Introduction

> When you are playing a DJ set, you are not exactly making anything. You are contending with work that other people have already made, reorganizing it, repurposing it. It's creation, in the sense that I'm bringing a mood into existence, but it's curation in the sense that I'm looking through existing songs to see which ones I'm going to select.
>
> —Questlove (Thompson, 2018, p. 178)

I considered dozens of ways to start this book and none seemed fitting. A technical introduction that reported billions of mobile connections or trillions of texts was tempting, but would be outdated before the book went to press. A personal anecdote about the ubiquity of social and mobile media in everyday life would be in the spirit of the book, but I figured no one who had not already noticed this on their own would need it described for them. I needed something else.

Questlove – drummer for The Roots, DJ extraordinaire, epicurean, and author – helped me think about this book in another way.

There I was laboring away on this volume you hold in your hands, becoming keenly aware of the enormity of media research. With each chapter I wrote, I realized I was constantly summarizing, borrowing, and reiterating the thoughts of many outstanding thinkers. I kept wondering what my contribution would be in writing this book. Doubt was the devil on my shoulder and I was looking for the angel on the polar. I found it in Questlove's concept of the curator as creator as described in his book *Creative Quest*.

Museum curators, chefs, and DJs share a similar place in the creative spectrum: they select choice bits and arrange them among other selections. Through juxtaposition the tasty bits become tastier, more aesthetically appealing, or even revelatory. When Questlove DJs, he loves to see people who were thinking about ditching the party drawn back in again by his choice of song. This type of creator chooses ingredients from the cupboard, mixes them into new creation, and then presents the new creation to the audience for their consumption. The curator connects with the audience through arrangement and selection.

I am an academic curator and composer. I have scanned the breadth of research on the intersection between personal relationships and technology, and I am presenting my exhibit for you. I dug through the e-crates of academic records and this book is my set list. This book will report new findings from my own research, but it is primarily an act of curation. The order and assembly of this book is a unified exhibit, a spectacle meant to reveal my understanding of the intersection between relationships and technology.

I am humbled by this opportunity to play academic DJ with the ideas of others. I hope that my picks – expressed in ten book chapters – bring together ideas that you may have come across before, but never considered in relation to one another. Or maybe it exposes you to totally new ideas. Like a good playlist, I hope that the chapters fit together in ways that promote repeat visits. I hope this book sets your mental taste buds alight.

I have done my best to be a respectful creator – to warmly and accurately present the work of others, to give credit where it is due, and to provide proper context for any critique. And if any of this research is yours, thank you for giving me the ingredients from which this ten-course meal has been prepared. Thank you for your commitment to your craft.

SECTION ONE: WHAT'S ON THIS PLAYLIST?

Why do we need a book that offers a relationship-focused approach to the study of personal media? After all, there is an abundance of research on the array of media platforms and services. From the ever-growing literature on social media (e.g., Facebook, Instagram, Snapchat, Twitter) to the two-decade tradition of research on texting, the research on media and technology is so deep as to be overwhelming.

One motivation for writing this book is to refocus the conversation. For my taste, there is too much research on technology rather than on the people using it. A recent bibliometric analysis identified the twelve primary themes of 20,330 articles on social media, and *not a single theme* is focused on personal relationships (Foote, Shaw, & Hill, 2018). The most common theme (i.e., media use) has the key words "Facebook" and "people" but not friends or relationships. Of the twelve most common themes, there were *zero* using the words "relationships," "friendship," "romantic," "personal," "conversation," or "social interaction" (Foote et al., 2018).

Another bibliometric analysis of research on online social networks published in the top scholarly journals the past twenty years made this astonishing claim: articles dedicated to the study of the role of social networking sites (SNSs) in interpersonal relationships "did not necessarily examine the social relationships did not necessarily examine the social relationships mediated by those social technologies" (Fu & Lai, 2020). In other

words, these articles did not recognize that relationships are the foundation upon which online social networks are built, not the other way around. This same analysis (Fu & Lai, 2020) found very little research on multimodal relationships because research tends to be very platform specific, rarely accounting for uses of various platforms and modalities. Furthermore, social media research is by and large unconcerned with face-to-face (FtF) contact.

