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Qualitative Research Design in a Digital World

THIS CHAPTER WILL COVER HOW TO:

- Define qualitative inquiry
- Describe a range of qualitative research paradigms
- Identify key methodologies and their alignment with particular paradigms and epistemological foundations
- Describe the nature of qualitative research design
- Establish methodological alignment in a study design
- Consider nine ways that digital tools and spaces impact qualitative research design
- Be reflexive about the ways in which engaging with substantive theories and theories of technology shape the research design

INTRODUCTION

Designing a qualitative research study requires understanding of both the diverse and nuanced meanings of *qualitative inquiry* and the practices commonly involved in conducting a rigorous and meaningful study. The place of digital tools and spaces in the design process has long been overlooked, and, in many cases positioned as an afterthought—something to be considered when the need arises. In this chapter, then, we seek to bring together considerations that help researchers proactively create comprehensive digital workflows. In doing so, we explicitly forward the idea that the digital world shapes how we do research, as described in Chapter 1, just as the research process shapes our use of digital tools and spaces in particular ways. Given this, we suggest that it is essential that digital tools and spaces be considered *while* designing a research study, rather than after the fact. We also offer here a range of perspectives on the meaning of qualitative research itself, emphasizing that it is “*not* a method or research technique that determines whether something is qualitative research; it is how the study is conceived, what is to be accomplished, and how the data is understood” (Willis, 2007, pp. 150–151).

In this chapter, we introduce the various meanings of qualitative inquiry and the related paradigms, exploring the intersection of methodological choices, research design, and technology. We discuss common misconceptions, such as claims that qualitative methodologies stand outside of technology choices (or vice versa). We explore how methodology shapes decisions about research design, walking through specific examples of how technologies may shape and be shaped by methodologies.

To begin, we introduce the qualitative inquiry paradigm, taking as our point of departure the question: *what is qualitative research?* Then, we introduce the research design process, offering central considerations for crafting such a design, including: establishing a research question and conducting a literature review, selecting a methodology, identifying a research site and participants, entering the field, and developing data collection instruments, among others. Throughout, we explore how each phase of the research process must be considered when creating a comprehensive workflow that fully integrates digital tools and spaces in relevant ways. Thus, this chapter emphasizes considerations related to *designing* a study, and, in so doing, foreshadows what is to come in the subsequent chapters.

MEANINGS OF QUALITATIVE RESEARCH

Qualitative research has a complex and still unfolding history, with roots in fields such as anthropology and sociology. While it has a fairly vast history, Hammersley (2013) noted that the label “qualitative research” itself only began to be widely used in the 1960s—most commonly to describe something that was *different* from quantitative research. Often cast as originating in the Western world, qualitative research of old often involved someone traveling to a “foreign” land and doing ethnographic research *on* people and cultures as outsiders. As Bhattacharya (2017) noted, many “third world scholars” (p. 8) have long critiqued this model of doing qualitative research and have called for decolonizing approaches instead (Smith, 2012). In fields such as cultural anthropology, the 1980s and 1990s brought a “crisis of representation” wherein many researchers embraced a more reflexive stance toward crafting their studies. As debates about methodology unfolded (see, e.g., Guba, 1990), paradigm wars surged in the 1980s, particularly in fields such as education. Some, though, have noted that such “wars” had long existed, for a range of reasons. Oakley (1999), for example, argued that “one highly significant driving force behind the paradigm war” was “feminism as a political and social movement,” underscoring the “political reasons of using ‘qualitative’ research methods” (p. 248). Indeed, during this time the legitimacy and place of qualitative research was debated, with scholars across fields often fighting for a place for their work. As the use and acceptance of a range of approaches have risen, many scholars have positioned qualitative research as not just a set of methods and methodologies but also “a field of inquiry in its own right” that “crosscuts disciplines, fields, and subject matter” (Denzin & Lincoln, 2011, p. 3). Indeed, we have suggested that

Even though qualitative approaches are still relatively “new” in the human, health, and social sciences, over the last few decades we have seen a gradual

growth and acceptance of qualitative work across disciplines and countries. As a methodological community, we have moved beyond the fight for a place for qualitative research, which is evidenced by qualitative research now being taught in many educational curricula and entire journals devoted to qualitative approaches. (Lester & O'Reilly, 2015, p. 628)

In this book, then, we start with the assumption that qualitative research is a viable and useful approach for answering particular questions.

Alongside the growth and increasing acceptance of qualitative research has been a proliferation of methodologies, methods, and paradigms (Lather, 2006), as well as ways in which qualitative research is defined and conceptualized. As Yin (2016) argued, making explicit what is distinctive about the term *qualitative research* is somewhat challenging. He noted that the term itself has been “likened to other terms of the same genre,” such as “*sociological research, psychological research, or education research*” (p. 8, emphasis added in original). Similarly, Hammersley (2013) noted that anyone seeking a “simple” and widely agreed upon “answer to the question ‘what is qualitative research?’... is bound to be disappointed” (p. vii). Indeed, even an abbreviated review of the broader methodological writing reveals a wide range of conceptualizations. Erickson (2018), for instance, conceptualized qualitative research as that which

seeks to discover and to describe narratively what particular people do in their everyday lives and what their actions mean to them. It identifies meaning-relevant kinds of things in the world—kinds of people, kinds of actions, kinds of beliefs and interests—focusing on differences in forms of things that make a difference for meaning. (p. 36)

As another example, in the prominent *Sage Handbook of Qualitative Research*, Denzin and Lincoln (2011) described qualitative research as

a situated activity that locates the observer in the world...[and] consists of a set of interpretive, material practices that make the world visible. These practices transform the world. They turn the world into a series of representations, including fieldnotes, interviews, conversations, photographs, recordings, and memos to the self... [Q]ualitative researchers study things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them. (p. 3)

They further noted that qualitative research—at least in North America—operates in relation to particular historical moments (Denzin & Lincoln, 2011; see Chapter 9 for a detailed discussion of this). To understand the meaning and purpose of qualitative research, then, requires familiarity with the historical moments in which it is/was defined.

Quite usefully, Yin (2016) suggested an alternative to offering a “simple definition of qualitative research,” providing instead five features that characterize this approach to inquiry, including:

1. Studying the meaning of people’s lives, in their real-world roles;
2. Representing the views and perspectives of the people;
3. Explicitly attending to and accounting for real-world contextual conditions;
4. Contributing insights from existing or new concepts that may help to *explain* social behavior and thinking; and
5. Acknowledging the potential relevance of multiple sources of evidence rather than relying on a single source alone. (pp. 8–9)

To offer a final example Patton (2002) wrote about the common characteristics of qualitative research, as highlighted in Table 2.1.

TABLE 2.1 Common Characteristics of Qualitative Research

Design Strategies

1. *Naturalistic inquiry*—Studying real-world situations as they unfold naturally; nonmanipulative and noncontrolling; openness to whatever emerges (lack of predetermined constraints on findings).
2. *Emergent design flexibility*—Openness to adapting inquiry as understanding deepens and/or situations change; the researcher avoids getting locked into rigid designs that eliminate responsiveness and pursues new paths of discovery as they emerge.
3. *Purposeful sampling*—Cases for study (e.g., people, organizations, communities, cultures, events, critical incidences) are selected because they are “information rich” and illuminative; that is, they offer useful manifestations of the phenomenon of interest; sampling, then, is aimed at insight about the phenomenon, not empirical generalization from a sample to a population.

7. *Dynamic systems*—Attention to process; assumes change as ongoing whether focus is on an individual, an organization, a community, or an entire culture; therefore, mindful of and attentive to system and situation dynamics.

Analysis Strategies

8. *Unique case orientation*—Assumes that each case is special and unique; the first level of analysis is being true to, respecting, and capturing the details of the individual cases being studied; cross-case analysis follows from and depends on the quality of individual case studies.
9. *Inductive analysis and creative synthesis*—Immersion in the details and specifics of the data to discover important patterns, themes, and interrelationships; begins by exploring, then confirming, guided by analytical principles rather than rules; ends with a creative synthesis.
10. *Holistic perspective*—The whole phenomenon under study is understood as a complex system that is more than the sum of its parts; focus on complex interdependencies and system dynamics that cannot meaningfully be reduced to a

TABLE 2.1 Common Characteristics of Qualitative Research
(Continued)

Data Collection and Fieldwork Strategies

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| <p>4. <i>Qualitative data</i>—Observations that yield detailed, thick description; inquiry in depth; interviews that capture direct quotations about people’s personal perspectives and experiences; case studies; careful document review.</p> <p>5. <i>Personal experience and engagement</i>—The researcher has direct contact with and gets close to the people, situation, and phenomenon under study; the researcher’s personal experiences and insights are an important part of the inquiry and critical to understanding the phenomenon.</p> <p>6. <i>Empathic neutrality and mindfulness</i>—An empathic stance in interviewing seeks vicarious understanding without judgment (neutrality) by showing openness, sensitivity, respect, awareness, and responsiveness; in observation it means being fully present (mindfulness).</p> | <p>few discrete variables and linear, cause–effect relationships.</p> <p>11. <i>Context sensitivity</i>—Places findings in a social, historical, and temporal context; careful about, even dubious of, the possibility or meaningfulness of generalizations across time and space; emphasizes instead careful comparative case analyses and extrapolating patterns for possible transferability and adaptation in new settings.</p> <p>12. <i>Voice, perspective, and reflexivity</i>—The qualitative analyst owns and is reflective about her or his own voice and perspective; a credible voice conveys authenticity and trustworthiness; complete objectivity being impossible and pure subjectivity undermining credibility, the researcher’s focus becomes balanced—understanding and depicting the world authentically in all its complexity while being self-analytical, politically aware, and reflexive in consciousness.</p> |
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Source: Patton (2002, pp. 40–41).

Thus, while there is no simple definition of qualitative research, there are common characteristics and practices, though these commonalities often vary across disciplines and geographies. To illustrate the diverse meanings of qualitative research, Vignettes 2.1 and 2.2 offer detailed descriptions of qualitative studies—each in a unique discipline, with a particular purpose.

