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Defining Social Media and Asking Social Media Research Questions: How Well Does the Swiss Army Knife Metaphor Apply?

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Introduction

This chapter offers an introduction to social media scholarship. According to Burgess et al. (2018), 'the world is in the midst of a social media paradigm – a distinctive moment in the history of media and communications shaped by the dominance of social media technologies' (p. 1). With an estimated 3.6 billion users in 2020, social media is part of the daily lives of nearly half the world's population (Statista, 2021). Major social movements and political events in recent years, such as Black Lives Matter (Mundt et al., 2018), #MeToo (Fileborn and Loney-Howes, 2019), and the 2016 Brexit vote and US presidential elections (Gorodnichenko et al., 2018), have highlighted the role of these platforms in shaping culture and politics. These developments have drawn mainstream media attention and scholarly interest, and social media research has been proliferating for several years. At the same time, the field still lacks a widely accepted and applied definition of social media. What does 'social media' mean? What makes it 'social'? What tools and platforms fall under social media?

The lack of a broadly accepted definition poses challenges to the field. Without it, it is difficult to generalize findings from single studies across disciplines, topics, and even beyond single platforms. Also, it is not always clear what tools, apps, and sites count as social media, and the definition of social media may vary depending on the background and perspective of the researcher (van Mil and Henman, 2016). Furthermore, social media has recently evolved into a digital 'Swiss army knife'. It is highly useful and incredibly versatile, continually integrating new features and becoming better equipped to address user needs beyond facilitating connections with friends and content sharing. Social media platforms now allow voice and video calls with individuals and groups (Facebook), encourage in-app shopping (Instagram), help facilitate payments (Facebook Pay, WeChat), and support users in monetizing their content (Snapchat Spotlight). As social media add more fea-

tures, the question arises: where does social media start, and where does it end?

In this chapter, we first address the question of how to define 'social media'. We then provide a typology to allow scholars to categorize different types of social media. In doing so, we highlight how, in a continuously growing and diversifying social media landscape, boundaries between social media and other media forms are blurring. Also, we make recommendations on how scholars can navigate this research area where conceptual clarity is often lacking. We then provide a roadmap for scholars by outlining social media research questions and questions social media data may help answer. We end the chapter with a discussion of four central challenges that social media research faces: 1) the use of social media as part of media repertoires; 2) the rapid change and diversification of features, capabilities, and services (Swiss army knife metaphor); 3) the blur between online and offline activities; and 4) the importance of context.

What is Social Media?

Defining Social Media

Relatively few formal definitions of social media exist despite the growing interest in research in this area. The lack of definitions is related to the Swiss army knife nature of social media, which continues to evolve by introducing new features and functions rapidly. Social media is also conceptually related to other terms, including social networking sites (SNSs) and online social networks (OSNs). Several sites were launched around 2003 to 2004, all having similar functionalities that allowed a person to connect with their social network, including rapidly growing platforms such as hi5, MySpace, and Friendster (boyd and Ellison, 2007). As a result, the terms SNS and OSN saw a rapid growth in usage across journals, monographs, and media releases in various domains, including computer science, communication, and sociology. A search on Scholar's Portal (Ontario Council of University Libraries, 2014) reveals there are almost twice as many references in publications to the term 'social networking site (SNS)' versus 'social media' between 2003 and 2008. Usage of both terms increased exponentially in the years that followed. However, between 2009 and 2014, the trend reversed with more than twice as many papers including the term 'social media' than 'social networking site (SNS)'. This development was even starker when looking at the period between 2014 to 2021, where the term 'social media' (101,396 items) was utilized ten times more frequently than SNS (10,042 items) and 51 times more frequently than OSN (1,965 items). Two reasons may explain this shift. First, social media is a broader term that also

includes blogging, which centres around text production rather than building social connections. Second, the term social media is associated with platforms such as TikTok, Snapchat, Twitter, Instagram, and Pinterest, while the term SNS is generally associated with platforms like Facebook and LinkedIn. As newer social media like Instagram gain popularity with younger generations (Pew Research Center, 2021), the term social media has become more ubiquitous. The academic literature continues to use diverse terms, but SNSs and OSNs are rapidly losing popularity, maybe because they are considered subtypes of the social media umbrella term.

