1 FOUNDATIONS: THE IDEAS THAT SHAPE OUR RESEARCH

The following conversations take place at the beginning of a term in a café or dining facility of any college or university. Participants are a changing group of students with a range of interests, concerns, and enthusiasms. The conversations introduce the topics that subsequent conversations will explore in later chapters.

"Hey, welcome back. I was hoping I'd run into you. I've been watching your social media posts but wanted to ask some specific questions about your internship. How was it?"

"Terrific. Who wouldn't want to spend a whole term honing your skills for your dream career? Plus, you wouldn't believe the number of contacts I made. Hopefully it will really pay off with my job search at the end of the term."

"Well look who's here—on time no less. Oh no, are you eating pizza already? It's breakfast time!"

"It may be breakfast time to you dorm-denizens but remember, I'm a commuter; I've been up for hours and it's going to get worse now that classes have started. I'm working two jobs, so I have to do all my studying after hours and it isn't easy. The worst part is the time taken up just commuting. I need a life."

"What you need are some online courses. If you get the right schedule, you might make some of those commutes unnecessary."

"Sounds good, but what I really need right now is a second slice of pizza."

"More pizza? At 8 am? Seriously? You must have a cast iron stomach. The pizza around here tastes like it's been around since before the break. Why can't this place get some REAL pizza?"

"I'm sick of pizza; let's get some decent sandwiches."

"Or vegetarian options; don't forget that some people care about animals."

"And their health."

"And their coffee. This place needs some real coffee options."

"Let's face it, we need better food. Period."

"Can't we think about more than just our stomachs? Just look at the trash bins over there. We're becoming a nation of trash."

"Especially plastic. I was at West Beach over the break. There were empty fast food containers and beer cans all over the place. Other stuff too. It was disgusting."

"It's not just disgusting; it's doing us in. The planet is drowning in trash."

"Just talking about it won't cut it; we need to take action and get everyone involved."

"Nice idea but I can't see students being that interested."

"Not true; I think a lot of students are really concerned about the environment and climate change. They just don't know what they can do about it."

"That's just you. You always think of a bigger picture, but on a personal level no one really cares. If they did there wouldn't be so much trash on the beach to begin with."

"And there'd be more electric vehicles."

"My point exactly. We need to change how people view the problem and get them to think beyond their personal viewpoints."

"Maybe we could get into one of those campus recycling programs my friends keep telling me about. One way or another, we need to start now."

"I see you haven't lost your preoccupation with your cell phone. Oops, careful! One of these day's you're going to run into someone with a tray full of food."

"Or miss a step on the stairs."

"I'm just reading the reports on last night's games. I'm trying to learn all I can before the next tournament so for once I'm not out of the brackets before the quarter finals. I found some great social media sites that have real analyses."

"Be careful; a lot of them are just fan opinions."

"Oh no, not basketball again! Already?"

"When the tournament finally rolls around I can get pretty interested myself but I'll just look at the seedings and the teams I always pick and hope for the best. On a given night, anything can happen."

"Yes, remember what happened in 2023 when none of the top seeds even made it to the final four."

"And the final ended with a four–five matchup. I bet your bracket was as busted as everyone else's."

"Right; that's why I'm trying to get a head start on my selections."

. . . Are you wondering what all of the above has to do with communication research? Stay tuned. All will be revealed in the following chapters.

CHAPTER OVERVIEW

Welcome to communication research—an exciting field of ever-changing ideas and loosely defined boundaries.

Because the field is so large, most researchers focus on one small part of it. They do this, consciously or unconsciously, by choosing the conceptual foundations on which they will stand and build their research.

This chapter introduces you to some of these foundational assumptions and the decisions that every researcher makes about the nature of reality and how best to understand human communication. It will help you locate yourself in the wide world of communication research and with the sometimes-daunting process of getting started on a research project.

These starting points are often theoretical and abstract, but just as a building's foundation shapes and constrains the size of the building so also theoretical assumptions shape and constrain the practice of research.

This chapter looks at some long-standing arguments about how we should understand the world and human nature and at current issues such as research in cyberspace, "big data," new emerging research specializations and the question of whether communication is or is not a discipline. The theoretical ideas and issues in this chapter underpin the more practical ideas about research in Chapter 2 and beyond, and many of the practical decisions you will face in your own research.

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LEARNING OBJECTIVES

After reading this chapter, you should be able to:

- Outline basic worldviews relating to communication research.

- Identify some of the basic questions that underpin communication research.

- Describe some of the broad interest areas of communication research.

- Discover your own communication research interests.

- Determine how research in cyberspace differs from research in conventional settings.

- Understand the implications of regarding or regarding communication as a discipline.

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GETTING STARTED IN RESEARCH: ASSUMPTIONS AND DECISIONS

Any day or any journey requires that you first wake up and then make decisions about your day. Stay in bed or get up? Stay home for online classes, settle in at a favorite coffee shop for a morning online or go out for breakfast and then head to campus?

Communication research is analogous in that any research requires a starting point—a topic to which we devote this chapter.

For travelers, the starting point and destination will often be specific. Their journey begins at home or a bus stop or an airport and typically, but not necessarily, they have a specific destination in mind. Similarly, communication researchers have a diversity of starting points and destinations which may or may not be specific.

Communication researchers have interests ranging from interpersonal communication on up to web media reaching millions of people worldwide. Researchers often may specialize in areas defined by the numbers of people they are studying, as in interpersonal communication, groups, organizations, or social media. But many research interests transcend such categories. For example, rhetoricians, those who study the use of language and argumentation, may do so in all these areas.

