content creation a step further. Participant L created a podcast to discuss local and national social justice issues. Participant C contributes book reviews to websites and uses her social media accounts, including Twitter, to develop interest in reading books and driving traffic to the websites featuring her work. In addition, Participant H developed a blog focusing on anime’ where he incorporates video and written content to discuss new films and other developments in the industry. And in keeping with his focus of behavioral science, Participant T wrote a book and has been featured as a TED Talks (www.ted.com/talks) guest speaker. TED Talks provides online videos of speeches from experts on a wide range of topics from business, science and education to name a few.

Nevertheless, a small number of people involved in this study say they do not Reply or Comment on Twitter. They generally use the outlet as a surveillance tool (Vivian, 2015) to observe what other people are doing and thinking. While they may not add content to the online conversation, they say most of their Twitter activity involves Liking other users’ posts. They resist taking their engagement further. This may occur due to fear of others engaging back with them in a negative or derogatory manner. Another possible reason is that by commenting on other users’ posts unwanted attention may be drawn to themselves. One of the pleasures of social media for some people is the option to stay anonymous or undetected. Several people do this by using pseudonyms with fabricated names and general images to represent them like photos of dogs, flowers, or even a famous person who is obviously not them. This allows people to create
EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.

different identities with their Twitter handles or unique Twitter username (Pang & Ng, 2016) and speak their minds freely without feeling guilty about offending people or being attacked by others who do not agree with them.

Summary

To summarize the data gathered from all focus groups and interviews, here are the key findings of this research. Most adults in the study could not sufficiently define or explain what media literacy is, even if they learned about it in school. There seems to be a disconnect or false sense of awareness and utilization of media literacy when it comes to their use of it on Twitter. The majority of study participants believe they implement media literacy skills while using Twitter. Although a few said they had exposure to the concept of media literacy in high school, some also claimed college is where they learned about it at an undergraduate and/or graduate level.

Following Twitter accounts of people and organizations with opposing views and opinions was not highly prioritized by most study participants. However, they saw the value of being exposed and aware of differing thoughts and ideas and visited those accounts to stay aware. They did not believe it was necessary to follow those accounts with constant exposure to people and messages which did not align with their own ideas. Nevertheless, a small group of respondents, with higher levels of media experience and media literacy knowledge, followed Twitter accounts with alternative positions to challenge their own ideas. In addition, they wanted to be aware of the activities and thoughts of those with whom they may not always agree. While these respondents found
this uncomfortable, they also believed it necessary to stay balanced and cognizant of others’ perspectives.

A number of respondents felt a deep sense of duty to inform others in their Twitter network and beyond of what they learned on Twitter about COVID-19 due to misinformation and disinformation circulating on the social media outlet as well as other media outlets. Other reasons study participants gave for sharing information they found on Twitter about COVID-19 was because some people in their network may have missed the information, do not read newspapers, or do not watch news on television. These study participants want to help people stay abreast of important issues which may have a big impact on their lives. They shared information with their Twitter followers and also engaged in cross social media sharing by reposting information on Facebook and Instagram in order to reach people who may have not seen the information or use Twitter.

The overall result of the study findings suggests that adults need to be more knowledgeable of critical media skills and need to apply these skills with the media content they consume on social media. The majority of participants could not explain or define media literacy and some had never heard of the term. However, they demonstrated the application of some of the media literacy and critical media literacy skills outlined by communication scholars and the Center of Media Literacy.

In addition, study participants demonstrated that they recognize their biases. Some of them actively challenge their biases by putting themselves, in what they call, an uncomfortable position of following Twitter accounts presenting opposing perspectives
and opinions. Others passively stay connected to alternative views on Twitter by periodically checking accounts featuring opposing or alternative views. Occasionally, glancing at these accounts saves them from the continuous exposure of comments, thoughts, and ideas they don’t agree with or which they find offensive. Generally, they say they check into these accounts when they want to be exposed, on their own terms. By staying aware of and exposing themselves to these alternative ideologies, study respondents challenge their own ideas and beliefs and keep an open mind to other people’s activities and realities. They claim this helps give them the full picture of an issue needed to assist them with evaluating issues and making well-educated decisions.