We conducted an exploratory review of the literature which shows relative consensus on the meaning of social media (see also McCay-Peet and Quan-Haase, 2017). By searching the database *Communication and Mass Media Complete*, we reviewed social media definitions among articles and conference papers published between January 1, 2018, and June 16, 2020, written in English. *Communication and Mass Media Complete* covers more than 1,000 journals relevant to communication and media studies. We performed a full-text search for all entries that included the term 'social media'. This search yielded 3,440 results, from which we drew a random sample of 250 publications. We then investigated these more closely, paying attention to how they defined social media, what they considered defining characteristics, and what platforms they covered.

Within our sample of 250 publications, 39 (16%) did not have a focus on social media. Among the remaining 211 that focused on social media, the majority (183 publications, 73%) contained no definition. Only 34 publications (14%) provided a definition, although some authors defined a specific social media platform (e.g., Tumblr) rather than giving a definition of social media in general (6 publications, 2%). A small number of publications contained definitions of SNSs (3 publications, 1%).

Although not every definition addresses how social media enables content sharing, those that address it agree that social media is Internet-based. One definition mentions access via mobile devices. While some definitions stop short of specifying the type of content available, those that specify the content agree that it is user-generated (Gruzd et al., 2012; Kaplan and Haenlein, 2010; Xiang and Gretzel, 2010). With recent discussions on social media bots and their role in shaping interactions, content production can also be automated (Orabi et al., 2020). While past definitions of social media focus on user-generated content, bot-generated content increases and shapes interactions and sentiments. The automation of content production is a topic that requires further exploration of how it shapes our understanding of social media and its social nature.

All definitions indicate what social media does, namely, allow individuals, communities, and organizations to interact with one another by providing a service that enables communication and collaboration by creating,

modifying, and sharing content. Several also mention social media's participatory character, highlighting that users can take part in online conversations. The capacity to share and exchange content was often discussed, with some definitions focusing on disseminating information and sharing personal views and sentiments. The definitions concur that interactions – for example, through likes on Twitter – are at the heart of social media. We combine these characteristics into the following definition:

Social media are web-based and mobile services that allow individuals, communities, and organizations to collaborate, connect, interact, and build community by enabling them to create, co-create, modify, share, and engage with content (user- or bot-generated).

Our proposed definition combines and extends past definitions. We expand on them by stressing, in particular, the role of bot-generated content, which has often been overlooked in past definitions and thus aim to provide an overarching understanding of what social media is.

A Typology of Social Media

There have been several attempts to categorize and organize social media by either their function, reach, audience, or purpose. Arora (2012), for example, developed a metaphor-based typology to help identify boundaries between social media platforms, organized into five dimensions:

1. utilitarian-driven,
2. aesthetic-driven,
3. context-driven,
4. play-driven, and
5. value-driven.

More common are categorizations based on a social media platform's marketing capabilities or features. A recent example is Burgess et al.'s (2018) extensive typology distinguishing ten types:

1. Social networking sites or SNSs,
2. photo and video sharing apps,
3. music-sharing sites,
4. video sites,

- 5. blogs,
- 6. texting apps,
- 7. forums,
- 8. location-based technologies,
- 9. groupware, and
- 10. annotation and aggregation sites.

Other categorizations of social media are similar, although they emphasize different elements depending on the context. Rowlands et al. (2011) focused on a categorization of social media based on the user base. They identified collaborative software tools (such as collaborative authoring, conferencing, and scheduling) as a type of social media relevant for scholars (see also Quan-Haase, 2012). Hootsuite (2017), a social media management company, proposed a typology that lists various sites based on shopping and consumer ratings.

[Table 2.1](#) outlines 10 main types of social media and includes examples and definitions of each. Increasingly, social media are accessible via smartphones and tablets, with some prioritizing mobile usage through apps over browser-based access on a laptop or desktop computer with on-the-go access to content and updates (Highfield, 2016). Moving forward, we recommend researchers give preference to broader terms such as ‘social media’, ‘social media services’, or ‘social media platforms’ over specific terms such as ‘social media apps’ or ‘social media sites’. Indeed, many scholars have been using the word ‘platform’ to highlight social media’s multiple access points, technical infrastructure, and information processing capabilities. Gillespie (2018) defined online platforms as online sites and services that

- a. host, organize, and circulate users’ shared content or social interactions for them,
- b. without having produced or commissioned (the bulk of) that content,
- c. built on an infrastructure, beneath that circulation of information, for processing data for customer service, advertising, and profit. (p. 18)