As we see that interpersonal, group, and organizational communication can take place via mass social media and that traditional mass media audiences are disappearing, we see the boundaries between conventional mass, group, and interpersonal communication disappearing to the extent that some scholars propose a new mode of communication—masspersonal(O'Sullivan and Carr, 2018).

Boundaries and methods are both in flux as scholars challenge the notion of communication as a discipline and argue for interdisciplinary relationships with, for example, sociology, psychology, political science, marketing, and linguistics. (You will find that this makes your library research—Chapter 4—more challenging, but also much more interesting.)

This chapter will help you locate yourself on the shifting terrain of communication research. Because foundational assumptions simultaneously focus and restrict your research vision you need to be aware of how those you have chosen, consciously or unconsciously, can shape your vision of what constitutes research.

The 21st century digital world further challenges us as we research the communication behaviors of people who may be transient, difficult to access, possibly not even real and whose communication behaviors may be more ephemeral than stable.

Nonetheless, the foundational beliefs, assumptions and questions addressed in this chapter still apply and shape our thinking about research. They demand our attention before we start deciding about the specifics of research we will discuss in subsequent chapters.

STARTING WITH BASIC BELIEFS AND PERSPECTIVES

Let's start with the basic beliefs and perspectives that shape our thinking about human behavior and how we might research it. What ultimately do we believe about humans and their behaviors? Are people all alike or fundamentally different—each of us an individual? Are we predictable or unpredictable; predisposed to cooperation or to conflict; living in a shared, tangible world or in our own internal, subjective worlds? Such questions underpin the assumptions about how best to study and represent human communication.

The argument about reality as an underlying, objective, concrete entity versus reality as no more than a product of our senses is almost as old as human thought.

Generalizations and predictions about human behavior often can be made with success, but it is equally true that many predictions fail—as political pollsters can find to their dismay. Predictions are often more successful when we observe large numbers of people rather than individuals. For example, faculty can be quite confident predicting that most students will attend class on a given day. Predicting that one specific student will attend one specific class—in person or online—on one specific day is a different matter altogether.

Evidence can support any and all such views, so ultimately we are obliged to use our own best judgment to decide which basic beliefs will inform our research, and to live with them. Assumptions about human behavior coalesce into sets of fundamental beliefs or broad **worldviews**.

At one extreme, Worldview I sees human behavior as predictable, objectively measurable, and generalizable. Worldview I researchers therefore feel entitled to make generalizations about human communication that will hold true across space and time. This emphasis on measurement and generalization is called a **nomothetic** approach.

Worldview II, by contrast, sees human behavior as individualistic, unpredictable, and subjective. This view assumes that knowledge is socially constructed out of interaction between people and is subjective. Research based on these assumptions attempts to describe and assess the subjectivity and individuality of human communication, rather than aiming to discover universal laws. This emphasis on individual understanding is called an **idiographic** approach.

Worldview I emphasizes the researcher's perspectives. For example, as soon as a researcher decides on a method such as a survey, the survey data become researcher generated. They may have little or no resemblance to the natural or participant-generated data such as the student discussions at the beginning of this chapter which Worldview II emphasizes. An external observer or researcher has little influence on this content.

Much applied research subscribes to Worldview I. For example, researchers seek to find rules that will influence audience sizes, or predict the success of interpersonal relationships, direct marketing or the ability of group members to work together and successfully complete a project.

By contrast, Worldview II researchers would be interested in how consumers respond subjectively to media content. They will therefore spend time listening to individuals, with a view to

capturing this subjectivity. Their goal might be, for example, to understand why some television viewers develop a close relationship to reality tv characters or a cyberspace avatar and how they describe those relationships. Researchers make no assumption that their findings will be generalizable and typically reject counting or measuring in favor of reporting what their interviewees said. Their overall goal is understanding rather than generalization or prediction.

Exercise 1 at the end of this chapter will help you decide which Worldview you most identify with.

Between the two extremes of Worldview I and Worldview II are more nuanced views of human communication and how to research it.

For example, Creswell and Creswell (2018) identify four worldviews, as follows:

Postpositive—This worldview emphasizes cause and effect and the idea that the world is governed by laws or theories that can be tested or verified. Big ideas are reduced to sets of data that allow hypothesis testing. Theory leads to data collection and then to testing of the theory using **quantitative** methods. The emphasis is on objective observation and measurement.

Constructivist—This worldview is that individuals seek understanding of the world in which they live and construct their own views of it. Researchers therefore rely on participants' own, subjective views of the world and use **qualitative** methods to capture them. Research is interpretive and qualitative, moving inductively from observation to theory development.

Transformative—This worldview is change oriented and argues for mixing research with politics to confront social oppression and change lives for the better. There is a basic interest in the marginalized and disenfranchised. The worldview embraces a variety of research interests, including action research and critical analyses.

Pragmatism—This worldview focuses on solutions to problems—what works—and using all possible approaches to understand a problem. It does not commit to any one basic philosophy and therefore embraces mixed method research. It is "real world" and practice oriented with a focus on the problem rather than the research method. Research decisions are based on what the researchers want to do with their research—why they are doing it.

Another way to fine tune your ideas might be to consider Craig's (1999) communication **metatheory—** A family of concepts embracing several different traditions of communication research.

Rhetorical—The practical art of discourse, debate or discussion that emphasizes the use and power of words.

Semiotic—The uses and interpretations of signs and symbols which emphasize the study of how meanings are constructed and the relationships between words and symbols, and thought.

Phenomenological—The experience of others which emphasizes the study of objects and events as they are perceived, the study of meanings that things have as experienced phenomena, as opposed to the nature of the things themselves.

Cybernetic—The flow of information; emphasizes communication as a system of information processing and feedback The basic source-message-channel-receiver model introduced in this Chapter and Chapter 2 is in this category.

