Social, Mediated Democracy:

Modeling the Effects of Social Media Use and Deliberative Behaviors on Voting

By

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ABSTRACT

Social media has become one of the most potent tools for political communication over the last decade. It has largely replaced or incorporated much of legacy media. This project looks at social media's relationship with media consumption and deliberative democratic behaviors, looking to see if, in tandem, they create more democratic participation. Leaning heavily on older theories and research around legacy media's effects on voting behavior, this project looks to see where we are today. Utilizing data from Pew Research Center collected just before the first primaries of the 2016 election, this study looks at both linear and mediated path interactions between social media and voting. Considering Facebook, Twitter, Instagram, and YouTube, this project finds that each platform has a different relationship with reported voting behavior, largely tied to their antecedent's relationship with prosocial behaviors.

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INTRODUCTION

A well-informed and participatory citizenry is an important prerequisite to a healthy and functional democracy. After all, if citizens are tasked with electing their leaders, they should be informed on the needs of the country, the policies and politics that will address those needs, and which candidate seems fit to get that job done. What remains a more open conversation, even after more than 200 years of American democracy, is whether media actually gives citizens the requisite tools to vote effectively and in a way that produces normatively positive outcomes. Despite a well-formed citizenry being central to the entire democratic endeavor, democratic theory pays much less attention to how the public receives information or the ramifications of falling short of informational ideals. Commonly, this leads to theories of democracy that have less than optimal bearing on how democracy plays out in practice. It seems that we get caught in something like Achen and Bartels' (2016) *folk theory of democracy*. If we are going to address the problems of democracy, we must see them soberly.

Asking Americans what they actually know about politics yields a somewhat disheartening answer: not much (Delli-Carpini & Keeter, 1996). This notion, that the public is actually under-informed, would seem to fly in the face of James Bryce's (1888) vision of America. Bryce saw America as a country unparalleled in its reverence for public opinion. This was demonstrated by the importance we gave public opinion both in our voting systems, but also in our daily lives. Bryce lays out his own folk theory of political learning in his study on the American form of government, tracing the various forces that mold and form public opinion. In his four stages of public opinion formation, the individual approaches the new day with a set of preconceived notions about the state

of the world. She turns to the newspaper to see what has occurred, and upon reading the day's news has a set of instinctual reactions based on her own priors. In an attempt to reduce conflicting perceptions, she turns to friends and coworkers to see how they feel about the issue in an attempt to get to the truth of it. If she finds that her opinion is held by those she trusts, our model citizen will deepen her belief. Faced with conflicting opinion, she will either turn to more research or change her mind on the issue. The news reports on this collective shift of opinion not on the individual level but on the collective, civic level. This process continues back and forth until eventually the citizens vote and institute the chosen opinion in terms of the electoral process. What Bryce has laid out is a theory of political learning; an idealized process by which public opinion comes to rule the American state. Like any theory, this should be scrutinized to see if it does in fact play out in the real world and explain the actual happenings of American politics today. Challenging whether the citizens actually live up to our democratic ideals is hardly new. Walter Lippman (1925), a prominent scholar of early public opinion research, even advocated for the abandonment of any concept that the public is doing the governing. As times change, we should take up the mantle of inspecting the theories at the core of democratic society.

The project at hand will take these theories and examine them in the context of America's current media environment. Does the theorized relationship between news, discussion, opinion and voting remain intact? In addition to the theoretical work, Kim, Wyatt, and Katz (1999) examined this system and gave empirical support to some of the main claims. News use is associated with more discussion and opinion sharing. In turn,

this deliberative democratic behavior does in fact translate to more participation. In their words "Deliberative democracy is participatory democracy" (p. 379).

The media environment just twenty years later is much more fragmented than any other time in history, both in terms of options available to the consumer and the availability of the chosen media. This is largely due to the rise of the internet and social media. It would be easy to assume that this makes democracy function much better than ever before. In practice, that isn't the case. As Cass Sunstein (2009) pointed out, the internet poses some very real potential threats to the healthy functions of democracy.

Given the interplay of both legacy and new media in our current media ecosystem, it will be important to trace how scholars have historically thought about how the media affects the country's political processes. Following this literature, this project will consider the legacy media effects that remain present today despite changes in technology. It will also be crucial to examine research on how new technologies have changed that consensus. Based on a thorough discussion of the media effects literature, the project will then turn to the 2016 election, it's idiosyncrasies, and why it is worth study.

Despite much of the literature indicating the internet is not detrimental to political discourse and participation, conventional wisdom holds a somewhat skeptical view of its influence. In 2016, social media played key role in the worst elements of the campaign and election. For example, the conversation around and dissemination of so-called fake news via social media may have had an effect on the outcome in that election. A key focus of this project will be to assess how different social media platforms may have mediated our concepts of political learning and opinion formation.

Using survey data collected just before the first 2016 primaries, this project will look at the relationship between social media usage, political learning, and civic engagement. How did the use of major social media sites influence voters? Did it make them more or less likely to vote? These questions will lead the study and will hopefully add to the conversation about the role of social media in a healthy democracy. The internet is here to stay. Unfortunately, much of what makes the internet so useful is also what makes it capable of being destructive. With the following research, my hope is to shine a light on the positive elements these technologies bring to democracy and to analyze the negatives to pose solutions going forward to enhance democratic outcomes in the future.

LITERATURE REVIEW

The Effect of the American Media

A key player in Bryce's understanding of the public opinion formation process is the free press. Research on legacy media has long looked at how news coverage effects public opinion both through use and exposure. There is an understanding that newspaper use in particular increases political conversation and participation (Katz, 1992; Koch 1994).

With the advent and popularization of television in the mid-twentieth century, research began to shift towards the new medium and whether or not the established effects would continue to function as they had with printed media. From early on, there was an idea that television watching had specific effects on the way individuals operated in the political world (Gerbner et al., 1984). Some of the initial public speculation was that television would have a stronger effect on political learning than newspaper due to simple passive exposure to political information via television watching. This idea wasn't supported however, as analysis shows that in comparison to television news viewing newspaper readership is associated with higher scores on a variety of prosocial and knowledge-based measures (McLeod & McDonald, 1985).

One particular locus of study, inspired by television advertising, looked at how efficacious simply exposing an audience to a message was, regardless of whether it held their undivided attention. Despite concern around the new technology, Chaffee and Schlueder (1986) showed that attention to news media via the television went above and beyond simple exposure, arguing that television itself could be a valuable instrument in the flow of public opinion as long as the viewer was focused. An important follow up to

these findings clarifies the qualitative differences between the two sources. Newspaper coverage of candidates is typically more policy focused, whereas television news is more focused on individual personalities and characteristics (Chaffee & Kanihan, 1997). Furthermore, television news information typically reaches those who aren't seeking information per say, whereas print news is almost always consumed by individuals who are actively seeking political information of some kind (Chaffee & Kanihan, 1997). This gives insight into the original Chaffee and Schlueder study in regard to attention to television news. It is attention, more than source, that determines the quantity and quality of political learning.

The shift in research focus to television identified a multitude of new effects on political learning. Individuals who were dependent on television news as a source of information tend to score lower on measures of knowledge, perceived comprehension, and trust when compared to newspaper readers, highlighting an important difference in what viewers know compared to how viewers feel (Becker & Whitney, 1980). Research on these perceptual variables, that is to say internal beliefs that effect our processing of the content, show they play a large part in our ability to process information. For example, in a study of third through seventh graders, researchers demonstrated in multiple contexts, that an individual's ability to learn from a story was affected by the degree to which they found the story believable, whether they liked the message, and whether they understood the function of the story; the strongest of these was understanding the story function, a variable that largely relies on contextual understanding and prior knowledge (Drew & Reeves, 1980). In the American context, the media is the backdrop for our learning routines. This is especially true in terms of

political learning. Social media can strip context from information as it is posted, shared, and obscured through various features of the site. Do the features of a given social media site cause it to function like a newspaper or more like television? As this project builds a model of how political learning, opinion expression, and civic engagement are related, that the foundation of the model is in media consumption.

The Media's Role in Salience

Trying to determine how the media effects what is going on in the minds of voters dates back to the earliest days of modern social science (Lippmann, 1922). This process has led to serious debate over whether media consumption can actually change people's minds on any given issue. Mid-century research in this field, specifically that of Lazarsfeld, Berelson and Gaudet (1948), followed the impetus that the media didn't really change the mind of the viewer, rather it simply informed them of what was happening.

While subsequent research emphasized minimal effects from the mass media, McCombs and Shaw perhaps saw these findings with more clarity (1972). The media's agenda-setting role informs the public of what is going on nationally and internationally and provides a foundation for consumers to build their own opinions on. That which is salient in the news is more likely to be discussed by the public. This agenda-setting role of the media provides the boundaries in which our discussion largely take place and therefore suggests a relationship between what is being discussed in the media we consume and what we think about collectively as a public (McCombs & Shaw, 1972).

McCombs and Shaw note that this is because journalists are the means of observing newsworthy events and their coverage is a utility provided to the public which in turn frames our understanding of what is happening. This process occurs not only through the topics they cover (agenda-setting), but also through the lens we are encouraged to process the information (framing; McCombs & Reynolds, 2009).

What is most of interest for this project is the connection between media attention to a topic and the process of public opinion formation and expression that follows. Ultimately, this is an issue of what the media pays attention to, because when media open the conversation around a topic, salience and opinion formation follow (Iyengar & Kinder, 1987). The preponderance of political conversation flows in some manner from media coverage. Coverage of an issue stays with the viewer and over time they begin to adjust opinion based on the increased salience of a topic (Iyengar & Kinder, 1982). Based on the relevant literature, one should consider media attention a prerequisite to opinion change (McCombs & Reynolds, 2009). This thread of scholarship largely verifies the hypotheses of Lippmann and moves the conversation past the mid-century consensus of minimal effects (Iyengar & Kinder, 1982). When analyzing topics covered by the media, the researcher should see any topic as a potential catalyst for opinion change, understanding this is one of the media's most important roles – one that is actually noted in Bryce's conception of what makes American democracy unique.

This process isn't necessarily fool proof. Some issues may be new, complicated, or perhaps irrelevant to an individual's lived experience. In these instances, increased salience by the media triggers a need for orientation in the individual. Familiarity and closeness to a given issue will moderate the effect of increased salience in the news cycle

(Weaver, 1980; Weaver, Graber, McCombs, & Eyal, 1981). Matthes's (2006) work on need for orientation suggests there can be multiple dimensions of a story an individual might need to orient towards - issues, facts, and evaluations being most important.

More recent research has examined how the internet has changed these relationships. Sayre et al. (2010) compared the spike in activity in both online news and conventional news around the Proposition 8 referendum and court battle in the state of California. Their time series analysis showed how conventional media activity around an issue and online media activity (specifically YouTube videos) peaked at different times. Studies like this one open the question that need for orientation is not a monolithic experience and with the internet may look very different. This is of course a complicated distinction though. Many media companies exist within the online and social media environment, and their content is certainly represented in multiple places. Online media and social media, for various reasons, are more prone to intermedia effects, one of which is intermedia agenda setting, wherein a media outlet or a user creates content because they saw another media outlet or user cover a story (Harder, Sevenans, & Van Aelst, 2017).

Recent work on intermedia agenda setting explores how an individual's motivation in approaching the media limits or predicts the magnitude of the media effect on them. Na Yeon Lee examined how different motivations might filter agenda setting (2019). The findings showed that deliberative goals (that is spending more time reading the news) and directional goals (defined as a motivation to seek information to back up your preferred interpretation) were most effected by agenda-setting. This emphasizes the role individual motivations have in mediating our exposure to media effects. Adding to

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the concept that the media helps us learn about what is happening in our world, the media also frames the conversation. By increasing salience of certain issues, the media plays a key role in what the public knows and talks about. Necessarily, these topics become the most important issues in our political discussions and play an important part in determining elections. Ultimately, the model this project is assessing is one of political conversation. Understanding conversation's relationship with its antecedent is important.