Table 2.1 A typology of social media

Type of social media	Examples	Definition
Social net-	Facebook,	‘Web-based services that allow individuals to (1) construct a public or semi-public profile within a bound-

working	LinkedIn, VKontakte, QZone	ed system, (2) articulate a list of other users with whom they share a connection, and (3) view and traverse their list of connections and those made by others within the system' (boyd and Ellison, 2007: 211).
Media sharing	Instagram, Pinterest, TikTok, Snapchat, YouTube, SoundCloud, QQ, Douyin, Kuaishou	'Give people and brands a place to find and share media online, including photos, video, and live video' (Hootsuite, 2017: n. p.).
Messengers	WhatsApp, Facebook Messenger	'Enable users to send text and voice messages, make audio and video calls, create group chats and share different types of media' (Gangneux, 2020: 2).
Microblogging	Twitter, Sina Weibo	'A form of communication in which users describe their current status in short posts distributed by instant messages, mobile phones, email or the Web' (Java et al., 2009: 118).
Forums	Reddit, 4chan	'Communication portals that ... connect people interested in a similar topic' (Marett and Joshi, 2009: 48). Online forums host online discussions where users can post content and receive feedback from other users in the form of responses and 'likes' (Snow et al., 2017: n. p.).
Content curation and aggregation (bookmarking)	CiteULike, Pinboard	'Provide a mix of both direct (intentional) navigational advice as well as indirect (inferred) advice based on collective public behavior. By definition – these social bookmarking systems provide “social filtering” on resources from the web and intranet. The act of bookmarking indicates to others that one is interested in a given resource. At the same time, tags provide semantic information about the way the resource can be viewed' (Millen et al., 2007: 22).
Geolocation-based technologies	Foursquare, Tinder	'A set of mobile technologies – hardware and software – that make use of an individual's spatial and temporal location to capture and deliver content specific to a particular moment in a particular place' (Pieber and Quan-Haase, 2021: 2).
Blogs	WordPress, Tumblr	'Special types of websites that usually display date-stamped entries in reverse chronological order ... They are the Social Media equivalent of personal web pages and can come in a multitude of different variations, from personal diaries describing the author's life to summaries of all relevant information in one specific content area' (Kaplan and Haenlein, 2010: 63).
Groupware /	Slack, Discord,	Software designed to support coordinated activity across groups of individuals, allowing them to interact

collaborative software	Wikipedia, Zoom	through the manipulation of artefacts or through direct communication channels (Collazos et al., 2019).
Consumer re-view platforms	Yelp, TripAdvisor	Services that allow people to ‘find, review, and share information about brands, products, and services, as well as restaurants, travel destinations, and more’ (Hootsuite, 2017: n. p.).

It is important to add that platforms, as per their technical definition, can be expanded in a modular fashion. As Tiwana et al. (2010) wrote, a digital platform is an ‘extensible codebase of a software-based system that provides core functionality shared by the modules that interoperate with it and the interfaces through which they interoperate’ (p. 675). Modules are add-on software systems that connect to the platform and add different functionalities (Tiwana et al., 2010). The Chinese service WeChat, which incorporates a wide range of third-party apps, is an apt example for social media's modular platform character. We discuss WeChat in more detail below.

As part of our exploratory review of published work on social media discussed above (250 publications), we also investigated the different social media types that the studies discussed and specific sites or apps they mentioned. In our sample, 164 publications mention at least one social media platform ([Table 2.2](#)); the remaining articles discuss social media as a tool in general terms. The publications mention a wide range of social media ranging from widely used platforms such as Facebook, Instagram, and Twitter to more specialized ones such as Flickr and discontinued ones such as GooglePlus, YikYak, and BlackBerry Messenger.

Table 2.2 Frequency of social media types in database sample (N=250)

Type of social media platform	Number of mentions
Social networking	118
Facebook	117
LinkedIn	14
Google+	5
RenRen	2

Media sharing	66
Instagram	45
YouTube	26
SnapChat	16
Flickr	3
Vine	2
Messengers	15
WhatsApp	10
Other / general	5
Microblogging	110
Twitter	106
Sina Weibo	4
Forums	10
Reddit	6
Other / general	4
Content curation and aggregation (bookmarking)	6
Pinterest	6
Geolocation-based technologies	2
YikYak	1

Foursquare	1
Blogs	16
Tumblr	6
Other / general	10
Groupware / collaborative software	0
Consumer review platforms	1
Yelp	1
Total number of articles that mentioned specific platform	164