Sociopsychological— The interaction of individuals; emphasizes attitudes and perceptions and individuals influencing each other or working toward collective outcomes.

Sociocultural— The production and reproduction of social order; emphasizes the ways in which shared meanings and social structures are produced and reproduced through communication. Examines conflict, alienation and the individual as products of society.

Critical—The process of challenging assumptions; focuses on power, the perpetuation of power, oppression and emancipation in society.

Craig and Xiong (2022) suggest other perspectives that might be considered—for example feminist, aesthetic, economic or spiritual perspectives such as Buddhist or Confucian.

The research method you select should follow logically from your basic assumptions about human behavior and communication. For example, researchers who believe that people's attitudes can be measured and that careful sampling will allow them to generalize results from a small sample to a large number of people may ask "What type of survey can I run?" Researchers interested in hearing people's subjective experiences in their own words are more likely to ask "What focus groups or interviews will I need?" and will use theory-based judgment rather than statistical sampling to select participants. The first researchers will use quantitative methods by virtue of their worldview; the second will prefer qualitative approaches.

There is no inherent reason that one perspective on human communication should be privileged over others any more than one specific research method should be privileged. Rather, the focus and the method of research are the outcome of the researchers' interests and assumptions about research.

The first question then is not whether to prefer qualitative or quantitative methods. Rather, it is "What are my basic assumptions about human communication?" The answer to this question should then drive the decisions about the nature of the data to be gathered and therefore the research methods to be employed.

Foundational beliefs and arguments about human behavior are issues ultimately of **ontology**, which addresses the nature of what we study. Ontological questions deal with the nature of existence and what language actually refers to. In communication studies, ontology wrestles with assumptions about the nature of human communication and what we "really" observe when we observe it.

For example, have you ever seen someone's attitude? You might answer "Yes, many times." But what have you really seen? What you have really seen is someone behaving in a particular way, being verbally aggressive perhaps. Or perhaps all you saw was check marks on a series of attitude scales, from which you infer an attitude. Where is the attitude itself? Is there, in fact, such a thing as an attitude?

Ontological questions for communication scholars include "To what extent do we make real choices?" For example, is your decision to attend class voluntary or not? Is human experience primarily individual or societal—what would you know of the world and of yourself if you had no interaction with other people? Is communication contextual or universal—does a smile always mean the same thing to everybody or does the meaning depend on who is smiling and under what conditions?

Worldviews and research traditions are foundational in framing our research and defending the logic of it, but to help get our research focused we need to consider more specific questions.

GENERAL QUESTIONS BEHIND COMMUNICATION RESEARCH

Several specific questions underpin communication research. Explicitly or implicitly, researchers have a yes or no to each of these as they plan and conduct their research. Your answers to these questions will further help you focus on research topics and methods.

Do Observations Capture an Underlying Reality?

One assumption is that what we choose to study—dress or language, for example—tells us something about an underlying reality we cannot see but assume to exist. For example, "power"

is not something we can actually see. When you think about it, what we see is not power as such but rather someone behaving in a particular way and other people responding. Nonetheless, "power" seems like a useful concept in our efforts to understand human communication, and generally we elect to study it by looking at behaviors that we assume represent power.

Similarly, no one has ever actually seen an attitude. What people have seen is someone behaving in a particular way or responding to a set of survey questions designed to capture this thing called "attitude." Once again, "attitude" seems too useful a concept to discard, and so we research attitudes on the assumption that they exist or at least that the concept of attitude provides a useful tool for thinking about communication processes.

Can Findings About Human Behavior Be Generalized?

This is a basic Worldview I/Worldview II distinction. It may be insightful to discover that your grandfather has a LinkedIn account and that your little sister has a TikTok account. But your research would be much more useful and rewarding if you were able to make a general statement such as "Young people are more likely than older people to have a TikTok account." If true, this statement would be of interest to advertisers, educators, and disaster management agencies, the latter of which might need to reach large numbers of people rapidly in an emergency. However, to make this statement, you basically have to assume that your grandfather is like other grandfathers and your little sister is like other little sisters, at least with respect to social media use.

Probably, though—and correctly—your grandfather and sister regard themselves as unique individuals, so to what extent can we assume people are basically like other people? It is an important question because if our world is full of unique individuals, we cannot with a good research conscience make any generalizations about them (except, of course, that each of them is unique!). Nonetheless, researchers using survey or experimental methods typically will want to assume that the results of their research will apply to people who are similar to the study participants but not in the study. That is, there is an assumption that people are similar in the way they behave.

Should Researchers Distance Themselves From Research Participants?

What is the appropriate level of engagement with our research participants? As researchers, we might opt to get more involved with the students in the conversations at the beginning of this chapter—perhaps by sitting in on their conversations or by interviewing some of them. This brings up a fundamental decision. The more distant observers become, the more neutral or dispassionate they can be in reporting a group's behavior, but they will be unable to get the insights they would get if they were closer to the group. On the other hand, moving closer to the group will provide more insight, but then researchers become open to influencing the group dynamics or to seeing only the group's view of the world and becoming biased in their reporting as a result.

Must Research Be Done for a Specific Purpose?

Most scholarly researchers probably began their careers with a basic curiosity about human behavior, and it is that curiosity and the pleasure of discovery for its own sake that continues to drive them. Scratch the surface of that interest, though, and we will find other purposes or motivations that come into play. At a personal level, it may be a need for fame or funding. At another level, researchers may see their research as helping to solve society's problems or refining a highly theoretical model of human interaction. As we will see in Chapter 2, researchers may be content if their studies lead to accurate descriptions or an understanding of human behavior, but they are more likely to see their research as worthwhile if it explains or predicts that behavior.