Those who reject exposure to ideas and perspectives of opposing sides may not be aware of information bubbles and how they leave them vulnerable to being manipulated and blindly led through behavior modification messaging. Many participants say they enjoy learning and interacting with accounts of people who are different and think differently from them. However, there is a spectrum between accounts sharing ideas which are diverse, different, and interesting and those accounts which are offensive, mean, and hostile. The latter is what people protect themselves from and reject through unfollowing Twitter accounts, or never following the accounts from the beginning.

Another study finding is participants generally use Twitter in combination with online sources or social media platforms. Many in the sample said they visit Twitter to get quick information and click through to actual articles or videos and then follow onto Facebook, Google and other specific websites to gather more information. Twitter is a
great source, according to responses, to get an idea of or gauge what others are saying and thinking about issues and events. This social surveillance and interaction helps people figure out where they stand and what they think as they compare their thoughts with the thoughts of others in this public forum of social media. The next chapter includes a discussion of what the findings mean, study limitations and recommendations for future work and research on this topic.
CHAPTER 5
DISCUSSION, LIMITATIONS, & RECOMMENDATIONS

Summary of Results

This study was an examination of the media literacy awareness and critical media literacy skills of adults as it relates to social media, specifically Twitter, behavior of adults during the Second Wave of the Coronavirus in the United States in June and July 2020. Two focus groups and six interviews were held virtually with a total of 17 participants. Research findings in this study address how adult users of Twitter use the process of applying media literacy within the structure of the social media platform. In addition, the findings point to ways that educators can improve critical media literacy amongst adults.

This inquiry was guided by two central research question: How do adults use critical media literacy on social media when gathering information to make decisions for their lives?

The central research question was supported by five sub-questions:

1. How do study participants use Twitter to gather information on the Coronavirus pandemic? How are sources of information evaluated?

2. Do adults follow a variety of Twitter accounts to obtain a diversity of content and perspectives on the Coronavirus pandemic?
3. What motivates study participants to engage (click through, comment or share, seek information outside) with Twitter posts/Tweets about the Coronavirus pandemic?

4. How do study participants’ biases exist in the content presented to them on Twitter? Can they identify biases in Twitter?

5. How do study participants decode messages in Twitter posts? What critical media literacy skills do study participants use when using Twitter to gather information on the Coronavirus pandemic?

The structure of Twitter allows users to engage with content by showing if they like the content but not an option to show if they dislike the content, such as on YouTube. The structure also allows users to comment on other people’s posts and sharing the content with their followers by Retweeting. This function in turn enables people to become mass media content producers and distributors. Even though it was not discussed in the group or individual interviews, Twitter algorithms control the majority of the posts which appear on a user’s timeline based on what content they viewed before and the accounts they follow. Therefore, to stay aware and balanced Twitter’s structure almost requires people to actively seek out posts and accounts displaying alternative views.

This research showed study participants were aware of media literacy but not very knowledgeable. However, they displayed media literacy and critical media literacy skills in their analysis of Twitter posts. While participants were aware of their own biases, for the most part, some were unwilling to be consistently exposed to opposing views. They did not follow certain accounts as a form of self-protection from hostile rhetoric and
negativity. Participants demonstrated critical media literacy skills with Twitter posts with various levels of skills. Those with higher levels of awareness and understanding of media literacy skills were more apt to continually expose themselves to Twitter accounts with differing opinions. These respondents made conscious efforts to stay aware of alternative views and challenge their own ideas to keep a balanced approach to societal issues.