By far the most discussed social media platform is Facebook, followed by Twitter. There are two reasons why scholars have tended to give preference to Facebook and Twitter over other sites. First, Facebook continues to be the most widely adopted social media in North America and was one of the first to gather a large and loyal user base. In a 2019 study by the Pew Research Center, 96% of Americans reported using Facebook. By contrast, 37% said they used Instagram, 28% Pinterest, and 22% Twitter (Pew Research Center, 2019). Second, while Twitter is not as widely used as Facebook among the general population, it has had a transformative effect on how information and news diffuse throughout society. In a Pew Research Center (2021) study of Americans' use of social media for news consumption, Twitter was the most frequently used platform (59%), followed by Facebook (54%) and Reddit (42%). The mainstream media, including daily newspapers, broadcasting channels, and weekly magazines, often reference Twitter in news stories. As a result, Twitter has become an essential part of public discourse, despite not being widely adopted by the general population. Furthermore, the relative ease and low cost of mining Twitter content through its Application Programming Interface (API) make these data attractive to researchers (Hollingshead et al., 2022).

Media sharing platforms, which emphasize non-text forms of content, are also often the focus of research, particularly Instagram. Current innovations under development provide much needed tools not only to study images, videos, and memes and their surrounding discourse, but also the interlinkage of image, text, and content producer (see, Martin, this Handbook; Warfield et al., 2015).

Less often discussed are blogs, messengers, forums, and content curation platforms, followed lastly by geolocation-based technologies and consumer review platforms. Interestingly, although some researchers have listed collaborative software, such as Discord and Wikipedia, as a form of social media (Gruzd et al., 2012; Rowlands et al., 2011), none of the articles in our analysis mention them. The absence of such technologies in a sample of current research certainly does not mean that scholars are not studying them (see Collazos et al., 2019); rather, it indicates that they are often not studying them under the label of 'social media'. There are several possible reasons: first, groupware is often used in a professional context, and thus, its content tends to focus on the operations of businesses and not, as with apps like Instagram and Twitter, on leisure, news, or politics. Also, such technologies serve to connect employees of a company in a closed network, and the content is not intended to be shared with wider audiences. Finally, although groupware has a social component, their features are primarily designed to facilitate the completion of tasks and not to support social connections. Bruns (2015) wrote that 'all media are social, but only a particular subset of all media are fundamentally defined by their sociality' (p. 1). This aspect is increasingly important because social elements are now embedded in many technologies, making it more challenging to distinguish social media from other types of digital media (Creighton et al., 2013). In an environment where a range of technologies are designed to fulfil social gratifications, the question of where social media starts and ends is a hard one to answer.

Possibly because of our delimitation in the search of English-language publications, the proportion covering non-US-based platforms was minimal. Some of the world's most popular social media are Chinese, such as WeChat (1.2 billion users), QQ (648 million users), and Douyin (known as TikTok outside of Asia) (1 billion users) (Statista, 2020). Among these, WeChat is interesting. It escapes the typology described in [Table 2.1](#) because its functionalities include messaging, video chat, and posting images, videos, links, or text via the 'moments' feature (Tencent, 2015). Also, WeChat offers a comprehensive ecosystem of apps that allows users to engage in a wide range of activities, such as online shopping, paying bills, and booking rideshares. Authors have therefore called WeChat a 'multipurpose application' (Montag et al., 2018) and noted that it resembles a Swiss army knife (Vis, 2019). WeChat highlights a significant trend in the social media realm, where a single platform incorporates a range of features and facilitates activities well beyond social connectivity and content sharing. Although WeChat is unique in the extent to which it has expanded its functions and purpose, other social media platforms have taken steps in a similar direction. Examples are the 'social commerce' feature adopted by Instagram and Facebook, allowing users to purchase goods without leaving the site or app (Keyes, 2020). Social media expanding into more domains of everyday life opens numerous

new avenues for future research. At the same time, it poses challenges to such research because it makes the concept of social media fuzzy.

