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New Materialism, Agential Realism, and the Veteran-as-Patient Experience: Virtual Healthcare Space in Action

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NEW MATERIALISM, AGENTIAL REALISM, AND THE VETERAN-AS-PATIENT
EXPERIENCE: VIRTUAL HEALTHCARE SPACE IN ACTION

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Dedication

To Tom, Timothy, and Olivia: No daylight!

To all veterans: “Thank you” just isn’t enough.

NEW MATERIALISM, AGENTIAL REALISM, AND THE VETERAN-AS-PATIENT
EXPERIENCE: VIRTUAL HEALTHCARE SPACE IN ACTION

by

LUCIANA MARIA HERMAN, M.A.

DISSERTATION

Presented to the Faculty of the Graduate School of

The University of Texas at El Paso

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of the Requirements

for the Degree of

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Acknowledgements

This project stems from materiality, so it is only fitting that I acknowledge the materiality of both this dissertation and my degree. Material, as a noun, refers to something that is made of a totality of things. In this view, the people, places, and things that made this possible follow:

People

Dr. Durá: Your counsel, support, and friendship are invaluable to me. I hope we have many more occasions to write together (and order cookies) in the future.

Dr. Lee and Dr. Concha: Thank you for taking on my project. Your guidance pushed me to be better and I have learned incredible amounts from you and your work.

RWS faculty and UTEP mentors: Thank you for pouring your time and energy into me, my education, and my professionalization. I know it wasn't easy, but I am grateful.

My tribe: You know who you are, and you know what you've done. This would not have been possible without your unwavering support.

My parents: You've always cheered me on and pushed me to reach higher. I quite literally wouldn't be who I am without you and am grateful that I'm yours.

Daddy: Taking me along on rounds and into the operating room to watch how you treated thousands of patients left an indelible mark on me and sparked a deep call toward bettering healthcare.

My dogs (Callie, Michie, and Lucy): You have been my constants and my writing partners; no matter my mood, motivation level, or needs, you were there offering the best support there is.

My people (Tom, Timothy, and Olivia): The only way I would have made it through this is *with* you and I'm grateful that though the last four years saw two deployments, a pandemic, an

OCONUS move, and countless hellos and goodbyes, we're on the other side. I couldn't be prouder of our team and what we've accomplished together. This is for us.

All veterans: Your choices influenced mine and I'm grateful to stand in your shadows.

Places

In addition to attending classes and working at UTEP, this degree materialized mostly in the front seat of my car in the pickup line or waiting for my kids' appointments to conclude; in my cubicle in the Library, office in the UWC, or office in the Graduate School; curled up on the couch with my dogs as I read and wrote endlessly; on planes as I traveled to and from El Paso, Ohio, and Germany; and within the confines of my mind as I worked through ideas on trails through the Franklin Mountains.

Things

As we know from Heidegger (1971), the thing "assembles". That said, I'm indebted to the literature, technology (computers, tablet, phone, pen-and-paper, etc.), music, and spaces that knit this project together. Each entity helped me "assemble" my thoughts and produce this project—work of which I am so very proud to call mine.

Abstract

Veterans often access healthcare services through the Veterans Affairs (VA) website, though not all veterans have the same experiences or success rates. This study sought to understand the nature of the veteran-as-patient experience accessing healthcare via www.va.gov. The purpose of this dissertation study was to explore the rhetoricity (i.e., situational and contextual dependence and propensity to affect action) of virtual healthcare space and how it impacts patient participation for veterans seeking healthcare through the Veterans Affairs (VA) healthcare website. Through a mixed-methods study, I learned how www.va.gov functions rhetorically as a non-human actor, posing challenges to and facilitating users' navigation and access to healthcare, and how the web space impacts their agency. Additionally, this work showcased ways that virtual healthcare space entangles (or intertwines) with other actors (i.e., agent or participant that/who moves within a situation or impacts it) as veterans-as-patients access it via www.va.gov; the work from this project illuminates the rhetoricity of a virtual healthcare space and how that comprehension applies to (a) challenging rhetorical ontology, and to (b) better understanding the touchpoints between users and technical communicators/designers.

Analysis of the data set collected for this project yielded the following conclusions: veterans' perceptions of their experiences accessing healthcare through www.va.gov vary based on their needs and digital literacy; www.va.gov functions rhetorically as a non-human actor by providing and inhibiting perceived access to healthcare through its current and potential design and available utilities; virtual healthcare space entangles with other actors through points of friction and ease as veterans-as-patients access it via www.va.gov; and the entanglement of virtual healthcare space and other actors affects the work and perspectives of technical

communicators and designers through the clear need for additional considerations of individual perceptions and alternative UX testing methods.

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Chapter 1: Introduction

As a child, going to the hospital was more of a social event than one borne of medical necessity. My father is a (now retired) cardio-vascular surgeon, and the highlight of my week was often accompanying him on “rounds” on the weekend; I loved visiting his patients, hanging out with the nurses at the nurses’ station, and spending time with my dad while learning more about where and how he cared for people. This perspective has helped me immensely, especially in myriad situations where I have found myself as a patient.

For many, seeking healthcare can be an anxiety-ridden experience. Whether one is entering a healthcare space for wellness, chronic maladies, or urgent or emergent issues, their positionality is one of vulnerability; this vulnerable position can be exacerbated by socio-economic status, age, geographic challenges, access, and mental health status (Eggleton, et al., 2017; Joszt, 2018; Seervia, 2019). I have watched patient vulnerability, specifically regarding patients’ ages and mental health status, beam brightly in the military community with seeking government-provided healthcare options¹ through the Veterans Health Administration (VHA).

Prior to beginning this study, anecdotally, friends mentioned their frustrations with the VHA and accessing healthcare through the www.va.gov website. Several cited their rubs with “getting into” the site, expressing challenges with the site’s security, navigational problems within the site itself, and additional logistical problems. These sentiments are echoed in research that cites barriers to care as stemming from organizational, logistical, and social issues, specifically with complicated dimensions of access lying in geographical, financial, cultural, and temporal realms (Cheney et al., 2018; National Council on Disability, 2022; Tanielian & Farmer, 2019; RAND, 2022; True et al., 2015; U.S. Department of Veterans Affairs, 2022). Upon further

¹ For purposes of this project, I will herein refer to the government-provided healthcare options that veterans seek via www.va.gov as “healthcare.”

prodding, I encountered a cognitive dissonance – while I found many accounts of frustration, I also uncovered numerous instances of veterans’ satisfaction with the site. Plenty of accounts found through social media and blog searches even lauded the efforts of the Department of Defense (DOD) and the Veterans Administration (VA) for making healthcare more accessible to the masses in the wake of the COVID-19 pandemic that forced so much of healthcare into online spaces when face-to-face encounters paused.

This cognitive dissonance not only stimulated research into what was already (academically) established in the field, but also an inquiry into *what are the experiences of veterans accessing healthcare through www.va.gov?* Advancing my inquiry into veterans’ experiences presses on the importance of assessing the nature of their experiences in aspects of quality: safety, effectiveness, equity, efficiency, access, timeliness, and patient-centeredness (Mayo-Smith et al., 2020; Tanielian & Farmer, 2019). With “quality” coming through as a common complaint from friends about their government-funded healthcare through the VA, I wanted to know more. This study did not seek to solve veterans’ problems accessing healthcare through the VA’s website, but rather to understand their nature.

I am the wife of an active-duty soldier who has been a member of the military community for over 15 years; my family and I have not yet enrolled in the VA because of my husband’s active-duty status but will be transitioning from an active role in the military to a retired phase in a few, short years. Upon which time, we (my children, husband, and I) will all register with the VA to establish our care going forward. There is a clear distinction between who is classified as a veteran and who is not: Under Title 38 of the U.S. Code (Servicemembers Civil Relief Act, 2011), a veteran is defined as “a person who served in the active military, naval, air, or space service, and who was discharged or released therefrom under conditions other than

dishonorable.” Further, the VA and VHA serve the following populations: persons who served in the active military, naval, or air service and didn’t receive a dishonorable discharge; those who enlisted after September 7, 1980, or entered active duty after October 16, 1981 with 24 continuous months of services or the full period for which they were called for active duty; those who are current or former members of the Reserves or National Guard called to active duty, completing the full period for which they were called. Therefore, there are varying facets to eligibility of VA benefits, including healthcare services, depending on one’s participation in service life.

In the military, generations and populations are often classified by the conflicts in which the persons served. As an active member of the military community, I have enjoyed the bonds I have forged with many veterans, specifically those who are my parents’ age (the Vietnam War-era) and my husband’s peers (Operation Iraqi Freedom, Operation New Dawn, Operation Enduring Freedom, and Operation Resolute Support). Through these relationships, the topic of healthcare routinely arises – the older population consistently complains about the VA, largely due to the complexity of the process of seeking and securing proper healthcare, and the younger population whose service life and combat experience have weathered their bodies and minds enough that their healthcare needs are seemingly more prevalent than those of their “civilian” friends and families (True et al., 2015). Additionally, the culture of the active-duty military has long been that asking for/seeking help (mental health or otherwise) is viewed as a weakness; several initiatives in recent years have worked to upend that stigma and change it (Barriers to Care, 2021; National Alliance on Mental Illness [NAMI], 2022; Sharp et al., 2014).

I have often wondered what effects patient vulnerability and anxiety have on the potential positive outcome of the healthcare encounter. The veteran population often has increased

healthcare needs based on the strains on their bodies and minds stemming from service life and combat experience (Olenick et al., 2015). The public, self, and social stigmas of seeking healthcare present additional barriers to care, thus creating additional urgent and long-term needs for intervention (RAND, 2022; True et al., 2015). What impact does a patient's positionality (station of being) have on their agency? Therefore, the purpose of this dissertation study was to explore how virtual space design is rhetorical and impacts patient participation for veterans seeking healthcare through the Veterans Affairs (VA) healthcare website. I set out to understand if veterans are faced with navigational or other kinds of challenges in virtual healthcare and if their positionality and agency shift. Additionally, I wanted to explore what significance positionality and agency have on patients' participation in their healthcare. I accomplished this through a mixed methods study in which I surveyed and interviewed veteran participants about their experiences engaging with www.va.gov as a virtual space.

Patients' agency within any healthcare space is correlated to their navigational practices, such as using their senses as a paraliteracy² (Wilson, 2000) to move through a space. The manipulations of one's sensory inputs to make sense of their surroundings is a literacy³ practice which also enables them to engage socially with the space and actors (i.e., agent or participant that/who moves within a situation or impacts it) around them (Barton & Hamilton, 2012). My understanding of 'actors' is derived from Heidegger's (1971) and Latour's (2005) works which I detail in the theoretical framework section of this chapter. In this sense, one's literacy and agency are related by their degree of participation and freedom to make decisions while in the space. Understanding the rhetoricity (i.e., situational and contextual dependence and propensity

² Make meaning through sensory inputs; navigate via the use of one's senses.

³ I define literacy as a social practice (Gee, 1989) that moves beyond a set of skills used in a classroom (Gere, 1994); it enables sense making (Barton & Hamilton, 2012) and acts as a vehicle (Rosenberg, 2015) or gateway (Cook-Gumperz, 1986) by which we navigate through places, spaces, and situations (Friere, 2018).

to affect action) of space and how agency functions within space adds to my understanding of ontology and being *with* the world in addition to being *in* the world. To develop my understanding of ontology, or of our relationships with being and reality, by learning about the ways veterans engage with an online healthcare space, I explored how individuals operate both within and as a part of space and how the space, in turn, operates with and acts on them (e.g., guides and/or forces action). I could have chosen any online space to carry out this research, and I chose the VHA because it is a public-facing, virtual space that was designed to address the healthcare needs of the veteran population. This community not only has substantial healthcare needs (Tanielian & Farmer, 2019), but it is of great interest to me and one my family will belong to in a few years.

I designed this study (IRB Study# 1850228-2) to explore veterans' perceptions of their experiences accessing healthcare through www.va.gov. In doing so, I learned how www.va.gov functions rhetorically as a non-human actor, posing challenges to and facilitating users' (my participants') navigation and access to healthcare, and how the VA web space impacts their agency. Additionally, this mixed-methods study helped me understand ways in which virtual healthcare space entangles (or intertwines) with other actors as veterans-as-patients access it via www.va.gov; because of my work on this project, I now better understand the rhetoricity of a virtual healthcare space and consistently apply that comprehension to (a) challenge rhetorical ontology,⁴ and to (b) better see the touchpoints between users and technical communicators/designers.

⁴ Understanding ways of being within a rhetorical situation with respect to: purpose, audience, genre, constraints, and arena.

SIGNIFICANCE

The VHA provides healthcare to over nine million veterans (U.S. Department of Veterans Affairs [VA], 2021) in the form of traditional clinic services, mental health, pharmacy, surgical specialty services, physical therapy, radiology and imaging, critical care, wellness services (e.g., audiology, vision, dermatology, and dentistry), and chronic care (e.g., oncology, dialysis, podiatry, prosthetics, geriatrics, pathology, and urology). As “the largest integrated health care system in the United States” (VA, 2021), the Administration operates through “1,293 health care facilities, including 171 VA Medical Centers and 1,112 outpatient sites of care of varying complexity.” But beyond these brick-and-mortar locations, many patients’ “first touch” is through the online website (www.va.gov).

The veteran population has increasing needs for healthcare given that service life and combat engagement can generate an accelerate healthcare needs (Tanielian & Farmer, 2019). Specifically, the veteran population is documented as at an increased risk for mental illness (NAMI, 2022) and chronic illnesses (Hitch et al., 2020). In addition to these needs, the facilitation of healthcare has changed drastically because of the COVID-19 pandemic. Namely, the process for securing healthcare through the VA (whether establishing new care or perpetuating existing care) now solely resides online. This led me to question: If a veteran cannot or does not use the va.gov site, what are their options for finding healthcare through the VA? Are there design elements there are impacting affordances and limitations of the space and therefore users’ agency within it?

I maintain that understanding a comprehensive view of patients’ and visitors’ experiences in online healthcare space(s) can help designers, technical and professional communicators, and healthcare practitioners better meet their patients’/users’ needs, identify spaces of friction,

uncover what issues create (or perpetuate) anxiety, and what elements improve patient participation. Specifically, this project looked at veterans' experiences with an online platform (www.va.gov). I chose this online space as my research site for several reasons: I wanted space that was public-facing and open-access to participants; the VA receives veterans' healthcare claims through this site when seeking government compensation for treatment; the site receives high traffic from veterans, families, caretakers, and other populations looking for information and needing support; and the sites' designs may present navigational challenges for people with varying, self-ascribed degrees of digital literacy.⁵ Ultimately, I wanted to learn about the nature of veterans' experiences in accessing healthcare through www.va.gov.

Barriers to Veteran Healthcare Access

Seeking healthcare puts patients in a vulnerable position de facto (Eggleton et al., 2016). When veterans are physically present in a clinical space, they are more likely to ask for help finding the resources (or places) they need, as opposed to just exiting the space and giving up. For example, by going to a hospital or health care office's front desk one may ask a person for help by making an interpersonal connection. In virtual space, frustration-led exiting is far easier; one only needs to click out of a window to "exit" the space completely. What happens when veteran patients are frustrated by www.va.gov? Do they leave or disengage? What is the alternative to exiting the space? Does this abandonment result in postponing care or not receiving the healthcare they need altogether? Some veterans receive health care only through the VA, so I endeavored to learn more about that experience especially now that much of the interface and procedure has migrated to an online space.