The Public's Role in Paying Attention

Clearly, the media plays a role in what we see, but the picture would be incomplete if we considered only this factor. In order to understand the interaction between the public and the media, scholars have considered what the individual brings to the equation as an important part of what the end product of consumption will be. One such approach has been to study the limitations of our attention, or rather the places where we stop paying attention, and examine what leads to this phenomenon.

Selective attention research looks at places where individuals are either consciously or unconsciously motivated to pay attention to certain stories or elements of stories, while ignoring other factors that might change the interpretation of the events. Early research focused on the "un-anchored" or "nonsensical" learning associated with television advertising (Krugman, 1965). Krugman's work looks at how we learn from repetitive advertising, not consciously engaging with the trivia provided by television advertisement, but rather allowing it to slowly shape the way we perceive a brand or product without engaging our attitude towards it or changing our behavior. This happens

precisely because we are not fully engaged in the perceptual process of paying attention (Krugman, 1965). While the mechanisms are different, this is very similar to the process of media priming, however the focus here is on the level of attention a viewer gives (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2009).

Part of formulating the complications of attention and communication comes down to the definitional boundaries of each concept. Communication is a process wherein a sequence of messages is conceptualized and relayed between participants. This is independent from the cognition or functioning of any participant in the communication process, which means there are multiple variables to measure in any exchange of information. While it has traditionally been easier to study the process of information exchange between participants in a communication process, the cognition of those participants – meaning their thoughts, opinions, and values – are by nature much harder to study. This is one of the main barriers to the type of research that tries to go beyond simple analysis of the communication event and dive deeper to study the cognition process of individual participants (McLeod & Chaffee, 1973)

A thread of this research that is somewhat easier to formulate is what the participant expects to get out of a certain behavior. In psychology this is referred to as expectancy-value theory (Edwards, 1954). Scholars who study expectancy-value estimations are interested in understanding the participants perception of probable outcomes by engaging in a given behavior. In media studies, this often blends into the realm of uses and gratifications research. This similar line of study looks at both how consumers utilize a given form of media and their expected gratification from this consumption pattern (Katz, Blumler, & Gurevitch, 1974). This concept is important to

this project for several reasons. For one, different types of usage will certainly yield different results on political learning. A person who carefully studies the daily edition of the newspaper will likely be more attentive to the problems of the day than the passive viewer of cable news. Second, and very similarly, what do people expect to get from consumption of media? A person who expects to learn from the news will likely be primed to glean more information from a given source.

There is a nuanced distinction between gratifications sought and expectancy judgements that is worth highlighting. Our interaction with media and our likelihood to return to a given form of media hinge largely on whether the outcome of choosing that media meets our expected value (Galloway & Meek, 1981). Multiple studies have sought to disentangle the relationship between these two highly related concepts to parse out how they might differ in important ways (Palmgreen & Rayburn, 1982; Babrow & Swanson, 1988). In a factor analysis of both expectancy judgements and gratifications sought for television news, Babrow and Swanson found three common factors between the two concepts: information, parasocial interaction, and entertainment seeking (1988). Their research shows that the three concepts are highly correlated, but are not when it comes to television news.

For this project, more emphasis should be placed on expectancy-value judgements as they are the decisions that affect attitudes on a deeper level. Babrow (1989) uses a similar analysis on expectancy-value judgements to look at soap opera viewing among college students. While the prevailing theory at the time was viewers of soap operas were interested in romance and keeping up with the story, Babrow's study demonstrated a different motivation in students, one driven by expected entertainment and an expected

social interaction around the happenings of the soap opera itself (Babrow, 1989). Similarly, it is important when analyzing media use, as this project does, to think of the expectancies of consumers as multi-faceted and not come to conclusion based on consensus opinion. For social media, the gratifications sought are likely to be more in the category of parasocial interaction and entertainment than newspaper or cable news, for example.

Other lines of psychological analysis of audience behavior have utilized activation theory. Using factor analysis, Donohew, Palmgreen, and Rayburn (1987) used survey data to conceptualize four lifestyle archetypes and assign certain media usages to them. While the real-life application of such archetypes may be limited, the central concept that different lifestyle types lead to differing consumptions of media is useful. Similar research from Conway and Rubin traced participants psychological antecedents to different television viewing motivations (1991). In their study, creativity and parasocial interaction was related to information-based viewing motivations.

To bring this literature to a concise point, the audience brings a great deal to the equation that will affect the efficacy of media in its ability to enhance political knowledge or salience in an individual. The issue with audience effects is in conceptualization and measurement. What the media creates is visible and public whereas, traditionally, audience side effects must be measure by the researcher. The measures on the audience side are no less important, audiences are simply more passive when compared to the active nature of media in content creation. Attention is a unique factor in the model because of the methodological problems it presents, as well as it's very powerful ability to moderate the entire process of political learning.

Towards A Conversational Public

The principle that the media informs the American public to differing degrees dependent on medium consumed and extent of attention paid seems reasonably settled within the literature. What does this lead to in the mind of the public? Does media usage form an opinion in the mind of the public and do they express those opinions through the process of democratic elections?

Kim, Wyatt and Katz (1999) lay out a detailed account of how news consumption functions in a deliberative democracy. Those who consume higher levels of news content typically engage in higher levels of political talk (Kim et al., 1999 pg. 379). While the authors acknowledge their research cannot provide sufficient evidence of causation, it is important to consider the large body of research that points to media consumption as being the theoretical first step in a causal process (Bryce, 1888). Logically this assumption holds up too. Once a person enters into the media environment, exposing them to multiple stories they begin to discuss these topics. Once opinions are formed, they may be motivated to continue their same consumption habits, although at this point the consumption is no longer associated with formation rather it is associated with maintaining or modifying opinions.

Willingness to express political opinions is a function of the strength of the opinion. This concept, reinforced in Kim, Wyatt, and Katz's work, is central to the spiral of silence theory, originally put forward by Noelle-Neumann (1974) and revisited through the years (Salmon & Kline, 1985; Scheufele & Moy, 2000). Media use helps build opinion strength and in turn likelihood of opinion expression, above and beyond our perception of the opinion climate (Kim et al., 1999). This indicates that if there is a

deliberative democracy wherein political discussion occurs, it is largely facilitated by a healthy media environment and systematic consumption by the public.

Kim et al. also found that among those with more media consumption and opinion expression than average, opinions were more well-formed than their counterparts. These same individuals were more civically engaged as well. This includes activities like "voting, working for a campaign, attending public meetings" (p. 371) rather than more negative focused, complaint centric activities. These findings highlight a positive relationship between media use and political activity that will undergird the entire viewpoint of this project. This goes a long way in moving the theoretical conceptions of Bryce towards a more quantitative understanding that we can attempt to replicate in this study.

The literature also looks at where political conversation occurs and finds it typically takes place where media is consumed: within confines of the home or the homes of those we know (Wyatt, Katz & Kim, 2000). This ties the process of political information to the process of personal communication. Foundational work in communication studies has understood the relationship between these two spheres. One such example is two-step flow and the role opinion leaders play in translating their interpretation of media messages to their audience (Lazarsfeld & Katz, 1944). It is often the people closer to us that have the ability to influence our media intake and our political conversation. More recent scholarship encouraged the view that political communication should be seen through the context of domestic communication (Morley, 1990). Others have seen to expand the focus beyond pure news content and look at how forms of

entertainment media, especially on television, can be the locus of political conversation (Delli Carpini & Williams, 1994; Livingstone & Lundt, 1994).

For the purposes of this project, it is important to understand how the study of political communication has gone from a narrowly focused lens on exclusively-defined and bounded content to one that incorporates more content as central to the process of communicating political opinion. Social media can, and often does, blend disparate types of media content into one feed. It isn't necessary to think of different types of content as irrelevant to our purposes. The formation of opinion is affected by all of the above and is aided by the interpersonal nature of social media as it connects these different contexts through conversation. It is conversation that moves thoughts and ideas into the realm of opinions. The research highlights that discussion about the news is an equally important part of the political process.

Formation of the Opinion Climate

So far, the literature examined could potentially develop for the reader a type of linear transmission model of communication similar to Shannon and Weaver (1949) or Schramm's (1954) model. These models have plenty of critics and for valid reasons. They have the potential to oversimplify the way communication actually takes place in the world, leaving out vital environmental factors that should be considered variables in a communication model. This section will look at some of those environmental factors that determine opinion formation and expression.

The most important environment in which opinion is formed is often the public sphere (Habermas, 1964). Scholars from Bryce (1888) to more contemporary Sunstein (2009) have highlighted the role of the public sphere as foundational to healthy democracy. As mentioned before, Bryce notes the public sphere as a place where we try out our opinion and see what others think. Sunstein sees the public sphere as a necessary part of democratic life where citizens are confronted with opinions with which they disagree. Important to Habermas, Bryce, and Sunstein is the idea that all citizens have access to this space where information and opinion expression are allowed to flow freely.

What happens when we confront an idea in the public sphere with which we disagree? Even more, what happens when we find we are in the minority opinion and feel an isolating impulse from the majority opinion? This question is examined in depth by Noelle-Neumann's spiral of silence theory (1974). According to Noelle-Neumann, the feeling of holding the minority opinion suppresses expression in an individual as the social factors of perceived deviation from the norm weigh in their mind. She notes that this process is "quasi-statistical" and therefore based on an individual's understanding of the opinion climate. Another important distinction made here is the refinement of public opinion into more of an "expressed opinion". Individuals may express opinions differently in public and private settings, however it is the public opinion that is shaped by the opinion climate and in return creates feedback reinforcing the majority or socially acceptable opinion. This is what creates the spiral effect suppressing socially unacceptable opinion and illustrates the power of the public sphere. This is similar to Hayes, Glynn, and Shanahan's definition of self-censoring as "withholding of one's opinion around an audience perceived to disagree with that opinion" (2005a).

Hayes, Glynn, and Shanahan developed a Willingness to Self-Censor scale in the process of researching opinion climate and its effects on opinion expression. Their research indicates that when we discuss a respondent's willingness to self-censor, or in their case asking respondents to self-report their willingness to share an opinion over a given time period wherein the opinion climate was manipulated, we are really discussing the degree to which an individual monitors the opinion climate (Hayes, Glynn, & Shanahan, 2005b). This highlights the idea that there is a "quasi-statistical" process involved in perceiving opinion climate, and that respondents who report high levels of willingness to self-censor are indeed the ones who monitor that climate most closely. While it is beyond the bounds of their specific study, you could see this akin to the research that looks at media coverage of political events and public opinion expression via social media. Online, users similarly manipulate the opinion climate. Therefore a multitude of media play an important role in shaping the public opinion climate (Burnley, 2019).

While there is empirical support for the spiral of silence, that isn't to say the theory hasn't come under criticism in the years since it was originally published (Salmon & Kline, 1985; Scheufele & Moy, 2000). Like much of the research already presented here, spiral of silence is based on psychological phenomena that vary in strength. Taylor (1982) looked at how the opinion climate, as estimated by an individual, is susceptible to common fallacies that would threaten their ability to accurately perceive the probability of being among the majority opinion in a given climate. Effects like "looking-glass" perception, wherein a respondent assumes the population agrees with them, or pluralistic ignorance, wherein both majorities and minorities have difficulty estimating where the

opinion climate actually is, threaten the efficacy of the spiral of silence (Taylor, 1982). Media diet is certainly a factor in these two phenomena. Coverage of an event has been associated with increase information seeking activities (Toggerson, 1981). Information seeking will lead to different understandings and will alter the opinion climate (Taylor, 1982). Perhaps most significant is not to think of the opinion climate as monolithic, rather as fluid and ever-changing part of the information landscape. Spiral of silence theory and willingness to self-censor show that measuring the opinion climate does not always capture the full picture. Given the importance of opinion in a democratic system, this interaction is a necessary piece of the puzzle, especially in terms of voting outcomes.