Those who did not follow Twitter accounts with opposing or alternative views could possibly focus their social media use on more of a pleasure-seeking mindset, entertainment centered, than a utilitarian mindset which is information centered (Kim et al., 2019). In addition, Twitter users in the study who followed opposing accounts shared a mutual sense of responsibility of sharing information with their followers which they believed to be accurate and helpful. Study participants were keenly aware of how the content they shared could impact their identities and brand images with their followers. There seemed to be a certain level of social currency associated with posting and sharing what participants deemed as valuable information.

**Overall Significance of the Study**

The overall significance of this study is the examination of how critical media literacy is applied to social media, specifically Twitter. The prevalent spread of fake news on social media calls for an increase in the ability to analyze messages for accuracy and meaning. It also points to the need to investigate or research message content, as well as context, before deciding to adopt the message or act on the message. In addition, this
study also reinforces the need for adults to be aware and use media literacy skills and
critical media literacy skills as they consume information on social media vehicles and
engage with the content they find there. This is important because the information and
data consumed on this digital outlet moves quickly and can potentially impact
perceptions, beliefs, and attitudes of large masses of people (Koltay, 2011).

This study shows there is a need to increase the teaching of critical media literacy
skills at the college level to encourage awareness and lifelong learning of the skill. As
media and technology continues to evolve, it is important for people to understand how
the media works and the influence media can exert over the public through their
messaging. Learning and applying critical media literacy skills will enable people to be
aware of the data that media companies gather in order to develop content to control
attitudes, thoughts, and behaviors. Media messages are strategically created from data
gathered through people’s internet use to benefit companies selling products and services,
health care organizations, and political parties to name a few. Critical media literacy
skills will assist people with fighting against media message manipulation and
encouraging them to be aware of the messages they consume, the origin of the message
and its intended purpose. However, many companies claim to gather as much
information on social media consumers to help improve the users’ experience by
providing them with information the company knows audiences are interested in
receiving. It also helps users media companies segment their audiences and help provide
their advertisers with the best options to reach the specific niche audiences they desire to
connect with to present their products and services (Furtado, 2010; Sigurdsson et al., 2019).

Research findings point to a need for adults to be more aware of a wide array of information so they can make well informed decisions based off of a diversity of information and perspectives and just those who think just like them. It is essential for adults to stretch beyond their information bubbles where the only information they consume is based on their own interests and opinions which leads to confirmation bias. Due to Twitter, and other social media outlets, being driven by algorithms that present information to users based on topics they frequently consume and engage with, confirmation bias is a built-in element of social media. Therefore, people need to consciously break out from this comfort zone in order to gain exposure to other topics and perspectives which will help broaden their knowledge and understanding of other people, issues, topics, and the world around them.

As adults leave the confines of formal learning environments, it is still essential to continue learning. Their learning is then based on what they had previous learned and how they previously learned in formal settings. They may decide to use the same basic techniques which worked for them or they may decide that the techniques to teach them previously were not effective and adopt learning models which best fit their individual learning style. Whichever the case may be, the world becomes their informal classroom if they do not choose to go back into a formal learning environment.
Gall et al. (2007) explain constructivism as a reality based on the assumption that social reality is constructed by the individuals who participate in it. “Features of the social environment are not considered to have an existence apart from the meanings that individuals construct for them,” (Gall et al., 2007, p. 21). Thus, the social environment of Twitter exists within the context of its own environment, nevertheless, the implications extend into the physical world.

**Gaps in Media Literacy and Critical Media Literacy Skills of Adults**

The findings of this research reveal at least four gaps in adults’ media literacy and critical media literacy skills. Since only six (35 percent) of the study participants were able to either define or explain media literacy, the first gap is the knowledge of what media literacy is (see Figure 7). The majority of participants could not articulate the concept of media literacy or the skills involved with using it.