⁵ I define "digital literacy" as: the faculty of manipulating computational, informational, and communication technology and devices to find, assess, communicate, and produce informational content, using both technical and cognitive skills amassed from exposure and experience (American Library Association, 2022; Eyman, 2015).

Veteran-as-Patient Positionality

The classification of “veteran” is an identity marker and a social positionality. Many veterans have stated that they prefer not to ask for help, despite having increasing health concerns (Tanielian & Farmer, 2019). Veterans of the United States Armed Forces have access to healthcare through the Veterans Administration, yet not all their healthcare needs are necessarily fully financially covered or accessible, nor do all veterans use this government-funded healthcare option. Regardless, persons who identify as both patients and veterans occupy an interesting position – their healthcare needs may be more dire, their access may be complicated, their service life may have rendered them disabled (varying percentages), and they may perceive that they have diminished agency.

Looking at veterans-as-patients in this position moves away from having their service define them but unifies them all as veterans AND patients. Each individual has varying service experience and varying healthcare needs, but they have both, nonetheless. This positionality is delicate, especially given that many veterans receive healthcare provided by the United States Government through the Veterans Administration. I chose the veterans-as-patients population as the focus of this study because, in addition to the healthcare facets affecting this population about which I care so much, I found a gap in literature researching this group which presented opportunities to explore the rhetorical significance of agency, materiality of space, and user-defined experience.

Veterans’ Access to Healthcare Online

An additional barrier to veterans’ access to healthcare is the increasing migration of clinical space from brick-and-mortar locations to virtual spaces. In recent years, and more recently due to the COVID-19 pandemic, mainstream healthcare practice has expanded from the

clinical space to online spaces (e.g., internet interfaces/webpages, telehealth conferences, patient portals, hospital websites, etc.), and with this shift come issues with access and changes to patient agency (Igoe, 2018; Luger et al., 2016; Swed et al., 2020). Further, COVID-19 highlighted flaws in the design and delivery of healthcare (Ku & Lupton, 2022). While this literature supports the discussion of online healthcare situation as a barrier to veteran healthcare, none that I found (1) offers the veteran-as-patient experience as its primary data collection tool, or (2) inquires how the space acts rhetorically on the patient and impacts their agency, ultimately affecting their participation in their own healthcare.

Accessing Healthcare Through www.va.gov

As mentioned previously, many veterans' first touch with the VHA is through an online space (www.va.gov) where they can find eligibility information including an application link, benefits management functions, and additional resources. However, when I navigated the site, I had trouble. This experience prompted my thinking: What about the complaints I have heard many veterans make about the site? When veterans are prompted to file claims with the VA so that they can receive healthcare, what does that process look like for them?

Since 2018, the claims system operates fully online and is no longer facilitated through one-on-one, in-person exchanges, so how (realistically) accessible is the information needed to properly complete the process? I decided to record a deeper look at the site myself and use my vantage point as a military spouse and prospective patient/user to make some observations.

Considering my personal engagement with the site as an entry data point: Accessing the VA from my chosen search engine, Google, brought me to what I think of as a busy landing space (address: <https://www.va.gov>). I consider myself “digitally literate” and someone with

solid comfortability with navigating the Internet, but I had difficulty finding where I needed to go to find active healthcare functions because of the layout of the page.

While looking around this site, I made assumptions about the target population of users and what technological skills or previous experience they may have. In my estimation, based on the design, a user would have to be comfortable with navigating online space and directive about what they need to find to achieve their goals.

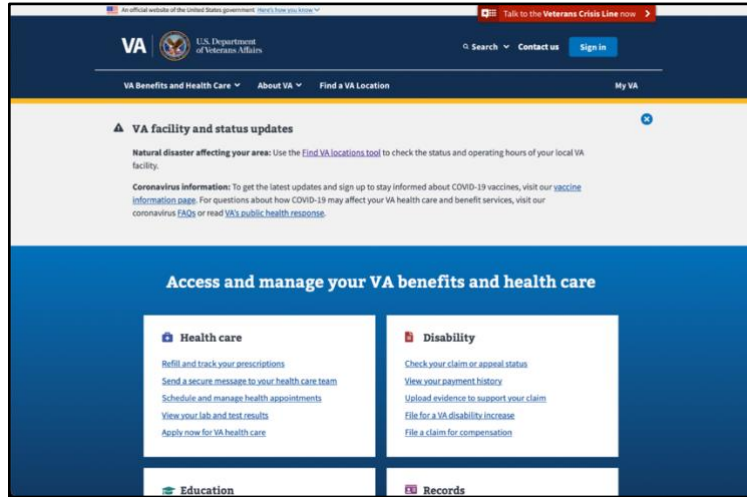


Figure 1.1 (right) (screenshot taken by me on October 27, 2021), shows the first box titled “Health Care,” but the title itself is not hyperlinked to lead me to the healthcare site. Instead, it provides a curated list of links to direct my experience.

Figure 1.1: Screenshot of landing space: <https://www.va.gov>

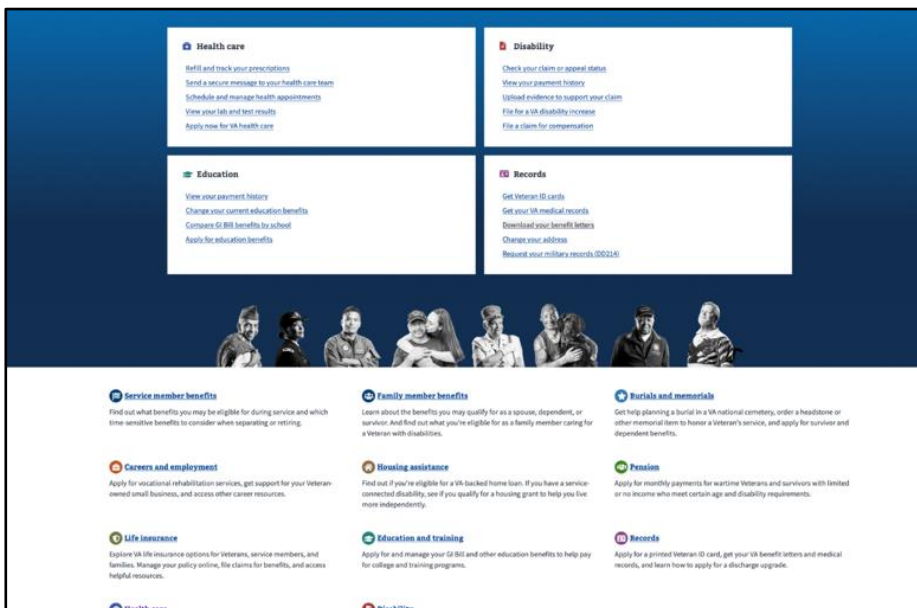


Figure 1.2: Screenshot of zoomed out landing space (<https://www.va.gov>) indicating spatial relationship of functions

It is worth noting that these links are not an exhaustive list of functions; to access more actions, I had to scroll down past the initial landing space to locate the appropriate hyperlink to lead me to

the VA Healthcare site (address: <https://www.va.gov/health-care/>). The spatial relationship between the initial “Health Care” box of links and the active “Health care” hyperlink is illustrated above in Figure 1.2 (screenshot taken by me on October 27, 2021). I surmised that a first-time user or someone who is not as digitally comfortable as I am might have trouble finding the appropriate avenue to reach their desired destination.

Then I looked for help. Veterans Advocates and Veteran Service Officers (VSO) are hired to help veterans with working through and securing their VA benefits, but they are increasingly more difficult to get a hold of by phone and even harder to schedule in-person appointments with. Even attempting to locate one of these persons is difficult; all the access points to finding an Advocate or Officer is online. Directives like: “go to...,” “search for...,” “download...,” “register for care,” “apply online,” “find a Veterans Advocate near El Paso,” and “manage health online” are all hyperlinked to additional pages and are shown in Figure 1.3 below (screenshot taken by me on January 19, 2022). A toll-free number is not clearly visible; to find one, I had to click several links and search on several webpages. Speaking to an agent knowledgeable about the space and the process would have been helpful.

When I could find a phone number to call to locate an Officer or Advocate to help, the wait time was greater than five minutes, often in excess of ten. Frequently, a recorded message explained that “due to COVID-19, we are experiencing higher than usual call volumes and longer wait times.” There was not an option to leave a message or request a call back through automated means.

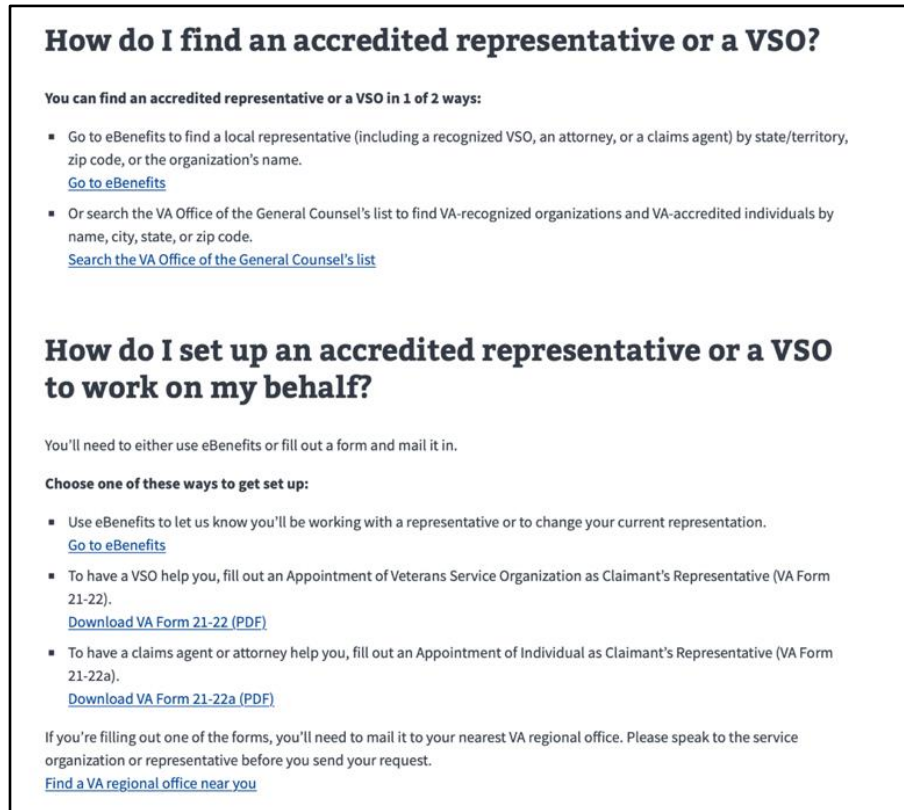


Figure 1.3: Screenshot of online options to locate personal help through a representative or VSO

These experiences led me back to my initial questions of: If I have trouble navigating the site and I know I need help, where do I get it? What do I do? Do I just forego getting the healthcare I need? Consequently, if a veteran cannot or does not use the va.gov site and cannot find help securing healthcare, what do they do? What recourse do they have? These questions, which intersect with my curiosity about how space functions rhetorically, led to my research questions for this study.

RESEARCH QUESTIONS

An encompassing view of VA users' experiences in healthcare spaces is needed to gain insights into barriers and affordances to agency and can be a first step toward more ethical

technical communication via healthcare virtual design improving their participation and agency. The literature I surveyed gave me excellent context and helped me to establish the problem, yet there are gaps. Because of those gaps, I had questions. The research questions that guided this study are:

- What are veterans' perceptions of their experiences accessing healthcare through www.va.gov?
- How does www.va.gov function rhetorically as a non-human actor, posing challenges to and facilitating users' navigation and access to healthcare?
- In what ways does virtual healthcare space entangle (or intertwine) with other actors as veterans-as-patients access it via www.va.gov?
- How does this entanglement affect the work and perspective of technical communicators and designers?⁶

I sought to understand how space discursively and materially acts with all other actors within and outside of it in the experiences of veterans accessing healthcare online. To do this, I used Karen Barad's (2007) theory of agential realism to analyze the ways space, specifically online healthcare space, entangles or intertwines with (an)other actor(s) based on what participants told me about their experiences and what I surmised as points of friction and ease. I am intrigued by the intersections that arose among space and agency, and their implications for User Experience (UX) and user-centered design (UCD). This exploration proved important in uncovering the heft of a space's design in relation to the users' experiences.

⁶ My list of research questions is formatted with bullets to indicate that there is no hierarchy among them. Each is as important as the next and I have no expectation for answering them sequentially with my data and analysis.

While I studied a small, defined population of participants' perceptions and navigation of one virtual site, through this research I reached a successful understanding of the rhetoricity of a virtual healthcare space and now habitually apply that comprehension to my own onto-epistemology and seek to move beyond this project in furthering the work in the fields of healthcare communication and technical communication. In sum, this work helps me understand the experiences of users navigating this space and how the space design impacts their agency. I can now apply my newly deepened comprehension to writing a report for www.va.gov site designers' consideration. According to the "Design System" page located on www.va.gov, GitHub designs and operates the website. In matters concerning "documentation, bugs in formation, components or design patterns, etc.", feedback is welcomed in the form of a GitHub issue or via a listed email address (vawebdesign@va.gov). Upon completing this dissertation, I will compile the required technical report and submit it as part of my advocacy for this population.

THEORETICAL FRAMEWORK

I view this research project through two primary lenses: my understanding of *space* which is informed by works in New Materialism (including Henri Lefebvre (2007), Doreen Massey (2005), and Bruno Latour (2005)) and Karen Barad's (2007) theory of *agential realism*. New Materialism places emphasis on the *how* and *through which* rhetoric is "done", yet it is equally as important to understand the *where* (Barnet & Boyle, 2016). Additionally, the theoretical construct to my methods presses on User Centered Design (UCD) principles. There can be no action without an arena for it, whether that arena exists in physical, (in)tangible space or that which is virtual and/or created. Barad's theory leans on Niels Borh's (1941) ontology through scientific practices, while also calling on Michel Foucault's (1977) link between

discursive practice to the material of the body, Bruno Latour's (2003) Actor-Network Theory, Judith Butler's (1993) representation, performance, and gendering, Donna Haraway's (1988) instability of boundaries defining objects, and Ian Hacking's (1983) concept of manipulability.⁷ Barad's work on agential realism revolves around an onto-epistemological method, defined as "the study of practices of knowing in being" (p. 185). Undergirding this method, Barad teases out several foundational parts, notably: agency,⁸ apparatuses,⁹ phenomena,¹⁰ and agential cuts.¹¹

In sum:

Agential realism is an epistemological and ontological framework that cuts across many of the well-worn oppositions that circulate in traditional realism versus constructivism, agency versus structure, idealism versus materialism, and poststructuralism versus Marxism debates. In its reformulation of agency and its analysis of the productive, constraining, and exclusionary nature of natural-cultural processes, including their crucial role in the materialization of *all* bodies, agential realism goes beyond performativity theories that focus exclusively on the human/social realm. Agential realism takes into account the fact that the forces at work in the materialization of bodies are not only social and the bodies produced are not all human. It also provides a way to incorporate material constraints and conditions and the material dimensions of agency into poststructuralist analyses. In these and other important ways, agential realism is divergent from feminist

⁷ Defined as "the ability to intervene effectively" (Barad, 2007, p. 50).

⁸ "...[A] matter of intra-acting; it is an enactment, not something that someone or something has" (Barad, 2007, p. 178).