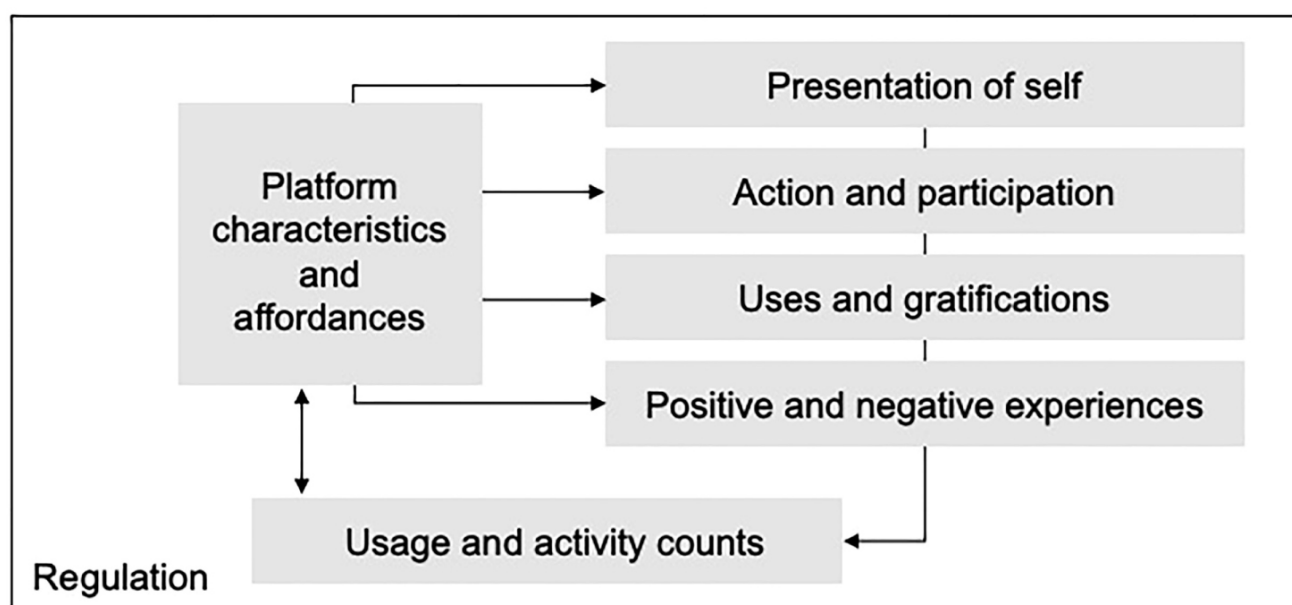
What Questions Can Social Media Research Answer?

In this section, we present a roadmap to the types of research questions social media can inform. Our list is not exhaustive but provides researchers with a means to situate their research within a substantive area. Early social media research drew from various approaches and tended to be less grounded in any one discipline. Recently, scholars within specific disciplines have come on board and are now utilizing social media data to answer issue-specific questions, which are often closely linked to their disciplines of origin. This development is important in three ways. First, it frames research questions within a set of theoretical approaches and discourses. Second, it allows for social media methods to develop that fit with the epistemologies of a discipline. Third, it allows for research to inform disciplinary-specific research questions as well as overarching research problems linked to social media research in a single study. Finally, it also suggests that social media research is becoming mainstream and its data more acceptable as a viable means for gaining insight into social phenomena. Next, we present our social media research roadmap by outlining three core areas of investigation: 1) social media use and impacts; 2) methodological and ethical questions; and 3) critical studies.

Core Area 1: Questions Relating to Social Media Use and Impacts

We build on McCay-Peet and Quan-Haase's (2016) framework of social media use and impact to explore key domains of analysis ([Figure 2.1](#)). The authors identified six elements of social media use and impacts. These elements may be examined through any number of disciplinary, theoretical, and methodological perspectives and traditions: 1) presentation of self, reputation management, and privacy, 2) action and participation, 3) uses and gratifications, 4) positive and negative experiences, 5) usage and activity counts, and 6) social context. We have augmented this model and added two elements – 7) platform characteristics and affordances and 8) platform regulatory frameworks (see [Figure 2.1](#)). Platform characteristics are critical for understanding how users create, share, interact with, and mobilize content. They also shed light on how users create and maintain community across different social media platforms. For example, Twitter allows individuals to follow

a person, institution or account, without the need for reciprocation. That is, Twitter supports one-way flows of information. By contrast, Facebook supports reciprocal linkages where two users are equally connected to each other. This difference in how features work across platforms has important implications for the flow of information, the formation of gatekeepers, and the topology of networks. Hence, understanding how platform characteristics relate to social phenomena provides further insight into these platforms' affordances for social behaviour. In what follows, we briefly describe each of the seven elements and illustrate how scholars can study them in relation to one another.



Social context

Figure 2.1 Social media use and impacts

1. *Presentation of self, reputation management, and privacy*: Identity is crafted through the development of a personal profile or virtual self over time on social media. An example of a research question designed to address the presentation of self aspect of social media is: 'are university student Facebook users more concerned about social privacy or institutional privacy?' (Young and Quan-Haase, 2013: 483).
2. *Action and participation*: Social media enables users to perform various activities such as viewing, posting, or sharing content, collaboration, and discussion. Veletsianos (2012), for example, posed the following research question which aims to understand the nature of scholarly participation in social media: 'what kinds of activities do scholars engage with on the Twitter network?' (p. 339).