Vignette 2.1 Transgender Access to Comprehensive Care Experiences in South Central Appalachia Study (TransACCESS): Mixed-Methods Timeline Interviews With Trans Adults

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Background

Transgender is a term used to refer to people whose gender identity does not match the sex they were assigned at birth. This includes, for example, those who

were assigned male at birth and identify as female. This also includes those who identify as gender nonbinary, genderqueer, or another category under the transgender umbrella. Many people who identify as transgender experience barriers to accessing physical and mental health care. Some barriers are directly related to stigma and discrimination in health-care settings. These barriers contribute to physical and mental health disparities that affect transgender populations. Few published studies have addressed the experiences of transgender populations in South Central Appalachia, where stigma towards this population is particularly high and where access to care is relatively low for a large portion of the population.

Method

We conducted 50 timeline interviews (Adriansen, 2012) with adults who identify as transgender and live in South Central Appalachia, a region that includes East Tennessee, Western North Carolina, and Southwest Virginia. Participants were recruited using direct community outreach by study staff and snowball sampling. Interviews were conducted in trans-affirming spaces in locations within a one-hour drive of where participants were located.

The mixed-methods interviews were conducted with one participant and two research staff members. Each interview took one to two hours to complete and included a brief demographic questionnaire, a written timeline, and an audio-recorded interview. Participants were consented by a member of the study staff and were given \$50 in cash as an incentive. Participants were presented with a "timeline" on a three-by-five-foot piece of paper taped on the wall in the interview space. They were asked to write their birthdate at the beginning of the timeline and the date of the interview wherever they wanted, giving them the option of leaving some space for future events. They were then asked to write notes about 10–15 events or time periods related to their gender identity or physical or mental health-care experiences along the timeline. Participants were also asked to give a rating to each event from –10 to +10. After the participant filled in the timeline, the recorded portion of the interview began. Interviewers prompted participants to talk about events on their timeline, noting that they did not have to talk about every event on the timeline and they could add events if something came up in the process of talking about what was written.

Analysis

Timeline data will be analyzed quantitatively and qualitatively. Using NVivo qualitative data analysis software (QDAS), we will conduct thematic coding of events written on the timelines and conduct some basic statistical analyses to examine patterns of event types and ratings of the events. We will also conduct a qualitative analysis of the transcribed interview data. Thematic analysis, as described by Braun and Clarke (2006), will be conducted by three members of the research team. We will read through the transcripts, collaboratively make

an initial list of codes, apply these codes to the data, organize these codes by theme, and revise the coding scheme by reorganizing and recoding as necessary until a clear coding scheme is agreed upon by all coding research team members.

Findings

The following are composite descriptions of timeline interview participants. We are still collecting data for this study, so each of these descriptions draws on information from more than one of the forty interviews already completed. These composites are meant to convey information from multiple interviews in lieu of the full analysis, which will be completed in fall 2020.

Sammy (he/him/his; pseudonym) is a 32-year-old trans man living in a small, relatively progressive town in North Carolina. He included 20 events on his timeline, including 2 things he hopes will happen in the future: top surgery and getting a new therapist, both of which he rated very positively. His past events include realizing he was trans when he was 4 or 5 years old (+8 rating); coming out to his mother (+5 rating), who is now accepting; and finding a job at the office of a trans-affirming mental healthcare provider (+10). Though not rated very negatively on his timeline, Sammy mentioned being mistreated by peers who made fun of his gender expression while he was in high school and being questioned inappropriately by a physical healthcare provider when admitted to the hospital with appendicitis. Though he has a job at the office of a provider, he still gets nervous when he seeks physical healthcare for himself and says he generally avoids healthcare settings.

Bea (she/her/hers; pseudonym) is a 65-year-old trans woman and veteran, living in a small town in northeast Tennessee. Her timeline included 15 events and is mostly focused on recent events, as she began to identify as trans just 3 years ago. She had a sense for a long time that she was trans but didn't have a name for it until recently. She enjoyed feminine things and never felt comfortable in her own skin. She was worried about the reactions of her family members, including her wife and two grown children. Each of these reactions, however, is rated positively on her timeline. She had a positive experience seeking and receiving hormone therapy from a healthcare provider in the area (+10 rating). She has no future events on her timeline but does mention thinking about seeking mental health support as she embarks on the process of living as a woman in public "full time." The only negative events on her timeline were losing friends when she started to come out (-10) and some mental health issues that pre-dated her realizing her trans identity (-8).

Implications

Despite evidence of its harmful effects, little qualitative or quantitative research has focused on stigma and discrimination in the physical and mental health-care experiences of trans folks in Appalachia. This mixed-methods timeline interview study will directly address this gap in the literature and highlight ways in which practitioners, policy makers, and researchers can work towards increasing access to care for this population.

References

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Vignette 2.2 An Interpretative Phenomenological Analysis of Lived Experience of Rural Gay/Bisexual Men Living With HIV

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Background

People living with HIV (PLWH) are expected to go through the HIV care continuum—sequential steps to manage their HIV—from diagnosis, linkage to care, taking HIV medicine, and viral suppression where the HIV virus cannot be sexually transmitted to others. There are two primary limitations in current HIV care continuum research: it overwhelmingly examines the perspectives of PLWH who live in metropolitan cities and single steps rather than all the steps listed above. In collaboration with a local AIDS service organization serving a rural region, this community-based interpretative phenomenological analysis (IPA) study (Hacker, 2013; Smith, Flowers, & Larkin, 2009) examined the lived experiences of going through the HIV care continuum among 15 rural gay/bisexual men (GBM) living with HIV.

Methods

Participants were recruited via purposeful, mail-based, and snowball sampling. Participants participated in a one-hour, semi-structured telephone interview about their HIV care continuum experiences, and they received a \$30 gift card after the interview. Audacity audio-recordings were uploaded to Temi—an automatic transcription program—and checked for accuracy (Audacity Team, 2018; Temi, 2020). Analysis was informed by a six-step plan proposed by Smith et al. (2009). We transcribed and reread the transcripts to gain familiarity of the data (step 1). We

independently commented for exploratory descriptive, linguistic, and conceptual elements in all the transcripts (step 2). We developed subthemes based on our exploratory comment discussion (step 3), and these emerging themes informed a codebook. We coded the first three transcripts independently within Dedoose, a data analysis software package (SocioCultural Research Consultants, 2018). We then tested for reliability among our codes, and we found high reliability ($\alpha = 0.93$). Due to high consistency among code usage, we coded the remaining transcripts with the codebook (steps 4–5). After all the transcripts were coded, we discussed patterns and connections among subthemes to construct superordinate themes (steps 4 and 6).

Results

Five superordinate themes emerged: diagnosis means death, linkage to care means uncertainty, care engagement improves quality of life that was lost pre- or peri-diagnosis, antiretroviral therapy implies life, and undetectable affirms adherence and control. Despite going through the HIV care continuum and being undetectable, participants continue to face loneliness (e.g., interpersonal stigma, dating stigma), non-HIV issues (e.g., employment, affordable housing), and uncertainty (e.g., HIV social service policies).

Conclusions

Findings have implications that impact rural HIV care continuum conceptualization and implementation, especially moving beyond blood tests to assess the quality of life of rural people going through the rural HIV care continuum and beyond it. The rural HIV care continuum medical model could include social determinants and syndemics (e.g., income insecurity, lack of affordable housing, chronic and mental health (e.g., diabetes, substance use), and interpersonal stigma reduction (e.g., dating partners, family) assistance to address health and social concerns that go beyond HIV.

References

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Defining qualitative research includes how the meaning of inquiry is shaped through the use of new technologies. From paper and pen to qualitative data analysis software, tools have been entangled with the practice of qualitative research from the start. Thus, we suggest that when defining and conceptualizing qualitative research, it is also critical to examine how tools writ large shape (and have shaped) the very meaning(s) of

qualitative research practice—something we introduced in Chapter 1 and continue to explore throughout the book.

RESEARCH PARADIGMS

Willis (2007) suggested that the meaning of qualitative research is complicated further by the sheer number of paradigms—that is, a set of broad concepts or beliefs—that frame a given qualitative study. Paradigms generally point to how researchers view and come to know the social world (Grix, 2002). Ontology and epistemology are two philosophical concepts that are inextricably related to the idea of a research paradigm. A researcher's ontological position is perhaps best understood in relation to the question “What is the nature of social and political reality?” (Hay, 2002, p. 63). Similarly, a researcher's epistemological position or assumption can be understood in relation to their response to following question: “What can be known, and what is the relationship of the knower to the known?” (Hatch, 2002, p. 14). To illustrate this further, Table 2.2 provides an abbreviated overview of five research paradigms in the methodological literature, while noting that there are others that could be included.

Ontologies and epistemologies will ideally shape and even drive a researcher's methodological choices, as methodologies themselves are built on particular assumptions about social reality and knowledge. As Lincoln et al. (2018) noted, “Methodology is inevitably interwoven within and emerges from the nature of particular disciplines (such as sociology and psychology) and particular perspectives (such as Marxism, feminist theory, and queer

TABLE 2.2 Research Paradigms

Research Paradigm	Ontology (What Is the Nature of Reality?)	Epistemology (What Can Be Known?)
Positivist	Reality is out there to be captured	How the world is really ordered can be known
Postpositivist	Reality exists but can only be approximated	Approximation of how the world is really ordered can be known
Constructivist	Multiple realities exist and are constructed	Knowledge is a human construction
Critical/Feminist	There is a reality, which has been shaped by economic, social, cultural, and political forces	Knowledge is subjective and political
Poststructuralist	There are multiple realities that individuals construct to give meaning to the universe	There is no single or unified “truth” to be known

Source: Adapted from Lochmiller and Lester (2017, pp. 13); Hatch, 2002; Lincoln, Lynham & Guba, 2018.

theory)” (p. 109). While the epistemological and ontological distinctions between qualitative and quantitative approaches to research are commonly pointed to in scholarly conversations, the significant ontological and epistemological differences *within* the qualitative research community itself may be less familiar.