⁹ "Specific material reconfiguring of the world that do not merely emerge in time but iteratively reconfigure spacetime-matter as part of the ongoing dynamism of becoming" (Barad, 2007, p. 142).

¹⁰ "[T]he ontological inseparability of agentially intra-acting components" (Barad, 2007, p. 33).

¹¹ "[R]elata do not preexist relations; rather, relata-within-phenomena emerge through specific intra-actions" (Barad, 2007, p. 140).

postmodern and poststructuralist theories that acknowledge materiality solely as an effect or consequence of discursive practices. (p. 225)

Simply put, Barad's theory helped me challenge my previously held epistemological and ontological constructs and welcomed new understanding by inviting a deeper dive into what (materially, and beyond human) interacts and how. Also, it forced me to ascribe different values of importance in sifting out what actors impact causes and effects. Without considering space as an actor and patients' agency as correlated to the space's action, my understanding of personal healthcare practices was somewhat superficial. I needed to be able to see the whole picture and analyze it – picking apart each facet and piecing together how each part affects the whole to not only grasp patient experience, but how I can responsibly improve it as an advocate for veterans within the community.

For my research purposes, using Barad's work became a fruitful way to make sense of how patients act within a space and how the space acts upon them. Specifically, applying agential realism as a lens and uncovering diffractions illuminated the agential cuts (momentary actions that create movements and boundaries)¹² created by the patients on their healthcare space, and the space on the patients, thus revealing agency as

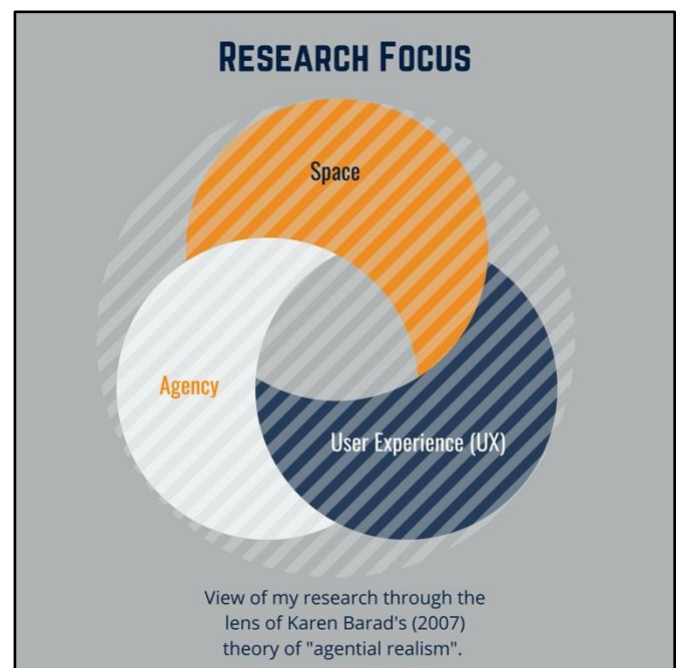


Figure 1.4: Illustration of my research focus

¹² Defined as “Momentary stabilizations . . . ; doings, rather than beings . . . that produce movements” and boundaries (Sauzet, March 13, 2008). One makes agential cuts by “performing phenomena by diffracting different types of agencies” (Sauzet, March 13, 2018).

a dynamic phenomenon within an apparatus (space). Surveying and interviewing veterans and their use of the VA.gov healthcare portal, onto-epistemologically (Barad, 2007), shed light on how virtual healthcare spaces challenge patients' being and agency through the actions and boundaries created by their choices and those imposed on them by the space itself. I charted these relationships by thematically coding participants' survey and interview responses and my own observations of their actions within the space. Noting the portal's spatial schema (Gattis, 2001) and function as an apparatus (Barad, 2007) illuminated the entanglements among space, user experience, and agency, uncovering the interactions among them and meriting a deeper understanding of how patients can more fully participate in their healthcare.

Space

All space, either physical or theoretical, is constructed by someone or something. Even the space as vast as the universe is discussed by what humans know to exist within it. We are constantly acting within space and having space act upon us – it affords and constricts what we do. We construct ourselves within space and by virtue of what space(s) we encounter and how.

Space, whether ethereal or material, has undergone creation, either by us locally, or by another entity at some other time. I would venture to say that humans' mark on time manifests in the construction of space. There are fields of study that research how humans have impacted the space around them through time and how our current space has been impacted by the introduction of human touch, natural disasters, technology, and myriad other forces that have shaped it. Take a highway as an example of space; I can remember when I began driving my father telling me that “your driveway connects you to anywhere in the world” and feeling so linked. To me, it felt as though there was neither a beginning nor an end to where I could go. A highway calls for and leads drivers; poses opportunity for exploration; is often marked by

painted lanes, signage, and other directional helpers; is open, available, and accessible; and invites action.

In another light, virtual space is created by designing based on function and writing code to carry out that function. As I sit here writing, there is a (virtually simulated) page on my screen that acts as a defined space that envelops my text. I did not create this page—a designer did—but my content that “fills” the space is of my own construction. This reiterates that what I can do within this space (or program, application, website, etc.) is directly impacted by the space’s affordances and limitations that were constructed by someone else (Barad, 2007). My interface here is both limited and invited by the functions put into place. Virtual space is not simply a mirror reality. We do not simply transfer physical functions to online spaces, but this virtual space carries its own complexity and interpellates us in different ways than done in physical arenas (Althusser, 1971).

Looking at space in a rhetorical sense, it can be physical, virtual, and/or theoretical, and has been described by Nedra Reynolds (2004) as “abstract and intangible” (p. 13). However, Reynolds’ distinction speaks to the holistic picture and not how space functions. French Philosopher and Sociologist Henri Lefebvre (1991) undertakes its action as “... any space implies, contains, and dissimulates social relationships--and this despite the fact that a space is not a thing but rather a set of relations between things (objects and products)” (pp. 82-83). This picture of space turns attention less to space in the lacuna sense, but more towards its function as an interval between points and objects. This is helpful when deepening my understanding of space beyond the material and the physical and using it to envelop what occurs within, outside, and because of it, thus seeing how the physical and the metaphorical entangle and affect action.

Beyond the adverbial and prepositional senses, looking at space in the geographical sense is pertinent to understand its function. Doreen Massey (2005) deconstructs space into three propositions: “the product of interrelations”; “the sphere of the possibility of the existence of multiplicity in the sense of contemporaneous plurality”; and “always under construction” (p. 9). It is through Massey’s three-part definition that I see the rhetorical, sociological, and geographical notions of space converge, giving me a much clearer concept of space as an actor and how I might be able to analyze it as such. Further, Massey points towards space as a text in constant progress, which undergirds my analysis of space as material and an actor within the fields of rhetoric and composition and beyond. Massey’s work with space in the field of Geography is foundational to my exploration of space and place in my research. Understanding space as an actor emplaces my inquiry of uncovering how space is rhetorical, and thereby how space both acts on its own and impacts the action of other actors within the network.

Sharpening and pinpointing the concept of space further, we note the relationship between space and *place*. Whereas space is viewed as abstract, infinite, and often intangible, place holds more of a location and definitive position; it is material in the sense that it is produced and/or represented (Lefebvre, 1991; Massey, 2005; Reynolds, 2004). That is not to say that space is not also a material construct, but it is important to note that space and place are not mutually exclusive. Massey (2005) explains that “Space and place emerge through active material practices” (p. 118). This emergence occurs at variant points and intervals, and as a causation of various actors. This is important as the theoretical underpinnings of space and place’s connection to rhetoric exist in how they function in relation to the other actors in the rhetorical situation¹³ (Proppen, 2012; Reynolds, 2004). The context in which space is created and

¹³ The confluence of: audience, purpose, exigence, genre, constraints, and arena.

functions has a direct impact on what and who can act within, outside, and alongside it, thus impressing action (communication) itself.

Places reside in space, but not all space is emplaced. Some space is theoretical, ethereal, and metaphorical. I understand ‘place’ as having a more of a definitive location or serving as a distinct reference point. Place, like space, is defined by boundaries, features, facets, and function. For example, the coffee shop on the corner is an example of a place. It is a defined location to which I could direct someone. What I do within the coffee shop, and the relations that exist between me and other things within it (e.g., ambiance created through music, smells, noise, décor, people, etc.), also qualifies the coffee shop as a space. Therefore, space and place are relational and can exist in tandem, but their purpose and function create a distinction; they are not, however, mutually exclusive. Place exists within a larger space, yet what occurs within that place is spatial.

That said, space and place are contextual in that they are material manifestations and impact what happens within them. For the sake of this exploration, and because place is embodied within space, I will use the term space moving forward unless specifically speaking about a marked location. In terms of the rhetorical situation, we know that “. . . every rhetorical situation contains a set of constraints made up of the persons, events, objects, and relations which are parts of the situation because they have the power to constrain decision and action needed to modify the exigence” (Bitzer, 1968, p. 8). These constraints are spatial in nature in that using Lefebvre’s (1991) definition of space brings us back to understanding space as a “set of relations between things.”

Yet *when* these relations occur, *how* they happen, and *where* is contextual. As Bitzer (1968) notes, context is a “general condition of human communication” (p. 3); the audience

defines this context within the spatial-temporal conditions that they experience it. The speaker, then, can also serve as a spatial component in which they are experiencing the “relations between things” and then articulating it with language. Language often complicates the relationship between space and place. It includes myriad references to place: prepositions serve to locate objects and even many English language idioms include references to place and space.

Language itself acts as a container in which action is enveloped by description. I would venture to say that language localizes space and emplaces it, bringing action to a specific reference point in time to a specific audience. Boundaries are enacted by the vocabulary and structure of the given language, and the space in which the language is used (e.g., writing on the page, posting on social media, speaking on a phone call, screaming an echo against a canyon, etc.) is then also limited by the space in which it exists. Embodied and performed rhetoric by the rhetorician is also localized to the rhetor (in/on/emerging from their body), such as choices of clothing, styling, audible tone, and the like. Using language is a spatial-temporal action and one that is beholden to the placement of the speaker. Therefore, space can be both a human and non-human actor (Latour, 2005) in that it is an embodied entity.

Before I can understand actors, wrapping my head around Martin Heidegger’s (1971) notions of ‘object’ and ‘thing’ becomes paramount because Latour leans so heavily into Heidegger to develop his theory. In doing so, I can better discuss the (material) pieces as they affect the whole. In his work *Poetry, Language, Thought* (1971), Heidegger unpacks the distinction between objects and things in the chapter entitled, “The Thing.” Here, he uses the example of a jug to illustrate his point. Heidegger relies on the translation of *thing* in Old High German, meaning “a gathering to deliberate on a matter under discussion, a contested matter” (p. 172). Further, “in consequence, the Old German words *thing* and *dinc* become the names for an

affair or matter of pertinence. . . The Romans called a matter for discourse *res*. The Greek *eiro* (*rhetos, rhetra, rhema*) means to speak about something, to deliberate on it” (p. 172). It is through this turn to other languages that Heidegger pithily states: “The thing things. Thinging gathers” (p. 172). Therefore, the thing’s purpose and its capacity to fulfill that purpose justifies it as such. An object, then, is an entity that does not function in independence or self-support, but rather must be acted upon by an outside force or actor. In sum, the thing assembles or gathers, whereas the object must be assembled or gathered; one performs as a subject, while the other serves as quite simply an object.

With this surface-level distinction in mind, Heidegger deepens his explanation by adding a spatial component. For him, “thinging” involves “bringing-near” the fourfold (Earth, sky, divinities, and mortals) (pp. 175-176). He links action into space by explaining that “The thing stays—gathers and unites—the fourfold. The thing things world. Each thing stays the fourfold into a happening of the simple oneness of world” (p. 178). Moreover, because the classification of thingness is its capacity to assemble or gather (act), space itself qualifies as a thing. Space, whether physical, theoretical, or virtual, exists as an area in which action occurs, social relationships generate and change, and multiplicity and plurality happen. It is here that I derive my understanding of space, and space as a component of materiality, in its importance and ability to function as a thing and thus as a non-human actor. Theorizing space as a ‘thing’ and as a rhetorical being and construct pushes my inquiry of how space is rhetorical and what this means for those who navigate it.

Pulling from Heidegger’s (1971) “Thing Theory,” Latour (2005) marks his “Actor-Network Theory” (ANT) in *Reassembling the Social: An Introduction to Actor-Network Theory*. Whereas much of Heidegger’s focus is on the distinction between things and objects, Latour’s

ANT looks at these items and how they affect action; he classifies what affects action, and how these items are socially related. Social, for Latour, “designates a type of link” (p. 64) and “Thus, social, for ANT, is the name of a type of momentary association which is characterized by the way it gathers together into new shapes” (p. 65). But where does this association happen? My fascination with space and material rhetorics stems from here – all relations, actions, and existence occur somewhere; therefore the ‘where,’ i.e., the space, underpins the who, what, why, how, and when. This “cubed”¹⁴ view forms an assemblage¹⁵ that challenges my previous ontological understanding of space (and materiality), creating new ways of thinking about and engaging with(in) space.

Returning to Lefebvre’s (1991) definition of space as “a set of relations between things,” I have firmly emplaced space within both Heidegger and Latour’s purviews. The connection among Lefebvre, Heidegger, and Latour creates a firm foundation for both my understanding of space as material and how it itself functions as a *thing*. Looking more closely at Latour’s (2005) work, we note that he defines an actor as “any *thing* that does modify a state of affairs by making a difference. . . or, if it has no figuration yet, an actant” (p. 71). Actors, defined by denotation here and not connotation, are classified in both human and non-human terms. Here, Latour uses Heidegger’s (1971) definition of *thing* to build his concept of the actor. For Latour, an actor “things” (i.e., assembles or gathers) and relates to other actors, both human and non-human. However, the action of the actor must take place which calls into discussion space as an actor in its own right.

In this sense, space’s design both invites and limits action. Let us return to the example of the highway. A paved and lined highway invites motorists to travel it to reach a destination

¹⁴ Instructional strategy that helps people understand the topics in terms of the “5 Ws” and “1 H.”

¹⁵ Collection, gathering, or combination of things or people.

(place). The highway is lined with yellow and white lines to signal safe driving space and promote directionality for drivers; moving “over yellow” (or “left of center”) could result in devastating action should a head-on collision occur. While a driver can maneuver her car with freedom, the design of the space (lines on the highway) exists to limit reckless driving. The lines invite responsible action and facilitate the relationship between motorists traveling along the same road (in the same or opposing directions).

Based on my reading of Heidegger, Latour, and Lefebvre, I understand space as “a set of relations between things” (Lefebvre, 1991) that is articulated with boundaries to localize action yet belongs to a vast idea that has neither a beginning nor an end. It functions as an actor in that it is part of the ANT; it situates other actors by enveloping them, embodying, and encasing connections. Space constellates and itself is an element of a rhetorical constellation. It permits action within it, and limits action by its design and function. This view of space links to its classification as rhetorical in that it is situational, contextual, material, and forceful. It begs for research to answer how it is rhetorical and this study intended to observe space’s rhetoricity (Gries, 2020) within the realm of healthcare by uncovering how virtual healthcare space challenges patients’ being and agency through the lens of Karen Barad’s (2007) *agential realism*.