3. *Uses and gratifications*: Social media users have different motivations for adoption and use including, for example, the exchange of information and the social benefits derived from its use. To understand why people use social recommendations such as 'likes', Kim (2014) asked, 'what are online user motives for using social recommendation systems?' (p. 186).
4. *Positive and negative experiences*: This area pertains to social media aspects that compel people to use it, such as positive emotions, serendipity, and flow. One research question that reflects this visceral element of social media engagement is related to deep involvement and flow: 'what are the factors affecting users to be deeply involved in social media?' (Chan and Ma, 2014: 17). Equally, negative experiences such as spam, fraud, and cyberbullying may lower user engagement with social media and these experiences have led to a wealth of research questions.
5. *Usage and activity counts*: Usage and activity counts refer to the data associated with users' actions and participation within a particular social media site, which may be presented in real time in raw or aggregate form to users. Research in this area may examine, for example, the impact of the counts provided by social media sites such as Twitter and Facebook on users. Westerman et al. (2012) asked, 'how does the ratio of followers to follows impact perceived credibility?' (p. 201).
6. *Social context*: Social context refers to the social, political, economic, work, and personal phenomena or characteristics that underlie a user's social networks within social media sites, including the size and nature of these local and global networks (e.g., a small, close-knit peer group or a large, diffuse network of social activists). Social media research may attempt to understand the implications of social context on the use of social media by asking, 'does (national) culture determine how we schedule events online?' (Reinecke et al., 2013: 45). Other social media research is interested in who is using social media to help understand the social context, asking questions such as, 'are Twitter users a representative sample of society?' (Mislove et al., 2011: 554). Furthermore, social movements provide a unique context for examining social media and how it serves as a tool for engagement, mobilization, and coordination (Castells, 2014; Poell, 2013).
7. *Platform features and affordances*: Factors relating to specific platforms' features may influence engagement, for example features that enable users to share information or communicate directly with one another. Smock et al. (2011) developed several research questions in their study on the uses and gratifications of Facebook, specifically relating these to features. One of these research questions was, 'are the motivations that predict general Facebook use different from the motivations that predict use of specific Facebook features?' (Smock et al., 2011: 2324).
8. *Platform regulatory framework*: There is an increasing need for regulatory frameworks that stipulate the relation between platforms and their users. There are many open questions around the regulatory

frameworks needed to protect users and increase the accountability of platforms. Gillespie (2010) argued that platforms ‘seek protection for facilitating user expression, yet also seek limited liability for what those users say’ (p. 347). This highlights the need for greater accountability as platforms like Twitter become important spaces for public debate.

Responses to the research questions outlined above inform our understanding of the reach of social media, how and why people engage with social media and to what. For example, Reinecke et al. (2013) examined the use of Doodle, a web-based scheduling tool, to understand cultural differences in time perception and group decision-making. Through an analysis of 1.5 million Doodle date and time polls from 211 countries, they found that cultural norms and values shape the process of scheduling. Studies such as these have the potential to not only expand our understanding of social media use but, more broadly, our understanding of collectivist and individualistic societies.

In terms of the disciplines that have examined social media-related questions, we can identify marketing, communications, politics, computer science, and human–computer interaction, specifically, economics, health, business, and education. There are, however, many more. Often interdisciplinary research teams come together to tackle complex questions around social phenomena as they take place on social media (see Quan-Haase, McLaughlin, & McCay-Peet, this Handbook).

Core Area 2: Methodological and Ethical Questions

Social media research has also prompted questions that force researchers to look inward to grapple with its inherent challenges, methodological, ethical, and questions of scale.

1. **Methodological questions:** Novel methodological questions emerge from the collection, analysis, and visualization of social media data. Some of these questions are specific to certain platforms, while others apply to all kinds of social media (see Grant, this Handbook; Martí and Serrano-Estrada, Chapter 22, this Handbook). To some extent, social media allows easy and convenient access to large quantities of data. On the other hand, it can be costly and difficult to obtain a specific data set. Not only do many social media platforms limit the data that can be retrieved through their APIs, but researchers who lack the programming skills required to tap into these APIs might also need to pay high licence costs for professional social media monitoring software. In an important step, Twitter

opened its archives to academic researchers in early 2021 (Tornes and Trujillo, 2021); however, scholars must still find or create their own software solutions to obtain these data.