New Media Changes the Equation

      Relationship with Legacy Media. Much of the research reviewed so far has looked at traditional or legacy media's role in shaping the political process. Once widespread access to the internet became increasingly common and new forms of media began developing online, scholars shifted their assessment to how these nascent forms might affect the entire process of information acquisition, opinion expression, and civic engagement. Among the first problems many saw was the individualization of content feed (Sunstein, 2009). With the loss of general interest intermediaries, every individual was capable of consuming news content explicitly tailored to their liking. Bennett and Iyengar (2008; 2010) harkened back to the midcentury concept of "minimal effects", seeing this new paradigm as the loss of mass media to individualized, fragmented media. With individualization, there is a fear of increased polarization along ideological lines

that would in turn cause the information process to become highly partisan. Bennett and Iyengar point to how Republicans and Democrats responded differently to information around the Bush administration's ill-founded pre-Iraq War intelligence in the early 2000s. Democrats were much more likely to have a negative response to this information, whereas the information simply didn't affect Republicans' views of the president (p. 725, 2008).

This trend can be traced to legacy media. Ongoing serial bifurcation of media into polarized channels aimed at increasingly smaller segments of the ideological spectrum arguably began with the rise of cable news and the 24-hour news cycle in the late 1990s. The popularization of networks with full editorial control of their ideological slant, the non-partisan perception of the media began to disappear. Arceneaux and Johnson (2013) note that cable news isn't really about changing people's minds, it's about gaining a devoted viewership. Those who disagree will simply change the channel when presented with ideology they find discrepant. In this way political news becomes less about information and more about parasocial interaction and entertainment. The phenomenon is presumably exacerbated by the multitude of sources and information customization options online, particularly in social media.

Despite these changes, researchers have looked at agenda-setting (Ceron, Curini, & Iacus, 2016; Gleason, 2010) and other attention-level effects (Dunaway, Searles, Sui, & Paul, 2018) on the internet. The vast majority find connections between existing media effects literature and the functioning of new media. Often the question is not whether the effect is still occurring, rather how the newer forms of media interact and affect what happens on legacy media. For example, using Google Trends data, Lee, Kim, &

Scheufele (2015) looked at reciprocity between Google search and respondents "most important economic issue". This suggests something akin to an agenda-setting relationship, wherein highly searched economic issues quickly become the most salient issue for a given time frame. The tools of the internet can have something like a media effect. Similar lines of research have examined how political candidates' Twitter accounts are related to advertisements and news coverage in the agenda-setting process (Kim, Gonzenbach, Vargo, & Kim, 2016). In this sense, political Twitter is not about information sharing as much as it is about being seen. In all cases, it is difficult to analyze the relationship between different media in depth and exactly how they influence one another.

Effect on the Opinion Climate. Any unifying description of the era runs the risk of being too simplistic to capture just how much changed. The adoption of personal computers and internet access worldwide occurring from the early 1990s through the early 2000s fundamentally changed the way in which humans communicate with one another. While the medium itself is now digital and there is less face to face interactions, the question becomes how does this change media effects and their theoretical underpinnings (Ho & McLeod, 2008). These changes in medium, paired with individualizing trends in content consumption create the possibility for so-called *filter bubbles* and *cybercascades*, wherein a digital media consumer might be more likely to encounter homogenous opinion climates (Sunstein, 2009). The fear held by internet skeptics was that the lack of interaction with discrepant opinions, often due to tailored media environments, would be bad for deliberative democracy.

Extant research on how opinion interaction has changed in a digital rather than interpersonal landscape has been inconclusive from a holistic point of view. There are clearly different forms of interaction online, however the research here doesn't point in a single direction, which would make assessing the problem much simpler. Interaction with heterogenous opinion climates on common political issues, when structured and moderated, lead to a minimizing of false consensus effect (Wojcieszak & Price, 2008). The more an individual interacts with different opinions than their own, the more they are willing to acknowledge the other side of the argument. While this is an important finding, the question of how likely this interaction is to occur when individual have the reins of their online experience remains.

Furthermore, how does an opinion climate now primarily influenced by computer mediated communication (CMC) differ from one dominated by face to face (FTF) interaction? Ho and McLeod found evidence that CMC increases the likelihood of opinion expression in individuals. This result is increased in respondents who have higher fear of isolation and typically moderate their opinion expression in FTF communication (2008). Other research into the social-psychological factors of CMC found similar support, but noted those who disagreed with the opinion climate were more likely to withdraw from conversation as a form of self-censorship (Chen, 2018). The body of research here demonstrates the confluence of factors influencing online opinion expression, especially in an ecosystem where salience is largely controlled by algorithms (Burnley, 2019).

On Technology. In the last decade, the largest change has arguably been the accessibility of internet access via various forms of technology, often either transportable

or available in every setting. The ubiquity of handheld devices capable of accessing the internet from just about anywhere in the world has tremendous implications for how information reaches people. Prior to widespread smart phone adoption, Shah, Kwak, & Holbert analyzed the internet's effect on the creation of social capital (2001). Notably, they found that use of the internet for information exchange was associated with higher prosocial activities like civic engagement. In contrast, those who used the internet for recreation were associated with lower scores on this variable. Shah, Cho, Eveland, and Kwak (2005) further investigated informational uses of the internet and identified usage as a resource and a forum were associated with higher levels of civic engagement. Their model showed "interactive civic messaging" was often a stronger influence on civic engagement than traditional newspaper readership, television consumption, and face-to-face discussion around politics (Shah et. al, 2005).

Furthering this avenue of study, Campbell & Kwak found similar results for respondents using mobile phones (2010). Utilizing mobile telephony for information exchange was associated with higher civic and political engagement, however this result was moderated by user comfortability with the device itself. This suggests, as new technology enters the ecosystem, the degree to which respondents can fully utilize the device might determine how the media they consume affects them. Technological changes have caused many to rethink the ways in which media effects were previously understood to operate. A similar rethinking may be in order for information acquisition, opinion exchange, and civic engagement due to technology's new role.

Platforms

Much confusion has risen out the process to define exactly what type of business the companies that make social media are in. If you examine their roots, most of them are technology companies by definition based both on their location (often in Silicon Valley, rather than the media centers of New York, Los Angeles, & D.C.) and the type of people they hire (software engineers and other specialists). However, much of these companies' value is derived from the content they house. It will be useful to evaluate this debate before discussing the effects of the services themselves.

Tarleton Gillespie (2010) focuses on how these companies arrived at *platform*, a word that already carries many meanings in different contexts, notably in software and politics. Word choice here is a discursive posturing upon which all other arguments rely. Most importantly though, the companies that developed social media generally want to distance themselves from the actual publishing of content. Social media platforms created, for the first time really, a stream of content from existing news entities and a user's offline social group aggregated into one feed (Bode, 2016a). This relationship is what allows social media sites to classify themselves as platforms rather than publishers.

This new outlet for expression creates an interesting environment for users as well. Social media sites require users to think about presenting themselves in a media environment (Baum, & Boyd, 2012). This framework doesn't have an equivalent in offline social interactions. The blending of mass and interpersonal communication effects with the way we formulate and interact with the opinion climate (Neubaum & Krämer, 2017a). Switching from a shared news story to discussion about the topic is now easier than ever, largely thanks to comment sections and social media news feeds. The

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interaction here also leads to incidental news exposure (INE). While this is not necessarily a new phenomenon, it is more prevalent in an environment where social, entertainment, and news content cohabitate in a single flow of information. Higher levels of INE have been associated with higher levels of political discussion and civic engagement (Kim, Chen, & Gil de Zuñiga, 2013). Research leans more toward the idea that engaging with political content is what is positive, and that mere consumption of political communication on social media can actually lead to apathy and cynicism towards the political process (Kushin & Yamamoto, 2014). The interplay between news content and social relationship that is now common in the media environment is a main focus of this study, and the implications of the convergence is budding science. The name social media suggests that when we interact with one of these sites we are consuming media. While this is true, we are first and foremost interacting with a platform, and that should be conceptualized differently than a media outlet.

Social Media Effects

As stated above, among the most unique features of social media is the blending of mass and interpersonal communication. Due to the multiplicity of possible utilizations of social media, understanding socio-psychological reasonings behind using these platforms is an important step in clarifying their effects. Dolan, Conduit, Fahy & Goodman (2016) created a seven-tier typology for social media engagement behavior, demonstrating the different levels at which any given user might be interacting with the platform. At the highest level, users are *co-creating* value to the platform through active

positive contribution both with other users and with the platform itself. At the lowest level they are *co-destructing* the platform, actively adding negative value to the platform by undermining the stated goal of both users and the brand.

This is a theoretical model, but the authors think of most users as somewhere on the passive end of the activity spectrum, contributing both negatively and positively valenced content. Considering this is the largest section of the user base, this is the group most interesting to the study. Detached or entertainment seeking users are still getting INE through passive behaviors. What levels of political learning or engagement might be present?

Feezell (2018) looked at how political information might affect users with the lowest level of political information. Through INE, these low-interest users experienced agenda-setting effects through their Facebook feeds, demonstrating increased salience on relevant news stories when compared to users not exposed to the stories. This effect on news-awareness differs from platform to platform. A study of users of Twitter and Facebook found raised levels of national and international news awareness among Twitter users, however Facebook users experienced the opposite effect (Burnley, Reineke & Blake, 2018).

Another common measure of political activity is willingness to engage in some form of public demonstration. Two examples of mass-mobilized protest over the last decade that have also been topics of research are Chile's protests for political change and a similar set of protests in the Middle East known as Arab Spring. Researchers looking into social media's role in the Chilean demonstrations found a positive relationship between using Facebook for socialization and news consumption and willingness to

engage in protest (Valenzuela, Arriagada, & Scherman, 2012). This finding was not true for users who utilized the site mainly for self-expression, highlighting how different socio-psychological approaches moderate prosocial outcomes. In the aftermath of the Arab Spring, a protest movement largely associated with social media and internet use in the media, questions of the prosocial nature of these technologies remain. In five Arab countries surveyed, it was not reliance on the internet that was related to political efficacy, rather it was trust in the print media, news online, and valuing free speech (Martin, Martins, & Naqvi, 2018). This finding expands the picture, showing that the democratic values users bring to a platform are a relevant factor.

Among the platforms most used around the world, Twitter is typically associated with the most political use. This is especially true in the American context, where the American media is more active on the site than other platforms (Villi, Matikainen, & Khaldarova, 2015). Another aspect of Twitter's political usage is the way in which political candidates rely on the site to distribute messaging (Jungherr, 2016). Often Twitter can be a place for candidates to distribute their message directly to an audience, regardless of whether a conversation is sparked around the information (Adams & McCorkindale, 2013). Analysis of politician's Twitter accounts in the 2012 presidential primary demonstrated the symbiotic relationship these accounts had with traditional news agenda (Conway, Kenski, & Wang, 2015). Using a similar methodology for the 2016 election, Conway-Silva, Filer, Kenski, & Tsetsi(2018) found that Twitter's relationship with newspapers was strongest, however Twitter demonstrates the ability to set its own agenda apart from that of the traditional media. These intermedia effects are likely amplified due to the higher level of activity from both media and political actors.

Despite the natural role of interpersonal communication in social media, politicians typically use Twitter as a one-way communication platform (Parmelee & Bichard, 2012). The type of relationship that is forged between followers and political leader also differs in unique ways. Tweets from political leaders are more likely to cause information seeking behavior and action. One possible reason for this could be the brevity of the information transmitted via the site's 140 (now 280) character limit on messages. Shorter messages encourage brevity and perhaps efficiency, lowering the threshold on the reader to consume the content completely (Parmelee, 2014).

