Investigating How Social Media Definitions and Mindsets

Relate to Naturalistic One-Click Reactions

Dissertation

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By

Lisa Rhee, M.A.

Graduate Program in Communication

The Ohio State University

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**Dissertation Committee** 

Dr. Joseph Bayer, Advisor

Dr. Jesse Fox

Dr. Roselyn Lee-Won

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#### Abstract

Researchers have repeatedly deliberated on the question of "What is social media?" for the past two decades. More recent perspectives have suggested that measuring individual differences in users' expectations for online social spaces matters when understanding social media behavior and outcomes. Consequently, this dissertation project integrates emerging perspectives on user expectations—in particular, lay definitions of specific platforms and global mindsets toward social media-to better understand how individuals navigate the rapidly growing social media ecosystem. Drawing on data collected from a nationally representative study (N = 1,904), this project examines the extent to which key types of user expectations about online environments influence their engagement with real-world social media posts on a mock social media feed (i.e., SocialPulse). In the process, the study results revealed considerable variability in how individuals conceptualize and define "social media." In particular, people were almost evenly split on whether messaging-centered platforms and YouTube are "social media." Moreover, although most people generally agreed on defining three of the major platforms in the U.S. (i.e., Facebook, Twitter, Reddit) as "social media," people had significantly different perceptions of whether these key online spaces are centered on social interaction or news consumption. Furthermore, results demonstrated that differences in user expectations were meaningfully related to the use of one-click

reactions (i.e., likes and dislikes). More specifically, those who defined social platforms as a news consumption (vs. social interaction) tended to like – and sometimes dislike – a greater number of social media posts. In addition, the valence mindset was positively related to liking and negatively related to disliking behavior, whereas the agency mindset was negatively associated with disliking behavior. To conclude, I discuss how studies on user expectations may reflect or relate to neighboring areas of social media research, as well as the role of prior experiences with the broader social media ecosystem.

*Keywords:* social media, lay definitions, perceived socialness, mindsets, one-click engagement, ecological validity

# Dedication

This dissertation is dedicated to God and everyone who has supported me and stood beside me on this journey.

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2019	M.A. School of Communication, The Ohio State University
2019 to present	Graduate Fellow, School of Communication, The Ohio State University
2019 to present	Graduate Associate, School of Communication, The Ohio State University
2017	B.A. School of Communication, Northwestern University
2017	Integrated Marketing Communication Certificate, Medill School of Journalism, Northwestern University

## Publications

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## Chapter 1. Introduction

Over the last two decades, the numbers of social platforms and users have increased exponentially, attracting scholarly attention at an unprecedented scale. Yet, despite an enormous body of social media research, there is still not a commonly accepted definition of social media (Aichner et al., 2021). Nevertheless, recent studies emphasize that how users define and approach social media in their unique ways is essential for understanding how users navigate the complex social media landscape. Notably, emergent perspectives have argued that individual differences in how people conceptualize social media – and their expectations for online social spaces – matter in shaping social experiences and the effects of social media usage. For instance, recent studies have suggested that differences in user expectations (e.g., Clark & Green, 2018) and mindsets (e.g., Lee et al., 2021) guide the ways in which individuals make sense of online spaces, as well as influence the effects of their usage. Hence, this dissertation intends to integrate recent perspectives on *user expectations*—particularly, how people perceive what "social media" are and anticipate what outcomes arise from use-to better explicate how individuals navigate the rapidly expanding media ecosystem.

Although user expectations are presumed to contribute to how individuals approach online environments at a general level, there is a lack of empirical work testing how specific types of expectations about online environments – such as subjective understandings of social platforms and their effects – can drive everyday momentary behavior. Consequently, the current project proposes drawing on data collected from a nationally representative study, which developed a mock social media feed (hereby referred to as *SocialPulse*), to test whether multiple types of user expectations affect behavior with real-world social media posts.

Adopting this simulated feed design, the dissertation project will first examine *lay definitions*: how people conceptualize and understand "social media." Next, I consider the potential for user definitions of social platforms and mindsets toward social media to function as user expectations, thus shaping how users think and behave on social media. More specifically, I assess the extent to which (1) users define platforms as spaces for social interaction (vs. news consumption) and (2) their perceived valence and agency of social media may influence how they use different forms of one-click reactions (i.e., like, dislike) on the SocialPulse feed. Last, the current project sought to test the ecological validity of the novel social media feed developed for this project by examining how individual differences in the perceived similarity of SocialPulse influence the degree to which participants engage with one-click reactions on SocialPulse.

The dissertation is broken into nine chapters. More specifically, Chapter 2 delves into the scholarly definitions of "social media." Chapter 3 explores definitions of "social media" through the lens of lay social media users. This chapter also discusses the perceived socialness – or the extent to which online spaces are defined by "social interaction" – of three key platforms situated at the intersection of social interaction and news consumption: Facebook, Twitter, and Reddit. Chapter 4 provides an overview of different perspectives on user expectations and considers how lay definitions and mindsets might be related to one another. Chapter 5 discusses the potential for definitions and mindsets of social media to influence how users choose and interact with one-click reactions—in particular, likes and dislikes— on social media. Chapter 6 describes the novel social media feed (i.e., SocialPulse) designed for this study. Additionally, this chapter considers the potential for the perceived similarity of SocialPulse to affect participants' behavior and engagement with social media content on the novel feed. Chapters 7 and 8 cover the method and results of the current study, respectively. Finally, Chapter 9 offers a discussion of the findings, implications, and limitations of the current research. Chapter 2. How Scholars Define "Social Media"

For the past two decades, scholars have persistently wrestled with the question: What is "social media?" (Kaplan & Haenlein, 2010; Obar & Wildman, 2015). Despite the proliferation of social media research, its definition remains highly contested, and it remains unclear what tools, platforms, and/or social phenomena count as social media. Even a dedicated journal—i.e., *Social Media + Society*—was launched in 2015 in an effort to better understand the complex implications of social media. Given the ongoing debate surrounding the definition of "social media," I next review scholarly perspectives to help contextualize and inform the current aims. Hence, this chapter covers different scholarly definitions of "social media" while addressing some of the key questions that scholars have tackled to clarify "social media."

#### Scholarly Definitions of "Social Media"

Across social science research, "social media" has been used as an umbrella term to describe a wide variety of online platforms, including social network sites, blogs and microblogs, social bookmarking, collaborative projects, forums, photo and video sharing, podcasts, and virtual worlds (e.g., Aichner et al., 2021; Duong, 2020; Lau, 2017). Given the broad spectrum of potential social media platforms, researchers have developed various definitions of social media over the past two decades. Some provided definitions that focus on the message construction of social media. For example, Russo et al. (2008) broadly described social media "as those that enable online communication, networking, and/or collaboration." Meanwhile, others highlighted the role of user-generated content in definitions (e.g., Kaplan & Haenlein, 2010). One popular characterization of social media describes it as interactive Web 2.0 Internet-based applications involving user-generated content (i.e., text posts, comments, photos), user-specific profiles, and the connection of user profiles into online "social networks" (Obar & Wildman, 2015). Additionally, although not all social media are inherently *social network(ing) sites* (SNSs), the term social media has often been used interchangeably with SNSs (Carr & Hayes, 2015). In particular, the definition of SNSs presented by boyd and Ellison (2007) has commonly been used (incorrectly) to describe "social media" (Bayer et al., 2020).

More broadly, social media definitions can be categorized into two major streams: those published before 2010 and after 2010 (Aichner et al., 2021). While early definitions (before 2010) frequently treated social media as a tool of connectivity for "people," later definitions (after 2010) often treated social media as a tool for sharing user-generated content, substituting the term "people" with "user." Altogether, perhaps due to the everchanging nature of the social media landscape and the interdisciplinary nature of social media research, the definition of social media remains contested. Clearly, understandings of what social media *are*, what they *include*, and what they *represent* have varied considerably over the last two decades. Nonetheless, the evolving conceptualization(s) of social media over the years illustrates how the process of defining social media is central to the broader social media literature.

## Are Social Media "Social"?

At the most general level, most researchers would agree that social media are always "social" on some level (Baym, 2015; Bruns, 2015; Papacharissi, 2015). Indeed, researchers commonly recognize social media platforms as spaces for fostering social interaction(s) (e.g., Ellison & boyd, 2013; Ellison et al., 2014), and these spaces have unquestionably transformed how many people communicate and connect with other individuals and groups (boyd, 2015). Nevertheless, some researchers have suggested or assumed that different platforms emphasize "socialness" to different degrees. Indeed, some perspectives have argued that to fully conceptualize "social media," it is essential to understand the extent to which social media are *social* (i.e., socialness) (Fuchs, 2017; Kaye, 2021). For example, while much of the cyberpsychology debate centers on the effects of social media use on well-being, much less attention has been paid to answering the fundamental question of how "social" social media platforms actually are (Kaye, 2021), which has resulted in large disparities in the literature in terms of outcomes associated with social media use (Ryan et al., 2017). In turn, Kaye (2021) provided several recommendations, such as distinguishing between social media volume (frequency of use) and *use* (specific types of behaviors or interactions), to ascertain the "socialness" of social media to better theorize about their potential social or psychological effects. Thus, as "socialness" is an inevitable dimension of social media, exploring the extent to which well-established platforms are "social" (or perceived as social) remains critical to social media research.

Relatedly, Hall (2018) has directly questioned the assumption that *all* social media activities are "social interactions." Hall (2018) found that when people engage in

activities that are less personal, one-on-one, and relationship-specific (e.g., browsing), they are less likely to *perceive* that social interaction has occurred. This finding implies that although technological features of social media platforms may have been designed for so-called "social" reasons, users may not *perceive* them as "social" or "social interaction"—at least when pressed by researchers. Similarly, Carr and Hayes (2015) argued that for users to consider a medium social, they must *perceive* some level of engagement or interactivity. The centrality of perception echoes other calls in communication technology research that emphasize the importance of considering *perceived* affordances rather than technological or inherent affordances (e.g., DeVito et al., 2017; Fox & McEwan, 2017). By assessing affordances from the users' perspectives, such research suggests that we can provide more enduring insights into social media behavior and its outcomes (e.g., DeVito et al., 2018; Fox & Holt, 2018).

Following past research, this dissertation project approached social media from a scientific definition that social media represents "…Internet-based channels that allow users to opportunistically interact and selectively self-present, either in real-time or asynchronously, with both broad and narrow audiences who derive value from user-generated content and the perception of interaction with others" (Carr & Hayes, 2015, p. 50). At the same time, the current study adopts a measurement approach that centers on social platforms that are commonly used for news consumption in the United States as potential "social media." In doing so, I embrace the subjectivity of everyday users who may have starkly different perceptions of which platforms qualify and different understandings of what the platforms are *for*. Hence, I sought to clarify how social media

are conceptualized through the lens of social media users in the United States—whether or not their definitions match those of the scholarly literature.

## Chapter 3. How Users Define "Social Media"

Understanding how individuals approach and conceptualize social media has become increasingly challenging as social media has become so many things to different people (Madianou, 2015). As social media platforms provide a unique and complex set of affordances, people attribute different meaning constellations to different platforms (Boczkowski et al., 2018). As a result, people commonly use a combination of social media platforms (Frey & Friemel, 2023; Horvát & Hargittai, 2021; Tandoc et al., 2019) and create *personalized* media ecologies within this large social media ecosystem to fulfill their diverse needs (Zhao et al., 2016). Hence, to better understand contemporary social media behaviors and their associated outcomes, it is important to account for users' personalized media ecologies. One fundamental way to understand how individuals navigate the social media ecosystem is by exploring how they assign definitions to the platforms they use. This chapter begins with a discussion of lay definitions of "social media." Then, the chapter explores lay definitions of social media by specifically focusing on perceived socialness—or the extent to which platforms are defined by "social interaction." The chapter concentrates on the three platforms - Facebook, Twitter, and Reddit – that reside at the boundary of social interaction and news consumption.

## Lay Definitions of "Social Media"

How do social media users assign definitions to the platforms they use? An extensive body of research has delved into the multifaceted ways that users approach, perceive, and engage with social media environments (e.g., Alhabash & Ma, 2017; DeVito et al., 2017; Ernala et al., 2022). Perhaps most notably, many studies have sought to understand how users approach social media by commonly drawing on the uses and gratifications (U&G) framework (Katz et al., 1973). These studies have identified numerous motives—such as social interaction, information seeking and sharing, entertainment, passing time, convenience, and self-expression—that drive people to use diverse social media platforms in everyday life (e.g., Alhabash & Ma, 2017; Quan-Hasse & Young, 2010; Whiting & Williams, 2013; Wohn & Ahmedi, 2019). To be sure, the heterogeneous, personalized reasons that users cite for why they use social media may contribute to how they conceptualize and articulate the primary purpose of a platform. Nonetheless, these reasons do not clarify or quantify users' overarching understandings of social media, as motives are not inherently equivalent to perceptions of what a given social environment is for. Indeed, people can have perceptions of what a space is for without any prior use or clear motives tied to a platform.

When examining user definitions of social media and/or platforms, one fundamental question is perhaps how people define the term "social media." Through a qualitative interview study, Lee et al. (2021) have partially addressed this question by exploring how individuals count the time spent on particular platforms or activities as part of their "social media use." Their findings demonstrated that participants varied in how they construed or defined the term "social media." For example, one participant included the time spent using the Messenger application to send messages to their friends as part of their "social media use," but did not include the time spent "texting." Another participant expressed uncertainties around whether they should include the time spent gaming on Messenger as part of "social media use." As such, these findings reflect that the processes by which individuals construed social media are often idiosyncratic and that the definition of "social media" may be complicated for users (not just scholars).

As alluded to in the example above, the definition of social media is becoming more complicated for users as the role of social media vs. messaging apps has become increasingly blurred (Hall, 2022). For example, Meta has shifted to prioritize private messaging and group chat features by merging Instagram messaging services with Messenger, allowing users on both (sub)platforms to interface directly (Mosseri & Chudnovsky, 2020). As commonly agreed upon "social media" platforms have incorporated and reinforced their messaging functionalities, scholarly definitions of social media have also shifted to include texting, direct-messaging, and even video calls (Nesi et al., 2018). Indeed, social media and messaging (or "texting") platforms would seem to provide different sets of perceived affordances (Fox & McEwan, 2017), with social media typically offering more opportunities to passively consume news and social information through centralized, curated feeds (Stragier et al., 2021). Nonetheless, as social media continue to emphasize and advance their messaging capabilities, many users tend to think of messaging-centered platforms such as WhatsApp as synonymous with "social media" platforms (Hall, 2022). Given that the technical lines of social media and messaging are becoming blurrier, and the perceptual lines of increasingly complex online

environments are inherently subjective, it is important to clarify how people conceptualize social media by exploring which platforms they define as "social media." Hence, this dissertation project first seeks to examine user definitions of social platforms in the United States by answering the following research question:

RQ1. What platforms do people view as "social media"?

## Perceived Socialness of Facebook, Twitter, and Reddit

Recent work has sought to understand social media definitions by examining whether people define the central purpose of platforms in terms of *perceived socialness* or the extent to which the platforms are defined by "social interaction" (Rhee et al., 2021). Specifically, Rhee et al. (2021) pitted "social interaction" against other app and platform categories commonly encountered in the media ecosystem: entertainment, news, photo/video, events, social interaction, shopping, dating, and lifestyle. Findings revealed that individual users had vastly different understandings of the socialness of four platforms (Facebook, Twitter, Instagram, and Snapchat). Furthermore, perceived socialness was associated with amplified perceptions of key social affordances and resources, affirming the importance of considering user definitions for understanding social media experiences. Taken together, prior work has illustrated that the perception of social interaction (i.e., perceived socialness) is critical to how users define social media. Consequently, building on this work, here I further investigate the extent to which people define the central purpose of specific platforms as "social interaction."

Importantly, the above work also demonstrated the merit of taking a "relative importance" approach to measuring global definitions of platforms (Rhee et al., 2021).

This approach allows researchers to quantify global perceptions of platforms by evaluating how one dimension of a platform is viewed *as contrasted with* other key dimensions, clarifying which dimensions users perceive as central (vs. peripheral) to each platform. Moreover, this approach allows platforms to be interpreted in relative terms (Nielsen & Schrøder, 2014), potentially strengthening ecological validity by mirroring a user's real-world comparisons of platforms while considering multiple options (e.g., choosing between "social" vs. "news" categories in app stores). Hence, given that a wide range of qualities can feasibly apply to social media, the relative importance approach to perceived socialness can help shed light on the extent to which platforms are defined as "social interaction" versus other dimensions.