In research on personal media, users' preexisting relationships with communication partners are treated as ancillary or, worse, utterly irrelevant to studying the phenomenon (Fu & Lai, 2020). For example, researchers often prioritize measuring technology use in relation to outcomes like well-being, but rarely consider the preexisting relationship between the people on the sending and receiving ends of messages.

When researchers insufficiently attend to the relational context of personal media use, they are adopting a technology-focused approach. I would like to start a larger conversation about what a relationship-focused approach to personal media use could look like. I want to join my voice with Madianou and Miller (2012), who call for a "re-socialization of media" (p. 184) where each modality is understood by the ways that it nourishes or diminishes human relationships.

One of the core observations of this book is that relationships are and have long been multimodal, and, as such, much communication through media is an extension of those preexisting relationships. Although the media choices are vast, people continue to rely on a narrow set of modes of communication with a small number of important others. I will explain how these seemingly incompatible trends are possible. This book will synthesize and critique existing research on the questions of *whom* do we communicate with, using *which* media, for *what* purpose, and to *what* effect?

This book will focus on everyday social interactions both FtF and through media. Everyday talk between relational partners has been an important topic in communication for at least fifty years (Knapp & Daly, 2011). Similarly, research has long explored how people adopt, become accustomed to, and integrate new technologies and platforms into their everyday patterns of communication. As a research community, we need to transcend the boundaries between offline and online communication: "What happens via new technology is completely interwoven with what happens face-to-face and via other media" (Baym, 2009, p. 721). To do so, this book will focus on daily uses of technology to socially interact, highlight how digital technologies are used for maintaining existing relationships and forming new relationships, and examine the ongoing integration of technology into users' social life. In short, this book will explore the intersection between everyday social interaction and personal relationships as experienced in the digital age.

One thing I want to be crystal clear about: this book will not review research on the use of digital media for information seeking, entertainment,

and other instrumental purposes (e.g., shopping). My playlist will exclude all nonsocial uses of technology.

The book *will* take into account choices to *not* socially engage through media, choices to *not* be available via media, and choices to be intentionally alone. It is part of my broader perspective on social ecology, wherein seeking solitude and how we feel when we are alone are critical components of a nourished social life (Hall & Merolla, 2020). For the purposes of this book, intentionally making oneself unavailable through media and seeking times of solitude can be understood from the perspective of relating through technology in a way that shopping for shoes cannot.

1.1 Mode + Feature

Communication, both as a concept and as a discipline, is at the core of the study of media. Mass communication researchers study radio, TV, film, newspapers, and the many forms of digital content. These media are often used to broadcast information in a one-way fashion to a large audience of unknown others. In this book, I will use the term *personal media* to refer to media used to send messages back and forth through some technology, platform, or device. These messages are primarily, but not exclusively, sent to a known other or others. There are several classic personal media (e.g., telephone, posted letter) that are addressed to a specific other and facilitate one-to-one communication. Some old-school mass media can be used as personal media or for the purpose of interpersonal communication, such as CB radios used to connect enthusiasts and personal ads in newspapers used to initiate personal relationships or find estranged loved ones. In such cases, each would qualify as personal media. As a rule of thumb, personal media enables interpersonal communication.

Computer-mediated communication (CMC) refers to messages sent and received through a technological platform or mediated device. Thus, CMC occurs through personal media. For much of the early history of CMC research, these messages were primarily textual. For example, the bulletin-board system (BBS), a precursor to the internet and World Wide Web, was primarily a textual medium because audio or visual files were comparably large and could overwhelm the system's capacity (Delwiche, 2018). Although CMC can facilitate mass messages, such as using a BBS to advertise a community event or a modern-day listserv, CMC can also be directed and interpersonal, which is the primary focus of this book. Media refers to the various modalities and platforms used to convey messages to others. Personal media are technologies that offer the possibility of two-way, interactive communication between known others or between individuals who are seeking to connect with strangers (e.g., looking for a dating partner, posting on a social support website).