In contrast to this, Facebook remains much more focused on social interaction and entertainment content. The same can be said of the other large social media platforms Facebook has purchased in the last decade, most notably Instagram and WhatsApp. According to Pew Research Center, about 64% of American adults use Facebook, with about half of those users reporting they use the site for news (Pew, 2013). They also reported that 78% of users see news when on the site for something else, and that only 22% of users think of Facebook as a good way to get news. This paints a strange picture wherein most users of Facebook use it for news, often not when they are intending to, and don't think of this exposure as particularly effective.

Within the context of Facebook, researchers found users are very efficient at noticing political content and skipping over it if they are not interested (Bode, Vraga, & Troller-Renfree, 2017). While the causes of this avoidance are unknown, it suggests users might have a developed skill for selectively avoiding content on the site that doesn't meet their sought gratification. One explanation for this could be the way in which socialization seekers typically desire human-human interaction rather than human-

message interaction (Ko, Cho, & Roberts, 2005). The decision to utilize Facebook likely relates to the understanding that a user will satisfy their sought gratification of human-human interaction, and likely increases their filter of human-message interactions.

This is not to say Facebook and other socialization focused platforms are devoid of political value. In a comprehensive study of Facebook use leading up to the 2008 election, Bode (2012) was able to demonstrate it wasn't whether one used Facebook, but rather it was how one used it, that made a difference on likelihood to vote. Longer time spent on the site, looking for new friends, and playing games were all associated with less likelihood to vote. However, information seeking activity, interaction, and engaging with the community were found to have positive influence on likelihood to vote (Bode, 2012). Social media is now the center of much political debate. There is no doubt that these services are affecting how we learn, form opinions, and engage. The question for this project is to what extent they do this and how the individual features of each platform create unique differences in outcome.

Identity, Ideology, and the 2016 Presidential Election

The literature utilized up until this point has highlighted the positive factors and negative factors of legacy media and new media to inform the public, spark discourse around ideas, and lead to civic engagement. There is a fear that new technology and greater sophistication of existing technology could lead to more negative outcomes. This is especially true for social media, given its new place in the ecosystem and its residency

solely on the internet. In American politics, the 2016 election is a useful case study for these negative effects for many reasons.

First, the Republican party nominee, Donald J. Trump, utilized his personal Twitter account to a degree and in a manner unlike any prior candidate (Enli, 2017). Trump's usage of the site marked a departure from the professionalization most campaigns had relied on and instead opted for an adversarial and controversial tone, one that many found more personal and transparent than past uses. This was in stark contrast to the Democratic party nominee, Hillary Clinton's, usage of the site which was much more focused on public relations and professionalism in its approach. Second, the 2016 election was a high-water mark of misleading information and outright false news stories proliferating on social media sites. By one estimate, the average social media user saw 1.14 fake news stories (Alcott & Gentzkow, 2017). Alcott and Gentzkow define "fake news" as "news articles that are intentionally and verifiably false, and could mislead readers" (p. 213). By their estimates, the exposure of a single fake news story potentially could sway vote outcome by a margin larger than Trump's lead in several key battleground states. While quantifying the exact impact fake news had on the election is a difficult and contentious task to undertake effectively, the more important finding is that these stories launched from social media and did have some effect in the minds of voters. Third, and something of a melding of the first two points, Trump has a penchant for using social media to spread misleading or false information (Kakutani, 2018). While the ethics and effects of this specific factor are beyond the scope of this project, it is important to note that it was part of the landscape. Fourth, the content of tweets largely affected the

reach of a tweet, with more insulting rhetoric receiving more engagement (Lee & Xu, 2018).

These unique factors led to concerns around polarization via these platforms. In some ways, it seemed the Sunstein's (2009) concern of filter bubbling and partisan isolation had come to fruition. There are fears that users might follow other accounts that reinforced their belief system while disengaging with counter-attitudinal accounts (Slater, 2007). This behavioral model, known in the literature as a reinforcing spiral, functions something like a feedback loop, and would lead to greater polarization of the individual. Applying this theoretical structure to Facebook users in the 2016 election cycle, Beam, Hutchins, & Hmielowski (2018) found no support for a polarization spiral on the platform, and found depolarization present among those who consumed news on the site. This demonstrates the role that activity on the site plays in behavioral and attitudinal outcomes. While many people reported either posting about politics or seeing their friends do so, unfriending or unfollowing was a rare behavior (Bode, 2016c). This unfriending was actually most common among those with higher levels of political information, indicating they were likely either gathering information from other accounts as well, or their opinion was more crystalized.

The findings of Beam et al.'s (2018) work on reinforcing spirals in even more impressive when considering the role algorithms play in the online environment. All the concerns scholars have around selective exposure, opinion climate manipulation, and polarization stand to get worse via algorithmically generated news feeds (Lanier, 2018). Content that is incendiary in nature often receives the most attention on social media (Lee & Xu, 2018). Research utilizing data from Facebook itself demonstrated a slight

polarization in users leading up to the 2012 election (Bond & Messing, 2015). This analysis confirmed that users are likely to group in ideological social circles, and that heterogenous ideology in a user's newsfeed was associated with lower turnout. This suggests there are important linkages between friends and ideology, however the results of this specific study were inconclusive on causal links.

How these friend circles affect us is worth discussing as well. The endorsements (likes and shares) of our friends and the people we follow play a larger role in what we view on social media than where the news came from (Messing & Westwood, 2014; Anspach 2017). This suggests that engagement plays a larger role than pro-attitudinal news sources do in determining what we see. In a real-world setting, it is unclear whether this is a feature of an algorithm or our own impulse to see what others are talking about regardless of whether they hold a counter-attitudinal opinion. Relevance to the news agenda also influences our likelihood to engage with counter-attitudinal opinions online, however once a topic leaves the agenda this effect dies out (Mummolo, 2016). News outlet plays a large role in this process, as new media has provided for a much more fragmented environment ideologically (Iyengar & Hahn, 2009).

There is however research that contradicts this common perception. Wojcieszak & Rojas (2011) found internet use minimized extreme opinions in the hyper-polarized political climate of Colombia, even more so than traditional media use. Above and beyond the model of political participation this project considers, and the alterations that new media might provide, it is important to contextualize the findings within this specific election. While it is unclear what the long-term implications of the 2016 election will be, the election certainly had unique contexts for the study at hand.

RATIONALE

The research summarized above provides a broad view of legacy media, social media, discussion, and opinion expression, and their roles in political participation. This wide-ranging review provides context from adjacent theoretical and empirical literature. What we know is that our system functions imperfectly based on the standards set forth in most political theory about democracy. Citizens are largely disengaged and lack nuanced political knowledge (Delli Carpini & Keeter, 1996). The question of why individual candidates win a given election is still a common point of study, meaning any democratic mandate passed on by an electoral result is nonetheless subject to interpretation (Achen & Bartels, 2016). For this project, the main focus will be whether or not any combination of factors leads to an individual being more or less likely to vote. Given the role voting plays in a democracy, it is helpful to operationalize it as the main focus.

If there is any institution that can help the American public with the prosocial civic goals described above it is the media. Traditional news media helps bring issues to the forefront of the public conscious, they frame an issue and give it context, and will often give the consumer new and different ways of thinking about the issue at hand. The byproducts of this are ideally akin to Bryce's model, where the news of the day influences the discourse of the democracy. Through this both voters and the politicians who represent them get an idea of the facts and how the majority of people would like to move forward. This leads to the first hypothesis:

H1: Individuals who pay more attention to the news will be more likely to vote.

No model is perfect. In this model of democratic learning, it is often what the consumer themselves bring that creates issues both for theoretical and real-world analysis. Americans often have disparate reasons for turning to media, and many utilize media for reasons that have nothing to do with political learning. These socio-psychological factors moderate the effect of media on the consumer. We should understand that in a media environment filled with choice, the experience is far from monolithic. In the past it might have been reasonable to believe most Americans experience of the media was similar, but today that is far from being true. It is important then to understand the gratifications sought by media consumers as this likely changes the relationship and output. Following Bryce's model again, we can operationalize an individual's interest in political discourse as a feature of the frequency with which they discuss politics and their willingness to share their opinion. This also follows Kim et. al's summary that "deliberative democracy is participatory democracy".

H2: Individuals who discuss the news more frequently will be more likely to vote.

H3: Individuals who are more willing to share their opinion will be more likely to vote.

Turning the focus to the 2016 election, this project will utilize survey data collected during the 2016 primary season. This time was particularly contentious in American politics, both major parties were looking for a nominee, and much of this discourse spread to social media sites. Given their stature as an aggregated and curated media experience in the American environment use of social media sites will be

examined. By separating the analysis into separate platforms, results will localize effects

to a given site. For this study, the top four most widely-used social media platforms in the

United States will be analyzed. Each one offers a slightly different user experience and

functionality. Comparing results will give an idea of how each platform functions in the

political learning space. Much of the research considered above has looked at how legacy

media informs voting behavior in an attempt to shed a light on how social media might

fall in line. Given the much longer history of legacy media studies, this is practical and

allows for us to consider social media through a more stable lens. Given how much

change happens on these platforms I find it wise to not just consider the existing research

on the subject – the Twitter of today is much different than the Twitter of 2009. Eveland

(2003) offers a helpful approach to this in his *mix of attributes* theory. In comparing the

attributes of social media to legacy media, we can draw many comparisons. Twitter and

Facebook are textual, allow for greater interactivity and control, and often require the

user to read the content. These two platforms mirror, to a large extent, print media.

Instagram and YouTube, in contrast, are highly visual, hardly rely on text at all, and most

importantly are not interactive nearly to the degree the first two platforms are. If

deliberation is participation, then the passive nature (especially of YouTube) would

mirror television media and would likely lead to similar results on voting.

Lastly, the degree to which a user utilizes the site for political learning will be

evaluated. Understanding that there are so many different uses of these sites is important

to understanding their effect. For our purposes, a scale of utilization of political

information on the platform will help separate those who have information-seeking

behaviors and those who have entertainment seeking behaviors. Because of Facebook and

Twitter's relationship with news aggregation and text based content, I hypothesize they will function more similarly to print news and lead to greater political learning and voting (H4a and H4b). Instagram and YouTube are both visual platforms, and will likely skew more towards television in relation to voting (H4c and H4d).

H4a: Individuals who used Facebook for political learning will be more likely to vote.

H4b: Individuals who used Twitter for political learning will be more likely to vote.

H4c: Individuals who used Instagram for political learning will be more likely to vote.

H4d: Individuals who used YouTube for political learning will be more likely to vote.

PARTICIPANTS, PROCEDURES, AND DATA DESCRIPTION

The data utilized comes from a publicly available data set collected by Pew

Research Center in Washington, DC. The data was collected online via self-administered

survey and computer assisted telephone interview (CATI) from January 12 to February,

2016. As mentioned before, this date range suits this study well due to the overlap of data

collection with the presidential primary process occurring in both major American

political parties. The data collection began roughly 3 weeks before the Iowa caucus for

both parties and ended the day before the New Hampshire primary for both parties. The

likelihood that individuals paying attention to the news would be hearing about

presidential politics is much greater than, say, a year between elections or a midterm

election.

The original sample for this study was "recruited from two large (N = 10,013 and

N = 6,004) national overlapping dual frame landline and cell phone random digit dial

(RDD) surveys conducted for the Pew Research Center" (Pew, 2016). At the end of each

of these Pew Research Center RDD surveys, respondents were asked if they were

interested in joining the panel. Those who said yes were sent postcard and email

invitations to participate in Wave 14. Of that giant database, a final sample (N = 4,654)

participated in Wave 14. The raw data from Wave 14 was downloaded from Pew

Research Center's website and was analyzed using SPSS.