Secondly, while the vast majority of participants exercised a few media literacy skills, they were not consciously aware that they were using them. While they were cognizant of controlling the sources they received information from on social media, participants did not fully understand how the media industry works. Granted, this study did not encompass a complete overview of the participant’s knowledge of the media industry. Responses show there is a knowledge gap, however. Respondents could learn more about the reinforcement of messages and perspectives resulting from the use of algorithms on social media. In addition, they could learn to think more critically about the text and visual content presented on media and their impacts. Some respondents said they...
don’t think about media literacy while on social media they just post and view other posts. However, the five questions created by Thoman (1993) could help people think more critically about their actions and the messages they encounter on social media. Similar arguments exist for increasing financial literacy since it has a significant impact on people’s lives and livelihoods (Huhmann, 2017).

Third, participants do not necessarily understand the media industry structure and the drive to gain high amounts of exposure to audiences in order to increase media profits. People could learn more about how media companies work to keep media consumers tuned into their specific media outlet for longer periods of time. This drive leads media companies to produce and distribute content based on the quantity of views and exposure they desire rather than the quality, accuracy, and/or trustworthiness consumers may desire.

Finally, with only 24 percent of study participants having learned about media literacy in high school and 52 percent not being exposed to the concept until college, an argument could be made to begin teaching media literacy skills in high school and middle school settings more. Children are exposed to media messages as infants and some children begin using social media in elementary school. Therefore, it would be advantageous for younger children to learn media literacy skills much sooner than high school so that they can learn to be mindful of media messaging. This move would fall in line with the efforts of some European countries who prioritized educating their nation’s youth on media literacy skills in elementary school.
Relating Results to Literature Review

Andragogy

There were several findings in the research that confirm the literature reviewed. Knowles (1972) believed adults are motivated to learn based off of what they need to know and what they are interested in knowing. This desire to obtain information will drive them to learn independently and creates a more meaningful learning experience for them as a learner. The Coronavirus is one of the topics about which adults wanted to learn more information (see Figure 9). Twitter provided a quick way to gather and assess information about the virus and the pandemic for many of the study’s respondents.

Their curiosity of the topic lead them to seek additional information from trusted sources through Twitter accounts due to its nature of quick information dissemination and direct access to subject matter experts. Adults empower themselves by seeking information and learning what they need to know to make positive impacts on their lives and those who are connected to them. They share information with those in their network out of a sense of responsibility due to the spread of disinformation and misinformation throughout social media. Participants want to inform others through their Twitter accounts.

Media Literacy and Critical Media Literacy Theory

While people may not be aware of critical media literacy theory, many utilize some of the skills which fall under its umbrella. These skills include: access media,
critically analyze media messages, evaluate media representations, and create alternative media content. The current polarizing political and media environments contribute to the growing concern of extreme views across the country. When people create alternative messages and distribute them to mass audiences through social media they exercise the fourth critical media literacy skill. Using critical media literacy skills, and Thoman’s (1993) five questions about media, could make people more mindful and intentional about the messages they consume and create on social media.

Being more mindful about media includes considering Aufderheide’s (1992) suggestion to understand that influencing is a media content producer skill. In essence, media content producers aim to influence people to think or behave in a way that is favorable to them. Therefore, media consumers must question whether or not the way media content producers are attempting to influence them to think or act is favorable or beneficial to them as the receivers of the content, the media message. Social media enables anyone to become a media content producer and exert influence over their followers and their network. Study participants recognized this power and used it to inform their social media network of COVID-19 and influence them to follow the guidelines in order to protect themselves and their families.

Information bubbles exist within media and social media networks. However, they also exist in other areas like science, history, sociology, art, psychology, and business. Information bubbles cause a narrowing of thinking and perspective. At its core, critical media literacy implores people to use perspective taking and critical thinking to
widen mental and visual spectrums in order to consider other people, ideas, experiences, and possibilities. Considering and incorporating things outside of our own mindsets and perspectives may be challenging at times. Yet, the results can lead to more well-rounded, thorough, creative, and effective decision making and understanding of information.