In *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* (2007), Barad argues that “matter and meaning are not separate elements” (p. 3). She spends the bulk of the volume establishing matter (used as both a noun and a verb) as well as what constitutes “meaning,” or how matter relates to other matter and therefore constructs meaning. Barad looks at networks of agents (i.e., constellations) and the intentions behind and within these agents to uncover entanglements, thereby understanding the practices of the agents and the effects that these agents have on the matter around them. For the purposes of this

research, I classify space as an apparatus that is not only entangled within networks of agents, but also an agent itself. Consequently, agents acting on other agents make “cuts”,¹⁶ thus impacting the action (and meaning) deriving from that network as well as the trajectory of all affected agents going forward in time and space (p. 140). Barad’s work on agential realism is theoretical and was a useful lens for my qualitative research because it helped me map the network of agents that exists among online healthcare space, patients’ agency, and their experiences to derive how matter and meaning are entangled and rhetorically situated.

User Experience and User Centered Design

Nestled under the broader umbrella of User Experience (UX), User-Centered Design (UCD) focuses on the needs of the user and their goals by placing more emphasis on the ethics of design and onus on technical communicators as advocates (Opel & Rhodes, 2018; Salvo, 2001; Williamson & Kowaleski, 2017). In this way, the user leads the interface’s design whereas the designer manipulates products (e.g., space) to reflect the users’ needs and goals within it (Chammas et al., 2015). Conversely, UX deals with “perceptions and responses resulting from the use or anticipated use of a product, system, or service” (ISO, 2010). UX includes the affections, emotions, beliefs, and expectations that occur before, during, and after the use of a product. UCD, then, is a multidisciplinary approach that not only uncovers the users’ engagement with a product or space, but also with the “context of use” that indicates potential solutions to UX issues.

Usability testing is one plausible method for studying UCD. Potts (2014) looks at “experience architecture” as a framework for methods to develop user-centered products.

¹⁶ “Two-folded movements that produce the very boundaries through which something is made 'inside' and 'outside', 'this' and 'that', of the phenomena. Detecting cuts is making them. And making cuts is performing phenomena by diffracting different types of agencies” (Sauzet, March 13, 2018).

Choosing usability testing as a method is as simple as selecting “someone who is a user of your design; . . . something to test; . . . someplace where the user and the design and you can observe” (Chisnell, 2009, qtd. in Shivers-McNair et al., 2018). Through experience architecture, Potts (2014) stresses the importance of iterative processes and looking at usability studies through testing to sift out places for progress. She quotes Savage (2004): “With a background in rhetoric [defined as knowledge of purpose, context, and audience] and training in UCD, we can be the ‘agent of social change.’” This is the foundation of this work – looking at how I, as a technical communicator, can study navigational friction points in virtual healthcare space, how patient agency is impacted as a result, and what I can do with this information to advocate on the behalf of veterans-as-patients.

This call toward agency and inquiry into space as an actor, (i.e., patient agency and level of participation relative to experience within virtual healthcare space) further illustrates Fogg’s (2003) assertion that “interfaces are inherently persuasive. . . the designers who create them are interested in shaping user behavior to meet particular goals set out by the site’s creator” (qtd. in Massanari, 2010, p. 410). Holding this idea as truth then directly impacts Lewin’s (2001) idea that the self is constructed through its interaction with the other, constructing identity and influencing agency. This type of ethical understanding is at the heart of UCD and the foundational tenet of this study. I endeavor to link this work in rhetoric more strongly to UX through UCD, but I know that looking at usability is not enough. It often overlooks assumptions of digital literacy and matters of diversity. UCD analysis is helpful because it has been studied in technical communication (Opel & Rhodes, 2018; Salvo, 2001; Salvo, 2004; Shivers-McNair et al., 2018; Williamson & Kowaleski, 2017), but UCD is a response to the angles that previous studies take. To my knowledge and from my survey, no existing work specifically uncovers

UCD principles within www.va.gov. This design of this study stemmed directly from my understanding of UX and UCD. My hope is that this dissertation project will contribute to UCD literature through the nuance of its participants and research site, methods of choice to analyze their retelling of their lived experiences, and my UX-centered push for advocacy through technical communication.

Agency

Within the field of technical communication, Rose and Walton (2018) define agency as “the ability to matter and have an effect in the world” which includes

- Action or intervention, especially to produce a particular effect
- Thing/person that acts to produce a particular result
- Feeling of control over actions and their consequences
- Ability to take action or choose what action to take
- Access to information to help in making informed choices

In the field of psychology, “The sense of agency refers to this feeling of being in the ‘driver’s seat’ when it comes to our actions” (Moore, 2016), whereas “Posthumanism views agency ‘not as a unique human quality or force, which acts upon the world, but as an action that is shared with the world’” (Dolwick, 2009 qtd. in Rose & Walton, 2018). Agency, then, is inexplicably tied to the “self”, or “An active agent capable of becoming aware of thoughts, feelings, and actions, willfully” (Renes & Aarts, 2018). The self is informed and enacts its agency when outcomes match its goals and intentions (Renes & Aarts, 2018). Posthumanism specifically aims to “examine ways people, technology, and network components produce new understanding” and “Actively care for actors involved in organizational networks and their knowledge making process” (Getto et al., 2018). New Materialism “helps us examine the complexities of causation,

to recognize where the capacities for agency lie, and to better recognize interrelated forces at work so as to more effectively engender social change” (Rose & Walton, 2018, p. 92). In this sense, agency itself is material; it is wielded from a position with varying levels of control over what the actor can do or impact on their own behalf. This project benefits greatly from my analysis using a new materialist lens in that I focus specifically on participants’ agency and how their positionality as agents entangles with other agents (e.g., space) within the actor network to illuminate the cause-and-effect relationships(s) therein and the overall effect on meaning making and healthful living. Understanding agency is at the center of this exploration and can be witnessed through how one is in relationship with the space around them and the positionality (or positionalities) they occupy when within the space.

Navigating spaces, virtual or physical, is essential for participation. This project looks specifically at one virtual healthcare space and survey users’ experience with it to better understand how their engagement with the space impacts their participation in their healthcare. The patient’s position in their participation explains their level of *agency*, or the degree to which a person acts on their own behalf and the power they wield when doing so. As an *autonomous* agent, a patient can apply their own interests and values to their decision making, allowing for their positionality to be unencumbered in their participation; in other words, the patient is occupying the *subject* (enacting) position. Alternatively, when not acting autonomously, a patient may be relegated to an *object* position (receiving action), or varying degrees on the spectrum. There are positions in between the two poles, and I do not mean to reduce this relationship to a dichotomy, but it is important to note the genesis of the action and the actors at play in the situation and experience. Understanding this position relationship piques my interest and pushed

me to ask RQ2 in the hopes of better understanding the underlying relationship between navigation of (virtual) space and patient agency.

Digital Literacy

Among the myriad definitions and metaphors of literacy, I see that many fields use “literacy” as a catch-all term to indicate a specified knowledge in a field. This view acts as a stalwart in understanding “why everyone and anyone can’t acquire the skills” (Wysocki & Johnson-Eilola, 2006, p. 355) in that literacy is something that is amassed along the way and the key to a “better life.” Understanding navigation as a literacy leads me to my inquiry of how space is rhetorical. This becomes increasingly interesting in the virtual realm, especially with those who are not as comfortable as those with more experience operating in digital spaces. Calling attention to patient literacy becomes precarious when we add in the *where* patients are made to interact with their healthcare. In other words, where the patient’s encounter occurs can impact the outcome of the event. Bringing their needs into a foreign space (i.e., an online environment) severely impacts the comfortability a patient has with participating in the healthcare process; perceived access and self-assigned levels of digital literacy mark these exchanges more deeply than any other factors (Agate, 2017; Levy et al., 2014).

Noting users’ uncomfotability with navigating digital space becomes increasingly important and apparent as much healthcare interaction migrated online and into telehealth format during COVID-19. While several studies regarding COVID-19’s impact on limiting in-person interaction exist and continue to publish in droves, we have yet to see how patients’ digital literacy has precluded them from receiving the treatment they need. Much of the argument that exploits the chasm between effective tele-healthcare practices and patients swirls around access: technology, internet, linguistic, insurance, and the like (Ewan, 2021; Gonzales & Bloom-Pojar,

2018; Volbrecht et al., 2020; Woods, et al., 2017). Access barriers shift the patient's positionality from the subject (completing the action) to the object (receiving the action), thereby challenging their agency and capabilities to participate in their own healthcare.

Positionality and Identity

Feeling challenged enough to ask for help directly impacts positionality and identity. Completing an action on my own puts me in the subject position; much like in English grammar, the *subject* is the noun performing the action in the sentence. Conversely, the *object* is the noun being acted upon or receiving the action of the subject's action. Therefore, if I am not able to enact my agency and complete an action on my own, I am no longer in the subject position but in the position of the object. Asking someone else for help to complete an action shifts my positionality thus shifting my identity, both of which are fluid (Lyotard 1984; Rice, 2012).

In the case of patients, action and positionality are tightly linked. Patients seek the professional opinion of practitioners to diagnose, treat, and prevent illnesses. Enlisting the help of a professional signifies that we do not have the knowledge or the materials to act on our own behalf and that we are entrusting someone else with more knowledge or experience to aid us. Therefore, patients vacillate between the subject/acting (seeking help) and object/acted upon (receiving help) positions, though there is a spectrum between the two. Their patient identity is tied to the spectrum of these positions and their agency and participation are borne from their identity and positionalities.

In biology, "life span" is considered the time-period between an organism's life and death (Frank & Kaplan, 2022). All humans, as living organisms, inevitably will amass challenges or complications to their health thus rendering them as needing some sort of healthcare if they choose to seek a remedy. Therefore, I define "patient" as any person seeking or receiving

medical treatment. One's identity as a patient, then, is a choice or an enactment of their agency and emplaces them in a (fluid) position.

ASSUMPTIONS AND LIMITATIONS

The participant population for this research includes veterans of the United States Armed Forces and those who have accessed healthcare via www.va.gov. There are no further stipulations regarding demographic information, yet I realize I made several assumptions in choosing my participant population. My recruitment strategies relied on digital means (e.g., email, social media, hyperlinks, QR codes, telecommunication, etc.), so any participant needed to both have access and a reasonable comfortability with using digital technology to complete the survey and/or the interview. Choosing to recruit participants this way was intentional—I wanted to canvas veterans from many locations so I could better understand a wider “veteran experience,” and conducting my research through a digital survey and telecommunication-recorded interview allowed me to collect more data than I could have in person (synchronously occupying the same physical space).

While I chose recruitment and collection techniques to reach as large of a sample as possible, I encountered limitations. Because I made access and digital literacy assumptions, I did not collect representative data of veterans whose healthcare became increasingly complicated or obsolete because of their lack of access or digital literacy. Additionally, circulating participation calls using non-probability purposive sampling (Creswell & Creswell, 2018) proved fruitful, but upon analysis of the demographic information supplied by the participants, the data pool included a much stronger sample from U.S. Army veterans from Ohio and Texas than any other branch of service or geographic location. Given my personal positionality and my husband's (a U.S. Army active-duty service member from Ohio posted in Texas), there is a strong correlation

between participants and our social positions. I would have liked to have more participants from other branches and farther-reaching locations, but nonetheless I was happy to have such strong participation (136 survey responses and 18 accepted interviews) in this study. Furthermore, in future research, I would like to expand the contextual inquiry process to include observations.

SUMMARY OF FINDINGS

The rich data set made for complex analysis and yielded exciting findings. To begin, I gathered the data using Question Pro's reporting function (surveys) and cleaned up the transcriptions (Otter.ai) using Microsoft Word. I then annotated the interview transcriptions with the notes I took during the sessions to mark visible and auditory observations. Once I amassed the data set, I began my analysis and combed it for instances where participants' experiences answered my research questions. In aggregating the data collected from this study, I found these answers to my research questions:

- **RQ1:** Veterans' perceptions of their experiences accessing healthcare through www.va.gov vary based on their needs and digital literacy.
- **RQ2:** www.va.gov functions rhetorically as a non-human actor by providing and inhibiting perceived access to healthcare through its current and potential design and available utilities.
- **RQ3:** Virtual healthcare space entangles with other actors through points of friction and ease as veterans-as-patients access it via www.va.gov.
- **RQ4:** The entanglement of virtual healthcare space and other actors affects the work and perspectives of technical communicators and designers through the clear need for additional considerations of individual perceptions and alternative UX testing methods.

In addition to answering my four, posed research questions, my analysis of this data set yielded the following overarching themes:

- Space functions as a non-human actor
- Healthcare space impacts patient agency
- Agency, like identity, is fluid
- Agential cuts can be witnessed when space, UX, and agency entangle

These themes emerged as I analyzed the data using the constant comparative method from grounded theory (Creswell & Creswell, 2018). Doing so ensured that I could maintain the individual integrity of each participant's experience, but illuminate instances where similarities arose. The knowledge I gained from conducting this study and analyzing these participants' experiences helped me to understand my initial, overarching question that spurred this study's design: *what are the experiences of veterans accessing healthcare through www.va.gov* in addition to how technical communicators can use this research method to enhance their knowledge of patient-centered-care¹⁷ practices by privileging patient centered design¹⁸ considerations.

PREVIEW OF CHAPTERS

In this introductory chapter, I have laid out the impetus and basis for this dissertation project. I showcased the study's significance, existing barriers to veterans' healthcare access, their veteran-as-patient positionality, and current issues accessing healthcare through

¹⁷ Active patient engagement where patients work in close partnership with practitioners and healthcare professionals (Khodyakov et al., 2016)

¹⁸ Reis et al. (2011) define patient centered design as "a particular type of User Centered Design (UCD) where the end-user is a patient that will use an Information and Communications Technology (ICT) solution for healthcare. It focuses on needs, wants and skills of the product's primary user and implies involving end-users in the decision-making and development process of the solution."

www.va.gov. I then posed the research questions and included the theoretical framework, including my understandings of space, UX/UCD, and agency. Before summarizing the findings, I gave an overview of the assumptions and limitations of the study.

In the next chapter (Chapter 2), I include a comprehensive literature review that substantiates the study's contribution to the ongoing academic conversation in the fields of UX, RWS, and Technical Communication. Diving deeper, though, I also connect these broader fields to publications in the rhetoric of health and medicine, literacy, visual communication design, and social justice and technical communication by uncovering the gaps that this study sought to fill. Ultimately, I present this work as a touchpoint among rhetoric of health and medicine, user experience, technical communication, material rhetorics, and veterans studies.

Moving from the literature review (Chapter 2) to the methodology (Chapter 3), I used this chapter to exhibit the choices I made in designing this mixed-methods study as well as support them with existing scholarship that informs my selections. Giving an overview of the study's logistics, I included the recruitment strategy, detailing the participant pool, circulation of the call for participants, data collection procedure (surveys and interviews), data analysis, ethical considerations, and an overview of my analytical process. Notably, in this chapter, I included several figures and a table that support the text through illustrating events and technologies. Additionally, I ended the chapter with the mind maps that I created as tools to help me code the collected data before presenting the results (Chapter 4).

The results chapter not only gives an overview of the data set in text form, but also includes helpful infographics that convey the data in a more salient way. The infographics showcase demographic information of both the participants and the data collection method, as well as some key takeaways. Additionally, I included a figure outlining the questions used during

the interview sessions. Following, Table 4.1 breaks down the interview participant population and the logistics of each session. I then establish the emerging themes by mapping the theoretical terms onto the emerging themes (Table 4.2) and substantiate the effectiveness of the data set by correlating the research questions to data collection methods (Table 4.3). This build-out of this chapter is important to me before advancing the discussion and analysis of the data, which I do in the Chapter 5.