When considering the perceived socialness of platforms, one key comparison is the extent to which people define social platforms in terms of news consumption as opposed to social interaction. Rhee et al.'s (2021) study of lay definitions found that news was one of the key categories for defining social media platforms—especially for Twitter (and, to a lesser extent, Facebook). Notably, past studies confirm that social media platforms have become essential sources of news across the world (e.g., Horne & Adali, 2017; Kalsnes & Larsson, 2018; Wohn & Ahmadi, 2019). According to a Pew study conducted in July and August 2021, "a little under half (48%) of U.S. adults say they get their news from social media" (Walker & Matsa, 2021). More recently, a Pew study conducted in July and August 2022 found that 53% of Twitter, 44% of Facebook, and 37% of Reddit users regularly consume news from each platform (Matsa, 2022). Additionally, social media's growing focus on news and information sharing is reflected in how scholarly social media definitions have broadly changed over time: from platforms for socializing to tools for information aggregation (Aichner et al., 2021; Kapoor et al., 2018). The widespread use of social media platforms for news consumption has the potential to drive how users derive the central purpose of platforms, such that they may perceive platforms as less central for social interaction and more central for news consumption. Thus, one pivotal question is the extent to which people primarily define the overall function of social platforms as for social interaction vs. news consumption.

Here, I concentrate on three key platforms at the boundary of social interaction and news consumption: Facebook, Twitter, and Reddit. Notably, it remains unclear how people define the central purpose of Facebook, Twitter, and Reddit when directly contrasting social vs. news facets. As detailed below, these three platforms represent what are arguably the three most central social platforms for news aggregation and consumption in the United States today.

First, Facebook has long been a pivotal space for new sharing and consumption. Media reports indicate that Facebook is a primary source of traffic to news websites and a much more important network than Twitter for news distribution (Lichterman, 2016; Newman et al., 2021; Owen, 2016). In 2021, about a third of U.S. adults (31%) have reported that they regularly consume news on Facebook (Walker & Matsa, 2021). Furthermore, past research studies have demonstrated that informational use of Facebook exerts a significant influence on individuals' activities aimed at engaging in civic and political action (e.g., Gil de Zúñiga et al., 2012; Kearney, 2017; Yang & DeHart, 2016). Second, a large body of work demonstrates that Twitter has also become a firmly established space for news sharing and consumption (e.g., Gramlich, 2021; Kalsnes & Larsson, 2018; Mitchell & Liedke, 2021). In 2021, about 23% of U.S. adults have reported that they consume news on Twitter, and more than half of those users (55%) get news on the site regularly (Walker & Matsa, 2021). Past studies also found that people are motivated to use Twitter for informational rather than social purposes (Hughes et al., 2012; Kircaburun et al., 2020). Technological features, such as retweets and hashtags, embedded in Twitter allows users to share messages (or tweets) beyond the reach of the original tweet's followers. Thus, due to such technical features of Twitter (as well as influencer and institutional buy-in), it has grown as a powerful medium for widespread information.

Third, Reddit is another popular social media platform commonly used for news aggregation (Horne & Adali, 2017; Leavitt & Robinson, 2017; Wohn & Ahmadi, 2019). Specifically, Wohn and Ahmadi (2019) discovered that Reddit is one of the primary social media platforms people use to read micro-news. Among participants who reported that they receive micro-news on mobile social media platforms, 46% said that Facebook was the primary social media platform they used for reading micro-news, followed by Twitter (26%) and Reddit (22%). As such, Reddit has also become a primary space for gathering news information even without institutional news sources.

Overall, Facebook, Twitter, and Reddit are major platforms blurring the central role of social media as a social (vs. news) platform. Although prior work on lay definitions (Rhee et al., 2021) revealed that Facebook is most centrally defined as a social interaction platform and Twitter is most centrally viewed as a news platform, no study has yet to explore whether Reddit is perceived as a space for social interaction (vs. news consumption). Therefore, following recent work, the dissertation project tests the hypotheses that Facebook is most defined as a social interaction (vs. news) platform and Twitter is most defined as a news (vs. social interaction) platform, and answers the research question of how Reddit is most defined.

Notably, the focus on Facebook, Twitter, and Reddit is further guided by the design of the mock social media feed developed for this project. Given that news consumption is one of the central facets of these prominent social media platforms, I was motivated to draw on a *news*-oriented mock feed (SocialPulse)—that ostensibly aggregates real-world social media posts—to observe actual social media behavior. To do so, the mock social media feed was populated with real-world posts collected via Synthesio, a social listening platform. Within the feed, posts were manipulated to suggest they were sourced equally from Facebook, Twitter, and Reddit to match the cover story of SocialPulse. Therefore, to reflect the nature of the novel social media feed used for this project, I sought to test how adults in the United States define the central purpose (i.e., perceived socialness) of the three platforms displayed in SocialPulse.

**H1a:** Facebook is more likely to be defined as a social interaction (vs. news consumption) platform.

**H1b:** Twitter is more likely to be defined as a news consumption (vs. social interaction) platform.

**RQ2:** To what extent do people define Reddit as a space for social interaction (vs. news consumption)?

Chapter 4. User Definitions, Mindsets, and Expectations

#### **User Definitions as Expectations**

Beliefs, attitudes, and perceptions can be collectively understood as subjective construals that people build and draw on to "perceive, comprehend, and interpret the world" (Griffin & Ross, 1991). People are constantly constructing "working hypotheses" about the meaning of their experiences with objects in our environment, such as social platforms (Walton & Wilson, 2018). In a way, lay definitions of social media can be understood as one of the many construals that people form about social media – and perhaps one of the central construals they rely on when describing and comparing specific platforms. As described above, it is clear by now that individuals assign their own definitions to particular platforms and social media at-large. These definitions reflect what users think certain online environments are - i.e., what they are and what they are for. Just as individuals have an understanding of what a church is and what it is for, they have an understanding of these newer and more dynamic social spaces. These mental schemas, in turn, can potentially anchor expectations for common behavior within those spaces, including the range of possible or acceptable behavior. Hence, user definitions of social media may function as subjective construals that guide, or at least index, expectations of social media and/or specific platforms, thereby shaping how users think and behave online.

#### **Mindsets as Expectations**

Another critical way to think about user expectations is through *mindsets*. Mindsets, also known as implicit theories, are a particular kind of construal that work as core assumptions we create about the nature and workings of things in the world (Dweck, 2006; Dweck & Yeager, 2019). Mindsets help individuals make sense of complex information by offering them simple schematics about themselves and objects in their world (Dweck, 2006; Dweck & Yeager, 2019). In a way, mindsets function like lenses that color how people come to understand their experiences and in turn, influence actions and feelings consistent with this perspective. In the case of social media, mindsets reflect individuals' own beliefs about how they approach these online spaces and potentially what effects they anticipate or assume. Importantly, increasing perspectives have highlighted the value of considering these subjective construals to understand differential social media experiences and outcomes. For example, recent studies have suggested that people hold beliefs about whether they have high or low control over their social media use—or what has been termed an *agency social media mindset* (Lee et al., 2021; Lee & Hancock, 2023). Their findings also demonstrated that these construals, in turn, influenced how they perceive or behave on social media, such that those who believed that they have difficulty controlling their social media use (low agency) were more likely to attribute negative outcomes (e.g., poor productivity) to social media (Lee et al., 2021).

## Mindsets and Metacognitions

Moreover, mindsets—including agency mindsets—share some conceptual similarities with *metacognitions*. Metacognitions are beliefs that individuals hold that are

involved in the appraisal, control, and monitoring of one's own thinking (Flavell, 1979; Wells, 2000; Wells & Matthews, 1996). In other words, metacognition can be conceptualized as "a specific form of expectancy relating to a behavior as a means of controlling and regulating cognition and emotion" (Casale et al., 2016, p. 85). Positive metacognitions are related to the belief that engaging in specific coping strategies can be beneficial in managing one's cognitive-affective experience (e.g., "Alcohol makes me feel less self-conscious"; Spada & Wells, 2006, p.141), whereas negative metacognitions are related to the perceived control over adopted coping strategies and their impact on cognitive-affective states (e.g., "I have no control over my drinking"; Spada & Wells, 2006, p.141). As such, metacognition involves a sense of empowerment or control, like an agency mindset.

Notably, numerous studies on metacognitions have examined the relationship between metacognitions and different technological addictions, such as internet gaming disorder (e.g., Marino et al., 2020), problematic internet use (e.g., Caselli et al., 2021), and problematic smartphone use (e.g., Casale et al., 2020). The impact of metacognition has also been investigated in the realm of problematic social media use (PSMU). For example, Casale et al. (2018) showed that positive metacognitions about social media usage significantly mediated the relationship between fear of missing out and PSMU. More recently, Akbari et al. (2023) developed the Metacognitions about Social Media Use Scale (MSMUS) to assess metacognitions related to social media use. For example, a sample item is "Once I start using social media, I cannot stop." Adopting the scale, the study revealed a meaningful association between negative metacognition—or the belief that they have difficulty controlling their social media use—and problematic social media use (Akbari et al., 2023). Altogether, past studies have demonstrated the potential for metacognitions of social media use to influence how people understand their experiences, thereby influencing their behaviors on social media.

Similarly, mindsets toward social media—or individuals' own beliefs about how they approach social media—may reflect their assumptions or *expectations* of social media (and their effects), and thus shape their social media experiences and outcomes. Hence, this dissertation considers the role of user expectations—in particular, definitions and mindsets—to better explicate social media experiences and outcomes. Despite the potential for user definitions and mindsets to function similarly as user expectations, it remains unclear how user definitions and mindsets are related to one another. As a way to assess users' global understandings of what platforms primarily do, user definitions may reflect users' mindsets or other assumptions about a platform. Consequently, the current project aims to empirically test the following research question:

RQ3: How do social media definitions and mindsets relate to one another?

Chapter 5. User Expectations as Predictor of One-Click Reactions

#### User Expectations as Predictor of Social Media Behavior

Social media research has increasingly drawn attention to how individual expectations influence online behaviors and their associated outcomes (Clark & Green, 2018; Ernala et al., 2022; Lee et al., 2021). For example, Clark and Green (2018) demonstrated the potential for attitudes toward online interactions to serve as a selffulfilling prophecy, such that those who have positive attitudes toward online interactions are more likely to make choices that lead to positive outcomes. Relatedly, the expectation effects of differences in understanding of social media have been explored in past work on "folk theories" (DeVito et al., 2018; Eslami et al., 2016; French & Hancock, 2017) and "lay definitions" of platforms as described above (Rhee et al., 2021). For example, whereas some people believed that their Facebook newsfeed reflected their personal engagement with content, others believed that the algorithm privileged particular formats of content or reasoned that what they saw reflected the most globally popular content (Eslami et al., 2016). These differences in how people construed the workings of the newsfeed influenced their behavior, such as how they presented themselves and engaged with content on social media (Eslami et al., 2016). Taken together, these results imply that people hold very different perceptions about how social media works or operates, and that these expectations can influence how they interpret or construe their personal experiences with social media.

Going beyond lay theories of how social media "works," a growing body of research has suggested that the mindsets that people have about social media and/or social media use can have downstream effects on their lives, shaping outcomes such as psychological well-being (e.g., Cunningham et al., 2021; Hancock et al., 2022; Schreurs et al., 2023). For example, past studies have demonstrated that people who perceived their own social media use to be "problematic" or indicative of an underlying addictive tendency experienced more depressive symptoms (Cunningham et al., 2021; Paakkari et al., 2021). Similarly, a recent qualitative study by Lee et al. (2021) found that those with the mindset that "social media is empowering" reported having better, more enhancing experiences with social media than those with the mindset that "social media is addicting." Furthermore, Ernala et al. (2022) found that people's beliefs about whether social media are good or bad moderated the relationship between time spent on social media and well-being. Specifically, when people think that Facebook is bad, the more time they think they spend on the platform is associated with lower well-being. On the other hand, when people think that Facebook is good, the time people think they spend on social media is *not* associated with well-being. More recently, Lee & Hancock (2023) found that people with more agentic mindsets about their social media use experienced significantly less depression, anxiety, and stress than those who believed their use to be out of their control.

Overall, an increasing number of perspectives have highlighted the importance of examining user expectations to better conceptualize and understand differential social media experiences and outcomes. Here, I propose testing how individuals' definitions *of social media* and mindsets *toward social media* predict how users behave when browsing

a platform in real-time. Following recent work by Lee & Hancock (2023), I consider two kinds of social media mindsets as a predictor of social media behavior: (1) their *perceived valence* and (2) their *perceived agency* of social media. While *perceived valence* reflects the extent to which people view social media as having a positive or negative impact on their lives, *perceived agency* represents the extent to which people view social media as a tool that they have control vs. a tool that exerts control over them. In line with past work, I explore user definitions of *specific* platforms (Rhee et al., 2021), whereas I examine mindsets toward social media *at-large* (Ernala et al., 2022; Lee et al., 2021; Lee & Hancock, 2023). More specifically, I consider how (1) the perceived socialness of Facebook, Twitter, and Reddit and (2) the valence and agency mindsets of social media predict in-the-moment behavior.

Although extant literature provides preliminary evidence to believe that user expectations guide social media behaviors and their associated outcomes (e.g., Clark & Green, 2018; Ernala et al., 2022; Lee & Hancock, 2023), it remains largely understudied how such user expectations drive everyday social media behavior in real-time. Consequently, this dissertation project is motivated to address such gaps in the extant literature by exploring the relationship between user expectations and actual behaviors in a mock social media feed. To do so, the dissertation project draws on data collected in which participants browse a naturalistic news feed (SocialPulse) to assess users' engagement with real-world social media posts.

#### **Social Media Engagement**

Broadly, social media engagement can be conceptualized under three main categories: consumption, participation, and production (e.g., Shao, 2009; see also Khan,

2017). *Content consumption* represents the lowest level of engagement, involving users passively consuming social media content (e.g., watching a video, reading a text without responding). Next, *participation* (or *contribution*) represents a higher level of engagement, involving user-to-content and user-to-user interaction (e.g., liking, disliking, commenting). Last, *creation* represents the highest level of engagement, involving users publishing user-generated content on social media (e.g., posting a picture, uploading a video, writing an opinion piece). Of these three, this dissertation project is particularly interested in examining the participatory aspect of social media engagement.

As mentioned above, participatory engagement on social media could be characterized in two primary ways. First, one form of participatory engagement is between a user and content as social media provide affordances for users to interact with relevant information and its sources (Sundar et al., 2015). Common engagement behaviors of this type include using one-click reactions (i.e., likes), commenting, and sharing social media content. Second, engagement could also be between a user and other user(s). Individuals can engage with other users by interacting and being influenced by various social cues, such as the number of likes, views, and shares, by others (Dvir-Gvirsman, 2019). As such, engaging in lightweight acts of communication—i.e., oneclick reactions—represents one of the most common forms of participatory behavior on social media. Additionally, past studies have demonstrated the impact of one-click reactions on well-being outcomes, such as perceived social support (Carr et al., 2016) and perceived happiness (Marengo et al., 2021). Consequently, the current project focuses on the participatory side of social media engagement by considering the use of one-click
reactions, specifically investigating when and how different forms of one-click reactions are used.

#### Social Media Engagement via One-Click Reactions

Online participation on social media is often established symbolically through one-click reactions, sometimes described theoretically as paralinguistic digital affordances (PDAs) (Hayes et al., 2016). Hayes et al. (2016) conceptualized PDAs as "cues in social media that facilitate communication and interaction without specific language associated with their messages" (pp. 172–173) and suggested that "one of the most common affordances of social media is the ability to Like, Favorite, +1, or Upvote" (p. 171). As described, Hayes et al. (2016) use "affordances" as features, which is consistent with the technologist perspective of affordances (Gaver, 1991; see also Evans et al., 2017 for a comprehensive review of the uses of the affordances terminology in empirical research on communication and technology). However, according to Evans et al. (2017), affordance is "neither the object nor a feature of the object," arguing that it is important to recognize the agency present in technology use. In other words, unlike features, affordances focus on the relationship between individuals and their perceptions of environments. Following this perspective, while this dissertation focuses on two key types of PDAs (i.e., likes, dislikes), I avoid the term *PDA* to acknowledge the conceptual distinction between features and affordances.

I will focus on one-click reactions, specifically like and dislike buttons, which represent common features in the social media ecosystem (Bayer et al., 2020; Ellison et al., 2020). Such one-click reactions can be seen as online versions of classic social cues encountered in offline interactions (e.g., non-verbal cues) that have long been of interest

to communication researchers (Park et al., 2021). Although there is not a universal language in one-click reactions, social platforms have rallied around certain features that hold widespread adoption. Notably, the like button, such as the Like (e.g., Facebook, Twitter) and Upvote (e.g., Reddit), is a common form of positive reaction used across the social media ecosystem. Liking is a less effortful type of one-click reaction that allows users to express their approval (Hayes et al., 2016).