**Social Identity Theory**

Many Twitter users want to build the number of people who follow their accounts. In addition, they may want to increase the amount of people who engage with their posts through comments, likes, and retweets. All of these increase users’ reputation, visibility, and influence on the social media platform. Twitter users in this study are keenly aware of how their Twitter content reflects and impacts their brand and identity. Posts can affect their ingroup status within their networks online and in real life. When Twitter users step outside of the main line of thinking of the social groups and networks with whom they are aligned and present diverging ideas from the group’s thinking this may draw ire from ingroup members.

Study participants are savvy and realize the words, images, and ideas they present in posts assist in building and maintaining their online reputation and identity. Some Twitter users may lash out with negative, mean, and hostile comments if they do not agree with a post. This is the reaction study participants attempt to avoid by unfollowing accounts and not engaging with Twitter post. With partisan-based media exposure, the content presented promotes positive feelings toward members of the political ingroup and negative feelings toward the outgroup. People tend to endorse misperceptions consistent
with their own political worldviews as they grow more hostile instead of acknowledging inaccuracies and correcting them (Lelkes, Sood, & Iyengar, 2017; Higdon, 2021).

In addition, this study shows that when people feel under attack or threatened, they retreat to areas of comfort, safety, and protection. This occurs in reality as well as on social media. When respondents felt threatened tended to avoid or block out those with differing thoughts and opinions. They closed themselves to the outgroup and retreated to the comfort and protection of the their ingroup in efforts to feel safe and protect their social identity. Study participants were less willing to take part in perspective taking and stay aware of the other side’s views which lead them back to confirmation biases and information bubbles. In this space, people may rely more heavily on their own ideas and opinions which may cause them to unknowingly lean to inaccurate information, stereotypes, rumors, and rhetoric if they are not balancing their social media exposure with sources outside of their information bubble.

Only a few study participants acknowledged their opinions, ideas, or behaviors changing as a result of consuming information from a Twitter account with alternative or opposing perspectives than their own. This may be due to participants holding strong to their social identities and not wanting to step outside of the boundaries created by the ingroup. By admitting to being influenced to change opinions, ideas, or behaviors by information from a Twitter account with opposing ideas, perhaps participants believe they will be considered part of the outgroup or siding with the outgroup. People are complex, as Participant T mentioned. This suggestion reflects the interpretive nature of
Confirmation Bias

Study participants were aware of their confirmation bias. Some participants actively stretched outside of their interest areas and comfort zones to follow Twitter accounts that present different perspectives and opposing views. Others may not have followed accounts of people with alternative views of their own, but they did report looking at these types of accounts to stay aware of ideas and issues which they may not have been exposed to otherwise. While users may not be aware of algorithms which dictate the content they see on their Twitter timelines, they are aware of the choices they make about which Twitter accounts to follow and which not to follow. Confirmation bias and social identities are intricately connected in that people’s identities guide their confirmation bias. Basically, the identities that people present to others is related to the people, networks, and Twitter accounts they associate with and follow. Maintaining the status and reputation of this identity is contingent on the content posted and what others think of the content posted.
Limitations

Some of the limitations faced during this research study were the ability to recruit study participants and conducting group and individual interviews. Due to pandemic restrictions on gatherings and interactions, recruitment took place through Twitter, email, and by phone. By default, convenience sampling was used to recruit people to participate in the focus group discussions and the one-on-one interviews. Patton (2002) called convenience sampling neither purposeful nor strategic. While he says it’s the most common sampling strategy, he also says it’s the least desirable because of its low credibility and its information-poor results. Selecting a sample that suits the purpose of the study is considered convenient according to Gall et al. (2007). They also suggested that a description of sample participants was provided in an attempt to assist with the inference process.