Researchers whose work is funded by a corporation or foundation looking for specific answers to a question as quickly as possible may find that their personal motivations for research and their preferred direction for the research take second place relative to the needs and motivations of the funding agency.

Is There One Best Perspective From Which to View Human Communication?

Are some aspects of human communication more important to look at than others? Related, is there one best standpoint from which to observe human communication? A simple way to understand this is to consider early telecommunications-based models such as Shannon and Weaver (1949). Given the complexities of human communication, it is overly simplistic, but it does identify major components in any human interaction as follows:

- Source—the provider or initiator of content

- Message or messages—the content of communication

- Channel or medium—the vehicle for communication content; for example, social media

- Receiver(s)—the recipient(s) or consumer(s) of information

- Noise—extraneous information or distractions that can disrupt an interaction.

Another model proposed by political scientist Harold Lasswell (1948), added an "effects" question, asking "Who, Says What, via Which Channel, To Whom, With What Effect?"

Such basic models indicate major entry points into the study of human communication. As we saw earlier in this chapter, there are other, major and quite different perspectives on human communication. For example, critical theorists seek to understand the power structures behind communication or "who stands to gain." Ethnographic and phenomenological researchers seek to understand communication from the perspective of the individuals they are studying rather than from a dispassionate distance.

Exercise 2, Exploring Communication Interest Areas, at the end of this chapter invites you to explore the wide-ranging interests of three major scholarly interest groups.

Is Communication a Discipline and Why Should We Care?

Like every good theoretical question, this question has practical implications.

Broadly speaking, a discipline has some kind of topic focus, boundaries that define what the discipline does and does not study, a generally agreed sense of how research gets done and what constitutes "good" research.

Your own experiences might suggest that communication is at least interdisciplinary, if not a discipline.

For example, the telecommunications model discussed earlier – sometimes referred to as "the mother of all models" because of its widespread adoption – comes out of telecommunications engineering, mathematics and political science.

Possibly, you have observed friends studying the same communication topics as you, but in a department of psychology, language, or business. Perhaps you know institutions where journalism is taught in a department of communication whereas at others it is a separate department in its own right. Maybe your department of communication offers courses in computer graphics

that elsewhere would be offered by a department of computer science or art, or courses in public relations or business communication that elsewhere would be taught in a business department.

If, unwisely, you did an unfocused internet search for "communication," you would find in addition to much unwelcome content, scholarly contributions from sociology, psychology, business, marketing, family studies, linguistics, marketing, and education to name just a few.

All this might lead you to conclude that the boundaries of communication studies are porous and that there are multiple, disparate and strange "hybrid" research interests within it.

So why would you care?

In terms of finding your own research foundations, you would care because doing so may require you to read in and explore other fields such as those mentioned above.

In terms of academic politics, you would care passionately because with a defined and recognized discipline come resources, facilities, staff, the ability to attract research funding, academic "street cred" and, most importantly, your own "turf" and not getting absorbed by other disciplines. Think Medicine. Think Law. Absent disciplinary status, much of the above may be at risk.

Disciplinarity also implies an accepted or conventional way of doing things. There is a good reason for conventional ways of doing things—they work. But only as long as they address conventional problems.

Contemporary views of communication research argue for a pragmatic problem-solving approach, looking beyond conventional boundaries and, implicitly, research methods as necessary to address societal problems.

For example, Livingstone (2011) argues that communication research is vital to societies the world over, and that researchers should embrace a widening of scope, allow research boundaries to become even more porous and capitalize on the increasing scope for collaboration and debate. Openness to collaboration and cross-fertilization should be a strength of the field.

Craig (2015) calls for a pluralistic field of communication theories that invites dialogue among multiple traditions with an emphasis on practical communication problems.

Craig and Xioing (2022) add to this a call to de-Westernize previously defined traditions of communication theory, recognize global cultures, and integrate non-Western traditions.

Waisbord (2019a) sees communication studies as fragmented but argues that rather than hoping to qualify the field as a discipline, it is better served by embracing pluralism, fostering cross-cutting lines of inquiry, and tackling real-world problems.

If communication is not a discipline, does "anything go" and you can research anything that interests you in any way that you see appropriate?

Yes and No. Communication research offers wide-ranging opportunities and challenges, but you can't just throw together a research project and call it a day. To be acceptable, your research must be theoretically informed, defensible and conducted according to the standards of your research community.

LOOKING AHEAD: WEB WORLDS, FUZZY BOUNDARIES AND ARTIFICIAL INTELLIGENCE

Three interrelated major factors are reshaping how we think about internet research. First, a shift from viewing the internet as another research topic and a tool in the research toolkit to accepting that humans increasingly live their lives on the web—or perhaps more accurately in a web environment. Most of the communication research we do is therefore likely be web based, directly or indirectly. Second, and related, is the increasing recognition of communication research as

interdisciplinary. In the previous section, we raised the question of whether communication should be regarded as a discipline. One answer to that question is the increasing recognition of the need for collaborators from other disciplines to successfully implement and report web-based projects. Third is the emergence of artificial intelligence (AI) with its methodological opportunities and ethical challenges.

Web Worlds

Communication research in the 2020s sailed into a "perfect storm" that challenged traditional thinking about communication research and its methods and boundaries. That "storm" was the proliferation of digital media, then forced upon our work, home, and social lives by COVID lockdowns and further compounded by misinformation and disinformation and a "parallel universe" of virtual participants with no real-world existence.