Given the widespread use of likes on social media, past studies have explored the motivations (Chin et al., 2015; Hayes et al., 2016; Sumner et al., 2018) and considerations (Lowe-Calverley & Grieve, 2018) underlying liking behavior on social media. Specifically, Hayes et al. (2016) categorized some of the common motives for liking: giving a literal interpretation of liking a particular content, acknowledging having seen or viewed a particular post, engaging in social support or grooming, and keeping a record of a post for utilitarian purposes. Their findings suggest that although the intended purpose of the like button centers around the expression of positive emotion toward a post, interpretations of what it signals vary widely. Similarly, Sumner et al. (2018) found that acknowledging having viewed a message or a post was the most common interpersonal motivation behind using the Like button. Sumner et al. (2018) also found that users' tendency to actively engage with the platform (vs. passively browsing the platform) positively predicted the frequency of liking behavior. Additionally, Lowe-Calverley and Grieve (2018) found that prior to clicking the like button, social media users consider their enjoyment of the content, their relationship with the individual posting, the appropriateness of the post, and the implications for their reputation. Taken

together, decisions to like particular content are driven by a number of factors, ranging from user motivations to general use patterns.

Although many studies have focused on one-click reactions that are positive in tone— the "like," in particular (Lutz & Schneider, 2021)—social media also provide the opportunity to express negative reactions through dislikes. Disliking (e.g., YouTube) and downvoting (Reddit) features allow users to easily express their disagreement in response to a post or a comment (Khan, 2017). For example, Lee et al. (2022) investigated subjective factors (perceptions, intentions, emotions) that could influence people's likelihood to intervene in online retributive harassment by liking, disliking, flagging, or commenting on the harassment post. The study results revealed that participants tended to like the harassment post when they saw it as appropriate and justified. On the other hand, participants tended to dislike the post when they saw it as less justified, felt more offended, and had the intention to call out the harasser. Additionally, Khan (2017) conducted a survey to understand the motivations underlying liking and disliking behaviors on YouTube. The results revealed that those who were motivated to socialize on YouTube were more likely to participate by liking and disliking videos, which highlights the potential for user expectations tied to social interaction underpin whether like or dislike buttons are pressed.

While the above described studies reveal a number of different precursors to oneclick engagement, no study has yet to test the role of user expectations—here, definitions and mindsets of social media— in predicting likes and dislikes. The lack of empirical attention to user expectations is significant because such perceptual processes may influence how users choose and interact with one-click reactions on social media.

According to Kunst et al. (2021), users who support solidarity citizenship norms—or the belief that "good citizens" should care for others—have a greater propensity to flag hateful comments. Furthermore, Wilhelm et al. (2020) found that injunctive norms, such as users' inherent political and moral worldview, predicted their reporting behavior, such that a liberal worldview increases the likelihood of reporting hate comments against refugees. These findings suggest that different social norms or cognitive construals may meaningfully color how people approach social media content, and thus influence actions and feelings consistent with this view.

As such, user expectations of social media may guide the way people interact with different forms of one-click reactions. In particular, I propose that valence mindsets are likely to be a key precursor to liking and disliking behavior. Notably, previous work on the Social Media Literacy (SMILE) model of social media use suggests that individuals are predisposed to presenting overly positive versions of themselves on social media that may not align with their true feelings (Schreurs & Vandenbosch, 2021). Accordingly, more positive mindsets may lead users to be more likely to engage in behaviors that affirm the positive nature of social media use, such as by being more likely to use positive interface cues (e.g., like) and less likely to use negative interface cues (e.g., dislike). More specifically, they may be more likely to "like" content they do not actually like, and less likely to "dislike" content that they actually do not like.

**H2:** People who hold more *positive* social media mindsets will (a) like SocialPulse posts to a greater extent and (b) dislike SocialPulse posts to a lesser extent.

On the other hand, more agentic mindsets may influence the degree to which users choose to engage with one-click reactions in general. Individuals with more agentic mindsets towards social media view themselves as being in control of their social media use, rather than perceiving social media as exerting control over them. As a result of this mindset, users may presume greater weight into their actions on the platform – and thus be more likely to actively engage with one-click reactions. This possibility is especially relevant to algorithm-driving features such as likes and dislikes, which allow users to directly shape whether and how the platform content is presented to others.

**H3:** People who hold more *agentic* social media mindsets will (a) like and (b) dislike SocialPulse posts to a greater extent.

In sum, valence and agency social media mindsets may meaningfully shape the way people engage in liking or disliking behaviors on social media. Nonetheless, it is less clear how perceived socialness may relate to specific one-click reactions on social media. It is especially important to examine the potential for perceived socialness to underpin one-click engagement as these one-click reactions are widely recognized as "social" cues of relational investment (e.g., Carr et al., 2016; Hayes et al., 2016; Spottswood & Wohn, 2019). As such, whether users perceive the online space as primarily for social interaction (vs. news consumption) may contribute to the extent to which they like or dislike social media content. Overall, this dissertation is thus motivated to explore whether both definitions and mindsets shape how users engage in liking and disliking behaviors on social media.

**RQ4:** Does perceived socialness relate to the frequencies of (a) liking and (b) disliking on SocialPulse?

# Chapter 6. Observing Like/Dislike Behavior on a Simulated Social Media Feed

Researchers have increasingly stressed the need for an "ecological" approach to studying communication phenomena to establish more robust and reliable claims (e.g., Conner & Mehl, 2015; Levine, 2018; Ram et al., 2020). In the domain of social media, one way that studies have sought to take "ecological" approaches to observe behavior is by designing a mock or simulated social media platform that emulates existing social media websites (e.g., Fenn et al., 2019; Haferkamp et al., 2012; Mahajan et al., 2021). For example, Fenn et al. (2019) asked participants to engage in a mock social media environment to investigate qualities that influence the liking and sharing of true and false information online. Similarly, Mahajan et al. (2021) designed a mock social media platform called Community Connect, which primarily emulates the look and feel of Twitter, to conduct controlled experiments on social media behavior. A simulated social media feed provides several advantages, such as enabling researchers to capture the fluctuating and varied content on social media as well as users' interactions with those posts in a controlled environment. Moreover, social media data is often difficult to obtain, with most companies restricting access to their data (Morstatter et al., 2013). By contrast, researchers can easily obtain, access, and quantify the naturalistic behavior of how individuals navigate the platform using a simulated platform. In addition, such custom designs allow researchers to gain informed consent from the participants, thereby

sourcing data ethically with participants' awareness, which is often challenging with mainstream social media platforms.

Additionally, after engagement with the mock feed, researchers can ask follow-up questions assessing participants' perceptions of specific posts. These posts can be selectively chosen based on certain conditions, such as how participants engaged with the post (e.g., used the "liked" feature). Hence, this allows researchers to collect perceptual data, assessing not only participants' engagement with posts but also their *perceptions* of those posts. Given the project goal to gather both behavioral and perceptual data, implementing a mock social media feed is particularly well-suited. Therefore, the current project designed a novel mock social media feed (*SocialPulse*) to assess users' perceptions and one-click engagements with social media posts.

Overall, the goal was to design an "ecologically valid" platform that allows users to behave in a similar manner as they would behave in real-world news feeds/streams on social media. Individuals can activate pre-existing cognitive and behavioral schemas developed from past experiences in *similar* interaction contexts when there is an overlap between these experiences and the novel social environment (Nishida, 1999). Nonetheless, although SocialPulse is presented as a novel platform designed to aggregate the most engaging posts across Facebook, Twitter, and Reddit, participants may not perceive it as similar, thereby influencing the way they behave on the platform. If participants do not perceive the mock feed as similar to other social media platforms, it may blur any theorized relationships that are evaluated based on their behavior on the mock feed. As such, when testing expectation effects on a mock feed, it is vital to understand and test whether people behave differently based on *perceived similarity*—or the extent to which participants view the mock feed as similar to other social media platforms. Hence, the current project sought to test the ecological validity of SocialPulse by examining how different levels of perceived similarity of SocialPulse influence the degree to which participants like or dislike content on SocialPulse.

**RQ5**: Does the perceived similarity of SocialPulse predict one-click engagement on SocialPulse?

Finally, there may be a unique relationship between expectation effects and realism effects, such that expectation effects are contingent on perceived similarity. More specifically, differences in perceived similarity may impact the relationship between user expectations and SocialPulse behavior. In particular, for an expectation to guide behavior, users will need to recognize and perceive similarity between the environment they are *in* and the environment they are *drawing from* schematically. As such, I expect those with higher perceived similarity of SocialPulse will exhibit a stronger relationship between mindsets and SocialPulse one-click engagement. Hence, I also investigate how perceiving SocialPulse as similar to real social media feeds influences the degree to which user expectations predict one-click engagement on SocialPulse.

RQ6: Does the perceived similarity of SocialPulse moderate the relationship
between perceived socialness and one-click engagement on SocialPulse?
H4a: Perceived similarity of SocialPulse will moderate the relationship between *valence* social media mindsets and one-click engagement on SocialPulse, such
that those with higher perceived similarity will exhibit a stronger positive

relationship between positive mindsets and liking behavior while exhibiting a stronger negative relationship between positive mindsets and disliking behavior. **H4b:** Perceived similarity of SocialPulse will moderate the relationship between *agentic* social media mindsets and one-click engagement on SocialPulse, such that those with higher perceived similarity will exhibit a stronger positive relationship between agency mindsets and one-click engagement.

# Chapter 7. Method

### **Project Overview**

This study was conducted as part of a multi-study project centered on the psychological processes underlying naturalistic social media feed engagement, with a special focus on accounting for the role of offensive content on social media. The complete list of study measures and instruments from the online study is provided in the Supplemental Document. The list of study measures and instruments used for this dissertation project is provided in Appendix B.

## Participants

The procedures for participant recruitment and data collection were subjected to review and approval by the Institutional Review Board (IRB) at the University of California Santa Barbara prior to their implementation. NORC, at the University of Chicago, facilitated data collection through an online probability-based panel, AmeriSpeak, designed to represent U.S. household population. Between August 22 and September 30, 2022, a total of 7,409 individuals residing in the U.S. and aged 18 years or older were invited to complete a 20-minute online study.

The study sample was selected from the AmeriSpeak panel using the sampling strata based on age, gender, race/ethnicity, and education. The final sample size comprised of N = 1,904 participants. This excludes participants that were found to have

indicated non-consent or provided low-quality data by NORC. Additionally, the final sample excludes 108 participants who failed an attention check within our survey measures. Specifically, we evaluated whether there was an inconsistency between participants who indicated they had never heard of a platform while simultaneously indicating they had used the platform and removed those participants. The final sample included participants with an average age of 46.53 years (SD = 17.02), with 51.05% identifying as female and 48.95% as male. Moreover, 77% of participants reported having at least some college education. In terms of racial and ethnic backgrounds, 64.76% of the participants self-identified as White or Caucasian, 12.71% as Hispanic/Latino(a), 11.92% as Black or African American, 1.84% as East Asian, 1.68% as South Asian, 1.79% as Native Hawaiian or other Pacific Islander, 1.05% as American Indian or Native American, 0.42% as Arab, Middle Eastern, or North African, 3.47% as biracial or multiracial, and 1.05% selecting "Other." Using a five-point Likert scale, participants self-reported a moderate level of identification with their racial or ethnic group (M = 3.26, SD = 1.36). Political views varied, with 31.36% identifying as more conservative than most Americans, 32.35% as more liberal, and 35.81% as moderate or in the middle of the road. Using a five-point Likert scale, participants also self-reported that political identity is slightly important to them (M = 2.47, SD = 1.25). Overall, 58.19% of the participants identified with Christianity, as compared to 7.67% with Agnostic, 5.67% with Atheist, 1.37% with Judaism, 0.95% with Hinduism, 0.63% with Buddhism, 0.58% with Islam, 18.80% with no religion, and 5.72% selecting "Other." Procedure

According to NORC, the AmeriSpeak panel employed a rigorous initial recruitment process where U.S. households were selected randomly using area probability and address-based sampling, ensuring a known and nonzero probability of selection from the NORC National Sample Frame. NORC utilized information about age, gender, race/ethnicity, and education to gather the study sample using stratified random sampling. The sample coverage of the panel is about 97% of the U.S. household population, with only a few exclusions such as those with P.O. Box only addresses, those with addresses not listed in the USPS Delivery Sequence File, and those with newly constructed dwellings. The online survey was self-administered by the respondent in English via the web. For completing the survey, participants initially received \$5. To encourage further participation, the incentive was raised to \$7 on September 9, 2022.

At the onset of the survey, participants were provided with a disclosure statement regarding the inclusion of content containing harsh and derogatory language. Participants were allowed to skip any questions they felt uncomfortable answering and exit the survey without incurring any penalty. Additionally, they were informed that their responses would be kept anonymous and would not be associated with any identifying factors, such as their name or phone number. After obtaining consent, participants were directed to complete the online study, which commenced with a series of questions pertaining to their usage and perceptions of social media platforms, familiarity and social norms regarding hate speech, and sentiment toward the racial groups of interest to this study. Following this, they were presented with a brief instructional video that acquainted them with a novel social media feed (SocialPulse) designed for the study. SocialPulse was described to the participants in the following way: "SocialPulse is a window into the wide world of social media. The ultimate goal of SocialPulse is to bring the top posts and comments from major social media platforms (such as Facebook, Twitter, Reddit) in your country into one convenient place. With SocialPulse, individuals can keep track of the most engaging posts that are circulating online without having to share personal data, scroll through advertisements, or visit multiple sites." Participants were then allotted a maximum of three minutes to interact with the feed, which consisted of a total of 60 posts, including both hateful and non-hateful posts.

The participants were randomly assigned to one of two experimental conditions: (1) ten percent of the posts on the SocialPulse feed were severely hateful (*n* = 960 participants) *or* (2) ten percent of the posts were moderately hateful (*n* = 944 participants). The rest were non-hateful posts that did not contain harsh and derogatory language. SocialPulse included the following six features that allowed participants/users to interact with the feed: *like, dislike, show me more, show me less, recommend, and report.* See Figure 1 for a screenshot of the interface and see <u>https://youtu.be/11KDTzG-gEA</u> for a video of the instructional tutorial. After completing the SocialPulse task, participants were asked to provide feedback on their experiences with SocialPulse. They were then shown six randomly selected posts, two of which were non-hateful and four were hateful. Of the four hateful posts, two were hateful posts targeting Asian Americans and other two were targeting Muslims or Arabs. Participants were asked to provide feedback on their perceptions of each displayed post. Lastly, participants were instructed to answer several questions assessing their perceptions of social media platforms, social

media usage frequency, and demographic information. At the end of the study,

participants were debriefed.

Socialpulse	Browsing time remaining: 2:06	testID
	(v) @journalistsafe 2020-03-14 11:13	
	India I was doing exceptionally well fighting #Corona BUT now every Mosque is hiding the Malaysian Muslims and are full of Corona patients. More than 2000 illegal foreigners are being caught from across India. They have infacted 1000s & multiplying It's now #CoronaJihad	
	00	
	Julius Carlson 2020-09-03 03:46	
	The school staff union in Houston has said 80% of bus drivers are declining to come back because of health issues and age concerns related to the virus, according to KHOU.	
	00	
	sourredundant	
	2020-07-04 06:22	

Figure 1. Screenshot of the SocialPulse Interface

# Stimuli and Stimuli Pretest

The posts used in SocialPulse were obtained via Synthesio (https://www.synthesio.com), a social listening platform that provides researchers access to public data from major social media platforms. Synthesio enables researchers to search for social media posts using keyword-based queries in 197 countries and over 80 languages, within a specified time frame. I utilized Synthesio's Boolean query search to collect both non-hateful and hateful posts targeted toward Asian Americans and Muslims/Arabs, while excluding comments and retweets<sup>1</sup>. To collect *hateful* posts, I designed queries to include derogatory terms or racial slurs aimed at each racial group

<sup>&</sup>lt;sup>1</sup> Following Vidal et al. (2015), retweets were excluded to avoid inclusion of repeated data.

and excluded terms that could cause noise in the data. For instance, to gather posts targeting Asian Americans, I included the term "chunky" while excluding posts about Chunky Monkey ice cream from Ben & Jerry's. To collect *non-hateful* posts, I designed the queries to gather posts that mentioned news articles from three U.S. news outlet accounts (USA Today, Wall Street Journal, and New York Times) on diverse topics such as health, terrorism, international affairs, politics, entertainment, economy, and immigration. Please refer to Appendix A for the keyword-based queries used to collect social media posts between January 1 to September 22, 2020.

# **Pilot Study**

A pilot study was conducted and included two major goals: (1) test the ecological validity of the mock social media feed and (2) validate a novel measure of perceived socialness. A total of N = 1,330 participants completed an online study in October 2021. The sample was recruited through Amazon's Mechanical Turk (MTurk) and consisted of participants who were 38 years old on average (SD = 11.91), with 59.85% identifying as female, 39.47% identifying as male, and 0.68% identifying as "Other."