In the discussion and analysis chapter, I discuss the findings from the analyzed data set compiled from the 136 survey responses and 18 subsequent interview sessions. I present the findings before formally answering my research questions; doing so helped me to compartmentalize what knowledge organically arose from the data set and what I was looking to find through the study's designed data collection methods. Without over-analyzing the data and maintaining the integrity of each participant's experience, I was able to discuss the findings as true to this study but forecast some broader implications that arise in the conclusion (Chapter 6).

Lastly, the concluding chapter serves as a wrap-up of the study; it reiterates the basis for each precursing chapter, restates the findings and answers to my research questions, provides broad scale inquiry conclusions, revisits the limitations, and opens the space for future work in this field and beyond.

Chapter 2: Literature Review

Accessing healthcare through www.va.gov is a social and material practice in that it is a spatial-temporal performance; in sum, veterans-as-patients have an exigence, make a timely move into a space to access healthcare, and engage in the social practices of contacting/extracting resources as needed. This study not only contributes to, but also extends current conversations in material rhetorics (Aylett et al., 2014; Coyle et al., 2012; Limerick et al., 2014). Thus, this work in the situational analysis and understanding of veterans' experiences in their practices is rhetorical in nature. My canvas of the literature in UX, RWS, and Technical Communication (TC) sub-fields helps me better conceptualize not only facets of this study, but my understanding of rhetoric as a field and practice.

Using patients' experience with the Veterans Affairs' online healthcare portal as fodder for this study, I wanted to investigate the rhetoricity of space and how it functions as an actor. Subsequently, I noticed the power implications laced within the space's design choices, and the underlying impact that these choices have on the users' experience. Exploring this space and the power constellations in it debunks what I call the "myth of universality"; that is, asserting that places or spaces (physical or virtual) function universally for all patients is impossible and socially unjust. Emplacing individualized populations and designing for their tailored needs moves toward social justice action in technical communication; selecting the centered population, designing for it, and dubbing said design as "universal" is oppressive to the marginalized. The line of inquiry of this project lends itself to future research and can be applicable to navigation of other virtual public spaces (e.g., government websites, public transportation portals, etc.) and the users' access to them, yet the scope of this project called for an isolated example.

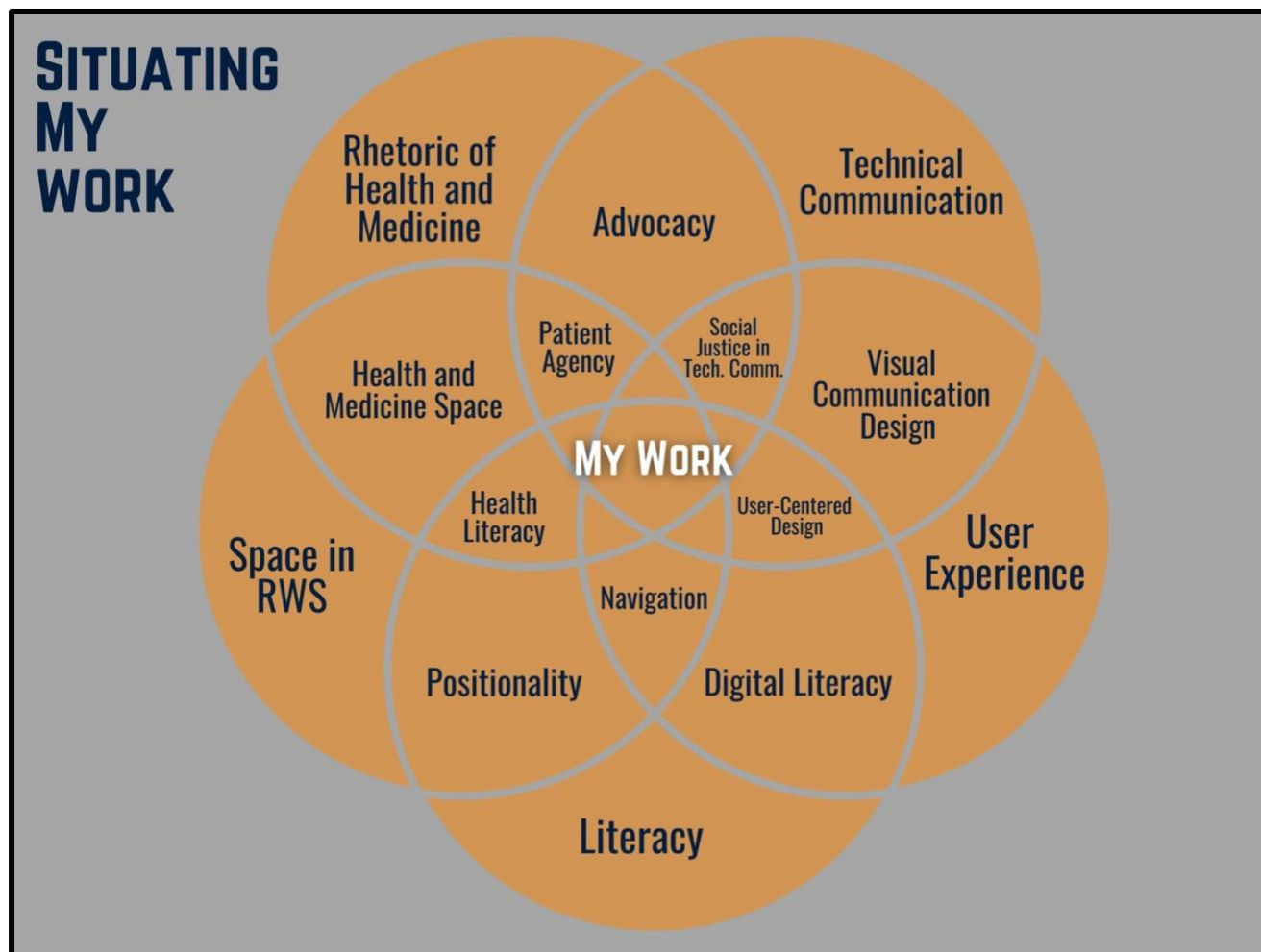


Figure 2.1: Venn Diagram illustrating how my work among sub-disciplines

This literature review indicates established scholarship in myriad areas, the relationships I see emerging across them, and the gaps this dissertation study seeks to fill. I have created a Venn Diagram that visually represents my reading work and how I find my work, both in this study and beyond, centering each discipline (refer to Figure 2.1 above). I begin with larger fields and move toward the center (e.g., my work in this project and beyond) by looking for connective tissue (topics, methods, sites, etc.), and exploiting gaps therein. Responding to established academic conversations, this project looked to showcase the nuance of my methodological choices and how the innovation of using these methods is significant to the interdisciplinary study among the broader fields of technical communication and healthcare. Beginning the

literature survey with facets of technical communication (namely, user experience) and moving into healthcare (through space and literacy) helped me situate this work at the center of these realms, and better understand the research methods used by others and the data yielded from their studies. Noting what was already used and how helped me to exploit methodological gaps and propose a mixed-methods study to uncover a new populations' (veterans-as-patients) engagement with (healthcare) space (www.va.gov) and the nature of their experiences.

USER EXPERIENCE AND SPACE

To better understand user experience, I started from the field of Technical Communication's (TC) recorded beginning. As a field, UX is older than the term that Don Norman coined in 1993 while working at Apple Computer (Nielsen, 2017). As telephone systems emerged in the 1940s and 1950s, there came a need to mesh the study of psychological systems with technology design, thus birthing UX work (Nielsen, 2017). Now, with the almost constant use of computing devices and the internet, UX has emerged as a specialized profession that is quickly growing and demands highly trained personnel.

UX also comes from the overlapping of several fields: psychology, design, and technology. How UX is used, however, varies greatly. Businesses use it to assess the sales of their goods and services; UX practitioners are brought in to give feedback on effectiveness for product improvement, and consulting practices can be like UX research in offering suggestions based on experiences, contextual analysis, or usability testing. Regardless of how UX is studied and practiced, the driving "elements" are the "five planes": surface plane, skeleton plane, structure plane, scope plane, and strategy plane (Garrett, 2021). Therefore, the understanding of *where* informs the *how* and should be observed and considered as an important in terms of what relationships emerge within.

UX STUDIES RELATED TO VETERANS' ONLINE HEALTHCARE ACCESS: VETERAN-AS-PATIENT

Researching virtual healthcare space and UX is not a new line of inquiry. J. Davis (2020) discussed this issue and how COVID-19 changed how the VA's approach to delivering healthcare to veterans. Her work focuses on the behind-the-scenes changes made by the site designers and the UX personnel that consulted on the website's design update. The article provided evidence to establish the need for the change, but included no evidence collected from veterans themselves who routinely use the site as their gateway to healthcare. Conversely, L. Higley and L. Alexanderson's (2019) article centers on the idea that "The Digital Service at VA (DSVA) uses human-centered design to help VA solve its most important Veteran-facing problems." The piece goes on to describe how the DSVA gathers and uses feedback on its initiatives, explaining that "designing for inclusion" is held paramount. Yet, there is no discussion about those who are still excluded by their inability to navigate the spaces or those who do not have adequate access to them. While the DSVA presses the importance of the user's feelings, there is more work to be done here. There is no mention about the users' positionality within virtual space and how this impacts their use of the services provided and the actions they can perform within it. While a user may be able to "enter" the space (i.e., access it), it is not clear what they can(not) do while they are there, how the experience they have while there will impacts subsequent actions once they exit, and how the space's design directly affects the situation. This dissertation sought to fill this gap by placing veterans-as-patients at the center and collect narrative data pointing to the nature of their involvement with accessing healthcare through a digital space, and the challenges and successes they experienced in doing so.

While the issues surrounding veterans' access to and use of the VA's healthcare website have been previously explored to some extent within UX (Igoe, 2018; Luger et al., 2016), I saw

room for nuance in researching the facets surrounding the issues, specifically as the primary healthcare interface for veterans migrated online during the COVID-19 pandemic. Given the documented increase of veterans' healthcare needs, several studies conclude that health care systems, like the Veterans Health Administration, should continue to engage in patient-centered care¹⁹ (Charlton, et al., 2016; Khodyakov et al., 2016; Ward et al., 2021). Yet the discussions of these studies focus on the practitioners' engagement with patients and not patients' engagement with the healthcare spaces. Each of these studies is also based within physical clinical space and not online space, like this dissertation study.

With regard to veterans seeking healthcare to mitigate ongoing maladies, Hitch et al.'s (2020) study discusses veterans and their mechanisms for coping with chronic pain. Their work uses a qualitative, grounded theory approach to analyze the data gained from seven participants regarding their pain management approaches. The study found that while the participants reported that their military training enabled them to feel more "in control" of their pain management strategies, hybridizing this skill set with the "vulnerability" of a civilian mindset. This study challenges the notion that the veteran population resists seeking help, and rather proposes a "veteran-civilian" approach to pain management programs. This worthy work paints a picture of the veteran population as needing healthcare intervention, often with more depth and frequency than that of the civilian population but does not acutely study the spaces veterans traverse to locate help or consider questions of accessibility.

Tsai and Rosenheck (2012)'s study assesses US veterans' use of internet healthcare spaces for accessing mental health services. Their primary concern is correlating veterans' internet usage with their likelihood to seek mental health services via online VA services. They

¹⁹ Patient centered care is defined as active patient engagement where patients work in close partnership with practitioners and healthcare professionals (Khodyakov et al., 2016).

ultimately concluded that “Veterans who use VA services may have less access to the internet and/or make less use of the internet for health-related information than other patients.” This important finding placed matters of accessibility at the forefront of the issue of veterans’ contact with VA services. Much like this study, Tsai and Rosenheck grapple with the underlying implications of veterans’ recourse if they are unable to access adequate healthcare through the presented means. If they are unable to maneuver through the site, veterans may be precluded from receiving the services they need. I saw this point as room for action and advocacy, thus adding to the exigence of this study – this public facing site aimed at the generalized veteran is not useful to *all* veterans-as-patients based on their individual healthcare choices and needs. While time-in-service qualifies most veterans for government-sponsored healthcare, not all veterans use it, and many opt for privatized healthcare services. Data collected in this study affirmed this; many survey participants listed privatized healthcare services (e.g., Aetna, Baylor Scott and White, Mayo Clinic, Cleveland Clinic, BlueCross BlueShield, Cigna, Humana, etc.) as well as candid responses about their daily internet use.

Similar to looking at the relationship between internet usage and seeking healthcare, Swed et al.’s (2018) study reveals a strong correlation between veterans who “use the internet more frequently report more favorable self-reported health” than those who engage in more sporadic internet use. This study sought to answer whether using the internet improves veterans’ health, but the metric the team used for establishing health level was the veterans’ self-reports, leaving room for confusion. The researchers mention the issue of accessibility to the internet as a limiting factor, but they attribute it to the “digital divide among veterans” and not necessarily an issue specifically plaguing the veteran population. Further, they consider the increase in eHealth

services, but do not necessarily match the availability of these tools to the VA specifically—a connection I sought to make in both my dissertation and explore beyond this project.

With contact between veterans and the VA in mind, Youngblood & Brooks (2018) studied the accessibility of 116 VA Medical Center websites and tested them for their adherence to the standards and guidelines issued by the government. They noted that many of the issues they found with the studied sites were with portable document format (PDF) accessibility and fixed-text sizes, yet they did not push past these issues to uncover the effects on the users, themselves. Additionally, their concern centered on overall availability of the sites and assumed a degree of accessibility to their participants. It was not clear from their report of their sample population how inclusive their sample was and how they categorized their participants. This gap interested me because I endeavored to look at a specific population of users (i.e., veterans-as-patients and not healthcare providers, caretakers, etc.) and how they engage with one website, and not such a large range of sites across the VA.

In the vein of looking at one, unified site, Puntasecca, Hall, and Ware (2019) evaluated the VA's inclusionary practices for LGBT veterans seeking care, emphasizing recommendations for practitioners, administrators, and policymakers. Their study is geared toward the rhetorical strategies employed "on official VA.gov web pages that provide information about LGBT veteran care at VA locations" (p. 442). The authors use Scott et al.'s (2013) work on the rhetorics of health and medicine and scholarly engaged practice to situate their project, ultimately concluding that with LGBT veterans having specialized needs for mental health and overall well-being, the rhetoric employed on the site is not inclusive. They proposed that a specialized, or customized, site should be launched to address the specific identified needs of this veteran population. The authors' evaluation of the existing site's visual design and use of visual rhetoric

offers helpful context, discussing the design and its reception. Shifting the center of the action to the user (i.e., user-centered design) uncovers a different dimension of access and patient agency. In its design, this dissertation study takes up these gaps and looking for what the field is missing—exploring a new positionality (veteran-as-patient) and emplacing the veteran-as-patient in the center—and aiming to institute change within the system at large.

One such change needs to come in the form of collapsing the time gap between entering the space and finding care. Casner’s (2017) study looks at the elongated wait times between filing a claim and receiving a decision from the VA. Sadly, the claims process is long and arduous and not without political shading. Legislation can change the process and offer relief, but there are stakeholders on each side of the aisle. Casner writes, “the complacency that exists related to [changing the legislation] highlights the complex nature of policymaking” (p. 26). However, knowing that there needs to be a change and stating the problem only accomplishes part of the goal; without preparing a plan for that change continues to perpetuate the problem and not work towards the solution. As a result of this dissertation work and my positionality as a member of the military community, I aim to advance the work already completed in the field and advocate social justice for veterans using www.va.gov to access their healthcare needs. The data I have gathered and the analysis I have completed have elucidated places for improvement when the site undergoes future redesign. Much of what the participants expressed revolves around the virtual space’s design, their navigation of it from their veteran-as-patient position, and the impacts the design has on their user experience.