Of the Wave 14 sample, the population make-up was balanced in a way that

matched contemporary demographics of the United States. The sample was 49.5% male

and 50.5% female. Age was measured on a four-point scale range to determine age

categories (1 = 18 – 29, 2 =30 – 49, 3 = 50 – 65, 4 = 65+). The average age fell in the 30 – 49 age range (M = 2.86, SD = 1.007). Education was measured on a 3-point scale (3 = College graduate +, 2 = Some college, 1 = High school graduate or less). This scale was recoded to associated higher values with higher levels of educational attainment. Most respondents (50.2%) had graduated college or completed some graduate level study (N = 2334). Of the remaining respondents, 32% had some college experience (N = 1487), and 17.9% had a high school diploma or less (N = 833). The ideology of the participants was measured on a 5-point Likert scale with higher values indicating more liberal respondents. 9.8% reported being "very conservative", 23.9% "conservative", 36.2% "moderate", 20% "liberal", and 9.7% "very liberal".

Independent and Dependent Variables

To test the hypotheses stated above, survey measures were chosen based on their relevance to the project at hand. In all analyses below, the dependent variable considered was a summation of items measuring likelihood to vote in upcoming elections at three different levels – local, state, and national. Responses for these three levels were explicitly listed as *never*, *seldom*, *part of the time*, *nearly always*, and *always*. These answers were recoded so that the response *never* equals 0 and the *always* equals 4, so that higher values were associated with more frequent voting patterns. People reported voting in national elections most often ($M = 3.38$, $SD = 1.18$), followed by presidential primaries ($M = 2.81$, $SD = 1.45$), and lastly local elections ($M = 2.73$, $SD = 1.34$). These individual

responses added up to a total election voting score on a scale of 0 to 12 ($M = 8.93$, $SD = 3.49$).

News attention was measured via four questions involving three different levels of news coverage. For each level, respondents were given the options *very closely*, *somewhat closely*, *not very closely*, and *not at all closely*. These variables were coded so that lower values were associated with not following a news level (e.g. *not at all closely* = 0), and higher values were associated with following more closely (e.g. *very closely* = 3). National news garnered the most attention ($M = 2.25$, $SD = 0.77$), followed by local news ($M = 2.15$, $SD = 0.79$), and finally international news ($M = 1.94$, $SD = 0.81$)

News discussion was measured by a single item asking respondents "how often do you discuss the news with others?". Response options were *nearly every day*, *a few times a week*, *a few times a month*, and *less often*. These responses were coded such that higher values indicated more news discussion with 0 = *less often* and 3 = *nearly every day* ($M = 2.17$, $SD = 0.82$). A similar question was asked of opinion expression, explicitly "Thinking about who you typically share your opinions with about the news, do you tend to share them with...?". The responses provided were "I do not typically share my opinions about the news with others", "just people I know well, such as friends and family", and "people I know well, but also people I don't know very well". These were recoded so that higher values indicated more willingness to share an opinion with others ($M = 2.26$, $SD = 0.56$).

Lastly, a Guttman scale of individual platform political learning was constructed. Respondents were asked a series of three questions regarding different social media sites. The first was whether they used the site at all. If a respondent replied no, the other two

questions were not asked of them and their score for use of that social media platform was zero. The remaining questions in this battery asked whether a respondent utilized the site for news and then whether they had learned something about a presidential campaign or candidate from that site. For this scale, an individual who did not use a site at all would receive a 0, and an individual who used a site, utilized it for news, and learned about a presidential candidate or campaign would score a three. The project considers 4 sites: Facebook ($M = 1.68$, $SD = 1.16$), Twitter ($M = 0.46$, $SD = 0.96$), Instagram ($M = 0.31$, $SD = 0.66$) and YouTube ($M = 0.93$, $SD = 0.97$).

HIERARCHICAL MULTIPLE OLS LINEAR REGRESSION AND RESULTS

To determine the relationship between news attention, news discussion, opinion sharing, and social media usage regarding their influence on voting, I conducted a multi-step regression analysis consisting of two separate techniques. The first considered is an ordinary least squares multiple linear regression with the five aforementioned variables, in addition to controls of sex, age, education, income, and ideology. This analysis shadows, in a theoretical sense, the Kim, Wyatt and Katz (1999) model, albeit in a much more efficient form.

As shown in Table 1, Model 1 is a null model wherein only sex, age, education, income, and ideology are included. This controls only model has an adjusted R^2 of 0.19 suggests that model explains 19% of the variance in voting behavior.

In Model 2, the news attention scale is added to the equation. All of the control variables remain in the same relationship with the exception of sex, which indicates men vote less than women ($b = -0.27$, $p < .01$). The three-item scale of local, national, and international news attention is associated with a greater frequency of voting ($b = 0.49$, $p < .001$). This model explains an additional 6% of the variance in voting frequency (adjusted $R^2 = 0.25$, $\Delta R^2 = 0.06$). This result supports H1. Both the sex and news attention relationships persist in direction and significance in the subsequent OLS models.

In Model 3, the news discussion variable is added to the equation. More frequent discussion of the news leads to more voting ($b = 0.55$, $p < .001$). Considering news discussion adds 2% of variance explained in the model (adjusted $R^2 = 0.27$, $\Delta R^2 = 0.02$). This result supports H2. The direction and significance of the relationship between news discussion and voting persist in subsequent models.

Table 1: *Voting Behavior Predicted by Media Usage and Deliberative Democratic Behavior*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	3.75***	1.91***	1.62***	1.27***	1.19***
Sex	-0.05	-0.27**	-0.24*	-0.24*	-0.19*
Age	1.25***	0.91***	0.92***	0.93***	0.93***
Education	0.57***	0.54***	0.52***	0.52***	0.52***
Income	0.17***	0.14***	0.12***	0.12***	0.11***
Ideology	-0.10*	-0.10*	-0.12**	-0.12**	-0.12**
News Attention		0.49***	0.38***	0.37***	0.36***
News Discussion			0.55***	0.51***	0.50***
Willingness to Share Opinion				0.20*	0.22*
Facebook Use					0.16***
Twitter Use					0.11*
Instagram Use					-0.16*
YouTube Use					-0.20***
Adjusted R^2	0.19	0.25	0.27	0.27	0.27
ΔR^2		0.06	0.02	0.00	0.00

Note: $* p < .05$. $**p < .01$. $***p < .001$. Sex (Male = 1). Ideology - Higher values are associated with being more liberal. All betas are unstandardized.

Model 4 includes a willingness to share opinion measure. Controlling for both news attention ($b = 0.37$, $p < .001$) and news discussion ($b = 0.51$, $p < .001$), the willingness to express one's opinion, especially to those one doesn't know, increases voting behavior ($b = 0.20$, $p < .05$). The addition of a willingness to express opinion explains only a marginal amount of variance more than the previous model ($R^2 = 0.27$, $\Delta R^2 < 0.01$). This result supports H3. The relationship between willingness to express opinion and voting persists in the subsequent model.

The final model includes the four social media use variables for Facebook, Twitter, Instagram, and YouTube. Controlling for news attention ($b = 0.36$, $p < .001$), news discussion ($b = 0.50$, $p < .001$) and willingness to express opinion ($b = 0.22$, $p < .05$), the social media variables have disparate relationships with voting behavior. Greater Facebook use ($b = 0.16$, $p < .001$) and Twitter use ($b = 0.11$, $p < .05$) are associated with more voting. In contrast, greater Instagram use ($b = -0.16$, $p < .05$) and greater YouTube use ($b = -0.20$, $p < .001$) are associated with less voting. This final model explains 27% of the variance in voting behavior (adjusted $R^2 = 0.27$, $\Delta R^2 < 0.01$). This result has presents mixed findings for H4. Facebook and Twitter are supported as more usage leads to greater voting participation, however usage of Instagram and YouTube actually appears to lead to less voting.

These results on their own are fascinating and worth dissecting, to replicate a more accurate representation of these relationships in the real world a different model specification would likely demonstrate more nuanced interactions. After all, the assumption of the model above is that all of these variables are independent of one another and do not interact with one another. One thing worth noting is that the news

attention, news discussion, and opinion sharing variables all remain significant

throughout each model iteration. This supports the existing research showing these

variables as strong, independent concepts. Because of this support all three have

theoretical and empirical support to be added as individual steps in a more complex

model.

PROCESS PARALLEL-SERIAL MEDIATION ANALYSIS AND RESULTS

To create a model closer to the interactions observed in the real world, I utilized the PROCESS macro for SPSS to create a model that allowed both direct and indirect effects on voting (Hayes, 2018). This procedure analyzes the pathways between variables. This specification mimics how an individual might use social media for political learning. For this analysis, four models were considered – one for each social media variable. Model 80 from Hayes was selected and is depicted in Figure 1. The pathway labels will be universal regardless of the variables in the model.

Figure 1. *Parallel-Serial Mediation Model*
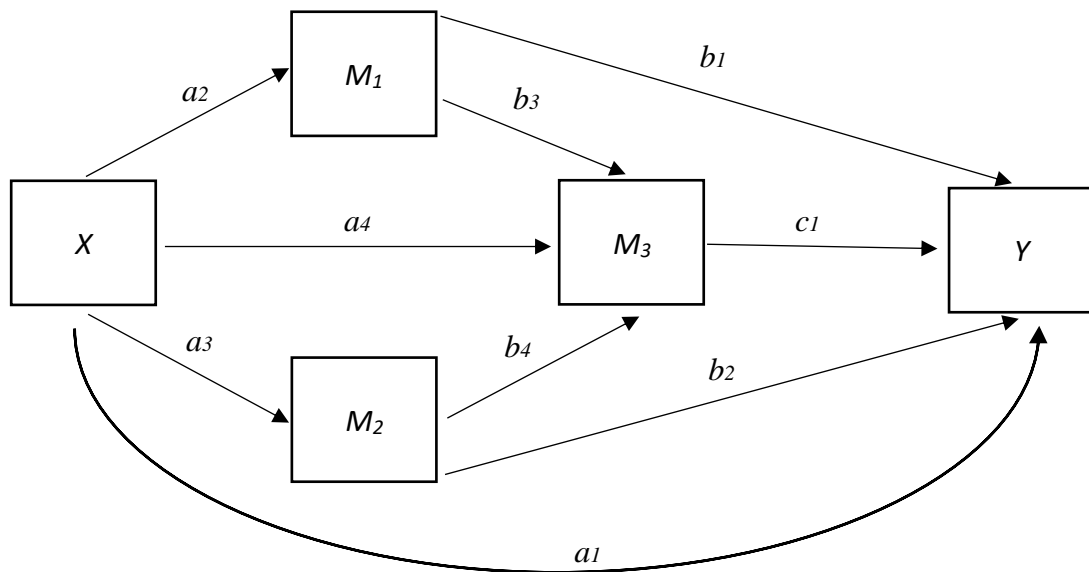
The research supports considering news attention as the independent variable and the starting point of this mediated model (X). From there the two deliberative behaviors, news discussion (M_1) and opinion sharing (M_2) are placed in parallel sequence with one

another. The OLS linear regression results support their existence as separate activities and this model allows analysis of their relationship directly on voting (Y) and on social media use. Lastly, each model will consider a different social media platform as M_3. This allows for comparison of the platforms and the relationships that lead to more or less voting. They represent traditionally deliberative democratic behaviors that lead to more voting. Individuals approach social media with different routines and purposes and this specification allows for analysis of how those routines influence behavior. Voting behavior in local, primary, and national elections was again used as the dependent variable (Y). The control variables from the OLS linear regression model remain the same here. The three social media variables not considered explicitly in each model were covariant as well (i.e. for Facebook model, Twitter use, Instagram use, and YouTube Use were included as covariates).

Tables 2 and 3 display the results for the Facebook model using the PROCESS macro. To begin, the paths from attention to deliberative behaviors (discussion and opinion sharing) remain significant and lead to more voting ($b_1 = 0.50$, $b_2 = 0.22$). As do the paths from media usage variables, both news attention ($a_1 = 0.36$) and Facebook use ($c_1 = 0.16$). These replicate the findings from the OLS multiple regression above. The main focus though is on the indirect effects showing the relationships between media use and deliberative democratic behaviors. Individuals who pay more attention to the news, tend to discuss the news more, which in turn leads to more voting ($b = 0.1022$, 95% CI = 0.0726, 0.1333). The same is true for the path from news attention to opinion sharing in relation to voting more ($b = 0.0164$, CI = 0.0033, 0.0298). These results indicate the

relationship between H1-3 are linked and supports all three. More of each behavior leads

to greater voting.