To test the ecological validity of SocialPulse, participants were asked to evaluate its perceived similarity across three dimensions: technical, behavioral, and contextual. First, *technical* ecological validity (i.e., how SocialPulse looks and feels compared to other social media platforms) was measured by asking participants to evaluate the extent to which the SocialPulse (1) interface, (2) features, and (3) posts seemed similar to the ones on other social media. Next, *behavioral* ecological validity (i.e., how testing SocialPulse compared to how they use social media in their everyday life) was assessed by asking participants to evaluate the extent to which they (1) "browsed the SocialPulse feed," (2) "used the SocialPulse features," and (3) "reacted to the SocialPulse posts" in a similar way they do in everyday life. Last, *contextual* ecological validity (i.e., how the environment when testing SocialPulse compared to the environment they are typically in when using social media) was examined by asking participants to evaluate the extent to which they typically use social media (1) "in the physical environment that they are in currently," (2) "at this time of day," (3) "on the device that they are on currently," and (4) "on the web browser that they are on currently." Participants responded to all of the questions above by choosing a response option from a five-point Likert scale with endpoints ranging from 1 (*not at all*) to 5 (*very similar*). A composite score for their responses were computed for each of the three dimensions (i.e., technical, behavioral, contextual).

Results demonstrated that SocialPulse looks and feels "moderately similar" to other social media platforms (*technical ecological validity*, M = 3.24, SD = 0.97), engagement with the SocialPulse interface is "mostly similar" to how people engage with social media in everyday life (*behavioral ecological validity*, M = 3.64, SD = 1.05), and the environment when testing SocialPulse is "mostly similar" to the one people are in when using social media (*contextual ecological validity*, M = 3.67, SD = 0.77). As such, the pilot study demonstrated moderately high technical, behavioral, and contextual validity of SocialPulse, suggesting that SocialPulse is a relatively "ecologically valid" platform that allows users to behave in the similar manner as they would behave in realworld social media feeds.

Next, the pilot study also sought to validate a novel measure of perceived socialness, which directly compares whether a platform is defined as a space for social interaction vs. news consumption, and understand how this novel measure compares to a previously validated rank-type measure. Prior work has measured perceived socialness by using a rank-type measure, which asks participants to rank-order categories for a given platform (Rhee et al., 2021). Specifically, this measure assesses how platforms are specifically defined as "social interaction" compared to other seven categories (i.e., entertainment, news, photo/video, events, shopping, dating, and lifestyle). Although the rank-type measure has been previously validated in prior work, it does not directly compare whether platforms are viewed as social vs. news platforms. Hence, along with the rank-type measure, the pilot study also included an original measure of perceived socialness, which used a seven-point semantic differential scale. The semantic differential scale asks participants, "To what extent do you view the following social media platforms as a space for social interaction vs. news consumption?" with response options ranging from 1 (*news consumption*) to 7 (*social interaction*).

To begin, the results revealed that news was one of the key categories for defining Twitter and Reddit (and to a lesser extent Facebook). This reaffirms the importance of understanding the extent to which people primarily define the overall function of social platforms as for social interaction vs. news consumption. Additionally, the results demonstrated that the two measures (i.e., rank-type and semantic differential scale) exhibited convergent validity, such that the average ranking of "social interaction" (ranktype) was moderately positively associated with viewing platforms more as space for social interaction than news consumption (semantic differential scale) (r = 0.28 - 0.37). Additionally, the results revealed that the average ranking of "news" (rank-type) was moderately negatively associated with viewing platforms more as a space for social interaction than news consumption (semantic differential scale) (r = -0.36 - -0.44). In sum, the pilot study cross-validated the novel measure of perceived socialness with the original rank-type measure, suggesting that the semantic differential scale adequately captured the extent to which people viewed the target platforms as social- vs. news-centered. Consequently, the current project adopts the validated semantic differential scale is social vs. news.

# Measures

The complete list of study measures and instruments for this study can be viewed in Appendix B. Means, standard deviations, and Cronbach's αs for main study measures are reported in Table 1.

**Social Media Identification.** To assess what platforms people view as "social media," I asked, "Which of the following platforms do you view as 'social media'?" I selected the most popular platforms that prioritize both social and news features in the U.S. at the time of the study launch based upon app store rankings: Facebook, Twitter, Reddit, Instagram, Snapchat, YouTube, TikTok, WhatsApp, Messenger, Discord, Telegram, and Signal. For each of the 12 items, participants were instructed to select one of the three response options: "social media," "not social media," or "never heard of."

Usage Frequency. Participants were asked to indicate how often they use the 12 platforms: Facebook (M = 5.07, SD = 2.21), Twitter (M = 2.51, SD = 2.09), Reddit (M = 2.23, SD = 1.87), Instagram (M = 3.53, SD = 2.41), Snapchat (M = 2.33, SD = 2.11),

YouTube (M = 4.86, SD = 1.77), TikTok (M = 2.70, SD = 2.28), WhatsApp (M = 1.88, SD = 1.76), Messenger (M = 3.98, SD = 2.24), Discord (M = 1.61, SD = 1.55), Telegram (M = 1.28, SD = 1.06), and Signal (M = 1.18, SD = 0.87). Participants responded by choosing an option from an eight-point Likert scale with endpoints ranging from 1 (*never*) to 8 (*hourly*).

**Perceived Socialness.** To measure *perceived socialness*, I adopted the sevenpoint semantic differential scale validated from the pilot study. Participants were asked, "To what extent do you view the following social media platforms as a space for social interaction vs. news consumption?" They were instructed to select the leftmost option (1) if they view the platform only for social interaction, the rightmost option (7) if they view the platform only for news consumption, and the options in between if they view the platform for both. The perceived socialness variable was reverse-scored, such that higher scores indicate greater tendency to view the platform primarily as a space for social interaction (vs. news consumption).

**Social Media Mindsets.** Social media mindsets were measured by adopting the Social Media Mindsets Scale (SMMS) (Lee et al., 2021), which contains sub-scales for valence (Cronbach's  $\alpha = 0.87$ ) and agency mindsets (Cronbach's  $\alpha = 0.75$ ). Items were assessed on a seven-point Likert scale with endpoints ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). A composite score was created for their responses to the items regarding their valence mindset and their agency mindset, respectively.

Additionally, I included alternate measures of valence mindsets (i.e., good-vs-bad mindset) (Ernala et al., 2022) that assessed people's beliefs in whether social media were enhancing vs. harmful (a) for themselves and (b) for society. Participants were asked, "To

what extent do you think social media is good or bad for you?" and "To what extent do you think social media is good or bad for society?" Participants responded by choosing a response option from a seven-point Likert scale with endpoints ranging from 1 (*very bad*) to 7 (*very good*). In sum, the study included three measures of valence mindset: (1) valence mindset, (2) good-vs-bad (society), and (3) good-vs-bad (you).

**One-click Engagement.** One-click engagement was assessed by computing the total number of times people (a) liked and (b) disliked SocialPulse posts for each participant.

**Perceived Similarity of SocialPulse.** To assess perceived similarity of SocialPulse, I adopted the items from the "behavioral ecological validity" subscale validated from the pilot study<sup>2</sup>. Participants were instructed to think about how their behaviors on SocialPulse compared to how they use social media in their everyday lives. More specifically, I examined the extent to which they (1) browsed the feed, (2) used the features, and (3) reacted to the posts in a similar way they do in everyday life using a five-point Likert scale with endpoints ranging from 1 (*not at all similar*) to 5 (*very similar*). A composite score for their responses to the three items were computed.

**Ecological Measures.** In order to assess people's broader understanding and experience with the broader social media ecosystem, I computed three measures using the social media identification and usage frequency measures described above. First, I summed the number of platforms an individual viewed as "social media" to calculate the breadth of social media definitions (i.e., *social media breadth*). Second, I summed the number of

<sup>&</sup>lt;sup>2</sup> Other subscales (i.e., technical and contextual) measured in the pilot study were not included to manage the length of the online study.

platforms an individual reported "never heard of" to calculate the level of awareness pertaining to social platforms (i.e., *social media awareness*, reverse-scored). Last, I summed the number of platforms an individual self-reported using monthly or more frequently. Of the given 12 platforms, about 63% of the participants had three to six distinct platforms that they used actively (i.e., monthly or more frequent users) (M = 4.85, SD =2.28).

**Demographic Information.** Participants were asked to self-report how old they are for *age* and whether they identified as "female" or "male" for *gender* as part of their broad panel survey conducted by NORC. Meanwhile, political identification, race/ethnicity, and religious affiliation, were assessed at the end of the online survey. Political identification was assessed by asking, "Think about your political views. Compared to most Americans, where would you place yourself on this scale?" using a seven-point Likert scale with endpoints ranging from 1 (*extremely liberal*) to 7 (*extremely*) conservative). Race/ethnicity was measured by asking, "Which of the following racial/ethnic categories are you MOST likely to identify with?", with the following response options: White or Caucasian, Black or African American, East Asian, South Asian, Native Hawaiian or other Pacific Islander, Hispanic or Latino, American Indian or Native American, Arab or Middle Eastern or North African, biracial or multiracial, and other. Religious affiliation was assessed by asking, "What is your religious affiliation?", with the following nine response options: Christianity, Judaism, Islam, Buddhism, Hinduism, Atheist, Agnostic, none, and other.

**SocialPulse Attention.** To account for individual differences in attention to SocialPulse feed content, I assessed two measures of scrolling behavior. First, I measured *distance*, or how far participants scrolled through the feed (1 = did not reach 25% of the feed height, 2 = past 25% but did not reach 50% of the feed height, 3 = past 50% but did not reach 75% of the feed height, and 4 = past 75% of the feed height). Second, I measured *scrolling events*, or the total number of times people scrolled through the feed. Scrolling events were mean centered with the scale function in R. Finally, to further account for individual differences in attention to SocialPulse, I measured *time on feed*, or the total time (in seconds) participants spent on the SocialPulse feed (M = 176.88, SD =532.52)<sup>3</sup>.

Measures	М	SD	Cronbach's α
Usage Frequency			
Facebook Frequency	5.07	2.21	_
Twitter Frequency	2.51	2.09	_
Reddit Frequency	2.23	1.87	—
<b>Platform Definitions</b>			
Facebook Socialness	5.25	1.66	—
Twitter Socialness	4.27	1.85	_
Reddit Socialness	4.09	1.69	—
Social Media Mindsets			
Agency Subscale	4.90	1.23	0.75
Valence Subscale	4.12	1.23	0.87
Good-vs-Bad Mindset	3.62	1.25	0.80

**Table 1.** Means, Standard Deviations, and Cronbach's  $\alpha$  for All Main Study Measures (N = 1,904)

<sup>&</sup>lt;sup>3</sup> Although participants were given 180 seconds to engage with the feed, 62.72% of the participants spent 181 to 183 seconds on the feed. This deviation can be explained by the additional time taken to load the next page and slight deviations between the participants and questionnaire system's clock. For these reasons, those who spent longer than 180 seconds on the feed were not excluded. Instead, the time on feed variable was added as a covariate in all models.

Related to Society	3.39	1.40	_
Related to You	3.85	1.35	_
<b>One-Click Engagement</b>			
Like	5.53	7.01	_
Dislike	5.89	8.84	—
Perceived Similarity	3.21	1.18	
SocialPulse Attention			
Distance	2.47	1.24	—
Total Scrolling Events	952.56	1010.62	_
Time on Feed (sec)	175.71	529.88	

*Note.* Agency and valence sub-scales are adopted from the Social Media Mindsets Scale (SMMS) (Lee et al., 2021). Good-vs-Bad mindsets, including beliefs related to society and you, are adopted from Ernala et al.'s (2022) study.

# Chapter 8. Results

### What Platforms Do People View as "Social Media"?

RQ1 was examined in multiple ways. First, I generated a bar graph to visualize and compare which platforms are most frequently viewed as "social media" (see Figure 2). Results demonstrated that the top six platforms that most people viewed as "social media" were Facebook, Twitter, Instagram, TikTok, Snapchat, and Reddit. On the other hand, people were split on whether YouTube, WhatsApp, Messenger, and Discord are "social media." Furthermore, a majority of the participants had never heard of Telegram and Signal, and even among those who had heard of these platforms were split on whether they are "social media."

Second, I generated a tetrachoric correlation table to evaluate the likelihood of identifying each platform in the same way (see Table 2). To do so, I re-coded the social media identification variable into a binary variable (0 = not social media, 1 = social media). Results suggested that when individuals perceive one platform as social media (vs. not social media), they were more likely to perceive other platforms in the same way (r = 0.07 - 0.69). In particular, people were likely to evaluate messaging-centered platforms in the same way (i.e., Signal, Telegram, WhatsApp, Discord) (r = 0.42 - 0.69) and photo- or video- centered platforms in the same way (i.e., Instagram, Snapchat, TikTok) (r = 0.45 - 0.51). Additionally, results generally showed a weak relationship

between viewing YouTube as social media (vs. not social media) and viewing other platforms (r = 0.08 - 0.28), suggesting that YouTube is generally independent of other platforms. Similarly, results revealed a very weak positive relationship between defining Messenger as social media (vs. not social media) and defining other non-messaging apps—i.e., Reddit (r = 0.07), Instagram (r = 0.1), and TikTok (r = 0.1). Overall, findings generally convey that thinking of one platform as social media does not make one less likely to view other platforms as less social media.



**Figure 2.** Bar Graph of 12 Platforms Viewed as Social Media, Not Social Media, or Never Heard of

*Note.* The bar graph illustrates that Facebook, Twitter, Reddit, Instagram, Snapchat, and TikTok are commonly viewed as "social media," whereas people are split on whether YouTube, WhatsApp, Messenger, and Discord are "social media." Majority of the participants have never heard of Telegram and Signal, and even among those who have heard of these platforms are split on whether they are "social media."



**Table 2.** Tetrachoric Correlation Table Between Social Media Identification Variables (12 Platforms)

# p < 0.10; \* p < 0.05

*Note.* Those who have never heard of each platform are treated as missing. Grayed cells indicate the sample size for each corresponding association.

**Figure 3.** Box and Whisker Plot of Perceived Socialness for Facebook, Reddit, and Twitter



*Note.* Box and whisker plot illustrates that Facebook was viewed as the most "social interaction" focused platform, Twitter was viewed as slightly more social- than news-centered, and Reddit was perceived as being in the middle of social interaction and news consumption.

# Perceived Socialness of Facebook, Twitter, and Reddit

The first set of hypotheses predicted that (H1a) Facebook is more likely to be defined as a social interaction (vs. news consumption) platform, whereas (H1b) Twitter is more likely to be defined as a news consumption (vs. social interaction) platform. To test these hypotheses, I conducted paired t-tests, comparing perceived socialness between Facebook and Twitter, Twitter and Reddit, and Facebook and Reddit. Results revealed that Facebook was perceived as more social (M = 5.25, SD = 1.66) than Twitter (M =4.27, SD = 1.85), t(1875) = 20.22, p < 0.01. Likewise, Facebook was perceived as more social than Reddit (M = 4.09, SD = 1.69), t(1871) = 24.03, p < 0.01. Between Twitter and Reddit, Twitter was perceived as more social than Reddit, t(1867) = 4.21, p < 0.01. Thus, our results confirmed H1a, but rejected H1b<sup>4</sup>. Additionally, to explore the extent to which people define Reddit as a space for social interaction (vs. news consumption) (RQ2), I generated a box and whisker plot of perceived socialness of the three platforms (see Figure 3). As demonstrated, Facebook was viewed as the most "social interaction" focused platform, Twitter was viewed as slightly more social- than news-centered, and Reddit was perceived as being in the middle of social interaction and news consumption.

### **Relationship Between Social Media Definitions and Mindsets**

Next, I generated bivariate correlation tables including perceived socialness, social media mindsets (i.e., valence, agency), and platform use frequency to understand the relationship between different types of user expectations for social media.

First, results revealed that perceived socialness of Facebook, Twitter, and Reddit were moderately positively correlated to one another (r = 0.22 - 0.41) (see Table 3). This suggests that users of the three platforms are likely to evaluate the platforms in a similar way—i.e., users who define Twitter as a news (vs. social interaction) platform are more

<sup>&</sup>lt;sup>4</sup> Additional paired t-test were conducted after excluding those who have never of each platform, and they all demonstrated convergent findings.

likely to define Facebook and Reddit as news platforms. Additionally, results demonstrated that more frequent users of Twitter were less likely to define it as a social interaction (vs. news consumption) platform (r = -0.2). Similarly, more frequent users of Reddit were less likely to define it as a social interaction (vs. news consumption) platform (r = -0.15). Meanwhile, more frequent users of Facebook were slightly more likely to define it as a social interaction (vs. news consumption) platform (r = 0.11). Taken together, results illustrated that user definitions of specific platforms are meaningfully related to how frequently they use each platform, but the relationship is idiosyncratic to each platform.

	1	2	3	4	5	6
1. Socialness: Facebook	-					
2. Socialness: Twitter	0.30***	-				
3. Socialness: Reddit	0.22***	0.41***	-			
4. Use Frequency: Facebook	0.11***	0.01	0.00	-		
5. Use Frequency: Twitter	-0.04#	-0.2***	-0.06*	0.03	-	
6. Use Frequency: Reddit	-0.03	-0.11***	-0.15***	-0.07**	0.35***	-
# p < 0.10; * p < 0.05; ** p < 0.05	).01; *** p	0 < 0.001				

**Table 3.** Correlation Table Between Perceived Socialness and Platform Use Frequency

Note. For each platform socialness measures (i.e., Facebook, Twitter, Reddit), I excluded

responses from those who have never heard of and never used each of the platform.