The *mode* of communication refers to the different forms media can take. Parks (2017) defines mode of communication as "the basic form into which a message has been encoded (e.g., speech, written text, still image, moving image, touch)" (p. 506). Thus, FtF interactions offer several modes of communicating at once – visual, audio, and tactile. In the nonverbal communication tradition, these are called channels of communication. In CMC and mass media research, channel refers to the "physical mechanisms and software of message transmission" (Parks, 2017, p. 506). Thus, a channel is a distinct and separable technology-enabled mechanism to convey a message.

When I suggest that relationships have long been *multimodal*, I am arguing that people have long encoded messages into several modes of communication – letters, phone calls, and FtF conversations. This gives rise to what Parks (2017) calls mixed-media relationships and I will call *multimodal relationships*, both of which refer to any nominally interdependent relationship (e.g., romantic, colleague, friend) maintained through more than one modality. *Modality switching* occurs when people switch among media to manage the stream of communication between them (Ramirez & Wang, 2008). For example, a woman might follow up on the content of a text exchange with her girlfriend later that day when they are at home together.

1.2 Variability between Modalities

Back when the modes of communication were few, there was a pretty clear sense of what any given mode did or did not do. In the age of social media and mobile applications, software developers actively compete to be the hub of users' engagement with the internet, with other platforms, with other people, and with users' geo-located environment. Thus, it has become increasingly difficult to account for what any given technology or platform actually does or can be used to do.

Throughout this book, I will advocate for a mode + feature approach to distinguish between media. A *feature* is a technological option built into a modality, which may or may not be available at a certain time, to certain users, or with certain devices. Back in the era when landline phones were the primary means of making voice calls, a then-new feature was call waiting. This feature allowed a person to know when another call was coming in while already talking to someone. In the smartphone era, it is more common that features can be turned on or off or enabled or disabled (with greater or lesser ease). Within any given mode of communication, the number of features can be many or few. Features are more numerous, more technology-dependent, and more changeable than core modalities. To be clear, I am asserting there is limited variability within a singular mode. While features vary, modes share core aspects across time, devices, and platforms. Traditional modes (e.g., voice calls, email) and newer modes (e.g., video chat) are distinct.

There are several ways to distinguish between modalities and features, and organizing this variability is important theoretically and practically. In 2010, Baym offered seven key concepts to help differentiate between modes of communication. These concepts have been reevaluated and expanded (e.g., Evans, Pearce, Vitak, & Treem, 2017; Nesi, Choukas-Bradley, & Prinstein, 2018), but it is important to note that all exist on continua rather than a binary fashion.

Synchrony (concept number 1) (as opposed to asynchrony) describes the temporal structure of media, wherein totally synchronous communication is like FtF interaction. When modalities require pauses or breaks between messages, either due to the limits of connectivity itself or due to time needed for reception and response, they become asynchronous.

Text-based exchanges do not contain the amount of nonverbal information that FtF communication does. This concept (number 2) is called *social cues*, which varies based on the number of nonverbal channels available on a given modality (Parks, 2017). The idea of anonymity is sometimes folded into the concept of social cues because given sufficiently low social cues, an individual can (nearly) anonymously send and receive messages (Nesi et al., 2018). Another component of social cues is the degree to which a mode promotes certain cues over others. As a concept that describes variability within a mode of communication, it refers to the idea that some modes of communication include visual media or images (e.g., video chat), and others are primarily textual communication (e.g., texting). This issue is also salient when comparing types of social media (e.g., Twitter versus Snapchat) and what type of social cues they offer and promote.

The next three concepts speak to the size of the audience and permanence of the message, both in the moment and over time. *Reach* (concept number 3) refers to the number of individuals to whom a message is sent. Voice calls used for interpersonal rather than broadcast purposes (such as a webinar) have very limited reach, but tweets on Twitter can be very broad in reach. Reach also speaks not just to the intended audience but also to the potential or final audience size. *Replicability* (concept number 4) is the degree to which a message is permanent (versus ephemeral) or has a left digital trace (Nesi et al., 2018). Combining reach and replicability, some modes of communication have a much bigger reach than may have been intended because their digital trace can be dug up and shared. Concept number 5 is *searchability*, which is closely aligned with digital storage. Voice calls are searchable in the sense that call records indicate the length of a call and that the two numbers that were connected, but are not totally searchable as the contents of voice calls are not stored and thus are not searchable. By contrast, text messages and emails are much more searchable because the message content itself is stored. Searchability includes the related concept that certain platforms make it easier to search an archive.