Fuchs (2021) discusses how social space and everyday communication changed in the coronavirus crisis. Interpersonal communications became mediated via phone, social media, messaging, and video conferencing. The coronavirus crisis brought about an "existential crisis," a "radical transformation of the space-time of everyday life" (p. 378), with fake news amplified by broadcasters with an agenda, and negative impacts especially on blue-collar groups, rural populations, the ill, older persons, and low-tech or no-tech individuals.

Hantrais et al (2021) argue that COVID-19 lockdowns accelerated the adoption of digital solutions at an unprecedented pace, creating unforeseen opportunities but also bringing digital risks and threats and policy-level changes. At the micro-level, families became "digital by default." Children interacted via digital media as normal but digital media created more safety risks for them. People more generally turned to social media for information and support and faced a dramatic increase in cybercrime such as phishing, ransomware, malware, fraud, hate speech, sexual exploitation of children, misinformation, disinformation, rumor, and conspiracy theories.

A perfect storm in the context of communication research rather than being disastrous means adapting to a new research environment as sketched out below. It is an environment in which porous boundaries, multiple perspectives, flexible thinking, and hybrid methods can be to a researcher's advantage.

Livingstone (2011) argues that media and communication technologies are increasingly shaping every sphere of social life from the global and public to the most intimate, from niche interest to mass market, and that no strict boundary can be drawn between the offline and the online.

Madianou and Miller (2013) address the notion that we are not facing technological development as much as we are facing new sets of social relations imposed by technological development. Think how your own face-to-face work and social relationships changed as COVID imposed a shift to online relationships. Madianou and Miller propose the term *polymedia* to describe the emerging environment of proliferating communication opportunities. Conventional and web media have evolved new relationships. For example, a traditional phone call can be made via landline, smartphone, or internet. Smartphones allow both one-on-one and group communication and the ability to read a conventional newspaper or watch a movie on your own or in a group setting.

O'Sullivan and Carr (2018) argue that there is a false dichotomy between interpersonal and mass communication scholarship and that individuals are using communication technologies in ways that expand the intersection of interpersonal and mass communication. They observe individuals using mass communication channels for interpersonal communication, and vice versa

and engaging in mass communication and interpersonal communication simultaneously. They propose the concept of "**masspersonal communication**"—that focuses on users' selection and uses of communication channels in their pursuit of interactional goals, rather than on channel characteristics per se.

Fuzzy Boundaries

A second conceptual shift, discussed previously, relates to the boundaries and purposes of communication research—that is, the questions of whether communication should be regarded as a self-contained discipline or as interdisciplinary and what ultimately communication research is for. Deuze (2021a), for example, sees the communication field as postdisciplinary, permanently impermanent, loosely built on the foundations of other disciplines, and never really coalescing on a consensual paradigm, theories or research methods.

Fuchs and Qiu (2018) note significant changes in the research environment such as communication studies on a global scale, fast-changing media environments, and "big data" analytics with the potential to turn the social sciences and humanities into computer science. As a counterbalance, perhaps, they note new critical approaches to communication and views of communication research as a practical discipline.

To new concepts such as "polymedia" and "masspersonal" communication, we can add emerging methods such as netnography—the practice of ethnographic research online (Kozinets, 2015) and **ethno-mining**—a mixed methods approach drawing on ethnography and data mining (Anderson et al., 2009) and the Internet of Things.

The **Internet of Things (IoT)** in brief, refers to internet-connected devices ranging from agriculture to transport, but in our context referring more specifically to home and personal devices such as smart watches, smart speakers, health and fitness devices, appliances, and, yes, lightbulbs.

The basic assumption is that tracking and data identification are built into all such objects. The basic research implication is that communication researchers face a potential new world of observing and recording human communication behavior. Examples range from tracking the interaction of family members over time, to recording physiological responses to different types of communication content. A basic concern must then be privacy and protection of individuals from harm.

With boundaries and methods in flux, we might expect an even greater diversity of viewpoints about communication research. However, many scholars converge on the notion that communication research should have practical value.

We have already referenced Craig's (2015) calls for a pluralistic field of communication theories with an emphasis on practical communication problems.

Deuze (2021a) proposes that "Rather than fretting about what media and mass communication theory and research as a field *is*, I would suggest that a pertinent question becomes what can be *done* with it" (p. 12).

Fuchs and Qiu, (2018, p. 226) argue that the world is facing existential political, economic, cultural-ideological and environmental crises and that it is fatal for communication scholars to carry on doing business as usual. Communication studies must be praxis-based and oriented—that is, applying theory in a practical way. Research should aim for social change for a better world and communication scholars should act as critical, public intellectuals.

Waisbord (2019b) argues that communication scholarship has a rich trove of knowledge and experiences to help address complex social issues and calls for "public scholarship"—that is problem-solving engagement with publics beyond academia. Communication scholars can serve the public as practitioners, experts, advocates, activists, and critics.

Such new roles imply a shift from research as dispassionate observation and reporting to new—by scholarly standards—ways of communicating research. The traditional chalk-and-talk, sage-on-the-stage is being joined if not overshadowed by activist scholars, students, and independent researchers using new media such as blogs, vlogs, tweets, podcasts, open access papers, dedicated websites, as well as new formats in the form of art, music, poetry, and drama. (Deuze, 2021b).

Artificial Intelligence

Artificial intelligence (AI), regrettably, is not a counter to genuine ignorance. Indeed, one of the major concerns with AI is its potential for misinformation and deception. AI can be loosely defined as the ability of a machine to perform activities normally thought to require human intelligence. Because of that intelligence, debate rages as to whether AI will be a curse or a blessing. At the time of this writing, some experts are concerned enough to call for a moratorium on the further development of AI until its potential for harm can be more fully understood.

We need to be aware of AI's broad implications for communication research even if the specifics are unknown, or if known are changing rapidly.