Initially, the primary researcher contacted potential study participants from within their Twitter network to participate in the study. Those who responded to take part in the study were asked to recommend another person to participate who was active on Twitter. This convenience sampling turned out to deliver a diverse group of participants due to participants’ assorted network. One drawback of the study participants is the education level. All participants had some college education, and more than half had graduate or professional degrees. In addition, more than half of the research subjects were African American. Next, the majority of the participants identified themselves as Democrats while the rest identified themselves as Independents. Due to the gender, education,
racial/ethnic, and political affiliations of this group, it does not accurately reflect a typical group of adult users of Twitter (see Appendix 2).

Also, focus groups and interviews had to be conducted through video conferencing due to COVID-19 gathering restrictions and because some participants lived outside of the St. Louis area where the research was centered. Video conferencing took away some of the nuance and interaction that face-to-face discussions would have yielded between the researcher, focus group members, and interview participants. While more people have grown accustomed to video conferencing during the pandemic, the mediated nature of the interaction may still inhibit communication between participants.

Another limitation experienced with this research study is the limited number of participants in the focus group and interviews prohibits generalizing across populations. Information produced cannot be extrapolated to predict behaviors in a larger population due to the qualitative research design and the small numbers of participants. However, the resulting information can be helpful in understanding people’s experiences with Twitter and their use of critical media literacy skills.
Implications for Future Application and Research

For Researchers

A few changes could improve this research study. First, participants could have been asked to keep a log of their Twitter activity for a week prior to the focus groups and interviews. Then, respondents could have been asked to report and reflect on the notes from their actual Twitter activity. Their logs could be submitted as research materials and possibly be used as a part of a quantitative study. Also, the logs would allow for study subjects to accurately recount their behaviors and not just what they recalled from their memory or what they had wished they would have done.

To expand this course of study, researchers may consider conducting additional studies on adults and critical media literacy skills. Some interesting studies may include interventionist-based projects with pretest and posttest to measure the overall impact of exposure to the critical media literacy objectives as outlined by the Center for Media Literacy. Another research possibility is to create a longitudinal study looking at the number of U. S. colleges and universities offering the effectiveness of media literacy courses or the effectiveness of including media literacy or critical media literacy within media studies, mass communication, communication, political science, sociology, and/or English course curriculums. In addition, it may also be interesting to explore what informal educational settings, or situations, may be ideal to encourage adults to learn critical media literacy skills. It may also be interesting to see an interventionist-structured research project based on a real-time, live Twitter exchange centered on a specific topic.
A final suggestion of a potential study is to investigate whether people use social media more for a utilitarian mindset of seeking information or a pleasure-seeking mindset (Kim et al., 2019) and the amount of time spent with both uses.

For Educators

This research may encourage college and high school educators to incorporate more media literacy lessons into their course activities or work to include them into the overall curriculum of their courses. Another possibility for educators to utilize is interdisciplinary collaborations between communication or media studies educators with history, sociology, psychology, civics/social studies, political science, English, or fine arts faculty. These areas provide natural crossover opportunities for students to learn real-world lessons about media literacy from current or historical events.

A challenge exists to figure out how to continue lifelong learning of media literacy for adults as media and technology continue to evolve. Taylor and Lamoreaux (2008) encourage adult educators to teach with learners’ brains in mind and recognize that there is an emotional context to learning. They suggest finding the most effective balance between support and challenge. For K-12 educators, there may be possibilities to develop programming for the parents of students to increase at-home learning experiences on the impact of media messages and critical media literacy.
Summary

As people gain access to more and more information through the internet, society has become more polarized. This is the opposite effect of what many hoped for with this technological advancement. Today, the public has a plethora of options with media vehicles, media outlets, and topics. People choose the information and data they are interested in being exposed to and shut out those things in which they have no interest. The downside of this is people not being aware of information outside of their sphere of knowledge. This includes things people did not know they needed to know about and things which could be helpful for them to know about and consider for making important decisions for their lives.