The *mobility* (concept number 6) of a mode is the degree to which the mode is tied to a particular place, platform, or technology. This refers both to the idea that voice calls on mobile phones are much more mobile than they are on landlines and to the idea that instant messaging (IM) used to be confined to a desktop or laptop computer. This variability of mobility has become nearly zero for all modes of communication enabled on a smartphone. Indeed, we have gotten to the point where nearly all modes of communication, except FtF conversations, are highly mobile. As one important caveat to this presumption of constant connectivity, the lack of consistent access to wireless technology reduces mobility. There are many areas throughout the world that cannot rely on the degree of connectivity the global north has come to demand.

Modes vary by their degree of *interactivity* (concept number 7), which refers to their ability to enable social interaction. This is not to be confused with the idea that some media are more interactive in that they let users manipulate what they see on the computer/internet, like interactive games (Baym, 2010). The opposite of interactivity is that the mode does not allow for or facilitate social interaction. For the most part, the entirety of this book will be dedicated to focusing on modes of communication that are high in interactivity, with the notable exception of Chapter 6, which is devoted to social media, which varies in interactivity.

One final concept that Baym (2010) did not address, but I believe merits inclusion, is *quantifiability* (concept number 8), which refers to the degree to which a mode encourages or makes obvious things that can be enumerated, such as likes, shares, or number of friends. This concept includes both how clearly such counts are presented and whether mode usage itself is quantifiable. Nesi et al. (2018) suggest that some modes of communication are more quantifiable than others. Voice calls have very low quantifiability, although you can check your call records, but social media are highly quantifiable. For example, a "like" on Facebook is a one-click acknowledgment that, by nature, quantifies the audience's actions.

1.3 What about Affordances?

Another popular approach to understanding variability between modes of personal media is the affordance. Bucher and Helmond (2018) offer a thorough history of this hotly contested concept, pointing out that different theorists have used it in very different ways at different points of time. One of the challenges of the concept is that an affordance is defined by how people use media (e.g., technology affords user the possibility of doing X), *and* an affordance entails the impact of technology on users' practices of use. An affordance is concerned with both how the technology alters people's communication habits and practices and how users shape technology (Bucher &

Helmond, 2018). Thus, affordances are ultimately a network of relations between users' behavioral patterns and a technology's capabilities. Affordances are *not* objects you can point to.

Bucher and Helmond (2018) note that since there has been such a multitude of ways to approach affordances conceptually, there are many ways to fruitfully use the term. The eight sources of variability between media listed above could be thought of as *high-level* affordances (Bucher & Helmond, 2018). Indeed, in their theoretical review, Evans et al. (2017) identify high-level affordances: anonymity (i.e., social cues), persistence (i.e., searchable and replicable), and visibility, whether a feature is promoted within the platform and the degree to which information can be easily found (i.e., quantifiable and replicable). By contrast, *low-level* affordances could be thought of as the features of a modality: at that level "affordance becomes a way of talking about the technical features of the platform" (Bucher & Helmond, 2018, p. 240).

Given the great deal of complexity and confusion around the concept affordance, I will avoid it. Yet this is not to dismiss its value out of hand. The mode + feature approach is compatible with the affordance perspective in several ways. In addition to idea that the eight concepts I discussed above could be seen as high-level affordances, the affordance perspective is consistent with the idea that a particular mode of communication (e.g., mediated person-to-person chat) can be used on various platforms (e.g., iMessage, GroupMe, Facebook Messenger). Both perspectives are consistent with the idea that the various modes of communication are shaped by features of the modality and the practice of using it within the context of a relationship.

Chapter 2 will offer a more thorough discussion of the fact that just because a feature exists on a platform or because a mode of communication was developed to perform a particular function does not mean that people will enable the feature or will use a mode for that purpose. Although much of this book will focus on more traditional and enduring modes of communication (e.g., voice calls, texting, FtF), Chapter 6 will explore social media and their constantly evolving features, wherein much of the affordance debate is centered.