Similarly, I explored how mindsets toward social media as a whole are related to social media usage, which was measured as (1) a composite of participants' self-reported frequency of using three platforms (Facebook, Twitter, Reddit) that were included in the SocialPulse feed design and (2) a composite of participants' self-reported frequency of using all 12 platforms. Results demonstrated that frequent social media users were less likely to have agentic mindsets (r = -0.27 - -0.32) and had more positive mindsets (r = 0.13 - 0.38) (see Table 4). Thus, user definitions of specific platforms as well as mindsets toward social media at-large are meaningfully related to how frequently people use social media platforms.

Next, I examined the convergent and divergent validity of the social media mindset measures (see Table 4)<sup>5</sup>. More specifically, I investigated how the three measures of valence mindsets—i.e., valence mindset (Lee et al., 2021), good-vs-bad (society), good-vs-bad (you)— are related to one another. Results indicated that the two good-vs-bad mindsets measures (i.e., society, you) were strongly positively correlated (r= 0.67), suggesting that they were evaluating a highly related construct. Hence, following prior work (Ernala et al., 2022), the two measures of good-vs-bad mindset were combined by taking their average. Moreover, results demonstrated that the combined measure of good-vs-bad mindset was strongly positively correlated with valence mindset (r = 0.58), revealing that they were evaluating a similar construct. Additionally, I explored how agency and valence social media mindsets are related to one another.

<sup>&</sup>lt;sup>5</sup> Additionally, I conducted a factor analysis to test how the three mindset variables—i.e., agency, valence, and good-vs-bad—related to one another as well as evaluate their orthogonality. The results of the factor analysis yielded three factors in line with the survey operationalizations, reinforcing the decision to treat them as separate variables in the primary analyses.

Agency and valence mindset measures adopted from Lee et al. (2021) had a small, *negative* correlation (r = -0.16). Meanwhile, agency mindset and good-vs-bad mindset (you) had a small, *positive* correlation (r = 0.13). The different associations observed between agency mindset and the two measures of valence mindsets – i.e., valence mindset vs. good-vs-bad mindset (you) – suggest that valence measures are strongly related, but also tapping into somewhat different versions of the construct. Thus, for the following analyses, this study included two measures of valence social media mindset: (1) valence mindset and (2) good-vs-bad mindset.

Last, to explore RQ3, I examined the relationship between social media definitions and mindsets (see Table 4). Results illustrated that agency social media mindset had a small, positive relationship with Twitter socialness (r = 0.13), but were not significantly correlated with Facebook and Reddit socialness (ps > 0.05). Given that usage frequency is meaningfully related to user expectations, I also conducted partial correlations to test whether agentic mindset is positively correlated with Twitter socialness even while accounting for Twitter use frequency. Results showed that while accounting for Twitter use frequency, agency mindset continued to be significantly associated with Twitter socialness, although small (r = 0.11). In other words, those with agentic social media mindsets had slightly greater tendencies to view Twitter as a social interaction (vs. news consumption) platform despite how often they use the platform. Meanwhile, valence social media mindsets had a very small, positive association with Facebook socialness (r = 0.06 - 0.07), and a very small, negative association with Twitter and Reddit socialness (r = -0.06 - -0.07). Partial correlation results further demonstrated

	1	2	3	4	5	6	7	8	9	10
1. Socialness: Facebook	-									
2. Socialness: Twitter	0.30***	-								
3. Socialness: Reddit	0.23***	0.44***	-							
4. Agency Mindset	0.03	0.13***	0.03	-						
5. Valence Mindset	0.07**	-0.07**	-0.06**	-0.16***	-					
6. G-vs-B Mindset (Combined)	0.06**	0.00	-0.01	0.08***	0.58***	-				
7. G-vs-B Mindset (Society)	0.04#	-0.01	-0.02	0.02	0.49***	0.92***	-			
8. G-vs-B Mindset (You)	0.07**	0.01	0.00	0.13***	0.57***	0.91***	0.67***	-		
9. 3 Avg. Platform Use Frequency	0.03	-0.15***	-0.1***	-0.27***	0.37***	0.17***	0.13***	0.18***	-	
10. 12 Avg. Platform Use Frequency	-0.02	-0.12***	-0.09***	-0.32***	0.38***	0.16***	0.15***	0.14***	0.76***	-

**Table 4.** Correlation Table Between Perceived Socialness, Social Media Mindsets, and Platform Usage Frequency

 $\overline{\#p < 0.10; *p < 0.05; **p < 0.01; ***p < 0.001}$ 

*Note*. G-vs-B = Good-vs-Bad mindset (Ernala et al., 2022); 3 Avg. Platform Use Frequency = averaged use frequencies of Facebook, Twitter, and Reddit; 12 Avg. Platform Use Frequency = averaged use frequencies of Facebook, Twitter, Reddit, YouTube, Instagram, Telegram, Signal, Snapchat, TikTok, WhatsApp, Messenger, and Discord. that while accounting for use frequencies of each platform, only Reddit socialness continued to be significantly associated with valence mindset, although small (r = -0.05).

#### **Predictors of One-Click Engagement**

Next, I examined the relationship between user expectations (i.e., platform definitions and social media mindsets) and the number of SocialPulse posts individuals liked and disliked. To do so, I ran negative binomial regressions to account for non-normally distributed and over-dispersed count outcome variables<sup>6</sup>. For these models, participants who did not scroll through the SocialPulse feed (n = 21) or spent less than 30 seconds on the SocialPulse feed (n = 90) were further excluded, leaving a total of N = 1,793 participants. The models included age, gender, political identification, SocialPulse attention (i.e., distance, scrolling events, time on feed), and group condition (severely hateful vs. moderately hateful) as covariates<sup>7</sup>, unless stated otherwise.

### **Relationship Between Usage Frequency and One-Click Engagement**

Next, I explored whether people's social media use frequencies in the past influence the extent to which they engage with one-click reactions on a novel platform. To do so, I ran two separate negative binomial models including (1) social media use frequency (i.e., composite of participants' self-reported frequency of using all 12 platforms), and (2) average of three platforms use frequency (i.e., composite of participants' self-reported frequency of using Facebook, Twitter, and Reddit, that were included in the SocialPulse feed design) as predictors of liking and disliking behaviors.

<sup>&</sup>lt;sup>6</sup> Alternative models were conducted using the ordinal logistic regressions and mixed-effects negative binomial regressions and both demonstrated convergent findings (see Table 1 in Appendix C).

<sup>&</sup>lt;sup>7</sup> I also ran additional models with race and religious affiliation as covariates, but they did not affect the observed relationship. Hence, the two variables were excluded from the models.

Our study results showed a positive relationship between social media use frequency (i.e., averaged frequency of using 12 platforms) and liking behavior, such that more frequent users of platforms were more likely to "like" greater number of posts ( $\beta = 0.03$ , p < 0.001). Similarly, when using the measure of social media use frequency by averaging the self-reported frequency of the three platforms (i.e., Facebook, Twitter, Reddit) that were included in the SocialPulse feed design, I found that more frequent users of platforms were more likely to "like" greater number of posts ( $\beta = 0.01$ , p < 0.001). Meanwhile, the results revealed a non-significant relationship between all measures of social media use frequency and dislike behavior on SocialPulse. Taken together, results demonstrated that social media use frequency is an important predictor in shaping the extent to which people engage with one-click reactions—liking, in particular. As such, averaged self-reported frequency of the three platforms was added as a covariate in the key models to account for variation in participants' social media use frequency.

#### **Relationship Between Platform Definitions and One-Click Engagement**

For the following models testing the relationship between platforms definitions (i.e., Facebook, Twitter, and Reddit socialness) and one-click engagement (RQ4), participants who had never heard of and never used the given platform were removed. More specifically, five participants who had never heard of and never used Facebook were removed from the model examining the relationship between Facebook socialness and one-click engagement. Likewise, 24 participants were removed from the Twitter socialness model and 275 participants were removed from the Reddit socialness model. Additionally, to account for variation in participants' platform use frequency, I controlled for participants' self-reported frequency of using the specific platform.

Results revealed that those who define Facebook as news consumption (vs. social interaction) liked and disliked greater number of SocialPulse posts (see Table 5). Notably, Facebook socialness continued to significantly predict liking and disliking behavior while accounting for Facebook use frequency. Hence, whether or not individuals frequently visit Facebook, those who perceive Facebook primarily as a news consumption (vs. social interaction) platform liked and disliked a greater number of SocialPulse posts. Similarly, those who define Reddit as a news consumption (vs. social interaction) liked greater number of SocialPulse posts (see Table 5). Reddit socialness continued to significantly predict liking behavior while accounting for Reddit use frequency, once again suggesting that whether or not individuals frequently visit Reddit, those who define Reddit primarily as a news consumption (vs. social interaction) platform liked greater number of SocialPulse posts. Meanwhile, Twitter socialness was not a significant predictor of one-click engagement on SocialPulse.

	<b>Up Button</b>			Dov	ton	
	β		SE	β		SE
Facebook Socialness	-0.01	**	0.01	-0.01	***	0.02
Covariates						
Age	-0.01	*	0.00	-0.00		0.00
Gender: Female	-0.00		0.05	-0.00		0.06
Political Identification	-0.01	**	0.02	0.01	**	0.02
Facebook Use Frequency	0.01	***	0.01	0.00		0.01
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.08
Distance: 50% of the feed height	0.01	***	0.10	0.02	***	0.11
Distance: 75% of the feed height	0.03	***	0.07	0.04	***	0.08
Scroll Events	-0.01	***	0.00	-0.00		0.00
Time on Feed	-0.00		0.00	-0.00		0.00
Condition: Moderately Hateful	0.00		0.05	0.00		0.06
AIC	9	974.1			9930.8	
Twitter Socialness	-0.00		0.01	-0.00		0.02
Covariates						
Age	-0.00		0.00	-0.01		0.00
Gender: Female	-0.01		0.05	0.00		0.06
Political Identification	-0.01	#	0.02	0.01	**	0.02
Twitter Use Frequency	0.02	**	0.01	0.00		0.01
Distance: 25% of the feed height	0.01	***	0.07	0.02	***	0.08
Distance: 50% of the feed height	0.03	**	0.10	0.02	***	0.11
Distance: 75% of the feed height	0.01	***	0.07	0.04	***	0.08
Scroll Events	-0.00	***	0.00	0.00		0.00
Time on Feed	-0.01		0.00	0.00		0.00
Condition: Moderately Hateful	0.00		0.05	0.00		0.06
AIC	9	9793.4			9717.4	
Reddit Socialness	-0.01	*	0.02	0.00		0.02
Covariates						
Age	-0.00		0.00	-0.01	#	0.00
Gender: Female	-0.00		0.05	-0.00		0.06
Political Identification	-0.01		0.02	0.01	#	0.02
Reddit Use Frequency	0.00		0.01	-0.01		0.02
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.09
Distance: 50% of the feed height	0.01	**	0.10	0.02	***	0.12
Distance: 75% of the feed height	0.03	***	0.08	0.04	***	0.09
Scroll Events	-0.01	***	0.00	-0.00		0.00
Time on Feed	0.00		0.00	-0.00		0.00
Condition: Moderately Hateful	0.00		0.05	-0.00		0.06
AIC	8	3430.1			8372.1	

**Table 5.** Facebook, Twitter, and Reddit Definitions Predicting One-Click Engagement onSocialPulse
# p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

*Note*. Covariates are age, gender, political identification, platform use frequency, scrolling behaviors, time on feed, and group condition. The comparison group for gender is male, for distance is less than 25% of the feed height, and for condition is severely hateful. Estimates are standardized regression coefficients.

## **Relationship Between Social Media Mindsets and One-Click Engagement**

For the following models testing the relationship between social media mindsets (i.e., valence, agency) and one-click engagement, I further controlled for social media usage with a composite of participants' self-reported frequency of using three platforms (Facebook, Twitter, Reddit) that were linked to the SocialPulse platform design. In doing so, I sought to account for variation in participants' prior social media use frequency.

First, to examine the relationship between valence social media mindsets and engagement with like (H2a) and dislike (H2b) buttons, I ran two separate models—one for each valence mindsets measure (i.e., valence mindset, good-vs-bad mindset). Results demonstrated that both measures of valence social media mindsets positively predicted liking behavior on SocialPulse, such that those who view social media as having a more positive impact on their life have tendencies to like greater number of posts (see Table 6). In terms of disliking behavior, only good-vs-bad mindset was a significant predictor, such that those who generally believe social media is bad (vs. good) have greater tendencies to dislike greater number of SocialPulse posts. Importantly, valence social media mindsets continued to significantly predict engagement with one-click reactions even while accounting for social media use frequency.

	Up Button			<b>Down Button</b>			
	ß		SE	ß		SE	
Agency Mindset	-0.01	#	0.02	-0.01	**	0.02	
Covariates							
Age	-0.00		0.00	-0.00		0.00	
Gender: Female	-0.00		0.05	-0.00		0.06	
Political Identification	-0.01	#	0.02	0.01	**	0.02	
Average Platform Use Frequency	0.01	***	0.02	-0.00		0.02	
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.08	
Distance: 50% of the feed height	0.01	**	0.10	0.02	***	0.11	
Distance: 75% of the feed height	0.03	***	0.07	0.04	***	0.08	
Scroll Events	-0.01	**	0.00	-0.00		0.00	
Time on Feed	-0.00		0.00	-0.00		0.00	
Condition: Moderately Hateful	0.01		0.05	0.00		0.06	
AIC	10020		9995.2				
Valence Mindset	0.02	***	0.02	-0.00		0.02	
Covariates							
Age	-0.01		0.00	-0.01		0.00	
Gender: Female	-0.01		0.05	-0.00		0.06	
Political Identification	-0.01	#	0.02	0.01	**	0.02	
Average Platform Use Frequency	0.01	*	0.02	0.00		0.02	
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.08	
Distance: 50% of the feed height	0.01	***	0.10	0.02	***	0.11	
Distance: 75% of the feed height	0.03	***	0.07	0.05	***	0.08	
Scroll Events	-0.01	**	0.00	-0.00		0.00	
Time on Feed	-0.00		0.00	-0.00		0.00	
Condition: Moderately Hateful	0.00		0.05	0.00		0.06	
AIC	9993.6		9997.7				
Good-vs-Bad Mindset	0.01	**	0.02	-0.01	*	0.02	
Covariates							
Age	-0.01	#	0.00	-0.00		0.00	
Gender: Female	-0.00		0.05	-0.00		0.06	
Political Identification	-0.01	*	0.02	0.01	**	0.02	
Average Platform Use Frequency	0.01	***	0.02	0.00		0.02	
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.08	
Distance: 50% of the feed height	0.01	***	0.10	0.02	***	0.11	
Distance: 75% of the feed height	0.03	***	0.07	0.04	***	0.08	
Scroll Events	-0.01	***	0.00	-0.00		0.00	
Time on Feed	-0.00		0.00	-0.00		0.00	
Condition: Moderately Hateful	0.00		0.05	0.00		0.06	
AIC	10022			10005			

**Table 6.** Agency and Valence Social Media Mindsets Predicting One-Click Engagement

 on SocialPulse

#p < 0.10; \*p < 0.05; \*\*p < 0.01; \*\*\*p < 0.001

*Note.* Covariates are age, gender, political identification, average platform use frequency (i.e., Facebook, Twitter, Reddit), scrolling behaviors, time on feed, and group condition. The comparison group for gender is male, for distance is less than 25% of the feed height, and for condition is severely hateful. Estimates are standardized regression coefficients.

Next, I tested whether agency social media mindsets affect the extent to which participants like (H3a) and dislike (H3b) SocialPulse posts. Results revealed that even when accounting for platform use frequency, having an agency mindset negatively predicted disliking behavior on SocialPulse. In other words, whether individuals are frequent users of social media, those who view social media as exerting control over them (vs. viewing themselves as being in control of their social media use) disliked greater number of posts on SocialPulse (see Table 6). Taken together, results demonstrated that user expectations—and valence and agency mindsets, in particular reflect and predict how people engage with a novel social media feed in different ways.

#### **Relationship Between Perceived Similarity and One-Click Engagement**

To explore whether perceived similarity predicts one-click engagement on SocialPulse (RQ5), negative binomial regressions were conducted. I ran two separate models for each form of one-click engagement (i.e., total number of liked posts, total number of disliked posts). Models included age, gender, political identification, SocialPulse attention (i.e., distance, scrolling events, time on feed), and group condition as covariates. Additionally, to account for variation in participants' social media use frequency, I controlled for social media use with a composite of participants' selfreported frequency of using the three platforms (Facebook, Twitter, Reddit) that were linked to the SocialPulse platform design. Results showed that perceived similarity of SocialPulse negatively predicted disliking behavior on SocialPulse, such that individuals who view the mock feed as *not* similar to other social media platforms disliked a greater number of SocialPulse posts (see Table 7). By contrast, perceived similarity of SocialPulse was not a significant predictor of liking behavior on SocialPulse.