Artificial intelligence has been evolving since the 1950s with a jump in the 2000s when it became possible to train computer software via "neural network" mathematical systems to analyze and recognize patterns in large amounts of data. A further jump to "large language models" based on huge amounts of text allowed the development of chatbots such as ChatGPT, Bing, Bard, and their successors.

At a personal level, you already have a sense of the potential for AI to help or hinder your research. By way of a low-level analogy consider your vehicle GPS. At your instructions via touch or voice your GPS can take you to a specific destination via the fastest, cheapest, shortest, most scenic, or most energy-efficient route while avoiding or not avoiding any tolls enroute. At the same time, we all recognize the problem of a GPS determined to take us to "Gates Square," "Gates Circle," or possibly into the depths of "Gates Harbor" instead of the "Gates Street" we wanted.

Closer to research and research writing, look at your word processing software as another low-level analogy to AI. Specifically, look at its "Preferences" page to discover the extent to which this software can be programmed very specifically to help you with the content, presentation, collaboration, sharing, and printing. The level of "on board" assistance you can get with your writing and presentation is probably greater than you imagined, given the potential to work with hyperlinks, audio, graphics, and video in a document and to produce, edit and update the document collaboratively.

Against that, we also recognize word processing's ability to frustrate us with its auto-suggest spelling and grammar checks which may or may not be in accord with what you had in mind and perhaps totally insensitive to the subtleties of meaning or cultural values you were trying to express.

The conceptual challenge facing us is the jump from software such as word processing that ultimately does what we instruct it to do to an unpredictably "human" AI generating not only 2 + 2 = 4 outcomes but also 2 + 2 = 3 and 2 + 2 = 5 outcomes. We face a quantum jump in both the capability and the level of autonomy with which artificial intelligence can assist with and potentially frustrate research.

The good news with AI such as chatbots is their ability to automate repetitive tasks such as the drafting of standard documents such legal contracts and, perhaps, research reports. They can

also generate new content. In response to a "tell me about" request, they can generate a history, both sides of an argument, and summary of the requested topic—or write a novel.

This has implications for the bibliographic research to be discussed in Chapter 4, but AI's abilities go beyond finding and reporting on a topic. Roose (2023) finds that AI programs can demonstrate creativity, flexibility, and efficiency—for example, writing poetry and screenplays, with one of them scoring in the 90th percentile on the bar exam and getting top scores on Advanced Placement tests.

Beyond practical questions about the use of AI, higher level, theoretical questions about the nature of AI and how it should be understood are engaging scholars in a variety of disciplines. Guzman and Lewis (2020), for example, identify three aspects of AI that need to be more fully understood—functional, relational, and metaphysical. The functional aspect relates to the core elements of the communication process, discussed further in Chapter 2, and how AI impacts these components. The relational aspect addresses the question of how people understand AI and their relationship to it. The metaphysical aspect addresses such issues as what defines human, as opposed to machine, intelligence and the boundaries between them.

With these three aspects as a point of reference, let's take a brief look at AI as it relates to the chapters in this text (in full confidence that the following paragraphs are becoming dated even as you read this).

In Chapters 1 and 2, we consider starting points for research, which include basic views about the world and human nature. In this light, we can be alert to the potential of AI's functional aspects with respect to searching, identifying, and reporting on existing research, as well as "going sideways" and suggesting new areas of research and possibly new methods or new concepts about research. From a metaphysical point of view, there are questions as to how an AI research assistant should it be defined. For example, given its ability to autonomously find, comment on, and summarize research in a report, should the assistant be regarded as nothing more than a smart search engine or as an autonomous research colleague? The discussion of Worldviews you will find in Chapter 2 touches on questions of reality—simplistically, the world as physical and tangible versus the world as a mental construct. AI makes this issue a reality. Indeed, its potential to flood the world with false content led a senior Google scientist to leave the company in 2023 to be able to express freely his concern that the average person may become unable to know what is true anymore (Metz, 2023).

Chapter 3 addresses research ethics and the concerns, first that research should not harm research participants and, second, that the contributions of other researchers and of research participants be identified and acknowledged. AI ethical concerns include the ethics of using a chatbot to produce content that is then presented as your own work. Should an AI agent receive credit for any aspects of your research it accomplished for you? A more subtle issue perhaps is the potential for deception related to having research participants interact with a chatbot under the assumption that it is a human. A related practical research question then is this—Does research participants knowing they are interacting with a chatbot influence their responses or attitudes to the research?

Chapter 4 addresses bibliographic research. As we will see in this chapter, academic databases enable a search for relevant resources to be narrowed by document type, for example, editorial or film review; by language; or by type of publication—book, journal, or conference proceeding. They can be instructed to search by a variety of combinations of search terms and can store the results of a bibliographic search research in a personal listing and, at your direction, format these listings in specific scholarly style such as APA (American Psychological Association). AI by contrast has the potential to go beyond the walls of any library or campus and report on any web

accessible content that it decides is relevant including material that may be fictitious, classified, proprietary or highly intimate and personal. In Chapter 4, we will expand on the idea that while bibliographic research results need to be relevant, they must also be credible.

At worst, AI has the potential to create its own content and generate search reports based on its own generated fictitious content.

Chapters 5 through 12—the method chapters of this text—raise their own specific questions with respect to AI. For example, Chapter 12 discusses observational approaches to researching human communication and one issue, as we will see, is whether the study of online communities with their avatars and nonhuman citizenry is or should be conceptually different from the study of "real world" communities and cultures.

Running through these method chapters especially are discussions of two further challenges and opportunities for communication research—social media and big data. The analysis of big data and social media, to be discussed in subsequent chapters, may require a command of programming to analyze huge data sets according to the researcher's specific needs. Another reason therefore to be aware of AI is its potential for coding, given the ability of AI tools to build apps faster and at less cost than humans can (Roose, 2023).