This vast range of paradigms and frameworks bring their own literature base and even unique methods (Willis, 2007). In Lincoln et al.’s (2018) chapter in the fifth edition of *The SAGE Handbook of Qualitative Research*, the authors note ways in which paradigms have begun to “interbreed” over time (p. 109). Usefully, they also distinguish the paradigms across a range of factors such as quality criteria and ethics. Denzin and Lincoln (2018) noted the reconfiguration of paradigms and how “hybrid paradigms are emerging alongside new geographies of knowledge and new decolonizing epistemologies” (p. 1). From a slightly different perspective, Willis (2007) offered a rich discussion of seven frameworks for researchers who are working with interpretivist and critical paradigms in particular, distinguishing between the more general paradigms and those that offer more focused guidance. Specifically, Willis described Altheide and Johnson’s analytic realism, Denzin and Lincoln’s interpretive perspective, Eisner’s connoisseurship model of inquiry, semiotics, the phenomenological psychological model and structuralism, poststructuralism and post-modernism, and symbolic interactionism. Somewhat similarly, Hammersley (2013) wrote of “methodological philosophies”—that is, “philosophical ideas that have shaped the practice and development of qualitative research” (p. 21). He described positivism, interpretivism, the “critical” tradition, and constructionism, while pointing to the vast variation within each of these traditions.

What we aim to highlight here is twofold. First, there is great variation in even the way that researchers might organize, categorize, and name paradigms and methodological philosophies. Second, given the importance of designing a study that is coherent across methodology, theoretical position(s), and methods, it is essential to become familiar with the disciplinary traditions, underlying assumptions, and practices that are common to the methodological and analytical approach that one plans to adopt. As we noted in Chapter 1, the tools and spaces themselves must be theorized, as in many ways technologies act as coresearchers and become entangled in our practices. Thus, alongside making sense of the philosophies that underly a particular paradigm, it is important for qualitative researchers to examine the underlying assumptions of technology choices.

DESIGNING A QUALITATIVE RESEARCH STUDY

Qualitative research designs have long been described as *emergent* and *flexible* (in contrast to closed and fixed), as researchers are generally prepared to adjust their methods (including their research questions) in response to how the inquiry process unfolds. “Emergent design flexibility” is a key characteristic of qualitative research, and researchers must remain open to “adapting inquiry as understanding deepens and/or situations change” (Patton, 2002, p. 40). This openness to emergent understanding allows a researcher to avoid “getting locked into rigid designs that eliminate responsiveness” to the research context and instead creates the

potential to pursue “new paths of discovery as they emerge” (p. 40). Engaged and meaningful qualitative research has been described as iterative rather than prescribed, messy, uncomfortable, and without an obvious point of completion (Pillow, 2003).

Designing a study generally begins with reviewing the literature to establish a problem to study and concludes with the dissemination of research findings (Lochmiller & Lester, 2017). Yet, this cycle might be approached in varying ways. Yin (2016), for instance, noted that some researchers begin with fieldwork, with research questions emerging from understandings gained at the site. Other researchers might begin with a research question, with the question then guiding the design process. Further, some researchers might design a “generalized qualitative research” study, while others might draw upon a particular approach to qualitative research (e.g., critical ethnography, discursive psychology, participatory action research, etc.) (Yin, 2016, p. 66).

In the broadest sense, research design involves determining how to frame and ground a given study (i.e., the methodology) and identifying how to carry out the study (methods). More particularly, the methodological literature has highlighted several common activities or design considerations, including: reviewing the literature; identifying a problem and/or research question(s); selecting a research site and participants; determining how to collect and/or generate data; establishing a data analysis plan; deciding how to represent and disseminate findings; establishing the quality or validity of a study; and following ethical practices and resolving potential dilemmas. Notably, missing from this list is the place of digital tools and spaces. Indeed, for some, thinking about digital tools doesn’t occur until the analysis process is about to begin and questions about using QDA software arise.

We suggest that technology use cannot be extricated from the research process—digital tools and spaces are always there, if in the background—and thus should be considered at the earliest phases of design. That is, rather than overlooking their role in the process, we argue for orienting to their use as a central part of achieving *methodological alignment*—that is, a core, guiding principle for creating a comprehensive research design workflow. Methodological alignment occurs when researchers carefully consider the paradigm within which they work, the underlying ontology and epistemology of a given study, the degree to which congruence exists between conceptual/theoretical, methodological, and analytical perspectives and practices, and the integral role that technologies play. For instance, evidence of methodological alignment is visible when a researcher’s approach to data analysis is grounded in a particular methodology (e.g., a conversation analysis study analyzes the *sequential* nature of interactional data) and supported by tools that help enact the necessary methods (e.g., transcription software that enables capture of intonation, pauses, and other microfeatures of talk.)

CONSIDERATIONS FOR DESIGNING QUALITATIVE RESEARCH STUDIES IN THE DIGITAL WORLD

We next discuss nine essential design considerations: 1) engaging the literature and generating meaningful research questions; 2) selecting a methodology; 3) identifying relevant

theories; 4) selecting research sites and recruiting participants; 5) generating qualitative data; 6) analyzing qualitative data; 7) representing and disseminating findings; 8) establishing quality; and 9) emphasizing ethics. We have devoted full chapters to several of these (e.g., Chapter 4 on creating a literature review workflow). Thus, here, in several cases, we simply foreshadow what will be developed more fully in later chapters. When designing a qualitative study, it is critical to be familiar with the nuances of both *designing* and *doing* qualitative research. Given the focus of this book on doing qualitative research in a digital world, we do not include *all* considerations related to research design; rather, we emphasize how to make more visible the role that technologies play in the process. Thus, we recommend that readers engage with other research design resources simultaneously (e.g., Flick, 2007; Marshall & Rossman, 2011).

Consideration 1: Engaging the Literature and Generating Meaningful Research Questions

In qualitative research, reviewing both substantive and methodological literature is an ongoing process—one that begins long before designing a study and concludes at the point of publishing. Like Boote and Beile (2005), we believe that a well-executed and developed literature review “is the foundation and inspiration for substantial, useful research” (p. 3). It is nearly impossible to generate meaningful research questions without first determining what is already known. Lochmiller and Lester (2017) argued that there are at least three distinct roles for conducting a literature review. First, a literature review allows researchers to identify key areas wherein new research is needed and would serve to build and/or even deviate from what is already known. Second, it allows a researcher to ground their study—and ultimately their findings and interpretations—in relation to the existing scholarly discussion. In this way, a literature review provides an entry point for scholars to become part of a particular conversation. Third, it can provide resources for framing the analysis. For instance, previously published research makes visible how topics have been traditionally studied from both a methodological and theoretical perspective. Becoming familiar with how a topic or phenomenon was previously studied allows a researcher to draw upon similar frameworks and/or offer new and potentially innovative approaches to studying well-established topics.

Engaging with the literature goes hand in hand with developing meaningful research questions. Most researchers recognize that

Good [research] questions do not necessarily produce good research, but poorly conceived or constructed questions will likely create problems that affect all subsequent stages of a study. Ultimately, the quality of the initial questions impacts whether or not a study is approved by a dissertation committee, published, or funded. (Agee, 2009, p. 431)

Most often, inspiration for a study comes by reviewing the literature. More specifically, for qualitative researchers, designing a study often begins with “a question, or at least an

intellectual curiosity if not a passion for a particular topic” (Janesick, 2000, p. 382). Maxwell (2005) suggested that research questions “function ... to explain specifically what your study is about” (p. 67), which obviously requires deep levels of familiarity with both substantive and methodological literature. In addition, he noted that research questions generally take into consideration “tentative theories about a phenomenon” (p. 68).

The nature of a research question is inextricably linked to substantive theories and a given qualitative methodology. For instance, case study methodology has been described as useful when asking certain types of research questions, such as “descriptive” questions (e.g., “what is happening or has happened?”) or “explanatory” questions (e.g., “how or why did something happen?”) (Yin, 2012, p. 5). As another example, Lester and O’Reilly (2019) described that it is “uncommon” for researchers using conversation analysis to “develop finalized research questions prior to engaging in data collection and analysis,” linking closely to conversation analysis’ epistemological preference for a “data-driven strategy” for generating a research question. What we aim to emphasize with these two examples is that there is no *single* way to generate meaningful research questions, and that the type of question is closely related to the selected methodology, epistemological and ontological assumptions, and discipline.

What is quite commonly understood—regardless of one’s methodology or even discipline—is that research questions will most likely need to be refined and reformulated as a study unfolds (Flick, 2007). For, as Agee (2009) argued, “good qualitative questions are usually developed or refined in all stages of a reflexive and interactive inquiry journey” (p. 432). And, the process of refining research questions, we argue, is most usefully informed by a commitment to reviewing the literature as the study progresses.

Where do digital tools and spaces fit into this aspect of the research design process? In Chapter 3 we argue for chronicling the entirety of the design process within a qualitative data analysis software package. For instance, a researcher might keep a memo within their ATLAS.ti project file that keeps track of the ways in which their research question(s) changed and why. In Chapter 4, we advocate for an entirely digital, paperless workflow for collecting, reviewing, and synthesizing the literature. Determining which tools will support the literature review process and generation of research questions is a critical part of the overall research workflow.

Consideration 2: Selecting a Methodology

Designing a qualitative research study also entails selecting a methodology—that is, the stance or perspective that will be used to study a given phenomenon. The methodology shapes every aspect of a study, from how the research questions are structured to the kinds of data that are collected to the analytic approach and how the findings are represented and shared with others. Given that every methodology brings with it particular epistemological and ontological assumptions, determining which methodology to employ can be a “sticky” issue—as it requires that researchers consider how a given methodology aligns (or not) with their own worldviews. Of course,

methodological decisions are also informed by disciplinary perspectives, and disciplines are often inclined to employ some approaches more than others. (See Table 2.3).