SECTION TWO: SCOPE OF THE BOOK

2.1 Fundamental Theories: Chapters 1–3

My relationship-centered approach to understanding media starts with laying out assumptions about why relationships matter to people and how media is in the service of those relationships. The first stopping point on this curated tour of ideas (aka Chapter 1) is to introduce the idea of social ecology. This chapter introduces the idea that relationships are a fundamental component of human existence, but there is a limit on the number of relationship

partners we have and maintain. This chapter introduces the idea of the *core network* (or the two to five most important people in your life) and the *first fifteen* (i.e., the primary members of your personal network). Chapter 1 explains why the social context of relationships is important for the study of personal media.

Chapter 2 examines the social construction of technology (SCOT) perspective. This addresses why people shape technology use for their own ends, and why deterministic models fail to account for media use. This chapter contrasts a relational approach with competing perspectives, especially technology-centered ones. This social constructivist perspective is brought into dialogue with constructivist theories of personal relationships (e.g., Duck, 1994a) and with dialectical and ironic (Arnold, 2003) perspectives on media's influence on relationships.

Chapter 3 reviews classic theories of CMC that are relevant to understanding personal media use, including media richness theory, social presence theory, social information processing theory, and media multiplexity theory. The chapter also explores models and perspectives of personal media use that are emergent and important, such as relationship interdependence and mundane mediated relationship maintenance.

This chapter also introduces my theory, the communicate bond belong (CBB) theory (Hall & Davis, 2017), which examines how the content of communication, particularly the episode of communication, influences the satisfaction of the fundamental need to belong. One advantage of CBB is its focus on human energy management, which stipulates that humans seek to conserve energy expenditure and invest their time and energy toward future belongingness need satisfaction. From the perspective of CBB theory, personal media use is understood as result of three forces: need satisfaction, energy conservation and investment, and homeostatic balance of social interaction and time alone.

2.2 Modality Comparisons and Contrasts: Chapters 4–6

The three central chapters of the book trace the emergence of today's mobile moment, which is the perpetual state of potential connection created by the widespread adoption of smartphones. Constant access to social media, smartphone applications, and mobile communication (i.e., text, voice call) in the global north means that the typical boundaries of social interaction have all but vanished. Connection is more than ever elective rather than constrained by access to and availability of others.

Chapter 4 introduces the niche and media displacement theories to address the idea that although there is an ever-expanding array of options, the displacement of one media for another has been slow and gradual. This chapter starts by exploring text-based communication in the context of both

interpersonal communication and classic CMC literature. The emergence of email and then-new phenomena such as chat rooms, message boards, and the listserv are examined, followed by the emergence of SMS. This chapter also examines the frequency of social interactions on various modes of communication, and concludes by focusing on the coexistence, rather than total displacement, of these forms of communication.

Chapter 5 explores the nature of modern multimodal relationships from a both/and rather than either/or perspective. It explores modality switching, which tracks the flow of communication through multiple media by relational partners. This chapter systematically reviews research that compares modalities to test the idea that FtF communication has greater primacy as a mode of interaction. The chapter discusses the degree to which the privileging of FtF in contemporary and classic CMC research is appropriate and consistent with empirical evidence.

Chapter 6 is about SNSs and social media. Bracketing direct and private communication through traditional modalities (e.g., email, IM), the remaining modes of communication and features of social media are examined. This chapter offers three ways to understand social media use: social media as the *social news*, social media as the *archive of self*, and social media as *bridging social capital*. The social news is the idea that we use social media to advertise the events of our lives and read about the lives of others. The archive of self refers to both the searchability and permanence of our digital connections as facilitated through social media. Theories of social capital were among the first perspectives to develop during the rise of social media, and continue to serve an important function today.

2.3 The Enduring Tensions of Relationships and Technology (Chapters 7–10)

The book concludes with an examination of four important issues at the intersection of relationships and technology – all of which highlight the spillover, overlap, and influence of offline sociability on online behavior and vice versa.

Chapter 7 argues that there are five inherent tensions in the use of media in relationships:

- Hyper-coordination versus micro-coordination
- Personalized and purposeful messages versus generalized messages
- Contributing to the conversation versus virtual people watching
- Intentional attention versus incidental awareness
- Routine access offline versus limited access offline

Chapter 8 addresses the role of media in contributing to digital stress. After reviewing the evidence of whether social media is bad for you,