2. **Ethical questions:** Data collection, aggregation, and reporting of social media data have raised numerous ethical questions relating to issues such as personal privacy, accuracy, and accountability with which researchers and practitioners are only beginning to grapple. While social media data are often publicly available, many ethical considerations should give researchers reason to pause. Consent is often at the centre of debates, as not all users of social media sites are comfortable with (or aware of) researchers analysing their data (Burkell, Regan, and Steeves, Chapter 49, this Handbook). Ethical considerations do not exclusively apply to scraping big data but are also relevant in small-scale studies relying on a few cases. As Quan-Haase and McCay-Peet (2017) argue, this 'may actually be an even greater concern for small-scale qualitative researchers, where it is easier to identify single users' [p. 44]. Hence, scholars need to address a wide range of research questions around data stewardship and what ethical guidelines need to be set up to help scholars gain new insights while protecting the right of users to data privacy. These kinds of discussions have become increasingly relevant due to new legislation in several countries. For example, in 2018, the EU passed the General Data Protection Regulation, enabling individuals to better control personal data on the web. Unfolding legal challenges open new research questions for scholars relating to the biases of the data collected for analysis and the legality of storing data that users may want to be deleted.
3. **Questions of scale:** Scale is one of the most significant challenges to be overcome by social media scholars. Social media data allow for the examination of a different phenomenon or issue from different angles. A study can rely on either large data sets that aggregate terabytes of information or, through small-scale studies, examine a few users' local behaviour. While both approaches are relevant and valid, they provide qualitatively different insights into a single phenomenon. So, how do we integrate findings from such disparate means of gaining knowledge? New theoretical and methodological assumptions are needed to link and integrate distinct data sets and findings and draw inferences based on social media data.

Key Issues to Consider in Social Media Research

There is no doubt that social media scholarship has grown rapidly since its beginnings in 2002, as demonstrated by, for example, a search on Google Books for the term 'social media', which shows a steep increase

in usage of the term in books. Early scholarly work from 2002 to 2010 primarily examined a single platform, its affordances, uses, and social implications, often focusing on a single population, for example early adopters. Gross and Acquisti's (2005) seminal paper looked at how users were engaging on Facebook, what information they shared, and the implications of information disclosure for privacy. Despite the quick proliferation of research addressing questions linked to social media, three issues were often insufficiently considered.

1. **Social media use as part of a media repertoire:** much early work (2002 to 2010) looked at a single platform and its affordances as if they were utilized in isolation, rather than examining how individuals employed various social media in tandem. Because there were few social media platforms available (Hi5, MySpace, Kiss.com), users' social media repertoire was limited. Yet, as more social media sites appeared and users flocked to them, the single-platform approach no longer captured the richness of social media usage. Quan-Haase and Young (2010) suggested that scholars think of social media use as a toolkit or media repertoire where different platforms fulfil different uses and gratifications. Boczkowski et al. (2018) confirmed the value of this approach in their study of social media use among young adults in Argentina. Their participants used multiple platforms such as Facebook, Twitter, WhatsApp, Instagram, and Snapchat, and attributed a different meaning to each of them. The media repertoire framework helps explain why users adopt multiple social media. Findings from the Pew Research Center show that multi-platform use has significantly increased over the past few years. In 2015, 52% of adult Internet users in the USA had adopted more than one social media platform; in 2018, that number had risen to 73% (Pew Research Center, 2018). Quan-Haase and Young (2010) argued that more work needed to be done in comparing the adoption and use of social media platforms. Such research would add to our understanding of why individuals prefer one social media platform over another and why and how they integrate different platforms based on the gratifications they fulfil. Thus, moving forward, it is critical to expand current research with a focus on a single platform by looking in more depth at media repertoires.
2. **Swiss army knife metaphor:** one of the biggest challenges in studying social media is its chameleon-like nature. For one, social media is not a technology that has reached 'closure by definition', a concept introduced by Rogers (2003) to describe the point in time when a social group agrees on what the function of a technology is. By contrast, social media continues to evolve in subtle and more bold ways. For example, Snapchat has had the feature Snap Map since 2017 and, in 2020, incorporated Friends Compass, a feature that allows users to identify the location of others. Further, Snapchat is adding more location-based information to its Snap Maps, such as reviews of restaurants and popular places. This development demonstrates that any finding about a social media platform is difficult to generalize across time because of the rapid changes in features and resulting social and informational affordances. Like a Swiss army knife, social media is incorporating an ever growing

number of features, capabilities, and services. Most social media are no longer geared solely to facilitating the building and maintaining of social relations. Instead, they allow users to engage in many more activities running from reading the news, finding out location-based information, obtaining ratings, and banking and commerce. As social media platforms integrate a wider range of features, capabilities, and services, they also start looking more alike. They are no longer specialized in the way they were in the 2000s, instead, they are multipurpose, fulfilling several gratifications for users. This trend necessitates two types of studies. First, it requires studies that examine a single social media platform in depth across user groups and features. Second, it calls for comparative research (see Quan-Haase and Young, 2010) that provides a deeper understanding of why users prefer some platforms over others and what motivates use within and across them.