TABLE 2.3 Qualitative Approaches Mentioned by Authors and Their Disciplines/Fields

Authors	Qualitative Approaches	Disciplines
Jacob (1987)	<ul style="list-style-type: none"> • Ecological psychology • Ethnography of communication • Holistic ethnography • Symbolic interactionism • Cognitive anthropology 	Education
Munhall and Oiler (1986)	<ul style="list-style-type: none"> • Phenomenology • Historical research • Grounded theory • Ethnography 	Nursing
Lancy (1993)	<ul style="list-style-type: none"> • Anthropological perspectives • Case studies • Sociological perspectives • Personal accounts • Biological perspectives • Cognitive studies • Historical inquiries 	Education
Strauss and Corbin (1990)	<ul style="list-style-type: none"> • Grounded theory • Life histories • Ethnography • Conversation analysis • Phenomenology 	Sociology, Nursing
Morse (1994)	<ul style="list-style-type: none"> • Phenomenology • Grounded theory • Ethnography • Ethnoscience 	Nursing
Moustakas (1994)	<ul style="list-style-type: none"> • Ethnography • Empirical phenomenological research • Grounded theory • Heuristic research • Hermeneutics • Transcendental phenomenology 	Psychology
Denzin and Lincoln (1994)	<ul style="list-style-type: none"> • Case studies • Ethnomethodology • Biographical • Ethnography • Interpretative practices • Historical 	Social sciences

TABLE 2.3 Qualitative Approaches Mentioned by Authors and Their Disciplines/Fields (*Continued*)

Authors	Qualitative Approaches	Disciplines
	<ul style="list-style-type: none"> • Phenomenology • Grounded theory • Clinical Research 	
Miles and Huberman (1994)	Approaches to Qualitative Data Analysis: <ul style="list-style-type: none"> • Interpretivism • Social anthropology • Collaborative social research 	Social sciences
Slife and Williams (1995)	Categories of Qualitative Methods: <ul style="list-style-type: none"> • Ethnography • Phenomenology • Studies of artifacts 	Psychology
Denzin and Lincoln (2005)	<ul style="list-style-type: none"> • Performance, critical, and public ethnography • Grounded theory • Interpretive practices • Life history • Clinical research • Case studies • Narrative authority • Participatory action research 	Social sciences
Marshall and Rossman (2016)	<ul style="list-style-type: none"> • Ethnographic approaches • Phenomenological approaches • Sociolinguistics approaches (e.g., critical genres) 	Education
Saldana (2011)	<ul style="list-style-type: none"> • Ethnography • Case study • Narrative inquiry • Evaluation research • Critical inquiry • Grounded theory • Content analysis • Arts-based research • Action research • Autoethnography • Phenomenology • Mixed-methods research • Investigative journalism 	Arts (theater)
Denzin and Lincoln (2011)	Research Strategies <ul style="list-style-type: none"> • Design • Ethnography • Ethnomethodology • Historical methods 	Social sciences

TABLE 2.3 Qualitative Approaches Mentioned by Authors and Their Disciplines/Fields (*Continued*)

Authors	Qualitative Approaches	Disciplines
	<ul style="list-style-type: none"> • Clinical research • Case study • Phenomenology • Grounded theory • Action and applied research • Ethnography, participant observation, performance • Life history, testimonio 	
Mertens (2015)	Types of Qualitative Research: <ul style="list-style-type: none"> • Ethnographic research • Grounded theory • Case study • Participatory action research • Phenomenological research 	Education, psychology

Scholars have categorized qualitative methodologies in various ways. Yin (2016) highlighted what he called “variants” of methodologies (p. 8) used to make sense of qualitative data, which include:

1. Action research;
2. Arts-based research;
3. Autoethnography;
4. Case study;
5. Critical theory;
6. Discourse analysis;
7. Ethnography;
8. Ethnomethodology;
9. Grounded theory;
10. Narrative inquiry and life history;
11. Oral history; and
12. Phenomenology.

Similarly, Tesch (1990) described 28 approaches from the perspective of data analysis software use, and Creswell and Poth (2018) wrote of five different qualitative approaches including narrative, phenomenology, grounded theory, ethnography, and case study.

These categories are umbrella terms and thus include within *them* a range of methodological approaches. For instance, “discourse analysis” is an umbrella term for a wide range of language-based methodologies, including critical discourse analysis (CDA), discursive psychology, and Foucauldian discourse analysis, among many others. Additionally, even a single methodological approach, such as CDA, can be applied with great variation, depending upon the tradition from which it draws. For example, some studies framed as CDA are informed by the work of Fairclough (2013), and others by the discourse-historical approach informed by Wodak (2001). Thus, indeed, the landscape of qualitative research is complex, interdisciplinary, and requires a commitment to close study, as each methodological perspective brings with it particular assumptions about the world, expectations related to data sources and data analysis, and, in some cases, particular perspectives on how to achieve a “valid” or “rigorous” high-quality study.

Yet, what is missing from the various classification systems is a discussion of how these methodologies intersect with the technologies used to enact them. Unsurprisingly, alongside the rise of new technologies has come both a disciplinary and methodological literature base focused on digitizing methods and methodologies. Wielding well-established methodologies and methods in new and innovative ways when conducting research in digital spaces and with new kinds of digitized data has redefined entire fields. There are now entire texts on digital sociology (Daniels, Gregory, & Cottom, 2016; Lupton, 2014; Marres, 2017), digital anthropology (Horst & Miller, 2012), and critical digital humanities (Dobson, 2019), each of which explore how research in these fields is being impacted by the digital age.

Indeed, methodologies and methods are historical artifacts themselves, and, thus, we argue they are not meant to “stand still” but rather are always in the making. Bouvier (2015) and Bouvier and Machin (2018), for instance, call for reenvisioning critical discourse analysis, highlighting how social media platforms are now redefining patterns of communication. They argue that relationships between text and ideology and author and reader are ever-changing and therefore call for new methods for studying language, as language itself is becoming more integrated with “forms of design, images, and data” (Bouvier & Machin, 2018, p. 178). As another example, within the methodological area of conversation analysis and ethnomethodology, scholars have described “new” practices for studying social media data (Housley, Webb, Edwards, Procter, & Jirotko, 2017) and even offered a digitized approach to conversation analysis for analyzing online modes of communication (Giles, Stommel, Paulus, Lester, & Reed, 2015).

Researchers who draw upon various forms and traditions of ethnography have been particularly active in pointing to the ways in which new forms of technology are shaping their methods, for example when studying social media (Caliandro, 2018; Schneidermann, 2018). Similarly, Baker (2013) described how Facebook might be conceptualized in ethnography as a research site, as well as a tool for research, while Van Doorn (2013) wrote of the ways in which smartphones might inform and mediate ethnographic fieldwork. Kozinets (2020) recently published the third edition of *Netnography*, which he positioned as distinct from other forms of online ethnography in its focus on “online traces, interactions and socialities” (p. 19). While centered on the transformation of online traces (social media activity) into a data source, netnographies can also include other forms of data.

Technological innovations impact *all* types of social science and humanities research: qualitative, quantitative, mixed methods, and computational studies (Hampton, 2017; Duca & Metzler, 2019). There’s a need to rethink research designs in light of these developments, as noted by Hampton (2017), such as what ethnographic methods look like in the online world, how to best incorporate “trace” data such as social media into research designs (see also Fielding, 2019), the relationship between the online and offline worlds as sources of research data, and the consequences of mobile devices being embedded into our everyday lives. Fine and Hancock (2017) explored the impact of photography, global positioning systems and mapping developments, QDAS, and online communities on the work of ethnographers, wondering “how do we identify our subjects? What counts as data, when we are following links, posts, and threads? Indeed, sitting at our computer, are we even ‘in the field?’” (p. 263).

Savin-Baden and Tombs (2017) argued that digital methods “embrace the complexities of research in the digital age ... and the use of theory in ways that are mutable and liquid” (p. 33), recognizing that digital spaces are “hybridized, extended and mixed” requiring “viral methodologies” and emergent designs (p. 35). Some possibilities include digital and visual methods, digital arts–related research, digital narrative inquiry, and digital *métissage*.

Consideration 3: Identifying Relevant Theories

In Chapter 1, we discussed several theoretical perspectives and traditions (e.g., new materialism) that might be used to conceptualize the relationship between technologies and qualitative research. When designing a research study we must also consider which *substantive* theories, generally field or discipline driven, are relevant (Anfara & Mertz, 2015).

While there are indeed methodological theories and philosophies that undergird all studies (whether acknowledged or not), many qualitative researchers are also informed by theoretical and conceptual frameworks. Merriam (1998) defined a

conceptual framework as “the orientation or stance that you bring to your study” (p. 45). Lochmiller and Lester (2017) described a theoretical framework as foundational, in which researchers make explicit their assumptions about the phenomenon being studied. In the published literature, there are countless examples of theoretical frameworks, including sociocultural theory (Vygotsky, 1978), activity theory (Brown, Heath, & Pea, 1999), and organizational learning theory (Senge, 1990), to name a few.

As St. Pierre and Jackson (2014) suggested, qualitative researchers should be engaging with theoretical texts. Jackson and Mazzei (2012) challenged “qualitative researchers to use theory to think *with* their data (or use data to think *with* theory) in order to accomplish a reading of data that is both *within and against interpretivism*” (p. vii). In social sciences research it is the norm to draw upon substantive theories.

Both theoretical and conceptual frameworks can be useful to inform the design process. Conceptual frameworks are often a graphical depiction of “the key factors, variables, or constructs and their presumed interrelationships that are central” within a given study (Miles, Huberman, & Saldaña, 2014, p. 20). Lochmiller and Lester (2017) distinguished between the two by noting that

a theoretical framework serves as a broad lens for your study. It provides a theoretical rationale for the approach you have taken in your study. And, most important, it provides an anchor for your study relative to the larger literature base. A conceptual framework, on the other hand, serves as a more fine-grained lens that operationalizes and explains relationships between theoretical concepts. As such, a conceptual framework both situates your study within the literature and elaborates on the key connections between concepts that you feel are important. Thus, a conceptual framework is as much a lens as it is a statement of understanding of the conceptual relationships that exist in your study. (p. 41)

Depending upon a researcher’s disciplinary home as well as the purpose of their study, they may espouse a particular theoretical framework and develop a conceptual framework. Regardless, we suggest that it is important to consider the theories that one will “think with” long before beginning a study. This has become particularly true with the advent of new technologies developing alongside new theories to understand human behaviors and/or leveraging of “old theories” in new ways. For example, in Vignette 2.3, Karen Wohlwend illustrates how a materialist lens sheds new light on the study of play via video-recorded data, highlighting the ways in which a human-centered epistemology may ultimately result in overlooking relevant embodied and material interactions.