POSITIONALITY

As previously mentioned, part of the innovation of this dissertation study is in the exploration of experiences of veterans-as-patients, a positionality not yet widely explored.

Positionality is spatially dependent. When we occupy space that we can navigate or that we have comfortability with and access to, agency is activated; we are able to perceive boundaries, understand our affordances and limitations, and create meaning (Althusser, 1971). When we can comfortably navigate a space, we become more literate and can more securely enact our agency. Rosanne Carlo's (2020) project, while concerned with the teaching of First Year Composition (FYC), illuminates classical conceptions of space and our (humans') relation to it. For Carlo, movement through space is, in and of itself, an act of composition and a way in which we become intimate with our surroundings. Further, she discusses how boundaries are both enacted and preserved, which advances her argument of (movement through) space as creation.

Pointedly, she consistently reiterates that the understanding of subject positionality is integral for marking the purpose of space. Ethos, for Carlo, extends beyond one's credibility to "one's lived experience as a form of knowledge" (p. 9) with the space in which one lives holding importance. Therefore, one's movement through space is a relationship with it, creating organic text and contextual experiences along the way. She calls on Walter Benjamin's *The Arcades Project* as well as works by Kenneth Burke and classical rhetoricians to substantiate her claims, while also pulling textual evidence from James Corder's works. She works to situate ethos classically, while pushing forward her argument with more recent works, before bringing it to the present through pedagogical practices and implications. Her classical treatment of ethos helps to substantiate her proposal of subjective, lived experience as a source of knowledge and validity.

Rosenberg and Kerschbaum in their (2021) piece, "Entanglements of Literacy Studies and Disability Studies" help frame literacy and disability as in conversation and not mutually exclusive. The authors tout, "As we read literacy through disability, and disability through literacy, neither term is a fixed referent against which the other can be defined or understood;

these concepts are always in flux, something that *dis*-attention also helps to underscore” (p. 270). They then define “*Dis*-attention is a neologism that emphasizes how disability is often simultaneously emphasized and erased....” (p. 271). Patient-centered design emphasizes centering patient experience, yet design oversights simultaneously marginalized subsets of the patient population. In this way, this study of healthcare space uses *dis*-attention, which brings my focus into clearer view and enriches my understanding of patient literacy’s entanglement with disability studies. Looking for places where assumptions are made, and cohorts of participants’ needs are not met by the site’s design presentation can help me better understand who the designers have centered and who they may have marginalized. This also illuminates the importance of positionality and how one’s agency is both performed and viewed; marginalizing patients based on their disability status relegates them to a dependent position, which can cast them into a negative light. Ultimately, Carlo’s (2020) work in conjunction with Rosenberg and Kerschbaum’s touchpoint between literacy studies and disability studies swirl to provide a richness and depth to the network that exists among the disciplines.

Julie Jung’s (2014) “Interdependency as an Ethic for Accessible Intellectual Publics” points out the connotation of connections between independence (good) and dependence (bad). This distinction is problematic and forces those in a dependent position into the classification of “disabled.” As she writes, “...scholars in disability studies have long critiqued independence as an ableist fiction borne from Enlightenment, colonial, and masculinist ideologies [;] . . . [C]itizens are constructed as ‘autonomous, rational beings’ whose existences is marked by an ‘essential freedom and independence’” (p. 103). The converse of this notion is that those who are dependent were considered non-citizens, and the opposite of what Jay Dolmage (qtd. in Jung, 2013) posits as the “normal position”: “able-bodied, rational-minded, autonomous, polite and

proprietary” (p.103). Jung’s work helps to situate the idea of independence as it relates to disability studies yet does little to uncover the correlation between positionality and agency.

Suzanne Kesler Rumsey (2018) emplaces her work as a network between disability studies and literacy studies, while keeping healthcare literacy close at hand. She determines how “heritage literacy pays careful attention to the choices that individuals and communities make about their literacy development” (p. 82). This concept works into this project in that “heritage literacies and the decision-making processes whether to adopt, adapt, or alienate offers an apt approach to understanding older adults’ literacy practices” (p. 82) which touches upon facets of patient agency. Being that the patients in question for this project are adults, understanding heritage literacy and its practices help me to conceptualize a broader scope of healthcare literacy. For Rumsey, “aging well” is akin to my understanding of survival, which prods a deeper look into patients’ literacy’s integration into healthcare.

Adding to Rumsey’s work with older adults, my reading of Michael Mackert and Meg Poag’s (2011) article encapsulated the underlying need to increase resources to adult literacy programs that target health literacy products, practices, and events. Doing so will posture collaboration among patients and healthcare professionals, reaffirming Helen Osborne’s definition of health literacy as a “shared responsibility” between patients and providers. This push is important and worthy, yet it does not take up the issues of *how* patient literacy impacts their healthcare practices, rather it establishes that it *does* impact their practices and thus their agency. Mackert and Poag’s work also does not make assumptions about the needs of the patient regarding their degree of ableism but generalizes about the necessity to include instructional resources in all adult literacy programs. This idea was reaffirmed by data collected in this dissertation study – one participant (George) mentioned the inclusion of better instructional

materials to help veterans-as-patients navigate the site for their needs and how having access to more explanation could help other users feel more supported in accessing healthcare services through the space.

Within any program's structure, one must question access to materials, space, and overall support. Mia Mingus (2011). discusses access in an interesting light in her work, "Access Intimacy: The Missing Link." Here, Mingus acknowledges her positionality "as a physically disabled person," who has "grappled with how to describe the closeness [she] would feel with people who [her] disabled body just felt a little bit safer and at ease with" (n.p.). She goes on to define "Access intimacy is that elusive, hard to describe feeling when someone else 'gets' your access needs." She pushes this idea further by explaining that those who offer her access intimacy are not necessarily disabled themselves, but rather those who have consideration for or an attunement to her needs. Access intimacy was a preliminary goal of this dissertation research, not just for this project, but beyond it. In designing this study, I conserved access intimacy and drew from the tenets of social justice (positionality, privilege, and power), specifically in technical communication (Walton et al., 2019). These notions became increasingly apparent when looking at the design of the space and the impact the design had on users' access to it.

VISUAL COMMUNICATION DESIGN

Given that the site of this research is a virtual healthcare space and the scope of the project looks at users' experience within it, it became important for me to better understand visual communication design and how it affects users. An expressed goal of visual communication design is "to create supportive conditions for someone's experience" (Davis & Hunt, 2020, p. 7). At the center of strong design lies form, content, the designer's intent, and context, and the delivery of the content. The audience's paraliteracy (Wilson, 2000) comes into

play as they work through digital spaces, and designers play on these literacies as they assemble digital communications (Davis & Hunt, 2020). From considering how users digest text (in the Western world, from left to right) to what fonts and typefaces lend themselves to catching attention or allowing users to read long blocks of text without strain, visual communication design directly impacts how users interface with virtual space (Breuch, 2019).

Using the “universal” elements of brain science, designers can form their texts (and designed spaces) to fit the context, all the while impacting their users’ experience with these spaces. If the text does not meet the needs of the intended audience, it fails. However, when properly attuned, it can directly drive users’ actions within the space (Whalen, 2019). The line between the designer and user here is thin; each has its own motivations for action within the space, but each is also impacted by the other’s intent. This becomes increasingly important within the realm of healthcare as much of the clinical space migrated to online areas during recent years, and specifically with the COVID-19 pandemic. Massey (2005) points towards space as a text in constant progress, which undergirds my analysis of space as material and an actor within the fields of rhetoric and composition and beyond. Keeping all of this in mind, this study yielded data that illuminated the entanglement of the user experience, agency (action), and space which prompted a cleaner understanding of how space functions as a non-human actor and how it, in itself, is material.

SPACE AND VISUAL MATERIAL RHETORICS

Emplacing space within the field of RWS leads me back to the material. As a pinnacle



Figure 2.1: NASA Photo AS17-148-22727

work in the realm of visual material rhetorics, Propen's (2012) writing helped me conceptualize the importance of place and space and the materiality of location which proved fruitful in designing this study. Propen draws heavily on Lefebvre's (1991) work on *The Production of Space* while twisting nuance in the field through technology (e.g., topographic maps, GPS, and the like).

She constructs her argument through the study of NASA Photo AS17-148-22727 (1972) and users' experience with voice-enabled GPS systems. She does this to pressurize the understanding of visual-material artifacts as rhetorical and contextualize their use's effect on the meaning-making process.

Propen's methodologies use elements from Johannek's (2000) work in that Propen looks at the visual-material artifacts as texts that are used in contextualized meaning making. For Propen, the audience's engagement with the text helps them to construct meaning. She pushes her exploration further in uncovering the texts' effect on the users' agency, which reiterates my novel inquiry of patient literacy, navigation of space, and agency in healthcare.

Navigating space can stem from both one's personal curiosity and external guidance. Movement through space (i.e., navigation) can often lead to the call to represent it and what inhabits it. In this light, Sarah Klotz (2020) views Algonquian pictography as evidence of the coexistence of Native and settler societies. Part of the settlers' ascription of power over Native American populations came from the Natives' use of symbols in their writing: "pictographic,

ideographic, and hieroglyphic practices were not *writing* because they occurred temporally prior to alphabetic writing in European history. Native Americans were therefore lagging intellectually, and their culture was fundamentally inferior to that of settlers” (p. 179). With this view, the settlers-invaders further asserted dominance over the Natives by labeling their writing as remedial and uncivilized given its use of ideographs instead of alphanumeric characters. Yet, the use of pictorials in tandem with other characters provides connections between the text and a wider audience.

In my observations, much of the wayfinding signage in healthcare spaces (both virtual and brick-and-mortar) marries written text with pictographs to increase patient literacy, space recognition, and navigational ease. Beth Olshansky (2018) offers that “pictures can provide a critical bridge into literacy learning” and further that “both reading and writing involve visualization” (p. 4). This can hold true for icons in virtual space, as well. She proceeds with an explanation of “transmediation. . . as the act of recasting or translating meaning from one sign system to another” (p. 5). While Olshansky explores these notions through a composition studies lens, the act of using signs and symbols to represent meaning is evident throughout history and has populated even the earliest of archived texts. We see implications of the meanings made from the sign systems in current cartographic practices, and understand that although meaning can be transmediated, it is in no way universal or ubiquitous to all populations as each culture values art and pictorials differently.

For example, Hoye and Kaiser (2007) discuss linguistic and visual pragmatics, citing icons that are considered “universal”, such as: King Kong, the Swastika, and Coca Cola. While some of these examples carry heavier connotations than others, Hoye and Kaiser chart the context in which each is experienced and the effect it has on the viewer. The crux of this

argument furthers that icons have communicative power, yet that power is entirely subjective based on the context of pictorial, the space in which it is circulated, and the audience who receives it (Gries, 2015).

Keeping with the idea of communicating through symbols, Gordon Ambrosino (2018) takes a location-based historiography approach to uncovering pictography in architecture. His argument centers on “rock art serv[ing] as a means for creating location-based histories by harnessing ideological control and sanctifying authority through controlling access to resources, namely water, and heritage” (p. 806). The emphasis on visual rhetoric as an enhancement to and function of the geographical landscape adds another dimension to establishing pictographs as communication and ascribing meaning to a culture through its historical recording methods. The excavation of the pictograph panels in Ambrosino’s study helps substantiate the establishment of pictographs as wayfinding symbols, thus bridging cultural art with cartography. This pairs well with designers’ emplacement of pictographs in conjunction with written text. The wayfinding practice is met by the patient’s and other users’ literacy²⁰, and including pictographs reduces the demands placed on patient literacy to understand, or solely rely upon, the written text. While the pictographs themselves are not necessarily universal, the absence of them in the wayfinding signage or icons in a virtual space would enforce more power on patients by making assumptions of universality, especially for those who are unfamiliar.

For Nora Rivera (2020), pictograms and murals convey cultural meaning, but the interpretation of a text (or symbols in it) rests within the reader. Rivera explains that the reader has “an active role in the in-flux process of co-constructing meaning” (p. 135) which grants

²⁰ To reiterate: I define literacy as a social practice (Gee, 1989) that moves beyond a set of skills used in a classroom (Gere, 1994); it enables sense making (Barton & Hamilton, 2012) and acts as a vehicle (Rosenberg, 2015) or gateway (Cook-Gumperz, 1986) by which we navigate through places, spaces, and situations (Freire, 2018).

agency and autonomy. Constructing meaning adds to the reader's literacy, ultimately impacting the opportunity to define the level with which one experiences and uses a text. Accepting that space is a text where meaning is co-constructed reiterates the need to entangle space's impact on patient agency in the realm of healthcare. Working through the text, or navigating it, becomes paramount in understanding the text (e.g., space) as an actor and how it operates rhetorically. Viewing space as an actor challenges my ontological perception of agency because it helps me recognize space's limitations and affordances (like a genre). Doing so optimizes my ability to successfully function within the space and present/invite opportunities to/for others to do the same.

SPACE AND LITERACY IN COMPOSITION STUDIES

In addition to leading me to several other fruitful sources (de Certeau, 1988; Lefebvre, 1991; Massey, 2005; Sibley, 2003), Reynolds' (2004) work illustrates not only the connection between material rhetoric and space, but also methods by which I might study how people (patients) navigate space and what this act may indicate about their literacy. Reynolds builds a triad among space, geography, and navigation through substantial theoretical and well-sourced backing and studies she carried out with composition students. She carefully lays out the elements of space and discusses how boundaries function as a space's container (limiting and protecting capacity), all the while explaining the effect boundaries have on the writer/navigator. Beyond this, Reynolds uncovers the action of mapping and the realms in which mapping occurs, explaining that mapping is "action transformed through legibility" (p. 77) before exploring traditional and conceptual maps in the next chapter. She pushes her study further, then, by wrapping it in the metaphor of "dwelling," visualizing the term as both a noun and a verb. This

helps me to understand how dwelling is both a container/defined space and an action by which one embodies and exists within a space, and thus illuminating space as a material construct.

Design characteristics and choices in preparing maps and wayfinding communication straddles the chasm between designer and the reader. The reader's ability to process the information illustrated on the map is, in part, the charge of the designer themselves; "using symbolic and non-symbolic shapes in the design of a map would affect individuals' cognitive processing of information" (Al-Samarraie et al., 2019, p. 669). Thus, the reader's (user's) experience is directly impacted by the demands placed on their literacy and the assumptions of their literacy made by the designer. These assumptions are an action of oppression, whether deliberate or unintentional. Revealing the power structures and problematizing them pulls the margins towards the center, directly influencing and increasing the effectiveness of the user's experience.

Power implications of "standard" design characteristics became increasingly clear during the interviews when participants discussed the signposts they use and/or look for to navigate www.va.gov as I explain in more detail in Chapter 5. Several participants mentioned that they use the "search bar" at the top to enter search terms if they are unable to find a specific area of a site or detailed information, or when information is "not where it should be." The search bar as a design feature helps users "find" what they are looking for within the virtual space, but knowing how to use it and find it on the page is an exercise of the user's digital literacy.