	U	p Butto	n	<b>Down Button</b>		
	β		SE	β		SE
Perceived Similarity	0.00		0.02	-0.02	***	0.02
Covariates						
Age	-0.00		0.00	-0.01	#	0.00
Gender: Female	-0.00		0.05	-0.00		0.06
Political Identification	-0.01	#	0.02	0.01	*	0.02
Average Platform Use Frequency	0.01	***	0.02	0.00		0.02
Distance: 25% of the feed height	0.02	***	0.07	0.02	***	0.08
Distance: 50% of the feed height	0.01	**	0.10	0.02	***	0.11
Distance: 75% of the feed height	0.03	***	0.07	0.04	***	0.08
Scroll Events	-0.01	***	0.00	0.00		0.00
Time on Feed	-0.00		0.00	-0.00		0.00
Condition: Moderately Hateful	0.01		0.05	0.00		0.05
AIC	10018			9968.7		

**Table 7.** Perceived Similarity Predicting One-Click Engagement on SocialPulse

# p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

*Note.* Covariates are age, gender, political identification, average platform use frequency (i.e., Facebook, Twitter, Reddit), scrolling behaviors, time on feed, and group condition. The comparison group for gender is male, for distance is less than 25% of the feed height, and for condition is severely hateful. Estimates are standardized regression coefficients.

## Perceived Similarity as a Moderator

Last, I investigated how perceiving SocialPulse as similar to real social media feeds affects the degree to which user expectations—i.e., platform definitio∂ns (RQ6), valence mindsets (H4a), and agency mindsets (H4b)— predict one-click engagement on SocialPulse. To begin, I examined the interaction term (perceived socialness x perceived similarity ) in a regression model, testing how the effect of one-click engagement of a change in perceived socialness depends on perceived similarity of SocialPulse. Three separate models were conducted—one for each platform (i.e., Facebook, Twitter, Reddit). Results demonstrated that perceived similarity was not a significant moderator of the relationship between platform definitions and one-click engagement.

Next, H4a was examined by including the interaction term (valence x perceived similarity ) in a regression model, testing how the effect of one-click engagement of a change in valence mindset depends on perceived similarity of SocialPulse. Two separate models were conducted: one for each valence mindset measure. Additionally, H4b was tested by including the interaction term (agency x perceived similarity ) in a regression model, testing how the effect of one-click engagement of a change in agency mindset depends on perceived similarity of SocialPulse. Overall, results demonstrated that perceived similarity was also not a significant moderator of the relationship between social media mindsets and one-click engagement.

#### **Exploratory Analyses**

#### Differences in User Expectations by Gender and Age

#### **Platform Definitions**

Exploratory models were conducted to explore how user expectations may vary by demographic characteristics. To begin, I examined whether *platform definitions* (Facebook, Twitter, Reddit) vary by gender. I conducted the Welch's t-test to examine whether males and females demonstrated significant differences in the extent to which they define a given platform. Our results revealed that females (M = 5.45, SD = 1.59) were more likely to define Facebook primarily as a social interaction (vs. news

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consumption) platform compared to males (M = 5.04, SD = 1.71), t(1869.7) = -5.44, p < 0.001. Similarly, females (M = 4.39, SD = 1.15) were more likely to define Twitter primarily as a social interaction (vs. news consumption) platform compared to males (M = 4.15, SD = 1.86), t(1871.2) = -2.85, p < 0.01. However, no significant differences were observed between females and males in how they defined Reddit (p > 0.05).

Next, I ran correlations between platform definitions (Facebook, Twitter, Reddit) and age to examine whether perceived socialness of specific platforms vary by age. Overall, results demonstrated a small positive correlation between age and Facebook socialness (r = 0.07), Twitter socialness (r = 0.11), and Reddit Socialness (r = 0.12), such that older (vs. younger) individuals have slightly greater tendencies to view the three platforms as spaces for social interaction (vs. news consumption). Taken together, platform definitions significantly varied by gender and age.

#### Social Media Mindsets

Additional Welch's t-tests were conducted to further explore whether *valence and agency mindsets* vary by gender. When using the valence mindset measure, the results revealed that females (M = 4.28, SD = 1.18) had a more positive social media mindsets than males (M = 3.96, SD = 1.25), t(1882.8) = -5.82, p < 0.001. Similarly, when using the good-vs-bad mindset measure, the results demonstrated that females (M = 3.72, SD = 1.24) had a more positive social media mindsets than males (M = 3.52, SD = 1.26), t(1894.1) = -3.48, p < 0.001. However, no significant differences were observed between females and males in their agency mindsets.

Next, I ran correlations between valence and agency mindsets and age to understand whether social media mindsets vary by age. Overall, results showed a very small *negative* relationship between age and valence mindset (r = -0.07), but a small *positive* relationship between age and good-vs-bad mindset (r = 0.12). Results also demonstrated a small positive correlation between age and agency (r = 0.26), such that older (vs. younger) individuals are more likely to believe that they have high agency over their social media use.

Overall, these findings demonstrated that valence mindsets significantly vary by gender, and both valence and agency mindsets significantly vary by age. Furthermore, diverging results conveyed by the two measures of valence mindsets further illustrate that they are related, but also tapping into somewhat different versions of the construct.

## **Relationship Between Ecological Measures and One-Click Engagement**

I also explored how people's understanding and experience with the broader social media ecosystem influence the degree to which they engage with one-click reactions on a novel platform. To do so, I ran negative binomial regressions including (1) social media breadth, (2) social media awareness, and (3) unique number of platforms as predictors of liking and disliking behaviors. The models included age, gender, political identification, social media use frequency (i.e., composite of participants' self-reported frequency of using all 12 platforms that are assessed in the survey), SocialPulse attention (i.e., distance, scrolling events, time on feed), and group condition (severely hateful vs. moderately hateful) as covariates. Overall, results revealed a negative relationship between social media breadth and disliking behavior ( $\beta = -0.01, p < 0.001$ ), such that individuals with a broader definition of social media were less likely to dislike SocialPulse posts. Additionally, results showed a marginally significant relationship between social media awareness and liking behavior ( $\beta = 0.01, p = 0.06$ ). Meanwhile,

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results revealed a non-significant relationship between unique number of platforms people use regularly and one-click engagement. Taken together, the study underscores the importance of considering personalized ecologies of users to better explicate social media behavior, such as engagement with one-click reactions.

# Chapter 9. Discussion

Using a mock social media feed (i.e., SocialPulse), this study assessed the potential for user definitions of specific platforms and global mindsets toward social media to function as user expectations, guiding their social media experiences and behaviors. Specifically, this dissertation tested the role of (a) perceived socialness of platforms and (b) valence and agency mindsets on the use of likes and dislikes on a novel feed. The study also tested the ecological validity of the novel feed by examining how individual differences in the perceived similarity of SocialPulse influence the extent to which people engage with one-click reactions on SocialPulse. Overall, this chapter first presents the primary findings and discusses their theoretical and practical implications. Next, the limitations of the study and future research directions are detailed. Finally, this chapter concludes with several key takeaways from this dissertation project.

# **Primary Findings and Implications**

### User Definitions of "Social Media"

To better contextualize how individuals perceive and approach social media environments, the dissertation project explored how people make sense of the label "social media." Although most people generally agreed on defining Facebook, Twitter, Instagram, TikTok, Snapchat, and Reddit as "social media," results also revealed considerable variability in what platforms people viewed as "social media." Notably, people were evenly split on whether messaging-centered platforms—i.e., WhatsApp, Messenger, Discord, Signal, and Telegram—are "social media," suggesting that there are many people who view messaging-centered platforms as synonymously with social media platforms (Hall, 2022) – as well as many who do not. As such, due in part to social media platforms' increasing centralization of messaging features (Bayer et al., 2020), definitions of "social media" for such platforms may be complicated among users. Hence, future research should further investigate how users distinguish and engage with media- and messaging-centered social platforms.

Besides messaging-centered platforms, results further revealed that people were evenly split on whether YouTube is a form of "social media." This is reflected in how YouTube is studied among the scholars—although YouTube is commonly treated as a form of "social media" (e.g., Halpern & Gibbs, 2013; Khan, 2017), there are others who describe YouTube in terms of its entertainment and video-sharing purposes (e.g., Haridakis & Hanson, 2009; Möller et al., 2019). Arguably, this may be because YouTube is at the boundary of social interaction and traditional entertainment (e.g., television). Compared to other video-centered platforms—such as TikTok, which presents users with an individually curated algorithmic content streams of short videos—YouTube enables users to selectively choose from a range of short- to long-form content, thereby providing a more active viewing experience. As such, some users may primarily view YouTube as "a convergence of the traditional entertainment choices of television, music, and film" (Shao, 2009, p. 12), rather than as a "social media." Hence, future research should further investigate the extent to which people define the central purpose of YouTube as for social interaction vs. traditional entertainment.

Moreover, I found that the perception of a specific platform as social media (vs. not social media) is meaningfully related to how they perceive other platforms as social media (vs. not social media). In particular, people tend to evaluate messaging-centered platforms (i.e., WhatsApp, Discord, Signal, Telegram) in the same way (r = 0.42 - 0.69) and photoor video-centered platforms (i.e., Instagram, Snapchat, TikTok) in the same way (r = 0.45-0.51). A few platforms stood out from the others in terms of the independence. In particular, results demonstrated that YouTube is less likely to be evaluated the same way as other platforms (r = 0.08 - 0.28). This suggests the potential for YouTube to be perceived differently from other social platforms, perhaps due in part to different communication norms and cultures on YouTube compared to user-oriented platforms (e.g., Facebook) (Halpern & Gibbs, 2013; Khan, 2017), which are more centered on personal networks that overlap with offline relationships (Bayer et al., 2018). Similarly, Messenger was less likely to be evaluated the same way as other non-messaging platforms (i.e., Reddit, Instagram, and TikTok) (r = 0.07 - 0.1), perhaps because Messenger offers different sets of perceived affordances compared to non-messaging platforms, with messaging platforms (e.g., Messenger) typically providing less opportunities for passive consumption of news and social information (Straiger et al., 2021). Altogether, the study demonstrated that people generally evaluate platforms in the same way. However, there are also distinct groups of platforms that are evaluated more similarly with each other and specific platforms (e.g., YouTube) that are less likely to be evaluated similarly with other platforms.

### Perceived Socialness of Facebook, Twitter, and Reddit

Given the widespread use of social media platforms for news consumption, this study provides new insights into how people define the central purpose of three key platforms (Facebook, Twitter, Reddit) at the boundary of social interaction and news consumption. Interestingly, Facebook was viewed as the most "social interaction" focused platform, Twitter was viewed as slightly more social- than news-centered, and Reddit was viewed as being in the middle of social interaction and news consumption. As such, the findings revealed that there are consistently different understandings of the socialness of the three platforms among Americans.

Moreover, the study revealed meaningful individual differences in the perceived socialness of the three platforms, highlighting the tendency for some people to view all platforms as forms of "social interaction." This echoes past work indicating that some individuals may be predisposed to view platforms as more (or less) social-regardless of how technically "social" the platform is (Rhee et al., 2021). Here, the results demonstrated that the perceived socialness of Facebook, Twitter, and Reddit were moderately positively correlated (r = 0.22 - 0.41), suggesting that users who define Facebook as a social interaction (vs. news consumption) platform are more likely to define Twitter and Reddit as social interaction platforms. Consequently, there appeared to be subtypes of social media users-those who generally view platforms as spaces for "social interaction" and those who view them as spaces for "new consumption." Hence, future work can test why some people – or personalities – are more likely to evaluate platforms in terms of their potential for social interaction. For instance, Clark and Green (2018) demonstrated that individuals vary in their perceived reality of online interactions—or the extent to which they believe online communication can contribute meaningfully to the growth and maintenance of close relationships—and such perceptions drive decisions about what types of online interactions they engage. It is also possible that these subtypes represent users with different

motivations for using social media platforms—i.e., people who generally view platforms as spaces for "social interaction" may be motivated to use social media to connect with friends and family, whereas those who view platforms as spaces for "news consumption" may be more interested in staying informed about current events and politics. Therefore, future research should directly investigate the extent to which lay definitions of platforms are related to the motives that drive people to use platforms.

Furthermore, the results also revealed that perceived socialness vary as a function of gender and age. In particular, females (vs. males) were more likely to define Facebook and Twitter as social interaction (vs. news consumption) platforms. Also, older (vs. younger) individuals were more likely to perceive Facebook, Twitter, and Reddit as spaces for social interaction (vs. news consumption). These findings align with past work that demonstrated that females (vs. males) have stronger desire to work more toward sociability and community building and more actively use social media for social purposes (Correa, 2010; Ellison et al., 2014; Krasnova et al., 2017). Nonetheless, the finding for age was somewhat surprising as past work has suggested that younger individuals are motivated to use social platforms to satiate social gratifications, whereas older users are motivated to use social platforms to satiate informational gratifications (Kircaburun et al., 2020). These differences in results may reflect how the lay definitions of platforms and the motives that drive people to use platforms are related, but distinct, constructs.

Moreover, the study results revealed a small association between perceived socialness and use frequency, such that frequent users of Twitter and Reddit are less likely to define them as social interaction (vs. news consumption) platforms (r = -0.15 - -0.2), whereas frequent users of Facebook are more likely to define it as a social interaction (vs.

news consumption) platform (r = 0.11). Taken together, these findings reaffirm the importance of considering demographic differences and users' prior experiences with platforms to better understand individual differences in how people approach and navigate the social media ecosystem. Hence, future research should consider these user characteristics as well as explore other sociodemographic variables (e.g., socioeconomic status, education, occupation; Matassi et al., 2022) to better comprehend the heterogeneous nature of social media perceptions.

#### Platform Definitions vs. Social Media Mindsets

To better contextualize how user expectations that people form about social media influence their social media behaviors and experiences, the current study first examined how the key types of user expectations—i.e., platform definitions and social media mindsets—are related to one another. Overall, the study findings demonstrated that definitions and mindsets were not significantly related. However, one weak relationship did emerge between agency mindsets and Twitter socialness, such that those with more agentic mindsets were more likely to define Twitter as a social interaction (vs. news consumption) platform (controlling for how often they used the platform). The lack of relationships may also reflect differences in foci; I focused on the relationship between perceived *socialness* of specific platforms and *valence* and *agentic* mindsets toward social media at-large. Hence, future research should measure *social* mindsets toward social media to further clarify the relationship between definitions and mindsets on the "social" dimension of platforms.

In addition, future research should consider *social* motives or goals to better understand how people view and approach a given social environment. Indeed, people's mindsets toward social media are *not* equivalent to motives. In particular, self-fulfilling effects play a critical role distinguishing mindset from other relevant constructs (e.g., motivations), as mindsets are characterized by their self-reinforcing nature, in which an individuals' beliefs and expectations can shape their experiences and outcomes. Nonetheless, people's expectations of social media and motives may still correlate significantly in some cases (or for some individuals). Notably, there is growing evidence that suggests the potential for general social definition of a platform to be related to specific types of *interpersonal goals* (e.g., Lee & Fujita, 2022; Roper, 2022; Tobin et al., 2020). For example, recent studies found that compassionate goals are associated with more responsive behaviors on Facebook (e.g., liking friends' posts) (Roper, 2022; Tobin et al., 2020). This finding suggests that particular interpersonal goals (e.g., compassionate goals) can function similarly as user expectations by influencing how users behave on social platforms. Therefore, more work is needed to consider and clarify the lines between social goals, definitions, and mindsets to better explicate the extent to which users' social definitions of specific platforms and pro-social mindsets toward social media reflect their social goals tied to social media.

### **Perceived Socialness and One-Click Engagement**

Extending from prior work that has demonstrated the potential for perceived socialness to influence key social outcomes, the current project provided preliminary evidence that perceived socialness is related to social media behavior in a naturalistic feed. The results demonstrated that those who define Facebook as a news consumption (vs. social interaction) platform liked and disliked a greater number of posts. Similarly, those who define Reddit as a news consumption (vs. social interaction) platform liked a greater

number of posts. Importantly, these results emerged even when controlling for how frequently people used each of the platforms. Altogether, the study revealed that users' perceptions of these platforms primarily as a space for news consumption (vs. social interaction) meaningfully anchor expectations for common behavior within these spaces – in this case, engaging in one-click reactions (e.g., likes). These results imply that users may not perceive one-click reactions as a tool for "social interaction," but rather as a means for consuming news content. This is in line with prior perspective that suggested that one-click reactions do not inherently meet the criteria of "social interaction" as they fail to meet the condition of exchange and focused attention by both partners (Hall, 2018). Nonetheless, it is worth noting that the design of the SocialPulse was more *news*- (vs. social-) oriented. Participants had limited opportunities to engage in "social interaction" (e.g., commenting, sharing private messages; Hall, 2018), which may have contributed to fewer uses of likes and dislikes for those who view one-click reactions as a typical behavior within *social* spaces. Hence, future research should investigate the relationship between perceived socialness and one-click reactions on a more social- (vs. news-) oriented feed to further corroborate the current findings.