Vignette 2.3 Thinking With and Across Theories and Methods: Exploring Play Through Videos

KAREN WOHLWEND, INDIANA UNIVERSITY

My research on play and early childhood literacies is situated in the intersection of actions, meanings, and materials. This requires digital tools to capture and analyze physical activity and the surrounding material environment. To understand how we attach meanings to actions with things, I draw from multimodal theory and materialist theory, though not simultaneously. Instead, I've used theories as checks on one another, as a way of unmasking assumptions and uncovering the theoretical slant embedded in tools and their histories of uses, which suggests a particular direction for subsequent research interpretations. This approach assumes that theories and methods are inextricably intertwined. So digital tools are not atheoretical but materialize the assumptions and expectations of their users.

Looking through contrasting lenses can reveal tacit underlying assumptions embedded in our methods. For example, when I look at a table of children in a classroom makerspace through a multimodal lens (Jewitt, 2016), I might see a table of inventive designers, crafting meanings from raw materials by wielding tools and exploiting a particular affordance: poking a Popsicle stick into a piece of pliable playdough, or dragging a finger along the glossy surface of a touchscreen to outline and crop an image and create a digital cutout. This tracing is a virtual cutting out that preserves a desired image and removes its unwanted background. The resulting cutout can be animated as a stickless puppet on a cartoon stage in a puppetry app. Through the lens of mediated discourse theory and nexus analysis (Scollon & Scollon, 2004; Wohlwend, 2021), close examination of video clips such as this finger tracing reveals the designer's strategic use of visual and haptic modes on the screen to trim away extraneous bits and create a dynamic character that can be manipulated (e.g., resized, rotated, or furiously jiggled) to comically move across the scene and draw appreciative chuckles from peers. The designer's strategic manipulations are purposive, emphasizing some meanings and not others by selectively foregrounding certain modal properties in the environment such as light, sound, touch, or proximity among objects. The designer's modal strategies are not just aesthetic; they convey meanings and social expectations indexed by their histories. Who should/can use a thing? How is meaning changed when a thing is (mis)used in an unexpected way?

Multimodal digital tools such as Transana or AfterEffects enable video analysis that codes directly on video clips or draws on screenshots. These tools enable gathering coded clips for closer inspection or annotating that tags actors or materials to mark actions or areas of screenshots that highlight the

relationships among people and things within a segment of time and space. Any interaction is constituted not only by the objects that are present in a given time and space but also by social histories of ways bodies, tools, and artifacts have been used in similar spaces that shape expectations for their future uses. Nexus analysis traces and interrogates the meanings of actions with things—not only the meanings that are perceptible in their current forms but meanings that are embedded in material histories that shape what is available or possible in a particular context. So it is crucial to critically look at how things have been, are, and will be wielded and to consider how this shapes human expectations for future interactions. Multimodal theory provides insights into how people are expected to use tools and how they activate potential meanings by strategically manipulating the affordances that particular tools provide.

But what does a human-centered theory miss? I've used a materialist lens (Barad, 2003) to expand and fill in the overlooked effects of tools, which are rendered silent and inanimate in multimodal analysis. We can consider all the actions and actants present in a moment by actively looking for the actions produced by tools and artifacts. For example, I have used nexus analysis to look closely at the ways a camera lens frames (and alters) a depicted reality. But a materialist lens also considers how the camera lens shapes my expectations for what I can see and what I can think. In a camera shot, something is always foregrounded which means something else is backgrounded. Similarly, a cropping tool sharpens a focus but also covers or tidies up lost material. In my research on digital play and children's video games, I have looked at the way that the touchscreens and game mechanics drive particular player motives, shaping what's valued (e.g., shopping, collecting, continually amassing).

Similarly for researchers, tools and methods frame our actions and bound the universe of what's possible to see and think. Returning to the camera framing, we can see that video footage has already selected a portion of reality from a particular distance and angle. Much of the material has been overlooked and ignored by the framing alone. A video is a linear time-sequenced video clip that is a visual and auditory representation of a much more modally complex reality. A screenshot captures a moment of this already partial selection by freezing a split second. A paint tool that annotates the screenshot provides preselected assortments of shapes to overlay on the image, creating an imperfect indication of the vector of a human gaze caught in a flattened and frozen reality. In this way, a materialist lens draws our attention to the untidy bits, the noise of a fan stirring the air in the background or the parts of our analysis that don't really fit. For example, by recognizing that the focus of our research gaze was partial, my research team was able to expand our understanding of the movements of a child circulating and debugging projects as she moved around a makerspace table. What we had first discounted as random wandering and socializing looked very different through a materialist lens. When we moved our focus away from individual humanist production and onto moving assemblages of people, ideas, and things, we were able to see how her movements circulated knowledge and materials and developed the groups' understanding (for more detail, see Wohlwend, Pepler, Keune, & Thompson, 2017).

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Consideration 4: Selecting Research Sites and Recruiting Participants

The digital world has radically changed how qualitative researchers can conceptualize research sites and work with participants. As we describe in Chapters 5 and 6, there are now a plethora of online communities and data sources that might serve as research spaces and/or means by which to recruit participants. There is a growing body of methodological literature relevant to treating the digital world as a research site. For example, Arigo, Pagoto, Carter-Harris, Lillie, and Nebeker (2018) offered suggestions to health researchers for effectively leveraging social media platforms for these purposes. Specifically, they suggested: learning the social media platform that is most relevant to the targeted population, being selective with information presented in recruitment materials to minimize responses from non-targeted users, and including the username of a high-profile member who is considered an influencer within the targeted population. Indeed, health researchers have increasingly highlighted how using social media platforms such as Twitter can expand who ultimately participates in a study (e.g., Wasilewski, Stinson, Webster, & Cameron, 2019). There are numerous examples of how using online methods can reach participants—individuals, for instance, who may be politically and geographically isolated. Beaton, Perley, George, and O'Donnell (2017) noted that many times marginalized communities are excluded from studies due to various isolations and are frequently portrayed as passive and even damaged. They argued for the utility of online research methods for reaching participants who might otherwise be ignored.

Indeed, with the rise of new technological innovations has come the possibility of envisioning different kinds of participation, from Zoom interviews to leveraging mobile applications to reach otherwise ignored populations. In Vignette 2.4, Riki Thompson describes how social media can be used both to generate a dataset and build a community of researchers and participants, while posing some ethical challenges.

As Thompson illustrates in this vignette, each new innovation raises ethical quandaries that must be carefully navigated. In addition, while new tools afford new possibilities, they also hold the potential to exclude. Hence, when considering how to select a

Vignette 2.4 Using Social Media as a Source of Data and Community Building

RIKI THOMPSON, UNIVERSITY OF WASHINGTON TACOMA

In 2015 I jumped into the world of online dating and set up my first profile. I had no idea what to write on my profile or what types of photos to include so it is no surprise that I spent some time swiping through other people's profiles and taking notes about the norms of the genre before I created my own. I didn't realize at the time that I was making a shift in my research agenda, taking my previous knowledge about online narrative practices and visual communication to explore how people were turning to digital technologies to find connection. One year after setting up my first profile, I was sitting with a friend and talking through our practices as we compared profiles, matches, and messages. After another year of immersion in online dating, I was advising friends about dating apps, profile creation, and messaging strategies. It was during one of these informal advising sessions that a friend asked if I was doing research on this. It was clear that I had been looking at online dating through the eyes of researcher since I started online dating, but I had not taken the leap to officially research the topic.

Once I began researching, I quickly learned how many people were interested in talking about their experiences, including people in my own social networks. I had logistical and ethical concerns about how best to engage in this sort of research about language and social media, especially as a participant observer in this world. In the two decades of doing digital discourse research (Jones, Chik, & Hafner, 2015; Thurlow & Mroczek, 2011), the one constant has been change—rapidly changing technologies, shifts in ethical considerations about research in online spaces, and evolving methodologies to deal with these ever-changing complexities. The tension between keeping an objective distance and employing my insider status would require a great deal of awareness, reflection, and transparent communication about process and methods. What are best practices for recruiting through social networks and community events in which I am a member? How can I ensure a diverse sampling pool when recruiting through social media and social networks? Moreover, since I am invested in understanding how people in communities that experience marginalization due to race, gender identity (LGBTQ), and nonnormative relationship styles (consensual nonmonogamy, polyamory, and swinging) navigate mainstream online dating spaces, I considered methods that allowed me to approach the research with honesty and an ethic of care to be aware that what I find may have an impact on members of that community—for good and for bad. To understand digital culture and situated communicative practices, many

FIGURE 1 Recruiting through FB Closed Group

scholars argue for digital ethnography approaches (Varis, 2016) that are inherently flexible and adaptive to issues that may arise from the field—an approach aligned with my goals.

With people utilizing social media as a primary form of networking and communicating, I noted new challenges and opportunities for recruiting, interviewing, collecting, and analyzing digital discourse data. In addition to spreading the word by posting fliers and handing out cards at community events, I posted a call for participants through online communities and closed Facebook groups (Figure 1) and asked others within these communities to share the call broadly to their online communities. My recruiting strategy combined using face-to-face

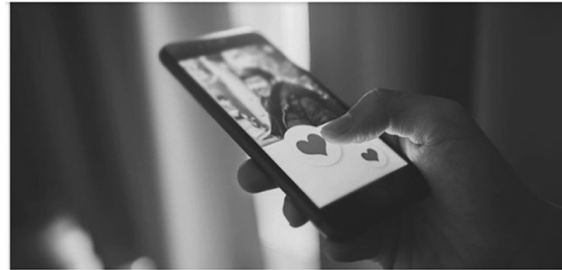
social networking and social media, along with snowball sampling to gain more perspectives from people in subcommunities.