An increasingly large number of the public get their news and information from social media platforms. People need to be aware that social media and technology companies are collecting more and more information on consumers. Social media companies use software programs and algorithms to determine what content and whose content are delivered on users’ timelines. In addition to creating a false sense of choice and independent thinking, these practices also reinforce people’s ideas, opinions, and interests by creating information bubbles and confirmation biases. There is a need for adults to gain more media literacy to educate themselves on the media industry, gain critical media literacy skills, and take actions to gather a wider array of information perspectives.
Much of the social media content people consume is dictated by social media companies to influence people’s thoughts, attitudes, and behaviors. Information bubbles and confirmation biases create a limited scope of topics and perspectives. Connecting with other users and publishing information on social media for the world to see can be gratifying and exciting. Nevertheless, the expense of free exposure to content may cost people their autonomy and their ability to think and act for themselves outside of the wishes of retail, technology, and political organizations. Taylor and Lamoreaux (2008) offer the idea that maybe the primary task of adult educators is to create learning environments which encourage adults’ brains to be less susceptible to manipulation. Kellner and Share (2019) echoed this sentiment when they said critical media literacy not only teaches people to learn from media, but to also resist media manipulation. Learning media literacy and critical media literacy skills will assist with enhancing adults’ critical thinking about social media messages consumed, produced, and distributed through social media vehicles and their impacts on their lives.
REFERENCES


EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING
THE 2nd WAVE OF COVID-19 IN THE U. S.


EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.


EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING THE 2nd WAVE OF COVID-19 IN THE U. S.


EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING
THE 2nd WAVE OF COVID-19 IN THE U. S.


Tracy, R. (2020, November 26). Social media’s liability shield is under assault: There is growing pressure to revise Section 230 to make internet businesses more accountable for online content. The Wall Street Journal.


EXPLORING CRITICAL MEDIA LITERACY SKILLS OF ADULTS ON TWITTER DURING
THE 2nd WAVE OF COVID-19 IN THE U. S.

APPENDIX 1

FOCUS GROUP PROTOCOL

The first set of questions will be asked of potential participants to help qualify them for participation in this research study during the pre-selection stage.

PRESELECTION PROTOCOL

1. **Gender:** Female Male Other

2. **Race/Ethnic Background:** Asian American Black/African American White/Caucasian Hispanic/Latino/Spanish Middle Eastern Native American Other

3. **Age range:** 18–25 26–36 37–47 48–58 59–69 70 +

4. **Highest level of education obtained:**
   - Some High School
   - High School Grad
   - Some College
   - College Grad
   - Graduate School/Professional School

5. Do you use Twitter? NO YES (if yes skip to question 7)

6. If NO, thank you for answering my questions. I appreciate your time.

7. If YES, how many times a week do you use Twitter?

8. What type of Twitter account do you use? personal business use

FOCUS GROUP PROTOCOL

1. How many followers do you have on your Twitter account?

2. How many people do you follow through your Twitter account?

3. What Twitter accounts do you follow?
4. Do you follow Twitter accounts of people, organizations and media sources that might have different perspectives than you? If so which ones?

5. Why do you follow these Twitter accounts with different perspectives than your own?

6. How often would you say that you do you engage with Tweets (click on a link in a Tweet to see the full story, article or video? Share? Or Like?) Would you say Never, Seldom, Regularly, Frequently?

7. Which do you do most? Is it determined by the topic or issue?

8. What motivates you to click on a link to get more information? Or to go to other social media outlets for more information?

9. Has information presented from accounts with differing perspectives ever swayed or changed your opinion or thoughts on a topic?

10. Have you used Twitter to gather information about the Coronavirus? Would you say Never, Seldom, Regularly, Frequently?

11. What motivates you to engage (click on links, share or like) with a Twitter posts/Tweets about the Coronavirus most?

12. Has information on the Coronavirus from Twitter accounts with differing perspectives ever swayed or changed your opinion or thoughts on a topic?