Table 2: *Voting Predicted by Deliberative Democratic Behavior and Facebook Use in a Mediated Relationship*

	Consequent							
	Discussion		Opinion		Facebook Use		Voting	
Antecedent		b		b		b		b
Attention	a_2	0.20***	a_3	0.08***	a_4	-0.02	a_1	0.36***
Discussion Willingness to Share	-	-	-	-	b_3	0.08**	b_1	0.50***
Opinion	-	-	-	-	b_4	0.03	b_2	0.22*
Facebook Use	-	-	-	-	-	-	c_1	0.16***
Constant		.41***		1.78***		1.92***		1.19***
R_2		0.26		0.07		0.20		0.27

*Note: * p <.05. **p < .01. ***p < .001. All regression coefficients are unstandardized.*

Table 3: *Indirect Effects of Deliberative Democratic Behavior and Facebook Use on Voting*

	b	Bootstrapped LLCI	Bootstrapped ULCI
Attention > Discussion > Voting			
	0.1022	0.0726	0.1333
Attention > Opinion Share > Voting			
	0.0164	0.0033	0.0298
Attention > Facebook Use > Voting			
	-0.0027	-0.0072	0.0005
Attention > Discussion > Facebook Use > Voting			
	0.0026	0.0008	0.0050
Attention > Opinion > Facebook Use > Voting			
	0.0003	-0.0004	0.0012

Note: LLCI. Lower Level Confidence Interval. ULCI. Upper Level Confidence Interval.

Individuals who pay more attention to the news don't necessarily use Facebook more frequently, and in turn there isn't a relationship between news attention, Facebook use, and voting. This holds true for opinion sharing as well. Facebook use leads to more voting under a specific circumstance: when individuals are led there by their desire to discuss. Paying more attention to the news leads to more discussion of the news ($a_2 = 0.20$), which in turn leads to more Facebook use ($b_3 = 0.08$). This pathway does in fact lead to greater voting behavior ($b = 0.0026$, CI = 0.0008, 0.0050).

Table 4 and 5 demonstrate the relationships when considering Twitter use. The voting consequent column again matches the results found in the OLS multiple linear regression model above. For Twitter use, as with Facebook use, greater attention to the news leads to more discussion and greater discussion leads to voting ($b = 0.1025$, CI = 0.0731, 0.1344). This is true of opinion sharing as well ($b = 0.0164$, CI = 0.0036,

0.0291). A big contrast to Facebook here is that news attention leads to greater Twitter usage, which in turn leads to more voting ($b = 0.0040$, CI = 0.0001, 0.0089). Another change here is that neither news discussion nor opinion sharing lead individuals to Twitter usage, and therefore these mediated paths have no relationship with voting more frequently. Simply put, for Twitter user, attention leads to discussion, opinion sharing, and more Twitter use, which increase voting on their own, but not in relationship with one another. This gives stronger support for H4b than just the OLS linear regression conceptualization.

Table 4: *Voting Predicted by Deliberative Democratic Behavior and Twitter Use in a Mediated Relationship*

	Consequent							
	Discussion		Opinion		Twitter Use		Voting	
Antecedent		b		b		b		b
Attention	a_2	0.20***	a_3	0.08***	a_4	0.04***	a_1	0.36***
Discussion	-	-	-	-	b_3	0.02	b_1	0.50***
Willingness to Share Opinion	-	-	-	-	b_4	0.00	b_2	0.22*
Twitter Use	-	-	-	-	-	-	c_1	0.11**
Constant		0.32***		1.75***		-0.47***		1.19***
R^2		0.26		0.07		0.22		0.27

*Note: * $p < .05$. ** $p < .01$. *** $p < .001$. All regression coefficients are unstandardized.*

Table 5: *Indirect Effects of Deliberative Democratic Behavior and Twitter Use on Voting*

	b	Bootstrapped LLCI	Bootstrapped ULCI
Attention > Discussion > Voting	0.1025	0.0731	0.1344
Attention > Opinion Share > Voting	0.0164	0.0036	0.0291
Attention > Twitter Use > Voting	0.0040	0.0001	0.0089
Attention > Discussion > Twitter Use > Voting	0.0005	-0.0003	0.0019
Attention > Opinion > Twitter Use > Voting	0.0000	-0.0005	0.0005

Note: LLCI. Lower Level Confidence Interval. ULCI. Upper Level Confidence Interval.

Tables 6 and 7 display the results for Instagram use. Again, the prosocial pathways from news attention to news discussion ($b = 0.1022$, CI = 0.0714, 0.1329) and opinion sharing ($b = 0.0164$, CI = 0.0036, 0.0296) remain intact and are associated with more voting. Although use of the platform alone leads to less voting ($c_1 = -0.16$), Instagram has no relationship with voting from when factored into other indirect pathways. This is to say that Instagram use neutralizes the relationship between news attention, news discussion, and opinion sharing. This conceptualization clarifies the rejection of H4c. It is probably more accurate to say Instagram use has no relationship with voting rather saying it has a negative effect on voting.

Table 6: *Voting Predicted by Deliberative Democratic Behavior and Instagram Use in a Mediated Relationship*

	Consequent							
	Discussion		Opinion		Instagram Use		Voting	
Antecedent								
		b		*b*		*b*		*b*
Attention	a_2	0.20***	a_3	0.08***	a_4	-0.01	a_1	0.36**
Discussion Willingness to Share	-	-	-	-	b_3	0.04**	b_1	0.50***
Opinion	-	-	-	-	b_4	0.00	b_2	0.22*
Instagram Use	-	-	-	-	-	-	c_1	-0.16*
Constant		0.36***		1.76***		0.52***		1.19***
R_2		0.26		0.07		0.23		0.27

*Note: * $p < .05$. ** $p < .01$. *** $p < .001$. All regression coefficients are unstandardized.*

Table 7: *Indirect Effects of Deliberative Democratic Behavior and Instagram Use on Voting*

	b	Bootstrapped LLCI	Bootstrapped ULCI
Attention > Discussion > Voting	0.1022	0.0714	0.1329
Attention > Opinion Share > Voting	0.0164	0.0036	0.0296
Attention > Instagram Use > Voting	0.0011	-0.0009	0.0043
Attention > Discussion > Instagram Use > Voting	-0.0013	-0.0032	0.0000
Attention > Opinion > Instagram Use > Voting	0.0000	-0.0005	0.0005

Note: LLCI. Lower Level Confidence Interval. ULCI. Upper Level Confidence Interval.

Lastly, Tables 8 and 9 display the results for YouTube. As with all the other models, the exterior pathways of discussion ($b = 0.1024$, CI = 0.0715, 0.1331) and opinion sharing ($b = 0.0165$, 95 CI = 0.0035, 0.0294) lead to more voting. YouTube as a mediator to news attention does not have a relationship with voting behavior ($b = 0.0016$, n.s.). However, when YouTube use is driven by either discussion or opinion sharing the relationship appears. Individuals who pay more attention to the news tend to discuss the news more ($a_2 = 0.20$) and in turn use YouTube more frequently ($b_3 = .04$). However, this pathway leads to less voting overall ($b = -0.0018$, CI = -0.0039, -0.0002). This relationship is mirrored with opinion sharing, where news attention leads to more opinion sharing ($a_3 = 0.08$), more opinion sharing leads to more YouTube use ($b_4 = 0.13$), and in turn the final result leads to less voting ($b = -0.0019$, 95 CI = -0.0034, -0.0008).

This leads to a strong rejection of H4d and in fact supports the opposite conclusion, that

YouTube use leads to less voting.

Table 8: *Voting Predicted by Deliberative Democratic Behavior and YouTube Use in a Mediated Relationship*

Antecedent	Consequent							
	Discussion		Opinion		YouTube Use		Voting	
		b		b		b		b
Attention	a_2	0.20***	a_3	0.08***	a_4	-0.01	a_1	0.36***
Discussion Willingness to Share	-	-	-	-	b_3	0.04*	b_1	0.50***
Opinion	-	-	-	-	b_4	0.13***	b_2	0.22*
YouTube Use	-	-	-	-	-	-	c_1	-0.20***
Constant		0.37***		1.80***		0.66***		1.19***
R_2		0.26		0.06		0.13		0.27

*Note: * p <.05. **p < .01. ***p < .001. All regression coefficients are unstandardized.*

Table 9: *Indirect Effects of Deliberative Democratic Behavior and YouTube Use on Voting*

	b	Bootstrapped LLCI	Bootstrapped ULCI
Attention > Discussion > Voting	0.1024	0.0715	0.1331
Attention > Opinion Share > Voting	0.0165	0.0035	0.0294
Attention > YouTube Use > Voting	0.0016	-0.0018	0.0055
Attention > Discussion > YouTube Use > Voting	-0.0018	-0.0039	-0.0002
Attention > Opinion > YouTube Use > Voting	-0.0019	-0.0034	-0.0008

Note: LLCI. Lower Level Confidence Interval. ULCI. Upper Level Confidence Interval.

DISCUSSION

This project set out to reassess the role of deliberative behaviors and media use in the internet age. The framework came from scholars of American democracy across hundreds of years. Their theoretical and empirical understanding was that paying attention to the news and politics led to more deliberative behaviors. Discussion and opinion sharing, both important to American society and protected by the Constitution, were the crux of civic engagement. These behaviors in tandem led to greater voting behavior and formed the mechanism that made American democracy truly special. While this is an idealized version of the truth, there seems to be some truth to this theory. This project picked up this theory of democratic behavior and asked whether or not social media changed its output. The answer is yes, but in different ways.

At both the OLS multiple linear regression stage and the PROCESS modeling stage, there was a demonstrated relationship between the three variables of news attention, news discussion, and opinion sharing and voting. This confirms the writings of both Bryce (1888) and of Kim, Wyatt and Katz (1999). Between these two different ways of analyzing the relationships therein, there is strong support for hypotheses 1 through 3. Though the model explains only a portion of the variance and the change in behaviors are small, there is support for these relationships across the board. More of each leads to more voting. This remains the case through all four social media models. The outer mediated paths that do not interact with the social media usage variable remain nearly identical throughout.

At the social media platform level, there are interesting findings for each of platforms considered. Facebook was used by 75.7% of respondents making it most used

of the four platforms considered. On top of that, 55.7% of those users utilized the site for

reading news, learning about candidates and campaigns, or a mixture of the two. This is

an important insight into how Facebook functions as a media entity. While the platform

was the first social network with a ubiquitous adoption among certain groups, the site has

become much more than friends and likes. The vast majority users report using the site

much like a news aggregator. Figure 2 shows the relationships between variables in the

process analysis model.

Figure 2. *Significant Indirect Relationships in the Facebook Model*
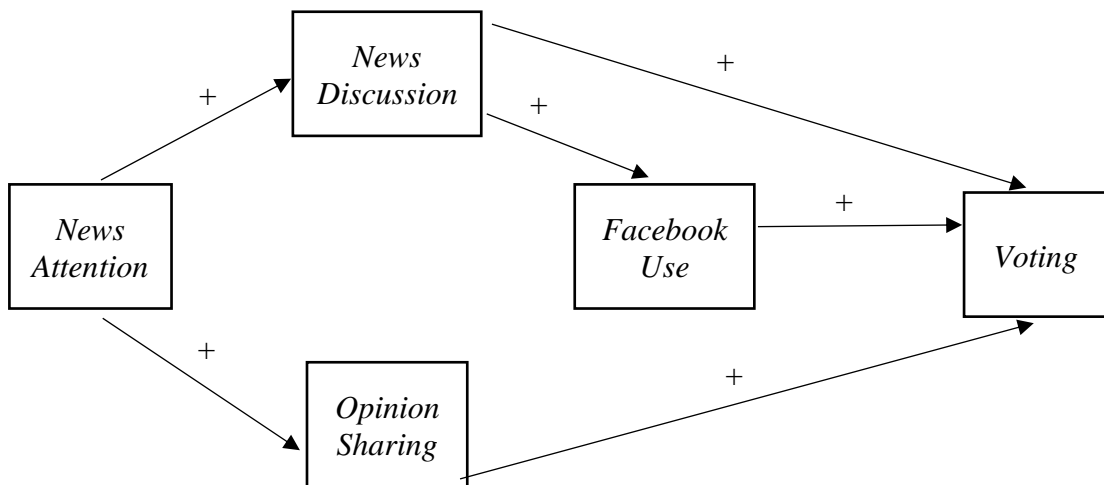
Note: Plus mark indicates more of behavior at the end of arrow.