3. **Online–offline relation:** examining social media often gives the impression that it is a universe unto itself that exists in isolation from other spheres of life. This perspective, that Jurgenson (2011) has called 'digital dualism', is myopic and disregards the many ways in which social media and the phenomena that emerge within it are closely interlinked to other spheres of life (Hogan and Quan-Haase, 2010). Perhaps most importantly, social media usage is interwoven with the rhythms and patterns of everyday life – be it romantic, family, community, or work. This link also became evident in the analysis of social media usage during the Arab Spring, where social media played a critical role. Despite the importance of social media during the Arab Spring of Tunisia and Egypt, many analysts showed that social media was utilized as a means to organize and mobilize citizens, spread news, and engage with the political landscape, in tandem with and in addition to informal, face-to-face networks on the ground. Rather than the digital sphere as separate from the offline sphere, the two work in relation to one another (Wellman et al., 2001). Hence social media needs to be studied as an expansion of daily life, an amplifier, and a catalyst; this will allow for an understanding of the more significant ramifications of social media in society and the many intersection points.
4. **Context:** the contexts in which interactions and behaviour on social media are occurring need to be considered, as these can help explain the content, intended audience and function, and topological features of networks of interaction and connections (see [Figure 2.1](#)). Without taking cultural, political, and historical contexts into account, researchers may miss essential aspects of social media use and its social implications. For example, the #MeToo hashtag went viral when Hollywood actress Alyssa Milano encouraged others to speak out about sexual abuse, sparking a global social media movement that raised awareness of sexual violence and calls for change (Quan-Haase et al., 2021). Yet it is important to study the movement's purpose and reach in a historical context. Black women have been speaking publicly and politically about rape since at least the 1800s (Serisier, 2018), and Black activist Tarana Burke had founded the 'Me Too' movement years before it attracted mainstream at-

tention on social media. This demonstrates the need to investigate social media in a historical, political, and social context.

Conclusion

The task of defining social media is increasingly difficult. Not only are the features, capabilities, and services constantly changing, but the very understanding of the role of social media in society is changing (Gillespie, 2018). Our definition aims to be general enough to apply to a wide range of social media but specific enough to capture their very essence. We stress in our definition the social purpose and contextual nature:

Social media are web-based and mobile services that allow individuals, communities, and organizations to collaborate, connect, interact, and build community by enabling them to create, co-create, modify, share, and engage with content (user- or bot-generated).

At the same time, we want to acknowledge some developments that make social media more challenging to grasp. Many forms of software increasingly include social elements, such as profiles and messaging features, making it harder to determine clear boundaries between social media and other communication technologies. Simultaneously, many social media platforms adopt features that go beyond social connection and content sharing (e.g., banking, e-commerce, and donations), turning them into a digital Swiss army knife that accompanies users in more and more areas of their lives.

In this increasingly complex landscape, it is even more vital for researchers to adopt a clear focus and be explicit about where their findings apply and where they might not. Rather than using the umbrella term 'social media', researchers should be explicit about what form of social media is of interest to them, or what particular platform. Studies should include detailed descriptions of a platform's design and features at the time of inquiry, as interfaces see frequent updates with sometimes significant changes to their user experience. Such descriptions should ideally cover both web and mobile interfaces as well as any other touchpoints that users have with the platform (e.g., sharing plug-ins such as 'tweet' buttons on news sites and Pinterest 'pin' buttons on shopping sites).

Social media remains both a fruitful area of research as well as a promising tool for data collection. If current efforts are any indication, there will be a growth in the development of new social media research methods

which will help integrate these methods and knowledge into existing frameworks. However, we would also argue that given the growth of social media scholarship, more research is needed to understand the biases inherent in using social media methodologies and develop best practices to support researchers and protect users. Of particular importance is the need to determine best practices around ethical considerations. For instance, can scholars use social media data without the consent of authors of user-generated content? If they make use of the data, should this be done only in aggregate form? What repercussions – for example, imprisonment, stigma, ridicule, and harm to reputation – can participants suffer from scholars making tweets and blog text available, even if anonymized? There is much work to be done around the social phenomena under investigation on social media and how scholars are procuring, storing, interpreting, and making use of social media data.

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