Chapter 13—writing and presenting research—is where most specifically we need an informed awareness of AI. Report writing has a basic helpmate in the form of word processing, which perhaps we take for granted not fully appreciating the range of help options, discussed above.

AI takes us well beyond word processing's capabilities. When it comes to writing and presenting, Roose (2023), for example, finds chatbots good for explaining concepts at multiple difficulty levels; editing and constructively criticizing documents; creativity, making notes and rehearsing real-world tasks such as making a presentation or a discussion.

That's the good news.

The bad news includes the problem of "hallucination"—that is, the ability of AI to get it wrong, sometimes spectacularly so. We already know this from our "low tech" technologies—for example, your word processor insisting on a spelling or punctuation you don't want or some institutional voice mail demanding a yes/no response when the question is not that simple. AI software is trained on massive web resources such as Wikipedia and therefore can assimilate factually wrong material, offensive material or logical fallacies—just as humans do. As we will see in Chapter 10 some such issues can be resolved with further training so that the software learns the difference between "right" as in "not wrong" and right as in "not left."

Specific research methods aside, we face Guzman and Lewis' (2020) concern with the relational aspects of AI, that is how people understand AI in relation to themselves and vice versa. For example, critical scholars are concerned that AI technologies are developed and trained by humans who have their own worldviews of what is important and how AI should operate. AI, almost by definition, can replace humans thus devaluing their role and changing for better or worse the interactions that are part of being human, for example, physician–patient, teacher–student, and group and community decision making and politics. Some basic concepts of critical research are discussed further in Chapter 11.

AI aside, the potentials and perils of research in cyberspace become further complicated when we consider cyberspace(s) as a venue for the presentation of multiple selves and avatars. The move to gender diversity is a foretaste of cyber diversities as individuals move from presenting themselves in person to the possibility of multiple self-presentations in cyberspace, accompanied by even more diverse virtual beings that can exist only in cyberspace.

In summary, communication researchers face new challenges and opportunities in terms of how we view ourselves and other disciplines, how we integrate research into cyberspace and ultimately what we decide communication research is for.

This chapter should have helped you identify some of your fundamental beliefs about human communication as well as some general research interests.

Chapter 2 will help you on to your paths of inquiry with more specific, pragmatic issues and questions.

EXAMPLES AND INSIGHTS: "BETTER THAN SEX"

The "Examples and Insights" sections in each chapter are intended to show you how scholarly research translates into practice. They will give you some further insight on a method, show how communication practitioners use research in their work or, as in the following example, show how research is used to improve existing research tools so that they become more useful or relevant.

Biological sex is an important variable in consumer marketing, but it does not distinguish meaningfully beyond the traditional male/female dichotomy. This limits its use in an era of gender fluidity and multifaceted gender behaviors.

Pohlmann and Chen (2020) argue that the traditional male/female biological sex categorization is too crude for contemporary marketing. They therefore proposed a consumer "consumption gender scale" which has a more nuanced categorization of gender and then used surveys and experiments to develop and test the scale.

The Consumption Gender Scale has 10 questions, which can be quickly answered by consumers, and which "unpacks the variance" within biological sex to predict more precisely purchasing behavior and to target advertising content.

The scale's predictive power was demonstrated in two experimental studies. It predicted the behaviors and media preferences of traditional male and female consumer segments, and also accounted for the variance in the consumer behaviors of non\-traditional gender categories.

The scale is described as providing a finer taxonomy that allows organizations to segment their target markets based on consumption-relevant gender rather than biological sex and therefore fine-tune their media planning and messaging.

ETHICS PANEL: A HEALTH COMMUNICATION DILEMMA

Communication research has many different starting points, purposes and basic assumptions and inescapably involves ethical decisions. The following ethics panel and those in each chapter will give you a sense of the ethical decisions you may face as a researcher. You should try to reason through to a decision for each of the ethics problems as they are typical of the decisions you may face when doing your own research. For help with these ethics panels, read Chapter 3, "Ethics: What Are My Responsibilities as a Researcher?"

In the light of COVID and its variants, your campus office of student health services asks your help in developing more effective messages for your campus community about preventive measures such as immunization and social distancing.

To do this, you decide to start with a basic experiment to test the relative impact of different message types. Following a longstanding research tradition, you decide to try three different message types—messages based on threat or fear, messages based on social everyone's-doing-it appeals and neutral just-the-facts messages. Anticipating some

chapters in this text, you decide to randomly sample students from a campus master list to build three different email lists—one for each of these message types.

Follow up research will determine whether student responses to these emails differed, in which case you may have some evidence suggesting that one message type is more effective than the other two.

There is however an ethical catch. Sampling by definition means that some students will not receive any messages about COVID preventive measures. What are the ethical implications, if any, of not providing some students with information that might potentially affect their health?

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Note: This assignment focuses on the ethics of excluding individuals from communication content that could affect them. That aside, you should also have several questions about this basic research design and be able to suggest some specific ways of improving it.

CHAPTER SUMMARY

This chapter introduced the ways scholars think about communication research and the foundational ideas and assumptions that underpin research. In summary:

- Communication researchers have foundational perspectives on human communication, which may be empirical, interpretive, or critical.

- Generally, researchers assume either that human communication is objectively measurable and can be summarized in rules and generalizations or that communication is subjective and individualistic and must be described as such.

- Communication researchers differ in ontology (how to define communication) and in epistemology (how best to understand communication).

- Communication researchers typically specialize in one aspect of communication.

- Researchers may use qualitative methods, quantitative methods, or both.