The non-significant finding for Twitter can be partly explained by the platform's central focus on "retweets" (vs. likes or dislikes) as one-click engagement. Arguably, as reflected by the large body of work examining the uses and outcomes of "likes" on Facebook (e.g., Hong et al., 2017; Rosenthal-von der Pütten et al., 2019), "upvotes" (and "downvotes") on Reddit (e.g., Davis & Graham, 2021; Papakyriakopoulos et al., 2023), and "retweets" on Twitter (e.g., Keib et al., 2018; Lim & Lee-Won, 2017), engagement on Twitter is less centralized on the use of "likes" compared to Facebook and Reddit. As such,

it may be worth further investigating the link between perceived socialness and one-click engagement by testing whether the perceived socialness of Twitter predicts engagement with retweets. Moreover, the non-significant finding for Twitter can also be explained by its perceived toxicity—i.e., the extent to which people view it as a space for healthy vs. toxic discussions between people. As exploratory analyses, I compared Facebook, Twitter, and Reddit in terms of perceived toxicity on a seven-point Likert scale and found that Twitter is viewed as the most toxic (M = 5.18, SD = 1.38), followed by Facebook (M =5.01, SD = 1.48) and Reddit (M = 4.50, SD = 1.27). Coupled with the recent finding that toxic (vs. non-toxic) conversations on Twitter are associated with less user engagement (Salehabadi et al., 2022), perceived socialness (vs. toxicity) of Twitter may have been less key for shaping user engagement. To further elaborate on this idea, future research should consider the role of perceived toxicity of platforms in shaping people's social media experiences and outcomes.

## Valence and Agency Mindsets and One-Click Engagement

Along with lay definitions, the study also considered the potential for mindsets in particular, valence and agency—toward social media to guide users' behaviors and experiences on social media. To begin, the study results revealed meaningful individual differences in the valence and agency mindsets toward social media. In particular, females (vs. males) were more likely to believe that social media are enhancing (vs. harmful) to their lives. Moreover, older (vs. younger) individuals were more likely to believe that they have high (vs. low) agency over their social media use. As such, these findings highlight the heterogenous nature of people's mindsets of social media and emphasize the importance of considering user characteristics such as demographics (e.g., age, gender) to better explicate how users approach and navigate the social media ecosystem.

The study also tested how these differences in social media mindsets influence engagement with one-click reactions on a novel platform. The results revealed that more *positive* mindsets were related to engaging more frequently in behaviors that affirm the *positive* nature of social media use, such as by using positive interface cues (e.g., likes). Similarly, more *negative* mindsets were associated with engaging more frequently in behaviors that affirm the *negative* nature of social media use, such as by using negative interface cues (e.g., dislikes). Importantly, these results emerged even when controlling for how frequently people used social media platforms (i.e., Facebook, Twitter, Reddit) in their personal lives. Hence, the study provides initial evidence for valence social media mindsets to meaningfully color how people understand their social media experiences, thereby guiding them to engage in ways that are consistent with their perspective—i.e., those with more positive views of social media to engage with positive interface cues and those with more negative views of social media to engage with negative interface cues.

Meanwhile, agency mindsets were negatively associated with disliking behavior, such that those who view themselves as being in control of their social media use (vs. social media as exerting control over them) engaged less with the dislike button. Once again, this finding emerged even when controlling for how frequently people used social media platforms (i.e., Facebook, Twitter, Reddit) on average. This finding is noteworthy as it diverges from what might be expected based on the assumption that individuals with a more agentic mindset to place greater weight on their actions within a given platform, thereby using one-click reactions more frequently. Nonetheless, it is also possible individuals with an agentic mindset perceived one-click reactions (e.g., likes, dislikes) as influencing the composition of their news feed. Consequently, they may have deliberately chosen not to engage with posts (i.e., "non-clicked") as a means of shaping the content of their future feed (Ellison et al., 2020). Hence, it is possible that individuals with a more agentic mindset sought to exert greater control over their news feed by selectively withholding clicks.

In sum, this study provides preliminary evidence for social media mindsets to reflect users' assumptions or *expectations* of social media (and their effects), and thus shaping individuals to behave in ways that are consistent with their general mindsets toward social media. Future research should further investigate the effects of valence and agency mindsets on social media behavior by testing the potential interaction between the two (Lee et al., 2021) in predicting one-click engagement. Moreover, future research should test the potential moderating role of mindsets in the relationship between prior social media behavior and one-click engagement. For example, it may be the case that mindsets interact with the type of usage or content to predict social media outcomes.

# Perceived Similarity of SocialPulse

Next, given the goal to design an "ecologically valid" platform that allows users to behave in a manner similar to how they engage with real-world news feeds or streams on social media, the study examined the perceived similarity of SocialPulse to other social platforms – and its potential role in modulating engagement with one-click reactions. Results showed that people generally viewed engagement with the SocialPulse interface as being moderately similar to how they engage with social media in their everyday lives, suggesting that SocialPulse is an "ecologically valid" platform. Nonetheless, it is worth noting that the study did not exclude participants based on their perceived similarity of SocialPulse, thereby including participants even if they indicated a low level of similarity to other platforms. Although the lack of effects related to perceived similarity suggests this did not play a critical role in the current hypotheses, future research should consider excluding participants who fall below a minimal threshold of perceived similarity.

In addition, as exploratory analyses, the study also examined how users' understanding and experience with the broader social media ecosystem influenced their perception of a novel platform. To achieve this, the study investigated the role of (a) social media breath, (b) social media awareness, and (c) unique number of platforms on the perceived similarity of SocialPulse. Overall, results revealed a small positive relationship between social media experiences and perceived similarity. Specifically, those with a broader definition of social media (i.e., social media breadth), greater knowledge of social media platforms (i.e., social media awareness), and a greater number of social platforms used frequently (i.e., unique number of platforms) were more likely to perceive SocialPulse as similar to other social platforms (r = 0.08 - 0.13) (see Table 2 in Appendix C). Thus, these findings demonstrate that users' experience with the broader social media ecosystem may contribute to what they think "social media" is, thereby indexing how they behave on a novel online environment. Hence, future research should empirically test the role of prior user experiences in shaping their expectations or understandings of online environments more generally.

Moreover, the study discovered that the more people viewed SocialPulse as *different* from other social media platforms, the *more* they disliked SocialPulse posts. It is possible that fear of negative consequences may discourage individuals from using

negative interface cues (e.g., "dislikes") on social media. For example, disliking a post could damage the relationship with the person who posted the content and contribute to creating a toxic social environment (Wisniewski et al., 2020). As such, those who view SocialPulse as a "different" platform may be more inclined to dislike posts, believing that their actions will *not* lead to negative consequences. Overall, the study demonstrated the value of considering and testing "ecological validity" to better predict real-world social media behaviors and their effects.

### **Considering the Role of Prior Social Media Experiences**

Last, the current study considered whether users' social media usage frequency in everyday life related to their one-click engagement on SocialPulse. In doing so, the study sought to better understand how users' prior experiences with social media are related to their naturalistic engagement on a novel platform. Overall, the study results demonstrated that usage frequency of the focal three platforms was associated with the use of likes, such that the more people used Facebook, Twitter, and Reddit in everyday life, the more they engage with a novel social media feed by liking more posts. Indeed, in most models examining the relationship between user expectations (i.e., perceived socialness, agency, valence) and liking behavior, platforms usage frequency (i.e., specific platform use frequency, combined use frequency) was shown to be a strong predictor.

Beyond experiences with Facebook, Twitter, and Reddit, the current study also investigated users' prior experiences with the *broader* social media ecosystem under the assumption that such experiences may shape their expectations of global social media (and specific platforms). As such, I also considered the role of *overall* usage frequency (i.e., averaged frequency of using 12 platforms) as well as other indicators of overall social media experiences—*social media breadth, social media awareness*, and *unique number of platforms*— in guiding how users engage with one-click reactions on a novel platform. These exploratory models demonstrated that the more people use social media in everyday life, the more they engage with a novel feed by liking more posts. Furthermore, results suggested that individuals with a broader definition of "social media" were less likely to dislike SocialPulse posts, perhaps because they have a broader understanding of what they view as appropriate "social media" posts and thus have a higher tolerance for posts that they dislike. Overall, the study highlights the need for future work to unpack how exactly prior experiences guide how individuals form expectations for social media.

Relatedly, the current study sought to better understand users' personalized ecologies (Zhao et al., 2016) by exploring how the above ecological measures are related to one another (see Table 2 in Appendix C). Results revealed a strong, positive relationship between overall usage frequency and unique number of platforms (r = 0.90), suggesting that those who use social media platforms more frequently tend to have a greater number of unique platforms in their everyday lives. Results also demonstrated that those who use social media platforms (i.e., overall usage frequency) tend to have a greater level of awareness pertaining to social platforms (i.e., social media awareness) (r = 0.31). Finally, results showed a very small (but significant) positive relationship between overall usage frequency and social media breadth (r = 0.06). These findings facilitate a more in-depth understanding of users' experiences with global social media. As such, future research should take these ecological considerations into account as well as explore other indicators of overall social media experience to better contextualize individuals' personalized media ecologies.

Taken together, the study demonstrates that independent of how people perceive social media and anticipate what outcomes arise from its use, prior experiences with specific platforms and social media at-large can meaningfully contribute to how people engage with a novel feed. These findings hold significant implications for designers, highlighting the importance of leveraging users' prior social media experiences to facilitate meaningful engagement with new social media environments. Importantly, it is probable that the measures of prior social media experiences reflect both habitual and deliberative behavior (e.g., Bayer et al., 2022; Carr et al., 2016). Hence, future research should consider the unique role of social media habits when examining how people engage with a novel but related online environments.

### **Limitations and Future Research Directions**

This dissertation project is subject to some limitations that deserve attention. To begin, although the study treated user definitions of specific platforms and global mindsets toward social media as precursors to one-click engagement on a novel platform, additional research is needed to establish causality. Notably, the study assessed user expectations prior to asking participants to engage with SocialPulse. However, the study did not manipulate participants' expectations of specific platforms or social media at-large to test how their differences in expectations affect engagement with one-click reactions.

Moreover, a few aspects of the presentation of SocialPulse may have influenced participant responses. First, SocialPulse was described to the participants as a platform that allows individuals to keep track of the "most engaging" posts that are circulating online. This has the potential to influence the way people view SocialPulse posts and encourage more active engagement with the posts. Second, SocialPulse was described to the participants as "a platform that brings the top posts and comments from major social media platforms (such as Facebook, Twitter, Reddit)." In this description, the three platforms are mentioned to the participants, possibly confounding the measure of social media identification measured at the end of the study. It is possible that those who had never heard of the three platforms before the study reported that they were aware of them *because* of their inclusion in the description and/or design of SocialPulse. As such, this has the potential to inflate the descriptive of the social media awareness measure and add noise to lay definition models. However, it is unlikely to change where people lie in the spectrum between high vs. low awareness of global social media, given that these platforms are some of the most popular platforms in the United States (Pew Research Center, 2021).

In addition, some decisions related to survey methodology had the potential to influence the measures. Most notably, in the lay definitions of platforms, participants were forced to define platforms along a spectrum ranging from "social interaction" to "news consumption." This was done to directly compare whether a platform is defined as a space for social interaction vs. news consumption, given that the three platforms of interest are situated at the border between social interaction and news consumption. Although the measure asks participants to select the options in between if they view the platform equally for both, it does not directly capture those who view it as *neither* social interaction nor news consumption. However, the pilot study cross-validated the measure of perceived socialness with the rank-type measure from a prior study (Rhee et al., 2021), confirming that the semantic differential scale used in the main study adequately captured the extent to which people defined the target platforms as social- vs. news-centered. In addition, I assessed platform definitions without providing participants with a formal definition of

"social interaction" or "news consumption." This was done in part to embrace the subjectivity of the users, following past findings that individuals have varying perceptions of social interaction on social media (Hall, 2018) and prior theoretical perspectives on the subjective nature of sociality (Fuchs, 2017; Clark & Green, 2018). Nonetheless, it remains unclear the extent to which people are defining socially sharing news (e.g., sharing news with friends) as "social interaction" or "news consumption." Therefore, future research should make more efforts to understand how people conceptualize and distinguish "social interaction" from "news consumption" activities. Finally, the study measures assessing participants' perceptions or expectations of specific platforms and/or social media—i.e., perceived socialness, social media mindsets— did not include a "don't know" response option, which can create noise in the data by forcing participants to provide opinions when they have no opinion. Nevertheless, this was done to discourage participants from satisficing and disengaging from the survey (Kaminska et al., 2010; Roberts et al., 2019) – especially given the wide awareness of the focal platforms in the U.S.

Furthermore, this dissertation sought to embrace the subjectivity of social media by exploring how people have different perceptions and understandings of "social media." At the same time, it remains unclear as to what researchers should do when defining "social media," especially when the uniformity of participant understandings is important for the research question at hand. Here, the focus on Facebook, Twitter, and Reddit in the study design had the potential to influence people's perceptions of social media at-large. Likewise, the 12 options given to participants in the social media identification measure inherently constrained the possible breadth of social media definitions, providing an opportunity for future researchers to take a more expansive approach. Additionally, future research should aim to further investigate whether platforms that are colloquially viewed as "social media," such as TikTok, align with scholarly definitions of social media – and why. In doing so, we can enhance our understanding of the complexities of "social media" and inform future research in the field of communication.

Last, the current project focuses on how user expectations toward specific platforms and mindsets toward social media are associated with one-click engagement on a novel feed. Nonetheless, questions remain as to whether these user expectations are based on the platform's interface design or particular features, social norms or behaviors, personal behaviors, or word of mouth. Notably, a recent study suggested that people hold mindsets about others' social media use that may align or diverge from mindsets of their own social media use (Lee & Hancock, 2023). Given that there are diverse ways individuals can think about social media, future research should aim to examine the sources that shape social media definitions and mindsets to add more texture to our understanding of how user expectations are related to social media behaviors. Along the way, we can help improve the efficacy of future mindset interventions that strive to change people's mindsets about social media to help improve their outcomes, such as psychological well-being (Lee & Hancock, 2023).

## Conclusion

For the past two decades, researchers have been continuously grappling with the question of what is "social media" (e.g., Aichner et al., 2021; Carr & Hayes, 2015; Kaye, 2021). Building on this work, I argue that understanding what "social media" means to individuals is imperative to explicate social media experiences and outcomes. In turn, this dissertation project investigated definitions of "social media" through the lens of users in

the United States, revealing considerable variability in how individuals conceptualized "social media." Many people viewed messaging-centered platforms (e.g., WhatsApp, Messenger, Discord) and entertainment-centered platforms (i.e., YouTube) as synonymous with social media platforms—as well as many who do not. In addition, although most people generally agreed on including the three major platforms in the U.S. (i.e., Facebook, Twitter, Reddit) under the umbrella of "social media," these platforms were defined in notably different ways in terms of the perceived centrality of social interaction vs. news consumption. Hence, the dissertation reaffirms that there are clear individual differences in how people conceptualize "social media" and, more specifically, the extent to which they view platforms as spaces for "social interaction."

Moreover, this dissertation project makes a significant contribution by providing preliminary evidence for the proposed hypotheses that the perceived socialness of platforms, as well as valence and agency mindsets toward social media at-large, are distinctively associated with the use of one-click reactions (i.e., likes and dislikes). These results thereby illustrate that social media experiences may be partly guided by user expectations tied to social media. In addition, the perceived similarity of a novel platform meaningfully contributed to users' engagement with one-click reactions, and this understanding may guide how they approach novel online spaces. Importantly, the study revealed a link between user expectations and naturalistic behavior, even though they were asked to engage with a novel platform that they did not have any past experiences with nor motivations toward. Taken together, this dissertation project demonstrates the importance of exploring what users think social media *is* and what they think social media *look like*, to better understand and predict social media behavior in the wild,

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especially when people encounter novel spaces. Thus, future research should continue to consider the roles of user definitions and mindsets in real-world behavior, as well as integrate different perspectives on user expectations across research areas and disciplines.