Despite so many of Facebook's users reporting getting news and learning about

politics on the site, there is not a demonstrated relationship between news attention and

Facebook use. Given we know news attention leads to more voting, in general, this would

indicate that respondents view the way they see and learn from news on Facebook as

something different than actually paying attention to the news. This is the type of behavior discussed above as passive attention and perhaps relates Facebook to television watching (McLeod & McDonald, 1985). Users can certainly increase their salience of news topics by using the site, but maybe it doesn't necessarily increase their knowledge. This has implications for media companies and political campaigns hoping to reach readers and voters respectively.

Facebook represents something like a replication of the real world in an online space. If I were to walk through my local town square, I would likely see newspapers and magazines for sale at a newsstand, billboard advertisements and different businesses attempting to gain customers, I would likely see some people I knew and some people I didn't. All of this is true for the Facebook user experience as well. There is almost too much going on for there to be a universal, prosocial outcome. The main question that might determine whether or not a prosocial outcome occurs depends on whether a user is seeking information or not (Chaffee & Kanihan, 1997).

When an individual brings higher levels of news discussion into their Facebook routine, they do tend to vote more frequently. I see this happening for several reasons. For one, those individuals might actually be paying attention to the news they are seeing on Facebook. The frequency with which they discuss the news says little about where they do their discussing, only that it happens. In this case, Facebook's forum could be increasing both their attention of news and specifics about the candidates. It could also be that they are actively participating in discussion on Facebook through comments and posts on other pages. This would give credence to the techno-utopian arguments that these online social networks can function much like the theoretical town square, where

more discussion leads to greater civic engagement all around. This finding reinforces what Bode (2012) presented. Concurring with those findings, it seems that it is more about how an individual uses the site than whether they do or not.

Facebook has become a central element to electoral politics in the United States, whether it be for fundraising efforts, targeted advertising, or simply serving as a massive pool of information – factual or otherwise. Much of the talk after the 2016 election attempted to attribute some of the surprise result of Donald J. Trump's victory to what happened on Facebook. While much of that speculation lies outside the realm of what this paper speaks to, there are small insights this could add to that conversation. Often sharing of false or misleading news stories, sharing a post expressing your support for a candidate, and even many types of advertising give the opportunity for discussion to happen in the comments below. If you have used Facebook, you know that this is often one of the most contentious dimensions of the site, leading many to express anger or to jokingly suggest you should "never read the comments". While the wise person might studiously avoid the comment section, this research indicates it may be the so-called keyboard warriors, continually arguing their views in the comments that actually are more likely to show up in the voting booth on election day.

Twitter evinces some of the same characteristics, in some instances even more so. Figure 3 displays the indirect relationships from the Twitter model on voting. What is different about this model is the central path – where news attention drives up Twitter use and in turn leads to more voting. This path highlights Twitter's unique place in the social media environment as a primarily political platform, filled with news, political discussants, a wealth of opinions less than 280 characters, and even politicians

themselves (Jungherr, 2016; Adams & McCorkindale, 2013). On top of this politicians use the site as though they are aware there is a political class engaging on the other side (Parmelee & Bichard, 2012).

Figure 3. *Significant Indirect Relationships in the Twitter Model*
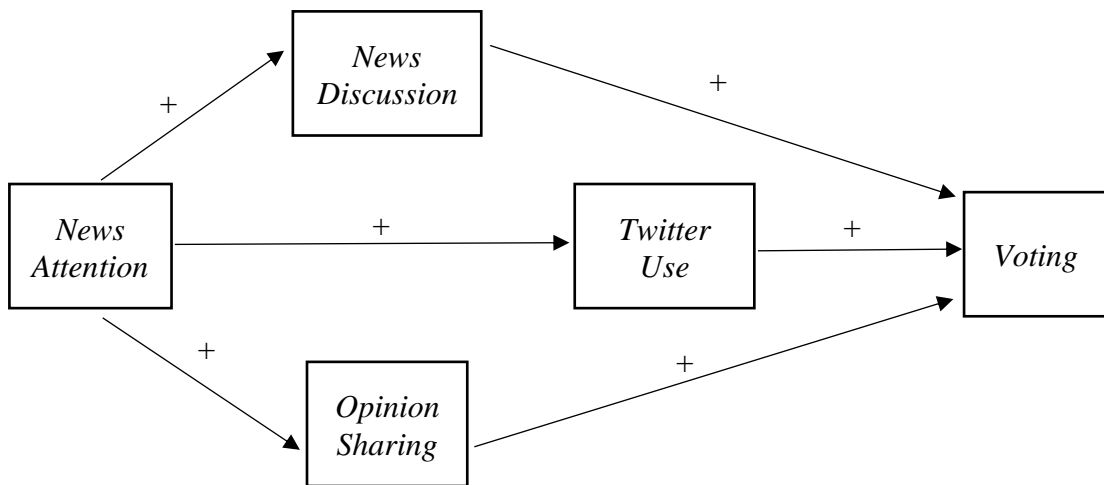
Note: Plus mark indicates more of behavior at the end of arrow.

Of the entire sample considered, only 20.1% were Twitter users, almost one third of the number who said they used Facebook. The smaller population of Twitter users are more likely to be politically active people, and the results here back that up. The paths from attention to discussion and opinion sharing remain in effect, and there is the addition of a central path from attention directly to Twitter use to voting. There is not a doubly mediated path that goes through discussion or opinion sharing to Twitter use. This is an important finding. Individuals using Twitter are unique in that they are probably on the site because of its political importance. There is no additional variance explained by

their frequency of news discussion or opinion sharing. In contrast to Facebook, these individuals are drawn to Twitter because of their attention to the news, and this interaction alone increases voting activity. This is clarifying and helps to explain Twitter's role in the political communication ecosystem. It also poses some of the same questions in regards to the content on these sites and their potential relationship with what people bring into the voting booth.

The findings around both Facebook and Twitter underline the potential for these platforms to be a positive part of civic engagement in the current media landscape. Some of this stems from their symbiosis with legacy news outlets (Conway, Kenski, & Wang, 2015; Conway-Silva, Filer, Kenski, & Tsetsi, 2018). These results do not give a good sense of causal direction though, and it is hard to say if discussion leads to quality attention or something more like INE (Roskos-Ewoldsen, Roskos-Ewoldsen, & Carpentier, 2009; Kim, Chen, Gil de Zuñiga, 2013). The results could be interpreted as an endorsement of INE and its prosocial outputs (Feezell, 2018; Burnley, Reineke, & Blake, 2018). Simply using these two platforms can lead to prosocial outcomes. That finding raises questions regarding some of the existing research that suggests internet use leading to less civic engagement (e.g. Shah, Kwak, & Holbert, 2001).

That being said, given all that we know about what happens on these sites, their role becomes all the more questionable. With the erosion of gatekeeping and the fragmentation of media online, there really isn't a general interest intermediary on either of these sites. While legacy media outlets compete for space, they often do so against a much more tech-savvy and sophisticated opposition. In spite of this, the advancement in technology and computer-mediated communication don't negate possible pro-democratic

outcomes. Even the loss of general-interest intermediaries to an algorithmically curated feed can lead to more voting, despite the fears of some (e.g. Sunstein, 2009).

Interestingly, opinion sharing does not play a role in increasing social media use for either Facebook and Twitter. This is surprising, and may cast doubts on the conceptual differences between news discussion and opinion sharing in the minds of respondents. I am not sure of what to make of that but I think there are many possibilities. Further research on how algorithms and other users create the opinion climate is worth picking up. Perhaps instead, use of Facebook and Twitter use are replacing how people would typically think about opinion expression. Most importantly, before moving to the next two platforms, the two considered so far have large deliberative, text-based components. The sites that foster more deliberation are associated with more participation, the sites that don't are not. This again highlights the understanding that deliberative democracy is participatory democracy. There is support for both H4a and H4b in these results, however with different implications.

When the focus shifts to Instagram, the picture begins to change. Whereas the first two platforms did have connections with more voting behavior, that relationship disappears with Instagram. Figure 4 displays the results from this analysis. Instagram use is completely detached from news attention, the general starting point of political engagement. Furthermore, neither mediating variable encourages a more prosocial use of the platform that would lead to more voting. In sum, this makes Instagram use completely detached from the concepts most associated with civic engagement. This rejects H4c, as there is really no relationship between Instagram and voting. Given the number of respondents who use Instagram was low (21.2%), they don't really use it for campaign

learning (only 8.8% reported both news use and campaign learning), and they tend to be younger this shouldn't necessarily come as a surprise.

There is some reconciling that needs to be done here in regards to the apparent difference in findings between the OLS and PROCESS models. In the OLS model Instagram use was associated with less voting. That direct relationship still remains in the PROCESS model as well. When considering the indirect pathways, that is the more complex model and the one that better represents real-life interaction, the effect is not found. Like Facebook, news discussion is associated with more Instagram use, however the direct effect of Instagram use erases this effect. This is unlike Facebook, where the effect is magnified, and unlike YouTube where the effect is completely overturned. Further research may look in to why Instagram neither contributes nor completely counteracts prosocial motivation, but at the moment it is enough to say that Instagram use neutralizes prosocial uses to essentially have no measurable effect on voting frequency.