An unexpected role of social media in my research methods was how blogging has served as a significant form of recruiting and member checking. When I shared research related to online dating through blogs and distributed via other social media platforms such as Facebook, I discovered that in addition to sharing my posts to their own social media, people would engage in conversation online, allowing me to test my initial hypotheses, shift focus and importance on certain elements for interviews, and revise theories when disagreement surfaced (as was the case with threads about the use of personality tests on dating profiles (Figures 2–4).

This process of ongoing dialogue through social media provided an additional means of establishing credibility with this form of qualitative research. Each time someone would post a comment about their experience, I felt as if I had accidentally stumbled over a data mine and questioned what information I could use if I had not provided the person with a consent form to sign before they started talking online. In order to maintain transparency, it became a regular practice for me to remind people that I was doing research in the area and make clear their potential role as a research subject whenever they started sharing their stories. If people commented on personal experiences related to online dating on a Facebook post, I would let them know I was conducting interviews, and if they were interested in participating in the study, send them a link to my research website with the informed consent and interview contact form to schedule an interview (Figure 5). Even though I had planned to recruit through social media and had explicitly noted it in the research ethics application with my institution, embracing an approach to collecting social media data through social media took some adjustment.

As I began interviewing people about their experiences, I quickly learned that online dating stories are full of heartbreak, loneliness, frustration, and a longing for connection. Therefore, I made it a point to send relevant articles and support materials to research participants when possible. This curation led to regular blog posts and posting to multiple social media platforms to publicly share resources, information, and more initial findings with people in the communities where I was interviewing. Conversely, research participants also sent me relevant research, news stories, and memes through e-mail and social media (Figures 3 and 4). As a digital ethnographer and participant observer, I am connected on several social media platforms with research participants—or have become so over the course of this research. Through the process I have developed reflective digital discourse research practices that allow me to be more responsive to serendipitous interactions and work within a principle of care framework (Mortensen, 2015) so I could give back to the communities I was also researching. Social media tools have served as an important form of recruiting, as well as an avenue to share results with research participants and gauge the pulse of the community through

FIGURE 2 Community Members Slide Research into my DM



Analysis | Four letters can say a lot: Why people put their Myers-Briggs personalit...

It's shorthand for conveying a person's essence. But should singles choose dates...

washingtonpost.com



another one!



Swipeless in Seattle? 'The microbrewery of dating apps' aims to fix your love life

But can apps that promote community and dogs really thaw the Seattle Freeze?

crosscut.com



FIGURE 3 Member Checking and Sharing Sources

Riki Thompson
March 16 · The New York Times · 

This article got me thinking, especially since using Myers-Briggs as part of filtering criteria for online dating came up in a recent interview. Do you filter through personality tests like Myers-Briggs? Conversely, are you turned off by those who do when you find their profiles? #connectingdigitally



NYTIMES.COM
Want Lasting Love? First, Take This Test
After her marriage unravels, a woman seeks answers in personality testing a...

  2 Comments

 Like  Comment  Share

 I love me some personality tests, but...
<https://www.vox.com/.../myers-briggs-personality-test...>

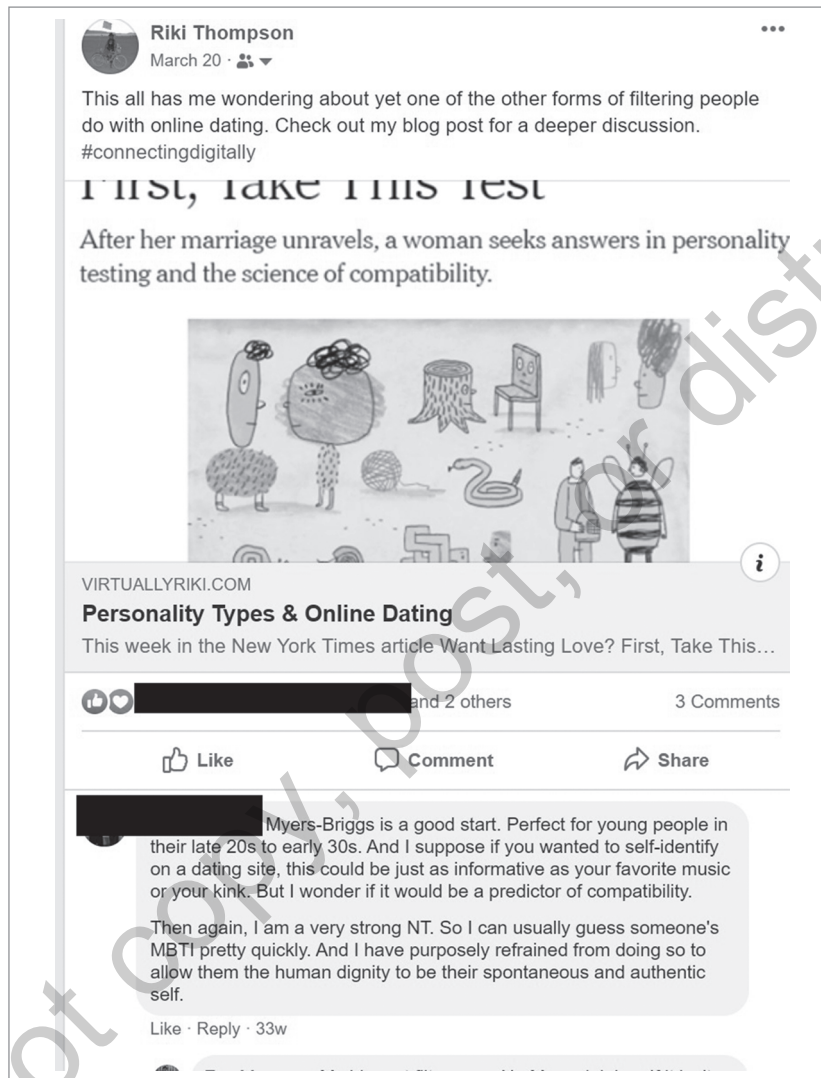


VOX.COM
Watch: Why the Myers-Briggs test is totally meaningless

 1
Like · Reply · 34w

 **Riki Thompson** Thanks  As always, I appreciate the goodies you throw my way. Despite problems with this test, so many people rely on this test--as is evident by the number of profiles I have seen with their Myers-Briggs type listed.

 1
Like · Reply · 33w

FIGURE 4 Noting Contention through FB Conversations

online discussions about timely topics. It's a recursive process that honors community, and allows me to connect with others, make revisions to my process, refine my arguments, and disseminate timely information long before the publication cycle normally allows.

FIGURE 5 Recruiting and Member Checking on FB

Clover 1.9%
 Tinder 1.6%
 Black People Meet 1.5%
 Hinge 1.1%
 Christian Mingle 0.6%
 Pure 0.5%
 Zoosk 0.3%
 Lulu 0.3%
 Grindr 0.1%
 HowAboutThis 0.1%

VIRTUALLYRIKI.COM

Most Popular Dating Apps

Which online dating platform or app is the right one for me? I get this question...

and 2 others 35 Comments

Like Comment Share

I feel like tinder is the worst. I really dislike how it features all of the people you've matched with and the layout itself is kind of unbearable 🙄

Like · Reply · 35w 1

Riki Thompson it sounds like we need to do a research interview about your online dating experiences. I'd love to hear more!

Like · Reply · 34w

Riki Thompson I was very interested as an undergrad in doing some research on dating apps! I'd love to chat, I have many an experience to share and know a lot of folks who would have some fascinating ethnographies.

Love · Reply · 34w 1

I've only ever used Tinder. I think it's mostly awful, but I did meet my girlfriend on Tinder, so there's that.

Like · Reply · 34w 1

Riki Thompson I didn't realize that's how you met. More proof that people actually find relationships on Tinder—not just hookups.

Like · Reply · 34w 1

Yup! I was nearly ready to delete the app, too, and just swiped on a whim while killing some time, and it actually worked out.

Like · Reply · 34w 1

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research context and participants, it is critical to think about both the possibilities new tools and contexts afford as well as their limitations.

Consideration 5: Generating Qualitative Data

There is a long and rich record of scholarship around collecting qualitative data, with the majority of introductory texts on qualitative research highlighting this process. Most often it is the mainstay qualitative data sources, such as interviews, focus groups, documents, and observations, that are emphasized. And, indeed, selected data types are closely linked to the research purpose and methodology, as well as the degree to which researchers have access to particular sites and/or participant groups. When designing a qualitative research study, we argue that it is critical to think early about the tools that will support the data collection process. For instance, if interviews are the primary data source, what tools should be used to collect them? How will these tools change the interviewing practice?

We also advocate for envisioning how digital tools and spaces themselves might expand the very meaning of qualitative data. Tools are now embedded into the ways that meaning-making and everyday life unfold. In the time of COVID-19, there is even greater overlap and blurring of the on- and off-line worlds and selves (boyd, 2008). Communications technologies now permeate every aspect of human life—from K-12 education to tele-health to massive virtual conferences and music events. Given that qualitative researchers generally focus on making sense of the social world, digital tools and spaces must be an integral part of our data collection processes—entangled with both our daily lives and our research practices. To understand the events of 2020 requires that we treat pandemic-driven virtual interactions as a data source, shifting traditional notions of what counts as data and how to make meaning with it. While qualitative researchers have long engaged with visual methodologies and visual forms of data (e.g., Rose, 2016), social media platforms are expanding where and how visual lives are being performed, and thus, where and how qualitative researchers might examine them. As one example, in Vignette 2.5, Keiko McCullough discusses her study of performances of masculinity on Instagram.

New forms of digital data collection unearth several important considerations, including how to legally access such data and practically collect it, as described here by McCullough. For instance, Zhang, Albrecht, and Scott (2018) conducted a scoping

Vignette 2.5 Collecting Data From Instagram

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During my doctoral studies I became particularly interested in the ways in which gender is visually constructed. I decided to use a source of naturally occurring data where gender could be readily seen, such as on social media sites. I honed in on Instagram as a platform because the structure of the site privileges static images, which I was particularly drawn to. In regard to the “subjects” of my study, I focused on two specific Instagram influencers, Ethan and Grayson Dolan (also known as the Dolan Twins), given the popularity of their posts and their large followings. My hope was to collect images from their most popular posts to analyze how they visually constructed masculinities using a critical discursive psychology framework.