- Human communication research inescapably involves ethical decisions.

KEY TERMS

artificial intelligence
constructivist
critical
cybernetic
ethno-mining
idiographic
Internet of Things (IoT)
masspersonal communication
metatheory
nomothetic
ontology

phenomenological
postpositive
pragmatism
qualitative
quantitative
rhetorical
semiotic
sociocultural
sociopsychological
transformative
worldview

APPLICATION EXERCISES

The application exercises you will find at the end of each chapter are warm-up exercises or mental experiments you can do to help you translate the chapter principles into research practice. For example, the following application exercises will help you identify and refine your thinking about your own research interests.

Exercise 1: Finding Your Worldview

As discussed in this chapter, all researchers bring to their research a worldview or basic assumptions about human communication and therefore how best to study and report it.

This exercise is an opportunity for you to explore and identify your own basic worldview. Following are several statements about human behavior and ways of understanding it formatted as polar opposites. Think through each pair of statements and put a check mark on the line next to the statement with which you most agree. If you cannot decide, put a check mark in the middle column (B).

When finished, total the number of check marks for each column. If you have the most check marks in column A, you have a Worldview I perspective; if most marks are in column C, you have a Worldview II perspective. Having the most marks in column B suggests that you see advantages to both perspectives or have yet to take a position. In this case, you might try the exercise again, this time forcing yourself to select from either column A or column C. Review this chapter for a discussion of each worldview and its implications for research.

Worldview I	A	B	C	Worldview II
People are basically alike.				Each person is unique.
People are predictable.				People are not predictable.
It is possible to make generalizations about human behavior.				It is not possible to make generalizations about human behavior.
People's behavior is determined by events and circumstances.				People's behavior is determined by the choices and decisions they make.
People live in an objective world that makes sense to any observer.				People live in a subjective world that makes sense only to the individual.
Human communication is best understood by examining one aspect at a time, in depth.				Human communication is best understood by examining all aspects simultaneously, or holistically.
The best understanding of human communication comes from keeping an objective distance from participants.				The best understanding of human communication comes from getting as close as possible to participants.
The most accurate reports of human communication come from quantitative methods such as surveys and experiments.				The most accurate reports of human communication come from qualitative methods such as interviews and observations.
The best understanding of human communication comes from reports written in the scholarly language of research.				The best understanding of human communication comes from reports written in the language of the research participants.
TOTALS				

Exercise 2. Exploring Communication Interest Areas

One way to develop your own interests is to go to three of the major communication research associations—the National Communication Association (NCA), the International Communication Association (ICA) and the Association for Education in Journalism and Mass Communication (AEJMC) listed in this chapter's recommended web resources. Look for such clues as "What is Communication?" "Divisions," and "Interest Groups." You should find a list of the specific interest groups for each association. The interest areas that overlap will give you a sense of the "mainstream" interest areas, and either list may spark your interest in an area that perhaps you were not previously aware of.

Exercise 3: Exploring Methods

There is much more to research than simply finding a topic area and questions that interest you. You must also, for example, choose a research method or methods that will give you the data you need to answer your research questions.

For example, observing people, interviewing them, and analyzing message content are all valid research methods, but we must also consider the positives and negatives of each method in order to choose the one most likely to provide credible data. For example, in relation to a group of people you are researching you might consider such issues as these:

1. If you interview group members together, won't each member tell you only what they want the rest of the group to hear? Would you be better off interviewing each member separately?

2. Would questionnaires give you more honest answers because you are not interviewing face-to-face? Or could the time and effort required to complete a questionnaire mean that you would get less than full answers—or no answers?

3. Does listening in on private conversations raise ethical issues? If so, shouldn't you introduce yourself and ask permission to listen in? Might your presence then change the nature of the conversation?

Exercise 4. The Internet and American Life

Access the website for the Pew Research Center's Internet & American Life Project, listed below under "Recommended Web Resources." Locate an April 2021 survey report titled *Social Media Use in 2021*. At the report site, you will find the full report, the questionnaire and the data from which the report was compiled. From the questionnaire select two questions that interest you, ask the same questions of 10 people you know, convert your answers into percentages, and compare your results with the Pew Center results. For example, the Pew survey reports on respondents' choice of social media, frequency of use of those media, and demographic characteristics.

Do your results differ from those reported by the Pew Center? If so, how? Why do you think your results differ? What might you do to improve the credibility of your results?

RECOMMENDED READING

There are many books and journals available on communication research. The journal titles listed below provide a general overview. Many journals ranging from administrative theory to women's studies may also focus on human communication. Chapter 4, "Resources: Reading, Recording, and Reviewing Research," will move us on to developing more relevant, targeted lists of readings.

Communication & Critical Cultural Studies

Communication Monographs

Communication Research

Human Communication Research

Journal of Applied Communication Research

Quarterly Journal of Speech

New Media and Society

RECOMMENDED WEB RESOURCES

Association for Education in Journalism and Mass Communication (AEJMC): www.aejmc.org

Canadian Communication Association: www.acc-cca.ca

International Communication Association (ICA): www.icahdq.org

National Communication Association (NCA): www.natcom.org

The ICA, NCA, and AEJMC are three of several U.S. academic associations devoted to the study of communication. Their websites will give you an idea of the many areas of research specialization under the "communication umbrella."

Pew Research Center Internet, Science & Tech Project: www.pewinternet.org

The Pew Research Center Internet, Science & Tech Project studies how Americans use the internet and how their online activities affect their lives. The project uses nationwide random phone surveys, online surveys, and qualitative research, along with data from government agencies, technology firms, academia, and other expert venues. You should become familiar with this site, and the Pew Research Center more generally, as we will refer to it throughout this book.