Figure 4. *Indirect Relationships in the Instagram Model*
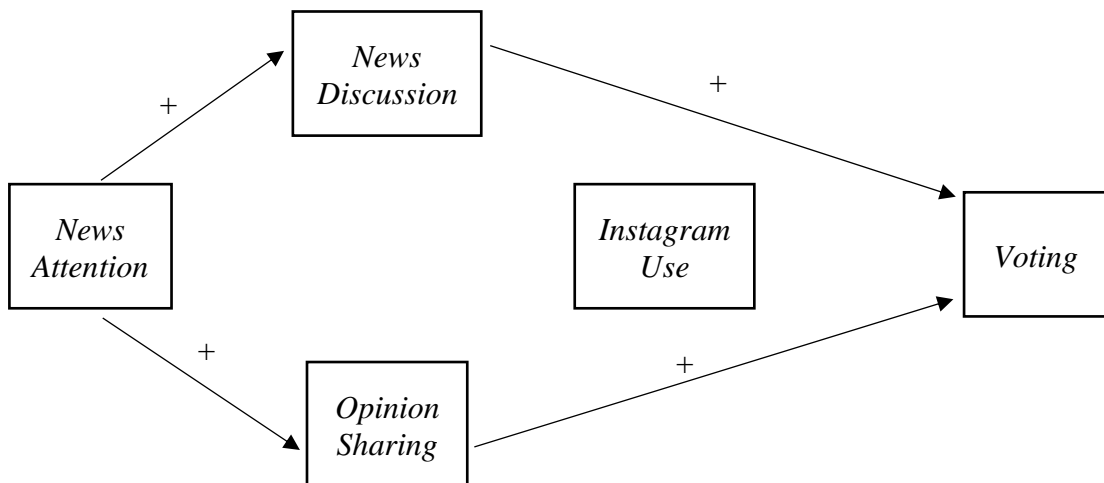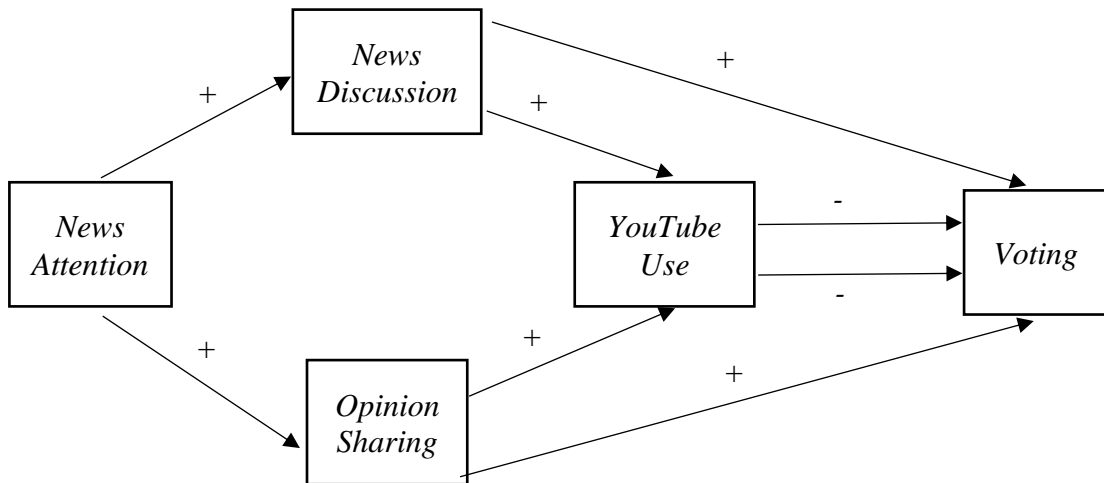

Note: Plus mark indicates more of behavior at the end of arrow.

The findings here highlight the understanding of Instagram as a platform primarily for entertainment and parasocial interaction. Conversations are also minimized on the app and are not always visible, diminishing its relevance to discussion. Less opinion and discussion on the platform results in less democratic behavior, as postulated by Habermas (1964) and Sunstein (2009). The site is also image based rather than text based, separating it from the informational qualities of the first two platforms considered. Given these platform specificities it is unlikely that a political campaign could harness the site for prosocial activity. News discussion itself is associated with more Instagram use, however use of the platform neutralizes that impulse. Contrast this to Facebook where the same path is continued on through the platform features of Facebook itself.

YouTube is similar to Instagram in that its primary appeal is not necessary text-based information, but visual content in the form of video. Comment sections play a larger role here than they do for Instagram, but posting text and responding in text are not common. YouTube also differs in that it is arguably the most passive of the four platforms considered in that the number of creators is much smaller than the users. The results, displayed in Figure 5, are a bit surprising then.

Figure 5. *Indirect Relationships in the YouTube Model*

News Discussion

News Attention

+

+

YouTube Use

+

+

-

-

Opinion Sharing

+

+

Voting

+

Note: Plus mark indicates more of behavior at the end of arrow.

This model differs from all the others so far most noticeably in the fact that YouTube use is actually associated with less voting. Even more compelling here is that the mediated paths from attention to the two deliberative variables actually lead to more YouTube use. This would indicate that users are more likely to be drawn to the site because of their desire to deliberate. The output of using the site, especially for news and political learning, is actually less voting. Even more concerning is that 58.1% of respondents reported using YouTube, second only to Facebook.

These results indicate that there is something about the news and political content on YouTube that leads people to vote less. There is research around YouTube use leading to more polarized or even radical views because of the algorithm that suggests videos to users (Ribiero, Ottoni, West, Virgílio, Almeida, & Meira, 2020). Much of this research is emergent and is perhaps in greater need because of these findings. This could touch back on Dolan, Conduit, Fahy, and Goodman's (2016) research and different type of user

archetypes. Perhaps there is more "co-destructive," cynical, and anti-institutional behavior on this site that in turn adversely affects democratic outcomes. Apathy and cynicism are tied to less voting and civic participation in general (Kushin & Yamamoto, 2014). Again, the difference between informational uses versus parasocial and entertainment uses could relate YouTube to television watching on more than a mere surface level (Babrow & Swanson, 1988). While a convincing comparisons to legacy media can be made here, YouTube should be considered a new platform. Owned by Google and housing the largest database of video in the history of humanity, the power of this platform cannot be overstated. The algorithm's ability to consider endless amounts of metadata like viewer history, demographics, and duration viewed makes it highly perceptive. Armed with effectively endless videos to suggest to users, this algorithm has the ability to suggest whatever is most likely to keep users on the site. Given the findings of this project and the minimal research that currently exists on this topic, researching this should produce interesting and necessary results.

The overall findings of this project present many avenues for further research. Future projects should pick up where this model left off. These demonstrated pathways can provide for more granular analysis of what is happening on a platform level. This analysis relied on single-wave cross-sectional survey data. Further research could benefit from survey items designed to probe at exactly the kinds of questions this project is left with. Questions on political interest and a more robust measure of political participation would be very helpful. This project only considered voting behavior, however there are many more activities that could be considered prosocial that I simply could not assess given the limitations of the available data.

With each platform being different in its indirect effect on voting, I believe there is strong evidence that the kind of behavior that happens on each platform differs in important ways. It seems that potentially Facebook could be fostering legitimate news discussion to some extent, the kind that is actually productive. However, other platforms (Instagram and YouTube) don't seem to be set up to foster that kind of behavior. The differences in behaviors likely affect the prosocial outcome. In contrast, Twitter is a political platform used by many who already follow politics closely. Often this leads to more combative and opinionated discussion. Is this why that platform does not foster those additional, indirect discussion or opinion pathways to voting?

The analysis of this project is something of a snapshot. Given how much has changed from the social media approach of the 2008 Obama campaign to the 2016 Trump campaign, it is safe to say these trends will continue to evolve and mutate. We now know that Trump ran an incredibly effective digital campaign that led him to an electoral college victory and the presidency. The interactions here certainly run adjacent to that result and should be looked into further. At the time of writing, this project occurs almost exactly four years after the original data was collected. The opportunity to replicate this study potentially through another American Trends Panel would likely yield fascinating results. Have these bonds strengthened, weakened, or changed?

Another productive use of this is project would be comparative study of these relationships from 2016 to the current 2020 election and beyond. As social media platforms change over time, do these relationships change? There will almost certainly be new platforms to consider as well, and their influence on politics will ebb and flow. One potentially great example of this is TikTok. TikTok didn't exist for the 2016 election but

could prove influential just four years later. Being somewhere between Instagram and Facebook, this platform could have real impact on elections going forward. A comparative glance of elections over time would be helpful in expanding our understanding of social media platforms and their usage.

On top of this, the platforms, especially Facebook and Twitter, are much more sensitive to their role in the electoral process. I say sensitive meaning they know they play a part in the outcome, but are reluctant to take their role too seriously and often opt for a hands-off approach. Despite this, there have already been renewed warnings from American intelligence agencies that election interference is once again underway online. Each platform treats misinformation and bot accounts a little differently. These actions and the new features each platform utilize have changed what happens online. Research into how these have affected the kind of discussion online would be worthwhile. While much of the 2020 election is still to play out at time of writing, the role of social media in this election is not in question. What is in question is if the online conversation again plays a large role in the outcome. I believe these results indicate it will, and we should therefore be prepared to understand how.

That being said, users of these sites are more aware of how they are involved in electoral politics now than they were in 2016. The question remains as to how user behavior will adapt to this fact, but I think there is reason to believe it has changed already. Analyzing this behavioral shift would be a next step from here as well. I am particularly interested in the concept of social media repertoires, that is how the cumulative use of multiple sites effects an individual (Matassi, Boczkowski, &

Mitchelstein, 2019). In the context of these findings – what if someone is very active on Twitter and YouTube? How does this interaction effect voting?

One question I considered throughout this project but didn't decide to expand was disparate effects dependent on generational differences. For example, if we were to break this study into three studies - Baby Boomers, Gen-Xers, and Millennials - would all three studies produce similar results? My gut is that we would see generational divides not only in use of the platforms but in effects in political outcomes as well. This would offer greater granularity in understanding these effects. If effects are stronger among younger, digitally native individuals, this study becomes more important as we can assume this trend might continue to younger generations who are even more comfortable with social media.

The behaviors of both campaigns and users will change over time, especially as each learn to serve their preferred ends via the current social media equilibrium. One element of this how campaigns and political actors utilize these platforms. A trend in our politics over the last two general elections has been the rise of outsiders, often personified by Donald Trump on the right and Bernie Sanders on the left. These outsiders often have practical and ideological problems in gaining normal media coverage. For one, they are often covered differently if not less than establishment candidates. Second, in order to bolster their outsider bona fides, they might turn to social media where gaining a grassroots following is possible without media elites help. Because of this Establishment candidates, like Marco Rubio, Jeb Bush, and Hillary Clinton, might not utilize social media in the same way. A future study breaking down this relationship would be beneficial to understanding these political differences.

The outside force that remains unmentioned throughout this paper is government regulation. These companies operate in many different companies, so regulation falls to individual countries. In the American context, conversations around this topic often fall flat. Further research into the prosocial consequences of social media use can help in two ways. First, it can continue to draw out and define exactly what is going on here. The more we know about platform effects, the more researchers can make their case to regulators. Second, a deep study can provide regulators with the background to effectively address the issues. A current issue is simply the lack of knowledge around how these platforms even function, most notably played out in a Senate questioning of Facebook founder Mark Zuckerberg. A senior member of the Senate Judiciary Committee, Senator Orrin Hatch, seemed to fail to understand how the site even made money, despite Facebook being one of the most profitable advertising companies in the world. If regulators are uninformed on the basics on social media, we certainly can't expect narrowly tailored legislation to confront these platforms.

Lastly, it is important to leave a few notes on research design and improvements for future studies. One of the biggest weaknesses of this study is the reliance on secondary data analysis. While the Pew data is impressive and generously provided for use without charge and was therefore a cost-effective option for this study, the results would likely have benefitted from data collected specifically for this project. One area this was particularly obvious during the analysis was comparing the news discussion and opinion expression variables. What is the difference between talking about the news and sharing your opinion about the news? The questions this study relied on didn't seem all that different in their wording, yet both forms of analysis differentiated them at a

statistical level. Future study might benefit from collecting study specific data. Where large surveys similar to the Pew study used in this analysis might not be possible, a sample that reflects the attributes of the public could be put together and questioned using Qualtrics or other similar methods.

To step back some, it is important to think of the further research in this area as being somewhat all encompassing. We get our news online, we watch clips of television online, we discuss these things, and we redistribute them online. These platforms are becoming a locale for consolidated media consumption and dissemination. To study what goes on here is to study the evolution of legacy media towards fragmentation and aggregation – broken into smaller, easier to consume pieces, yet viewed through a timeline or newsfeed. This stripping of greater context, especially in terms of political learning and participation, is particular pernicious. There has yet to be an emerging body of leadership or policy to specifically determine the rules and regulations across these platforms. The current status quo is that the sites self-regulate, and as long as they meet existing media regulation. Much of the current regulation is out of date and does not factor in modern change.

Research here can illuminate areas the platforms need to address and areas that they don't. Our political media has already migrated to these platforms, and that means politics is now largely a social media affair. Acknowledging this and making sure that citizens are both media literate and protected from the spread of disinformation will be an important step for the future health of our democracy. This project has shown that the discussion that happens on social media is now a part of voting behavior. We should

understand that the features and content of these sites will continue to shape our political conversations and outcomes, likely increasingly so, in the years to come.

This project shows the importance of political conversation in a democracy. The results suggest that politics and communication function together as a stepwise system. Despite all that has changed between Bryce's time and ours, conversation remains essential to the function of democracy.

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