DIGITAL LITERACY

Among the myriad definitions and metaphors of literacy, we see that many fields use "literacy" as a catch-all term to indicate a specified knowledge in a field. This view acts as a stalwart in understanding "why everyone and anyone can't acquire the skills" (Wysocki &

Johnson-Eilola, 2006, p. 355) in that literacy is something that is amassed along the way and the key to a “better life.” Understanding navigation as a literacy leads me to my inquiry of how space is rhetorical. This becomes increasingly interesting in the virtual realm, especially with those who are not as comfortable as those with more experience operating in digital spaces. Calling attention to patient literacy becomes precarious when we add in the *where* patients are made to interact with their healthcare. In other words, where the patient’s encounter occurs can impact the outcome of the event. Bringing their needs into a foreign space (i.e., an online environment) severely impacts the comfortability a patient has with participating in the healthcare process; self-ascribed, low levels of access and digital literacy mark these exchanges more deeply than any other factors (Agate, 2017; Levy et al., 2014).

Uncomfortability with navigating digital space becomes increasingly important as much healthcare interaction migrated online and into telehealth format during COVID-19. While several studies regarding COVID-19’s impact on limiting in-person interaction exist and continue to publish in droves, we have yet to see how patients’ (low) digital literacy has precluded them from receiving the treatment they need. Much of the argument that exploits the chasm between effective tele-healthcare practices and patients swirls around access: technology, internet, linguistic, insurance, and the like (Ewan, 2021; Gonzales & Bloom-Pojar, 2018, Volbrecht et al., 2020; Woods, 2017). Access barriers shift the patient’s positionality from the subject (completing the action) to the object (receiving the action), thereby challenging their agency and capabilities to participate in their own healthcare. This study aimed to uncover how healthcare space functions rhetorically as a non-human actor posing challenges to and facilitating users’ access to healthcare and entangling with other actors as veterans-as-patients access it

through www.va.gov. The analysis of the data uncovered a strong correlation among positionality, agency (active participation), and literacy.

HEALTH LITERACY

Helen Osborne's (2018) book serves as a foundational text in the realm of health literacy. It lists several considerations for both healthcare professionals (HCP) and patients when communicating with each other, as well as offers definitions of health literacy: "[A] shared responsibility between patients (or anyone on the receiving end of health communication) and providers (or anyone on the giving end of health communication). Both must communicate in ways the other can understand" (p. 2). Additionally, the book introduces health literacy assessment practices (local and national) and suggestions for implementation of that data within individual HCP's practices.

While I am grateful for this survey of health communication and literacy practices, I am troubled by the assessment piece. I am left wondering if the national assessments are given in conjunction with contextual crises. What data comes from these assessments and how are best practices suggested? Locally, who administers these assessments and what literacy practices are then altered based on their results? I am also wondering how HCP's practices change based on the spectrum of literacies of their patients (i.e., non-native speakers, those with learning challenges, hearing, or sight deficits, etc.)? If health literacy is in fact a "shared responsibility," then who adopts the onus of communication and how can patients become more participatory in their own care based on their assessed literacies from their practitioners? This line of questioning leads me to considering how www.va.gov was tested for usability. There is no clear, published data on the usability metrics of the site, outside of its compliance with www.usability.gov. The data from the present study reflected experiences that ran the gamut. Therefore, what types of

measures were employed to assess the users' abilities to operate within the space (i.e., literacy) and/or in healthcare practices?

Moreover, Dawn Opel's (2018) article argues that the established Health Literate Care Model falls short and uses *literacy* where *literate health activity* should be emphasized. Using community literacy studies to frame how aging persons can become more participatory in and responsible for their care (as patients and caregivers) helps to shift the concept's situation as an independent issue and expand it towards a collective process of giving and receiving care. Further, Opel gives reasoning behind incentivizing this shift, making it worth the while of practitioners and other healthcare stakeholders. If we are to look at aging and interdependence in a humanistic way, then we are going to need to alter the connotations around it. To do so, Opel calls on Linda Flower's (2008) established rhetorical model of community literacy, which illuminates the intersections among literacies, discourses, and actors further substantiating Opel's work. This scaffolding impacted my own analysis of the data yielded in this study; I was able to note these same intersections among user experience, space, and agency and use them in witnessing agential cuts (Barad, 2007).

LITERACY AND THE RHETORIC OF HEALTH AND MEDICINE

Tying literacy to the rhetoric of health and medicine, Anne Marie Liebel (2021) uses Brian Street's autonomous and ideological models of literacy as methods to frame her use of New Literacy Studies in health literacy. She summarizes the myriad definitions of health literacy, ranging from the scientific (global) to the practical (local), while also summarizing Brian Street's literacy models. She brings up literacy assessments in context with these models, adapting how assessment forms perspective, and therefore adjudication. Within the realm of healthcare, practitioners will often do a "quick assessment" of patient literacy and tailor their

encounters with patients accordingly. Yet, these “assessments” are neither ubiquitous, nor applicable to all clinical encounters. In Liebel’s (2021) explanation of patients with “low-level literacy,” I wonder: who is casting these patients as such? How is one’s literacy level linked to their level of engagement with/participation in their own healthcare? What social justice practices are these assessments leaving out or making room for? What labels are cast upon people based on the literacy markers revealed by these assessments? Literacy does not equate to intelligence level, although some healthcare professionals deem the correlation as such. Further, one’s level of literacy ascribed by a practitioner is neither an indicator for their motivation to lead a healthful life, nor their participation in their healthcare.

Although it does not name Brian Street, part of Wysocki and Johnson-Eilola’s (2006) book chapter discusses literacy as a set of skills that we can wield to impact our social context. Revisiting the “bucket” definition of literacy as “specified knowledge in a field,” becomes complicated when applying it to health literacy. While this chapter does not have much footing in the realm of health literacy other than it explains that “literacy” is not a ubiquitous term that can be applied to any and everything. It can, however, act as a gateway to places and spaces by functioning as a conduit to understanding and exposure.

While Samerski’s (2009) article comes from *Social Science & Medicine*, it emplaces its theoretical grounding in New Literacy Studies. Instead of relying on the definitions of health literacy offered by the WHO and other healthcare organizations, Samerski includes “literacy as always embedded in and defined by institutional circumstances and cultural practices” in addition to “reveal[ing] literacy as a polymorphic social practice” (p. 3). Further, her ethnographic study reveals that her participants did not tend towards solving their issues by

seeking printed information, but by canvassing family and friends. Samerski's study also explained the levels by which the participants could "navigate the medical system" (p. 4).

Moreover, as her participants perceived themselves gaining health knowledge, they built agency and gained positions as advocates for themselves and family members in whose care they were active. Thus, Samerski links patients' levels of literacy directly to their understanding and knowledge in the healthcare *habitus*, which directly correlates to their level of participation (and informed decision making).

Through the exploration of diabetes as a chronic condition and the patients who become subject matter experts (SME) through their lived experiences, Arduser (2017) uncovers how patients engage in their healthcare and enact agency through their understanding of and choices regarding their disease (diabetes). I was particularly struck by the framing of the argument that used classical rhetorical thought (Aristotle, Plato, Burke, etc.) melded with composition theory (Bitzer, 1968; Vatz, 1973) while focusing on the technical communication aspects of patient experience. Arduser was careful to treat her participants' efforts in living with their illness as work, defining the "work" of diabetes as where "technology and care come together" (p. 20). Further, the author turned my attention to *where* this work takes place (both physical and virtual spaces) and who is engaged in this effort (patients, caregivers, clinicians, etc.). This framework deepens the entanglement of the rhetoric of health and medicine with technical communication, patient literacy, identity, and agency, thus opening space for my research. This dissertation work broadens these fields by creating a touchpoint among them; in doing so, I challenge the established ontology regarding the intersection of space, materiality, and the rhetoric of health and medicine, specifically with regards to veterans receiving healthcare.

Yet, there are gaps: what social justice implications does the dynamic among literacies, discourses, and actors have? Are we pitting individuals against healthcare institutions by adopting this approach? These institutions are vested businesses, so how does this change toward a humanistic approach affect their bottom line, and thus their resistance to participate? What other variables might compound or exist beyond the bottom line? Will this work equitably, or are there assumptions we're making about people's access to networks of support for this approach to be viable?

SOCIAL JUSTICE IN TECHNICAL COMMUNICATION

The very center of ethical communication practices is social justice, and socially just considerations afford space for advocacy. Walton et al. (2019) take this stance adding to Agboka and Matveeva's (2018) important work. Walton et al.'s book hinges on the principles of oppression, justice, positionality, privilege, and power. It calls technical communicators to not only uncover the problems within the field of technical communication, but also respond to, address, and solve them through critical action and advocacy. Such problems include, but are not limited to, issues with inclusion and representation, inequity, and furthering systems of oppression through communication practices. The keen analysis demanded by the authors moves to unhinge the centered, established practices of technical communicators and challenges us to see these practices, understand their damage, and push past them for progress. Revealing implicit power structures and imperative for moving towards social justice in technical communication. Pushing harder into ways of knowing, Walton et al., (2019) call researchers to interrogate power and its function in the field of technical communication.

Agboka and Matveeva's (2018) collection brings in actionable plans for the progression of technical communication through advocacy and responsible citizenship. While much of the action is proposed for the classroom, one could argue that a "classroom" is any space where learning occurs; therefore, beyond the walls of the schoolhouse, classrooms abound. In their words, "The field of technical and professional communication has a long-standing commitment to connecting to and improving lives of people in the local communities" (p. xxvii). With this in mind, technical communicators can adopt a critical mindset towards their roles as writers/designers, advocates, and productive members of society. It begins with revealing the constellations of power networks implicit in current and past technical communication practices.

Wayfinding, specifically in virtual spaces, fits under the umbrella of technical communication, and as such, its users should be at the forefront of its writers' intent. As technical communicators, what assumptions are we making? What power are we flexing or perpetuating over our users? What demands are we making of users' understanding and literacies? How are we implying systems that cater towards ableism, high literacy, or dominant linguistic practices?

Using patients' experience with the Veterans Affairs' online healthcare portal as fodder for this study, I wanted to further investigate the rhetoricity of space and how it functions as an actor. I noted the power implications laced within the space's design choices, and the underlying impact that these choices have on the users' experience. Exploring this space and the power constellations in it debunks what I call the "myth of universality"; that is, asserting that places or spaces (physical or virtual) function universally for all patients is impossible and socially unjust. Emplacing individualized populations and designing for their tailored needs can move technical communicators toward social justice action; selecting the centered population, designing for it,

and dubbing said design as “universal” is oppressive to the marginalized. The line of inquiry of this project lends itself to space for future research and can be applicable to navigation of other virtual public spaces (e.g., government websites, public transportation portals, etc.) and the users’ access to them, yet the scope of this project calls for an isolated example.

Looking at the “patient-considerate” design of space, the “universal design elements,” wayfinding cues, ideographic labeling and mapping used throughout, and how patients navigate the space helped me to uncover designers’ potential assumptions of users’ literacy and the demands consequently placed on the users’ literacy to meet the expectations of the designer, thus highlighting the space’s assertion on the user and their literacy. This exploits the space between the designer and the user and helps to reveal the underlying power relations between the representer and the represented and beyond, thus furthering the linear connection space as an actor and the positionality of the user (patient). The virtual space’s design makes assumptions of the user’s digital literacy as well as asserts its rhetoricity in the intersection among purpose, audience, context, exigence, and genre.

Consequently, using my understanding of space as a lens has not yet, to my knowledge, been used to analyze the veteran-as-patient experience and doing so can yield new insight. The research questions borne from my survey of the literature move towards closing a gap while opening the way for future work in the fields of the rhetoric of health and medicine, user experience, technical communication, material rhetorics, and veterans studies. The literature surveyed in this chapter beginning with technical communication and user experience and moving through health and digital literacies illustrates the established academic conversation and the gaps that this dissertation study sought to fill. From my vantage point, my work knits together threads from myriad sub-fields and uses a nuanced theoretical framework as its guide.

In the next chapter, I outline my methodology by explaining the choices I made in building my study, the logistics of the study itself, and my analysis process including emergent codes.

Chapter 3: Methodology

Several studies on the accessibility of the VA’s healthcare portal exist, but none specifically addresses the space as an actor and the patients’ positionality as they engage with it (Haun et al., 2021; Luger et al., 2016; NewsRX, 2020). Similarly, some scholarship analyzes the VA website from the UX perspective (Davis, 2020; Higley & Anderson, 2019), but none expressly address users’ positionality. Employing rhetoric as an underlying theory that informs technical communication research helps balance the tension of using methods that may appear to a humanist as overly scientific or “to an extent even positivistic” (Porter, 2013, p. 133). This study canvases veterans and their engagement with the Veterans Administration’s (VA) online healthcare portal. The study explores virtual space as simulation (Baudrillard, 1994) as well as looks at power implications, such as how the space’s design limits and allows the user to act within it, as promoting or prohibiting participation as well as the assemblage created by all the actors in my study (Angeli, 2018; Foucault, 1994; Latour, 2005). My work builds on how different interfaces (i.e., digital spaces) impact user agency (Aylett et al., 2014; Coyle et al., 2012; Limerick et al., 2014) and adds to Rose and Walton’s (2018) “illustra[tion] of how these concerns and strengths of posthumanism may play out for social justice in technical communication design” (p. 102). In this chapter, I describe my dissertation study’s design and substantiate my choices with an explanation of my methods. I then detail the steps I took when collecting my data before moving into a depiction of my analysis process.

MIXED METHODS AND UX RESEARCH

For my study, I conducted a contextual inquiry (Farrell, 2016) using mixed methods. I disseminated a digital survey (yielding both qualitative and baseline quantitative data) and subsequently conduct a field study using semi-structured interviews. I have chosen mixed

methods for several reasons: I wanted to be able to support my qualitative findings (interview data) with the baseline quantitative data (survey data), the data would more accurately and holistically reflect participants' points of view and experiences, I would have more methodological flexibility, and the data I stood to collect would be richer and more comprehensive (Wisdom & Creswell, 2013). Because I would use both survey and interview components as data collection tools in separate iterations (clustering), I wanted to be sure that those who choose to participated were representative of a specific demographic (veterans who have accessed the www.va.gov website). Therefore, I pre-set the criteria for the population as a purposive, nonprobability sample (Creswell & Creswell, 2018; Laerd Dissertation, 2012).

The semi-structured interviews portion of my data collection were conducted as remote field studies (Bolt & Tulathimutte, 2010), recorded as interviews where I asked participants about the nature of their experiences with the online space. The key benefit of this design was the ability to listen to the participants' experiences and allow them to narrate their own salient points. While I did not synchronously observe the participants within the space, the interview questions (Appendix C) that I asked helped them recall their feelings and perceptions about their encounters with the site. In contrast to typical usability studies, this contextual method which employed deductive and inductive coding was effective in yielding multiple, nuanced layers of data.

This exploration was built with UCD as its guiding framework; “demand[ing] sensitivity to the conditions, expectations, and values of users” (Williamson & Kowaleski, 2017). The interview I designed (questions and methods) allowed me to not only ask participants to narrate (self-identify) experiences and feelings they recalled when they engaged with the space, but also presented opportunities for me to observe their vocal tone and, for those whose cameras were on,

their facial expressions and posture during their retelling. Here, I looked for instances of friction (Interaction Design Foundation, 2022). In addition to noting points of friction, I analyzed the data for the inverse instances which I term instances of ease. Pinpointing these occasions (friction and ease) helped me to better understand when and how users act within the space and when the space acts (rhetorically) on them. Subsequently, when users denoted their feelings of having control and their own decision-making ability, or their need for help or relegated positionality, these instances showcased facets of agency.