Given the accessibility of Instagram and the users’ public (not private) accounts, the data collection process was quite easy. At first, I simply went to their profiles on my mobile phone using the Instagram app and took screenshots of their posts. However, as I started to think more about the data analysis process, I realized that larger, more detailed images would be better for examination. After quickly googling “download Instagram photos” I found that there were a number of websites that facilitated the downloading of Instagram photos in larger sizes (as long as one can provide the URL of the post, which can be found by accessing the user’s post via the Instagram website). I used one of these sites (i.e., Webstagram) to download the images that I wanted to collect in larger sizes. Once these were downloaded, I stored them in a Google Drive folder and later imported them into MAXQDA 2018 for coding, memoing, and analysis.

Even though the data were fairly easily collected, a number of legal and ethical considerations were brought to the forefront of my mind from the start. My central concern had to do with collecting and analyzing data without the subjects’ consent. At the institutional level, my governing ethics board stated that my research would not require approval given that the data are “public.” I decided to consult my student legal services on campus to cover the legal aspect. They informed me that my scholarly inquiry would very likely fall under “fair use” and therefore I would not be doing something illegal by collecting, analyzing, and even reproducing the images in manuscript form without the subjects’ consent.

However, despite it being technically “legal” and permissible by my institution to collect these data without consent, I still had concerns from a moral/ethical standpoint. After consulting the relevant ethics literature (e.g., the Association of Internet Researchers ethical guidelines were an invaluable resource), I found myself feeling more comfortable with carrying out the study because (1) the subjects are aware that their data are public, (2) the subjects are not minors or a part of a particularly vulnerable population, (3) the purpose of my study is to

analyze how gender is being visually performed, not necessarily to evaluate the actions or character of the twins themselves, and (4) given their fame, the twins would be very difficult to reach to ask for consent, and it seemed unlikely I would receive a response even if an effort were to be made. Additionally, I decided not to reproduce the images in manuscript form (which would have been for the purpose of reader evaluation) because the journal I was interested in said that they are wary of reproducing copyrighted images even if it technically falls under “fair use.” In summary, the data collection process was fairly easy and suitable for my needs as a researcher while also bringing about some very interesting legal and ethical considerations.

review of health researcher use of Twitter to understand patient experiences. They noted that the majority passively collected tweets, thereby bypassing the informed consent process. They highlighted how this practice raises important ethical considerations, alongside Twitter’s somewhat unclear user agreement terms related to conducting research (Hewis, 2015). Hence, while we advocate for thinking about whether and how to generate data from (1) preexisting digital spaces (e.g., online communities) and/or (2) research use of digital tools (e.g., Skype for interviewing), we caution against doing so without contemplating both the ethical and practical implications. We further discuss these and other issues related to digital tools, digital spaces, and their implications for data sources in Chapters 5 and 6.

Consideration 6: Analyzing Qualitative Data

Qualitative data analysis can refer to a very diverse set of strategies and approaches. As Coffey and Atkinson (1996) noted, “There is no single right way to analyze qualitative data; equally, it is essential to find ways of using the data to think with” (p. 2). From a close study of the sequentiality of talk (e.g., conversation analysis) to the storied lives of participants (e.g., narrative), there are a range of ways that qualitative analysis unfolds in a given study. While it is possible to talk about a general qualitative data analysis method (Yin, 2016), it is more common for scholars to engage with a particular methodology, which brings particular assumptions about the analytic methods that should and (epistemologically) can be engaged. Alignment is *only* possible when methodological, theoretical, analytical, and, we would argue, technological design choices are congruent.

There are some analytic practices that generally persist across the various approaches. For example, Miles and Huberman (1994) argued that the following six practices are common to many (not all) analytic approaches:

1. Affixing codes to a set of field notes drawn from observations or interviews
2. Noting reflections or other remarks in the margins

3. Sorting and sifting through these materials to identify similar phrases, relationships between variables, patterns, themes, distinct differences between subgroups, and common sequences
4. Isolating these patterns and processes, commonalities and differences, and taking them out to the field in the next wave of data collection
5. Gradually elaborating a small set of generalizations that cover the consistencies discerned in the database
6. Confronting those generalizations with a formalized body of knowledge in the form of constructs or theories. (p. 9)

We would add to this list that analysis is rarely conceived of as a linear process but rather envisioned as iterative and often closely connected to the data collection process; that is, many qualitative researchers design their study to include the simultaneous collection and analysis of data.

Given the sheer range of analytic approaches, attempts have been made to categorize these ways of “thinking” (e.g., Saldaña, 2015) and to map them onto particular research traditions and methodologies. Most recently, Freeman (2016) described five “modes of thinking” including categorical, narrative, dialectical, poetical, and diagrammatical (p. 6). Table 2.4 provides abbreviated definitions of each of Freeman’s modes.

TABLE 2.4 Modes of Thinking About Qualitative Data Analysis and Perspectives on Data Interpretation

Mode of Qualitative Data Analysis	Description	
Categorical thinking	Serves a classificatory function for analysis. Aims to determine what something is or is about and creates order to the resulting categories. Categories sort units of data into groups. Categorizing helps to separate out units of data that can stand alone often as a way to contrast or relate them to other units of data.	More traditional/thematic/ content oriented
Narrative thinking	Focuses on the construction or identification of theories of action or plots. Narratives connect and provide coherence to seemingly disparate events. This can take many forms.	↓

TABLE 2.4 Modes of Thinking About Qualitative Data Analysis and Perspectives on Data Interpretation (*Continued*)

Mode of Qualitative Data Analysis	Description
Dialectical thinking	Seeks to uncover inherent tensions or contradictions that are believed to exist in humans as well as in societies and put these in dialogue with each other for transformational purposes. Dialectical thinking emphasizes transformation through a continuous process of dialogue or negotiation.
Poetical thinking	Focuses on those hard-to-reach felt experiences that transcend specific contexts and create forms of expression that expand and challenge the imagination. Poetical thinking asks us to blur the boundaries between art and research, to reject predetermined conceptions of what it means to “know,” and to create research performances that expand and challenge the imagination.
Diagrammatical thinking	Seeks to disrupt conventional ways of thinking about human and nonhuman interactive spaces or networks. It asks that we look beyond the familiar narrative construction of a story and transverse core aspects of its telling in a way that creates new assemblages of moving and rigid formations, junctures, and concepts.

Interpretive



More experimental/arts-based

Source: Adapted from Freeman (2016, pp. 7–9).

We have found it helpful to consider Freeman’s modes of thinking in relation to a range of methodological and analytic approaches, from more traditional thematic or content analysis–oriented analytic approaches to interpretative analytic approaches to more experimental or arts-based analytic perspectives.

While it is beyond the scope of this book to unpack all of the possibilities when conducting qualitative analysis, we encourage qualitative researchers to become deeply familiar with the analytic practices associated with the methodologies being used. As we note in Chapter 3, it is imperative to think about a digital tool workflow alongside development and selection of the methodological and analytical focus. More particularly, in Chapter 7, we locate the conceptualization of transcription as part of the analytic, interpretative process and highlight digital tools that can become part of that workflow. Then in Chapter 8 we illustrate how digital tools should be an integral part of the analytical workflow. While qualitative researchers rarely can delineate exactly what their data analysis looks like prior to beginning the process, having a research workflow that includes digital tools for analysis should be central. It is helpful, for instance, to determine whether and how a software package will be integrated into the workflow as part of the research design process.

Consideration 7: Representing and Disseminating Findings

How qualitative researchers ultimately decide to represent and share their findings relates closely to their methodological and theoretical commitments, as well as the broader research aims. As we discuss further in Chapter 9, the digital world offers new and innovative ways to do this. For example, a conversation analysis study has long been represented by providing a line-by-line interpretation of a data segment. Yet, emerging technologies have afforded new possibilities for how one might display their findings and interpretations, such as sketching the space in which participants interact (as illustrated in Figure 2.1) to displaying findings via anonymized video clips. Thus, strategies for representing findings should be part of the digital research workflow. Of course, depending upon one's selected methodology and research purpose, coming to this

FIGURE 2.1 An Example of a Line Drawing From a CA Study



Source: Goodwin (2007, p. 359).

decision might not occur until after a study begins to unfold (e.g., participatory action research). For instance, some researchers might plan to work closely with their participants to develop the ways in which they represent and share findings.

In addition, digitized spaces are a medium by which to popularize and share findings. As we discuss in Chapter 9, there are both pros and cons to becoming a networked, public scholar. And, while many researchers may not yet have decided where and how to share their findings prior to embarking on a study, we advocate for at least identifying a primary audience, as this shapes the overall scope. From blogs to podcasts to Twitter, there are a number of possibilities for sharing scholarship, each linked to their own commitments and disciplinary norms.

Consideration 8: Establishing Quality

There are a range of perspectives on how to establish whether or not research claims (findings) are of high quality (also referred to as validity and/or trustworthiness, among other terms). This, of course, stems from the diversity of theoretical and methodological positions, as well as disciplinary norms and expectations. O'Reilly and Kiyimba (2015) noted that there are generally four arguments about quality presented in the methodological literature. First, some researchers draw on quantitative conceptions of validity, reliability, and generalizability. While this first position is comparatively rarer, it does exist, particularly within fields less familiar with qualitative research. Second, some researchers have argued for the development of universal markers of quality, drawing upon a vocabulary specific to qualitative research (e.g., transferability rather than generalizability). While historically there has been a privileging of standardization, going so far as to produce checklists for determining whether quality was achieved, cautions abound about their prescriptive use (e.g., Barbour, 2001). Third, some researchers consider quality in relation to the specific assumptions of a given methodology, arguing that universal criteria are not particularly useful when leveraging philosophically unique approaches to studying a phenomenon. For example, in a recent special issue focused on quality (Lester & O'Reilly, in press), researchers drawing upon differing methodologies illustrated how quality is uniquely achieved. Finally, O'Reilly and Kiyimba noted that a few researchers have even argued that qualitative indicators are not necessary given the unique character of each study.