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Appendix A. Keyword-Based Queries Used to Gather Hateful and Non-Hateful Posts

	Hateful Posts Query						
Asian	Inclusions:						
	("chink" OR "chinks" OR "ching chongs" OR "ching chong" OR "gook" OR "gooks"						
Americans	OR "whoriental" OR "whorientals" OR "gooky eyes" OR "gooklets" OR "gooklet" OR						
	"gookettes" OR "gookette" OR "gook eyed" OR "gookies" OR "gookie" OR "goloids"						
	OR "goloid" OR "ginks" OR "gink" OR "dog eaters" OR "dog eater" OR "vellow						
	invaders" OR "rice niggers" OR "vellow invader" OR "rice nigger" OR "slopev" OR						
	"winks" OR "slopes" OR "slopies" OR "slants" OR "slopeheads" OR "slant eves"						
	"sideways vaginas" OR "sideways cooters" OR "sideways pussies" OR "coolies" OR						
	"chonkies" OR "chunkies" OR "Chinese wetbacks" OR "ching chongs" OR "chinigs"						
	OR "chink a billies" OR "chiggers" OR "bamboo coons" OR "chinig" OR "sideways						
	cooter" OR "slopehead" OR "chink a billy" OR "Chinese wetback" OR "bamboo						
	coon" OR "ching chong" OR "coolie" OR "slopy" OR "chonky" OR "chunky" OR						
	"sideways pussy" OR "sideways yagina" OR "chigger" OR "slope" OR "slapt" OR						
	"slant eve" OR "wink" OR "chink" OR "chinks" OR "chink eved" OR "chinks in" OR						
	"Chinaman" OR "Chinamen" OR (("asian" OR "asians" OR "chinese") AND						
	("chinesevirus" OR "#chinavirus" OR "#chinaliedpeopledied" OR "#kungflu" OR						
	"#chinaliedneonledie" OR "#chinesevirus 19" OR "fuck chinese" OR "ling ling" OR						
	"chink virus"))						
	OR (("illegal" OR "illegals") AND ("asian" OR "asians" OR "chinese")))						
	OR (( megui OR meguis ) MAD ( usian OR usians OR emilese )))						
	Exclusions:						
	NOT("ABC" OR "ABCs" OR "wink" OR "winks" OR "called me" OR "calls me" OR						
	"call me" OR "just got called" OR "being called" OR "I've been called" OR "got						
	called" OR "chink of" OR "chink in the armor" OR "heels" OR "heel" OR "slipperv						
	slope" OR "political slapt" OR "@TRAVELVIDSxyz" OR "liberal slapt" OR "media						
	slant" OR "snike")						
	NOT ("slone*" NFAR ("mountain" OR "curve" OR "mountainton" OR "ski" OR						
	"skier" OR "slipperv" OR "snow" OR "snowv" OR "cliff" OR "skiing" OR "steenest"						
	OR "fatality" OR "rates" OR "steep" OR "steepened" OR "downward" OR "down" OR						
	"untick" OR "trending" OR "park slope" OR "silicone" OR "north" OR "snike" OR						
	"curve" OR "line"))						
	NOT ("chunky" NFAR ("dunky" OR "dunkys" OR "hen and jerry" OR "Ben & Jerry"						
	OR "hake" OR "chocolate" OR "weight" OR "eat" OR "eating" OR "highlight" OP						
	"@OueenBreanneW" OR "Peanut butter" OR "recine" OR "soun" OR "nutella" OR						
	"shoes" OR "coffee"))						
	NOT ("slant" NEAR ("nolitical" OR "nolitic" OR "nolitics" OR "liberal" OP						
	"media"))						

Muslim/Arabs	Inclusions:					
	("sand nigger" OR "sand niggers" OR "durka durkas" OR "durka durka" OR "durka					
	durkas" OR "mussies" OR "mussie" OR "muzzie" OR "muzzies" OR "jihadi-					
	americans" OR "jihadi-american" OR "muslamic" OR "derka derkas" OR "pisslam"					
	OR "muslimic" OR "sand monkey" OR "sand monkeys" OR "muzzpigs" OR					
	"muzzrats" OR "Jihadis" OR "Gerudos" OR "camel fuckers" OR "African catfishes"					
	OR "muzzpig" OR "muzzrat" OR "muzzy" OR "musla" OR "muslimal" OR "derka					
	derka" OR "camel fucker" OR "Gerudo" OR "African catfish" OR "Jihadi" OR "Hajji"					
	OR "Haji" OR "Hodgie" OR "Quran thumper" OR "Koran Thumper" OR "Raghead"					
	OR "Osama" OR "Paki" OR (("illegal" OR "illegals") AND ("muslim" OR "arab" OR					
	"muslims" OR "arabs")))					
	Exclusions:					
	NOT ("called me" OR "calls me" OR "call me" OR "just got called" OR "being called"					
	OR "I've been called" OR "got called" OR "Jabba the Jihadi" OR "Giri/Haji" OR					
	"Giri" OR "Haji" OR "Soleimani" OR "@muzzy_HS")					
	NOT ("Osama" NEAR ("Bin Laden" OR "bin laden" OR "Usama bin Laden"))					

	Non-Hateful Posts Query
Asian	("@USATODAY" AND ("covid" AND ("entertainment" OR "democrats" OR "food"
	OR "Trump" OR "animals" OR "economy" OR "climate change" OR "hair salons" OR
Americans	"immigration" OR "illegal" OR "economy" OR "diversity" OR "offense" OR
	"deception" OR "death" OR "free speech" OR "international" OR "italy" OR
	"healthcare" OR "Xi Jinping" OR "tibet" OR "Taiwan" OR "flu" OR "religion" OR
	"Disney" OR "Mulan" OR "ICE"))) OR
	("(2) WSJ" AND ("covid" AND ("entertainment" OR "democrats" OR "food" OR
	"immigration" OP "illogal" OP "accommy" OP "diversity" OP "offense" OP
	"decention" OR "death" OR "free speech" OR "international" OR "italy" OR
	"healthcare" OR "Xi Jinning" OR "tibet" OR "Taiwan" OR "flu" OR "religion" OR
	"Disney" OR "Mulan" OR "ICE"))) OR
	Disney or indian or ice ))) or
	("@nytimes" AND ("covid" AND ("entertainment" OR "democrats" OR "food" OR
	"Trump" OR "animals" OR "economy" OR "climate change" OR "hair salons" OR
	"immigration" OR "illegal" OR "economy" OR "diversity" OR "offense" OR
	"deception" OR "death" OR "free speech" OR "international" OR "italy" OR
	"healthcare" OR "Xi Jinping" OR "tibet" OR "Taiwan" OR "flu" OR "religion" OR
	"Disney" OR "Mulan" OR "ICE")))
Muslim/Arabs	("@USATODAY" AND ("Bernie" OR "Michigan" OR "international" OR "feminist"
	OR "India" OR "crime" OR "immigration" OR "children" OR "Ilhan Omar" OR
	"covid" OR "riots" OR "Antifa" OR "assimilation" OR "protests" OR "Black Lives
	Matter" OR "diversity" OR "economy" OR "entertainment" OR "democrats" OR "ban"
	OR "security" OR "drugs" OR "donation" OR "terrorism" OR "police" OR "Australia"
	OR "holiday" OR "valentines" OR "crime" OR "election" OR "primary" OR
	"California" OR "Palestine" OR "Meghan Markle" OR "volunteer" OR "Obama" OR

"Osama" OR "zoom" OR "Apple" OR "privacy" OR "education" OR "British" OR
OR "Joe Biden" OR "vets" OR "Kamala Harris" OR "Black" OR "hair salon")) OR
("@WSJ" AND ("Bernie" OR "Michigan" OR "international" OR "feminist" OR "India" OR "crime" OR "immigration" OR "children" OR "Ilhan Omar" OR "covid"
OR "riots" OR "Antifa" OR "assimilation" OR "protests" OR "Black Lives Matter"
OR "diversity" OR "economy" OR "entertainment" OR "democrats" OR "ban" OR
"security" OR "drugs" OR "donation" OR "terrorism" OR "police" OR "Australia" OR
"holiday" OR "valentines" OR "crime" OR "election" OR "primary" OR "California"
UR "Palestine" OR "Meghan Markle" OR "Volunteer" OR "Obama" OR "Osama" OR "zoom" OR "Apple" OR "privacy" OR "education" OR "British" OR "hap" OR "white
supremacy" OR "Greece" OR "military" OR "LGBT" OR "illegal" OR "Joe Biden"
OR "vets" OR "Kamala Harris" OR "Black" OR "hair salon")) OR
("@nytimes" AND ("Bernie" OR "Michigan" OR "international" OR "feminist" OR
"India" OR "crime" OR "immigration" OR "children" OR "Ilhan Omar" OR "covid"
OR "riots" OR "Antifa" OR "assimilation" OR "protests" OR "Black Lives Matter"
OR "diversity" OR "economy" OR "entertainment" OR "democrats" OR "ban" OR
"security" OR "drugs" OR "donation" OR "terrorism" OR "police" OR "Australia" OR "holiday" OR "valentines" OR "crime" OR "election" OR "primary" OR "California"
OR "Palestine" OR "Meghan Markle" OR "volunteer" OR "Obama" OR "Osama" OR
"zoom" OR "Apple" OR "privacy" OR "education" OR "British" OR "ban" OR "white
supremacy" OR "Greece" OR "military" OR "LGBT" OR "illegal" OR "Joe Biden"
OR "vets" OR "Kamala Harris" OR "Black" OR "hair salon"))

*Note*. The following filters were applied when generating the query: (1) US only, (2) English only, (3) January 01, 2020 to September 22, 2020, (4) forums, micro-blogging, or social network, and (5) excludes comments and retweets.

Appendix B. Study Measurement Instruments

## **Social Media Mindsets**

#### Good-vs-Bad Mindsets (Ernala et al., 2022)

To what extent do you think social media is good or bad for **you**? To what extent do you think social media is good or bad for **society**?

- 1. Very bad
- 2. Bad
- 3. Slightly bad
- 4. Neutral
- 5. Slightly good
- 6. Good
- 7. Very good

## Social Media Mindsets Scale (adapted from Lee et al., 2021)

Please respond to the following statements related to how you view social media.

Using social media is meaningful for me. Using social media is a waste of time for me. (R) Using social media is fun and enjoyable for me. Using social media strengthens and supports my relationships. Using social media facilitates my learning and growth. Social media is a helpful tool that I use. Using social media lets me do what I want. I'm good at managing the ways I use social media. I'm in control of how I use social media. I end up using social media even when I don't mean to. (R) I find it hard to resist the pull of social media. (R) I am often manipulated by social media. (R)

- 1. Strongly disagree
- 2. Somewhat disagree
- 3. Slightly disagree
- 4. Neither agree nor disagree
- 5. Slightly agree
- 6. Somewhat agree
- 7. Strongly agree

#### Scoring the scales

Valence: Mean of items 1, 2r, 3, 4, 5, 6, 7 Agency: Mean of items 8, 9, 10r, 11r, 12r (r = reverse-coded)

#### **Perceived Socialness**

To what extent do you view the following social media platforms as a space for social interaction vs. news consumption?

If you view the platform only for social interaction, please select the leftmost option; if you view the platform only for news consumption, please select the rightmost option. Use the options inbetween if you (more or less) view the platform for both.

Reddit Facebook Twitter

1. Social interaction 5. News Consumption

*Note.* The scale was reverse-coded, such that 1 = News Consumption and 5 = Social Interaction.

#### **Perceived Toxicity**

To what extent do you view the following social media platforms as a space for healthy vs. toxic discussion between people?

Reddit Facebook Twitter

- 1. Very Healthy
- 2. Somewhat Healthy
- 3. Slightly Healthy
- 4. Neutral
- 5. Slightly Toxic
- 6. Somewhat Toxic
- 7. Very Toxic

## **SocialPulse Tutorial**

Next, let's get ready to test the SocialPulse interface. Given the importance of the 2020 U.S. Presidential election as well as the onset of Covid-19, we will be showing you the top content generated on social media platforms during 2020 for this study.

Please watch the 1-minute video below that provides a brief tutorial about how to use the platform. After 2 minutes, the next page will open so that you can start testing the interface. Please make sure your audio is working and adjust the volume prior to starting this video.

#### **SocialPulse Description**

SocialPulse is a window into the wide world of social media. The ultimate goal of SocialPulse is to bring the top posts and comments from major social media platforms (such as Facebook, Twitter, Reddit) in your country into one convenient place.

With SocialPulse, individuals can keep track of the most engaging posts that are circulating online without having to share personal data, scroll through advertisements, or visit multiple sites.

We ask that you interact with the SocialPulse feed in the same manner as you would on social media platforms in your daily life.

Participants interacted with the SocialPulse feed for 3 minutes and answered the following question.

# Perceived Similarity of SocialPulse

First, we want you think about how testing SocialPulse compared to how you use social media in your everyday life.

To what extent do you **browse** the SocialPulse interface in a similar way to how you browse social media in everyday life?

To what extent did you **use** the SocialPulse features in a similar way to how you use social media in everyday life?

To what extent did you **react** to the SocialPulse posts in a similar way to how you react to social media in everyday life?

- 1. Not at all similar
- 2. Slightly similar
- 3. Moderately similar
- 4. Mostly similar
- 5. Very similar

Last, participants answered questions about themselves and their social media use.

#### **Political Identification**

Think about your political views. Compared to most Americans, where would you place yourself on this scale?

- 1. Extremely liberal
- 2. Liberal
- 3. Slightly liberal
- 4. Moderate; middle of the road
- 5. Slightly conservative
- 6. Conservative
- 7. Extremely conservative

## **Identification with Political Party Identity**

How important is your political identity to you?

- 1. Not at all important
- 2. Slightly important
- 3. Moderately important
- 4. Very important
- 5. Extremely important

#### **Religious affiliation**

What is your religious affiliation?

- 1. Christianity
- 2. Judaism
- 3. Islam
- 4. Buddhism
- 5. Hinduism
- 6. Atheist
- 7. Agnostic
- 8. None
- 9. Other \_\_\_\_\_

## **Race/ Ethnicity**

Which of the following racial/ethnic categories are you MOST likely to identify with?

- 1. White or Caucasian
- 2. Black or African American

- 3. East Asian
- 4. South Asian
- 5. Native Hawaiian or other Pacific Islander
- 6. Hispanic
- 7. American Indian/Native American
- 8. Arab
- 9. Bi-racial or multiracial
- 10. Other \_\_\_\_\_

#### **Identification with Racial/Ethnic Identity**

How strongly do you identify with your racial/ethnic group?

- 1. Not at all
- 2. A little
- 3. A moderate amount
- 4. Somewhat strongly
- 5. Very strongly

#### **Platform Usage**

How often do you use the following platforms?

Facebook Twitter Reddit YouTube Instagram Telegram Signal Snapchat TikTok WhatsApp Messenger Discord

- 1. Never
- 2. Yearly
- 3. Monthly
- 4. Weekly
- 5. Several times per week
- 6. Daily
- 7. Several times per day
- 8. Hourly

#### **Social Media Identification**

Which of the following platforms do you view as "social media"?

Facebook Twitter Reddit YouTube Instagram Telegram Signal Snapchat TikTok WhatsApp Messenger Discord

- 1. Social Media
- 2. Not Social Media
- 3. Never heard of

#### **Reasons for Response Exclusion**

We are almost done now. Is there any reason why we should not include your response in our data analysis?

## Appendix C. Exploratory Analyses

**Table 1.** Overview of the Relationship Between (1) User Expectations and (2) SocialMedia Use Frequency and One-Click Reactions Across Three Modeling Approaches

	Negative Binomial		Order	ed Logistic	Multi-Level Negative Binomial	
	Up	Down	Up	Down	Up	Down
Facebook Socialness	-	-	-	-	-	-
Twitter Socialness						
Reddit Socialness	-		-			
Facebook Use Frequency	+		+		+	
Twitter Use Frequency	+		+		+	
Reddit Use Frequency						
Agency Mindset		-		-	-	-
Valence Mindset	+		+		+	
Good-vs-Bad Mindset	+	-	+	-	+	-
Avg. Platform Use Frequency	+		+		+	

*Note*. Avg. Platform Use Frequency = averaged use frequencies of Facebook, Twitter, and Reddit. The table summarizes the direction of the relationship between key predictors and one-click engagement across three modeling approaches, only depicting the ones that were statistically significant (p < 0.05).

	1	2	3	4	5	6
1. Avg. Use Freq. of FB, TW, RE	_					
2. Avg. Use Freq. of 12 Platforms	0.75***	—				
3. Social Media Breadth	0.05*	0.06**	—			
4. Social Media Awareness	0.22***	0.31***	0.42***	—		
5. Unique Number of Platforms	0.71***	0.9***	0.04#	0.33***	—	
6. Perceived Similarity	0.18***	0.13***	0.08***	0.09***	0.13***	
# = < 0.10, $*$ = < 0.05, $**$ = < 0.01.	*** ~ < 0 (	0.1				

**Table 2.** Correlation Table Between Social Media Usage, Ecological Measures, andPerceived Similarity

# p < 0.10; \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

*Note*. Avg. Use Freq. of FB, TW, RE = averaged usage frequency of Facebook, Twitter, and Reddit; Avg. Use Freq. of 12 Platforms = averaged use frequencies of Facebook, Twitter, Reddit, YouTube, Instagram, Telegram, Signal, Snapchat, TikTok, WhatsApp, Messenger, and Discord.