13. What makes you trust a source or information on Twitter about the Coronavirus?

14. What do you know about media literacy?

15. Do you think you use media literacy when you are on Twitter? If so, how do you use media literacy on Twitter?

16. Do you recall ever being taught anything about media literacy in school? If so, at what education level?

Thank you for participating in this survey.
## APPENDIX 2

### Study Participant Overview

<table>
<thead>
<tr>
<th>STUDY PARTICIPANT</th>
<th>DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant A (interview)</td>
<td>40s, male, Latino, journalism and health care degrees, law degree, Chicago, IL, Democrat</td>
</tr>
<tr>
<td>Participant B (Focus Group 1)</td>
<td>40s, male, African American, engineering and business degrees, St. Louis, MO, Democrat</td>
</tr>
<tr>
<td>Participant C (Focus Group 1)</td>
<td>40s, female, African American, Illinois, graduate business degree, Democrat</td>
</tr>
<tr>
<td>Participant D (Focus Group 1)</td>
<td>40s, female, African American, bachelor’s communication and graduate media studies, St. Louis, MO, Democrat</td>
</tr>
<tr>
<td>Participant E (Focus Group 1)</td>
<td>20s, female, African American, bachelor’s in comm &amp; media, Wash D. C., Democrat</td>
</tr>
<tr>
<td>Participant F (Focus Group 1)</td>
<td>20s, female, African American, comm &amp; media AA degree, St. Louis, MO, Independent</td>
</tr>
<tr>
<td>Participant G (interview)</td>
<td>40s, male, White, comm &amp; media AA degree, St. Louis, MO, Independent (former Republican)</td>
</tr>
<tr>
<td>Participant H (interview)</td>
<td>30s, female, White, comm and media bachelor’s and master’s, St. Louis, MO, Democrat</td>
</tr>
<tr>
<td>Participant I (interview)</td>
<td>30s, male, African American, comm and media AA degree and bachelors’ degree, St. Louis, MO, Democrat</td>
</tr>
<tr>
<td>Participant J (interview)</td>
<td>30s, female, White, comm AA, media bachelor’s, Library Science Master’s degree, New Mexico, Democrat</td>
</tr>
<tr>
<td>Participant K (Focus Group 2)</td>
<td>40s, female, Afro-Asian American, St. Louis, MO, graduate degree, Democrat</td>
</tr>
<tr>
<td>Participant L (Focus Group 2)</td>
<td>30s, female, African American, St. Louis, MO, comm bachelor’s, graduate degree, Democrat</td>
</tr>
<tr>
<td>Participant M (Focus Group 2)</td>
<td>40s, female, African American, Maryland, IT and business, graduate degree, Democrat</td>
</tr>
<tr>
<td>Participant N (Focus Group 2)</td>
<td>20s, female, African American, St. Louis, MO, biology bachelor’s degree, Democrat</td>
</tr>
<tr>
<td>Participant O (Focus Group 2)</td>
<td>20s, female, African American, Maryland, bachelor’s, Democrat</td>
</tr>
<tr>
<td>Participant P (Focus Group 2)</td>
<td>20s, female, African American, Arkansas, bachelor’s, Democrat</td>
</tr>
<tr>
<td>Participant T (interview)</td>
<td>30s, male, White, California, graduate degree, Democrat</td>
</tr>
</tbody>
</table>
APPENDIX 3

List of Figures

Figure 1. Study Participants’ Ages p. 85
Figure 2. Study Participants’ Education Level p. 85
Figure 3. Study Participants’ Race p. 86
Figure 4. Study Participants’ Gender p. 87
Figure 5. Study Participants’ Political Affiliations p. 87
Figure 6. Study Participants’ Geography p. 88
Figure 7. Defining and Explaining Media Literacy p. 99
Figure 8. Learned Media Literacy in School p. 101
Figure 9. Twitter Topics Sought p. 103
Figure 10. Twitter Engagement p. 111
Figure 11. TMZ Tweet p. 117
Figure 12. Fox News Tweet p. 122
Figure 13. The New York Times Tweet p. 124
Figure 14. Thematic Concept Map p. 125