Regardless of one's position, it is critical to consider how (1) quality will be conceived in a given study and (2) the practices (if any) that will support generating a "worthy" study. How might digital tools and spaces play into this process, particularly as a study is being designed? We suggest that identifying which and how technology can support practices that are designed to achieve quality is paramount. For example, audit trails have long been viewed as a means by which to establish the confirmability of a study—that is, that the findings are indeed situated within the participants' experiences or perspectives. In generating a rich audit trail, a researcher is making visible that "data exist ... and that the interpretations have been made in ways consistent with the available data" (Guba,

1981, p. 88). Through memoing, journaling, and recording all decision-making practices within a digital workflow, researchers can systematically build their audit trail.

Consideration 9: Emphasizing Ethics

Qualitative researchers have long wrestled with how to ethically engage in the research process. From responding to issues of power (between researchers and participants in particular) to addressing concerns around unfair and even damaging representations of people, places, and spaces (Knight, 2000; Wax, 1995), researchers must remain reflexive about ethical dilemmas that will inevitably arise. Emerging from the concerns surrounding the atrocities associated with medical research conducted by the Nazis during World War II, the Nuremberg Code of 1947 put into place a set of ethical principles specific to medical experiments. This code was eventually more broadly applied within the field of psychology. Additional reports and codes of ethics further shaped what it meant to engage in ethical practices. For instance, the World Medical Association put out the Helsinki Declaration of 1964, outlining principles for conducting fair and humane medical research with human subjects. Further, the Belmont Report, released in the United States in 1979, outlined three primary ethical principles, for biomedical and behavioral scientists: (1) protect the autonomy of research participants by engaging in an informed consent process; (2) minimize harm and maximize benefits to research participants; and (3) engage in nonexploitative research procedures.

The United States, United Kingdom, and many other countries have now established more refined guidelines and even discipline-specific conventions that typically require ethics board review prior to beginning a study. Regardless of research context or purpose, as Hammersley and Traianou (2012) noted, there are at least three primary ethical principles to consider when engaging in qualitative research. These include a commitment to: (1) minimizing harm done to participants; (2) respecting and acknowledging the rights of participants to decide whether to participate or withdraw from a study; and (3) protecting the identity of research participants and/or their communities. More particular to qualitative research, Guillemin and Gillam (2004) usefully delineated between procedural ethics and ethics in practice. They described procedural ethics as that which are mandated by ethics review boards and generally focused on assuring privacy and safety to human participants. In contrast, they described an ethics of practice as concerns that are neither foreseen nor necessarily addressed by ethics boards, describing these dilemmas as involving “a stark choice between different options, each of which seems to have equally compelling ethical advantages and disadvantages” (pp. 264–265). Many qualitative researchers have pointed to the limitations of orienting to ethics as nothing more than a set of procedures (e.g., Lincoln & Tierney, 2004). As Kuntz (2010) noted, fixating on “procedural ethics” leaves “little space ... for self-reflexive examination of how our studies are implicated by learned assumptions” (p. 5). While Kuntz was specifically writing about the impacts of such fixation on the representation of findings, we suggest that the implications are significant for all phases of the research process.

Significantly, the rise and use of digital tools and spaces in qualitative research present new and still unfolding ethical quandaries. For instance, determining how and whether to collect data from a public social media site, such as the Instagram account of a public influencer (as described in McCullough's Vignette 2.5), gives rise to questions regarding who owns data and what it means to do research in public spaces (see, for example, Moreno, Goniu, Moreno, & Diekema, 2013 for a discussion of ethical and legal considerations for conducting social media research). McKee and Porter (2009) reminded us that the first guiding principle for all researchers, and Internet researchers in particular, is to do no harm—not only to potential research participants but also to their communities. Failure to approach research in an ethical manner could threaten not only future research access to a community but members who begin to feel unsafe due to researcher activity may begin to endanger the community itself. McKee and Porter argued that ethics should be seen as an ongoing process of reflection, analysis, and action. Since every community is unique, the use of heuristics, rather than hard and fast rules, should guide ethical decisions. As Beninger (2017) noted, “online and social media research has the potential for unearthing new understandings and adding unique insight to existing knowledge about social phenomenon, but the ethical implications require on-going scrutiny” (p. 71). In fact, the Association of Internet Researchers (2020) has an ethics committee that regularly updates and publishes guidelines specific to conducting Internet-based research.

Throughout this book, we discuss *some* of the ethical quandaries raised by the use of digital tools and spaces, as highlighted in Table 2.5. For instance, in Chapter 3 we explore ethical challenges in the reuse of qualitative data; in Chapter 4, we explore how unintentional plagiarism might occur when working with citation management software; and in Chapter 7, we note that synchronizing a transcript could jeopardize the anonymity of a

TABLE 2.5 Ethical Questions Considered Across the Book

Chapter	Topic	Ethical Questions
3	Integrating QDA software across the research process	<ul style="list-style-type: none"> • How can QDA software support the ethical reuse of qualitative data?
4	Creating a paperless literature review process	<ul style="list-style-type: none"> • What are some ways to transparently share the literature review process to ensure that sources are properly credited? • What are ways to avoid unintentional plagiarism?
5	Generating data from preexisting (digital) spaces	<ul style="list-style-type: none"> • When is it necessary to acquire informed consent before studying a publicly visible online community? • How might collecting data in the form of images jeopardize confidentiality and privacy of research sites and participants?

TABLE 2.5 Ethical Questions Considered Across the Book
(Continued)

Chapter	Topic	Ethical Questions
		<ul style="list-style-type: none"> • How do we protect participant privacy when treating social media posts as data? • What are the copyright regulations around social media posts?
6	Generating data with research use of (digital) tools	<ul style="list-style-type: none"> • How do we protect vulnerable participants in any type of recording? • How do we protect research participant images when using videoconferencing software to conduct interviews? • How might the use of mobile devices violate participant privacy?
7	Transcribing innovations	<ul style="list-style-type: none"> • When should data be anonymized? Prior to, during, or after transcription? • When a transcript is synchronized with a media file and then shared with others, how might this compromise confidentiality? For example, will images or voices in the recording be recognizable? • Should all parts of the interaction be transcribed, or should certain channels be ignored based on informed consent agreements? • Are cloud-based automated transcription services secure enough to justify their use?
8	Managing and analyzing data	<ul style="list-style-type: none"> • What are the best storage solutions to keep data private and secure? • How might linking data to the research location compromise the anonymity of participants? • When manipulating images and text in preparation for analysis, or even to keep participant identities protected, what is the impact on authenticity? • How does analysis sharing through use of QDAS packages impact data privacy?
9	Writing and representing findings to become public scholars	<ul style="list-style-type: none"> • How might popularizing research findings compromise the ability to protect participants and/or the privacy even of researchers? • At what point does a strong social media identity or presence compromise the integrity of a researcher and/or research agenda? • What copyright issues may be invoked when sharing aspects of the data, analysis process, or findings in an online space accessible to the intended audience? • What are the researcher obligations for responding to a critique raised by an outside audience or by the participants themselves?

participant. Markham (2006) aptly noted that regardless of whether one is working “online or off, an ethical researcher is one who is prepared, reflexive, flexible, adaptive, and honest” (p. 39). And, thus our intent here is to preview some of the ethical dilemmas that qualitative researchers may face at the intersection of qualitative research and the digital world, while advocating for an ongoing, reflexive stance on the part of the researcher.

FINAL THOUGHTS

In this chapter, we have proposed a definition of qualitative inquiry, described a range of paradigms, identified key methodologies, and described the overall nature of qualitative research design. Specifically, we have sought to locate nine design considerations as part of creating a digital research workflow, noting that in the coming chapters each of these is explored further. These include engaging the literature and generating meaningful research questions; selecting a methodology; identifying relevant theories; selecting research sites and recruiting participants; generating qualitative data; analyzing qualitative data; representing and disseminating findings; establishing quality; and emphasizing ethics. Missing in our discussion in this chapter is a focus on how qualitative researchers might go about making methodologically and theoretically grounded decisions about the role of digital tools and spaces in their workflows. In the next chapter, we consider the Five-Level QDA Method® (Woolf & Silver, 2017) as one way of doing so. We introduce qualitative data analysis software as a way to streamline a digital research workflow in a meaningful way, introducing the main packages available and what they offer to qualitative researchers.

REFLEXIVITY QUESTIONS

The vignettes in this chapter illustrate how both traditional technologies like video-recordings and new spaces, such as social media, are entangled with substantive theories, methodological theories, selection of research sites and participants, and identifying sources of data.

1. How might substantive theories, methodological theories, and choices of digital tools and spaces together shape how we go about answering a particular research question? What material artifacts and human actors would come together, and in what ways (Adams & Thompson, 2016)?
2. How might the use of digital tools and spaces solve existing dilemmas around recruiting participants, selecting a research site, and/or identifying sources of data?
3. What digital research workflow could enact these solutions? How might the workflow transform, resist, or constrain existing methods?
4. What ethical and political consequences might result from adopting this workflow? Who or what is included, and excluded? Who or what holds power?
5. What changes to existing digital tools and spaces included in the workflow may be needed for them to function in ways that will lead to high-quality findings? What changes may be needed by the people involved?

RESOURCES AND FURTHER READING

- The Qualitative Research-Special Interest Group hosts a podcast, *Qualitative Conversations*, in which many episodes relate directly to considerations for designing a qualitative research study.
- The Quirkos research blog and Qual Page at the University of Georgia both offer a large set of articles about qualitative methods.
- Anfara and Mertz's (2015) second edition of *Theoretical Frameworks in Qualitative Research* provides 11 examples of research studies and how theory informed the design and subsequent research process.
- Salmons's (2015) *Doing Qualitative Research Online*, Savin-Baden and Tombs's (2017) *Research Methods for Education in the Digital Age* and Quinton and Reynolds's (2018) *Understanding Research in the Digital Age* all offer chapters exploring the impact of digital tools and spaces on qualitative research design and methodology.

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