RECRUITMENT

Participants

My criteria for inclusion for this study were U.S. Armed Forces veteran status and confirmed experience with the VA Health Care Website. The survey invitation infographic (Figure 6) prominently features eligibility questions, so if prospective participants qualified, they could access the survey via the embedded link or QR code.

Admittedly, I made assumptions about my target participant population in line with the published data from studies conducted (Ashton, 2020; Vogels, 2019). I assumed that my participants had a (functional) level of digital literacy because of how they initially engaged with my study: the online survey reachable via the link or scannable QR code featured on the survey invitation disseminated through digital channels.



Figure 3.1: Survey invitation infographic

Ethical survey methods dictate that when offering scaled responses to questions, the researcher should present the two ends of the spectrum and varying options in between. Therefore, even though I assumed a working level of digital literacy and reasonable internet access for participants, my quantitative questions included options to denote non-existent values.

The infographic was sent from me (using my UTEP email address) to established veteran contacts and others (e.g., family members and friends) who knew of veterans who fit the participation requirements. I also posted the graphic on social media channels (Facebook, Twitter, and LinkedIn) through my personal profiles and handles. The texts of these posts and emails are included in Appendix A for reference. Targeting an intermediate group via email was a matter of convenience so as not to be intrusive in my recruitment. My established contacts sent the infographic on to their contacts who operate listservs and digital newsletters. Again, this goes to my assumption of the digital literacy level of the participants. In correspondence with their contacts, my established veterans contacts informed their touchpoints that they, too, could forward the survey information to others who fit the participation requirements. This process was akin to snowball sampling (Creswell & Creswell, 2018; Tracy, 2020) and safeguarded the complete anonymity of my survey participants.

Individuals with physical disabilities or those with mental disabilities or cognitive impairments require special protections and considerations, so I ensured that my work with this population followed all ethical procedures and protocol. A list of mental health services and resources were disseminated to each interview participant (Appendix D) via a pre-set workflow immediately after the interview session. Additionally, my line of inquiry was specific to online healthcare space, so I took extra care in phrasing my data collection questions (asynchronous survey and synchronous interview) to skirt any personal healthcare information; my true

motivation was to learn of participants' experiences engaging with the space, not the reasons for them seeking clinical care. If participants began to disclose their need for healthcare for wellness, acute, or chronic purposes, I redirected them and reminded them of their Health Insurance Portability and Accountability Act of 1996 (HIPAA) protections in safeguarding their personal healthcare information.

Circulation

Given that the survey infographic was disseminated both via email and social media channels, I analyzed the effect these circulation methods had on my data collection. The data collection period began on 30 September 2022 and lasted until 18 November 2022. The initial call for participants was sent on 30 September by both emails to trusted contacts addressed via blind carbon copy to preserve their anonymity and via social media posts. The posts varied only slightly as Twitter has a character maximum (280), while Facebook and LinkedIn do not. The posts are compared side-by-side below in Figure 3.2.



Figure 3.2: Initial Recruitment Social Media Posts

A secondary call for participants via social media was made mid-way through the data collection window. Again, the posts varied slightly and are featured in Figure 3.3 below. Understanding how social media sites operate as spaces, I used hashtags to increase the posts' circulation and spin (Banks, 2011; Gries & Gifford Brooke, 2018), but I did not subsequently analyze the reach of each post. I did, however, have several people (not all of whom I knew personally) share the posts, thus increasing the call's reach. Ultimately, my participant pool exceeded my expectations and yielded a rich data set, yet my social positionality (active-duty Army spouse with ties to Ohio and Texas) may have skewed the pool.



Figure 3.3: Secondary Recruitment Social Media Posts

DATA COLLECTION

Survey

In designing my survey questions, I used social constructivism, an interpretive framework (Ortiz, 2013). My questions meant to validate participants' experiences while using closed (quantitative) and open (qualitative) question methods to establish a baseline for my project. The baseline metrics here established the real issues met by real people. The survey results help me answer **RQ1**: How does virtual healthcare space pose challenges patients' being and agency? The survey asked preliminary questions regarding participants' access of the VA healthcare website and their overall comfortability with seeking healthcare information and services through virtual means (refer to Appendix C). While I included demographic questions

on the survey, for this study I did not correlate the data with age, socio-economic class, education level, rank in service, time in service, identified gender, ethnicity, and geographic residence. The demographic information needed not correlate to participants' engagement with the website to strengthen the validity of their experiences. According to the National Center for Veterans Analysis and Statistics (April 14, 2021), the projected number of American veterans (male and female) in September 2021 was roughly 19,632,900 persons. Clearly my project cannot and does not account for each individual experience, but stands to represent some.

To solicit participants, I engaged in non-probability purposive sampling (Creswell & Creswell, 2018; Laerd Dissertation, 2012; Tracy, 2020), targeting as many participants as possible for the survey, yielding 136 survey responses and 18 interviews. I accomplished this by creating an email including a simplified infographic (Figure 3.1 above) (complete with easily identifiable links) and sending it to established contacts who, in turn, disseminated it to vetted, veterans' groups. I also sent the recruitment graphic via e-mail and social media to others who know veterans to solicit a wider sample. Specifically, the participant criteria were:

- Veteran of the American Armed Forces status
- Have experience with the VA health care website (<https://www.va.gov/health-care/>)

The invitation was disseminated in portable document format (PDF) to maintain the integrity of the design and hold the active Question Pro survey link and QR code. Additionally, because of the PDF, it was easily added to email blasts, social media posts, and newsletters without distortion. I consulted the University's Office of Brand, Trademarks and Licensing's *Graphic Identity Guide* (2020) to maintain compliance with proper branding and coloration of the graphics I used. I chose Question Pro as the appropriate program to develop my survey because of its data collection and analytics capabilities and security. UTEP provides students and faculty

with access to this premier program and the subscription is safeguarded behind the Single Sign On, protected by my individualized credentials.

Responding to the linked survey (found here: <https://lherman-dissertation-survey.questionpro.com>) required less than 20 minutes of participants' time. The introduction section included my contact information, UTEP affiliation, and the purpose of my research. It also included a statement of thanks as well as the participation options (survey and interview). I stipulated that the interview is optional and included the disclaimer verbiage from the Institutional Review Board (IRB).

Next, I included a consent section prior to the start of the survey. This section began with a disclaimer of understanding and informed consent (see Appendix B). Following their consent, participants began the first section (of three) of the survey. I chose to separate the survey into three distinct sections to aid with data collection and analysis; Question Pro's data collection functions allowed me to manipulate data comparison based on question type and theme, so I parceled my questions by theme (or section) to increase the depth and richness of my analysis.

Section one's questions were posed regarding the participants' service history and demographic information. These questions offer prescribed answer selections, none of which will reveal individual identity markers. While I did not use demographic markers as correlative coefficients for data in this project, the aggregate of this data helped me to understand this population as a whole and their needs as both veterans and patients and presents options for future analysis. The answers to these questions helped me to substantiate the validity of the participants in my study given that the stipulations were that participants must be veterans of the American armed forces and have experience with www.va.gov.

Section two's questions were narrowly pointed at participants' experience with the Veterans Affairs' webpage (www.va.gov). The data I looked to collect here indicated access frequency, exigence for access, satisfaction, and if the participants required intervention to help them navigate the site. From these questions, I gained a better understanding of the nature of the experiences of veterans' access to healthcare through the site, as well as how the online space functions rhetorically (**RQs 1 and 2**). This section also turned attention directly towards the participants' experiences with the VA's website for healthcare purposes. It is important to note that none of my data collection questions (survey or interview) touched on participants' specified healthcare needs so as not to commit a HIPAA violation. Instead, the scope of my data collection was aimed at participants' encounters with(in) the spaces of operation and the affordances and limitations they notice therein (**RQs 1 and 2**).

Lastly, the final section of the survey featured a question and follow-on logic sequence asking participants to self-select for one-on-one interviews. Stipulations for the one-on-one interview were communicated and included the following requirements:

- Consent to audio/video recording;
- Accessibility expectations – access to Zoom; and
- Reliable internet access and connectivity.

I realize that these requirements may have altered the participant pool for this section of my data collection, but I needed to emplace these parameters to ensure that the quality of any data I collected had baseline integrity and maintained the same methods of collection, especially because I was interested in interviewing individuals from all over the U.S. I offered \$30 gift cards to interview participants to compensate them for their time and candor. This gift card

amount was commensurate with the current trends in compensation considerations (Teachers College Columbia University, 2023).

If survey participants satisfied the above requirements and chose the interview option, they were directed via an external link to a private, online calendar (<https://calendly.com/luciana-m-herman/dissertation-interview>) for them to schedule their own Zoom interviews based on my preset availability and also had access to my institutional email address. Some elected to email me to set up their interviews in lieu of using the online calendar. The online calendar scheduling feature did not link participants' identities to their survey question responses. The goal of the project was to learn about the nature of veterans-as-patients' experiences accessing healthcare options through www.va.gov. Participants shared their lived experiences with me through their responses to interview questions giving me a more complete picture than that I will have from just the data collected through the survey responses. The aggregate of all the data helped me to move towards answers to each of my research questions.

Interviews

Ahead of the interview, I sent the consent document via email to each participant for their review and signature. Yet, prior to beginning the recording, I re-consented the participants by reading and displaying the consent document via screen-sharing of my own screen if they did not send the signed form back to me ahead of their session. I asked them if they had any questions or concerns about the procedures we were going to use during our time and/or the topic of the research. I instructed them that they were permitted to stop the interview at any time. I explained the presence of Otter.ai in the interview room as a third-party transcription software and reiterated my intention to transcribe and keep any data collected for five years past the final publication of my research on this topic. I then asked each participant for a preferred pseudonym;

if they did not provide one, I assigned one to them. Each interview occurred between a single participant and me via Zoom and was both audio and visually recorded to maintain integrity of the responses during transcription and for me to refer to both verbal and non-verbal cues to identify points of friction (Chammas et al., 2015) when coding my data. It was important for me to interview participants while they were in their own, chosen environment (i.e., virtually) because this was the environment in which they engage with the website, thus adding a layer of not only comfort but also validity to the interview experience (Portugal, 2013). Interviews lasted anywhere from 27-70 minutes, and I interviewed 19 participants (though one participant's interview was not included in the data set because they disclosed that they were still serving on active duty, thus rendering them ineligible for this study). This sample size provided ample data while also fitting the scope of the project and writing genre (dissertation). I include a list of interview questions in Appendix D. Again, the baseline of this interview was asking participants about how they operate within the space and how the space acts upon them; here is where I learned the answer to **RQ2**: How does www.va.gov function rhetorically as a non-human actor, posing challenges to and facilitating users' navigation and access to healthcare?

During the interview portion of my study, I continued to use social constructivism as an approach to “[gain] access to the views and nuances that influenced the individual worlds of research participants” (Ortiz, 2013). Listening to and analyzing individual experiences enabled me to understand nuances and patterns among participant voices, thus ascribing validity to their lived experiences in representing them in my future feedback report to institute change. This practice pushes me towards the social justice treatment of the issue I aim to achieve.

While the participants answered the interview prompts, I listened closely to their voices, words, intonations, and the like. I asked how they act within the space and through their

responses was able to discern how the space acts on them, further illuminating any points of friction. Similarly, I watched for non-verbal (e.g., facial expressions and shift in body positioning) that indicated confidence, frustration, and levels of perceived agency (instances of friction and ease). What I learned can help me uncover spaces for improvement within the system, from which I can craft a response through the form of a publishable analysis. This is also why I chose a mixed methods study; gathering quantitative data ahead of qualitative data establishes a baseline of experience, paving the way for the qualitative data to add depth and breadth to the statistical correlations I found.

DATA ANALYSIS

After closing access to the survey, I downloaded the raw data first as an Excel spreadsheet before using Question Pro's reporting function. I then downloaded the data as a report in both Microsoft Word document and PDF form to not limit the software I needed to use to analyze it. From there I read through the data and coded based on emergent themes. From the transcripts of the interviews, I coded the data using description and themes to guide my analysis (Creswell & Creswell, 2018). Paying attention to "expected codes," "surprising codes," and "codes of unusual or of conceptual interest" not only led to a level of sophistication in teasing out constellations in my data, but also illuminated space for follow-up questions (p. 195). To interpret my data, I used the constant comparison method from grounded theory (p. 198). This inductive method allowed for more organic analysis; themes emerged as I coded the data based on the set I collected and not from what I assumed I would find. From the data, I drew conclusions through my analysis, identified limitations, and uncovered space for future research. As an analytical tool, I referenced word clouds (Calle-Alonso et al., 2019) to parse out themes through comparing transcript text among participants but created a coding method of my own

using mind mapping techniques (showcased in Figures 3.10, 3.11, and 3.12 in the pages following).

Further, my theoretical framework based on a new materialist interpretation of space and Barad's (2007) theories of agential realism will act as lenses through which I will view my data and conduct my analysis. As I stated above, I anticipate common codes and themes to arise across the data but am also interested in viewing how agential cuts²¹ (Barad, 2001) manifest for individual participants. My hope is that using Barad's theories will deepen my understanding of agency²² as well as my ability to observe the entanglements between matter and meaning through the constellation of space, literacy, and agency as it occurs with participants and an online healthcare space.

ETHICAL CONSIDERATIONS

Positionality

To reiterate, I am an outside researcher and do not qualify as a participant in this study. I am neither a veteran, nor do I access my healthcare via www.va.gov. I am, however, tangentially related to my participants through my social position as an active-duty service member's spouse. I have experience navigating the site, yet as an outsider and not one who is dependent on it. I have deep comfortability with using technology, specifically websites, to access information, communicate with others, schedule meetings and appointments, and locate sensitive (i.e., healthcare) information through my personal patient portal. I do not assume that any one of my

²¹ An "agential cut seeks to understand the relationship between material and discursive constraints and conditions" (Barad, 2001, p. 240). Simply, it is the confluence of action that precipitates what we can('t) do, where we can('t) do it, and how we act within a space.

²² Defined by Barad (2007) as "... a matter of intra-acting; it is an enactment, not something that someone or something has" (p. 178)

participants compares to me in any way; I seek to understand their experience and do not intend to impart my own.

Technology Inventory

Choosing what technology to use during this project was paramount given that one of my research questions hinges on technical communication and design. I researched telecommunication, transcription, and social media options before committing to using them so that I could not only stay compliant with my IRB protocol, but also so that participants’ engagement with me (through these programs) would not become overly complicated. The programs I selected (Table 3.1) as touchpoints between my participants and me (social media, Zoom, email, etc.) are commonly used, yet I assumed their commonplace among my participants. Some of the lesser-known programs (e.g., Calendly and Question Pro) presented minimal problems, and I was able to mitigate those minor friction points via email.

Table 3.1: Technology Inventory

Software	Purpose
Microsoft Word	Word processing, transcription format
Question Pro	Survey, data collection, data analysis
Facebook	Recruitment and circulation
Twitter	Recruitment and circulation
LinkedIn	Recruitment and circulation
Amazon.com	Gift cards
Zoom	Interview location and recording
Canva	Infographic creation
Otter.ai	Transcription
Calendly	Interview scheduling, workflows
Microsoft Outlook	Email, recruitment, and communication with participants
Microsoft OneDrive	Document storage

One program specifically streamlined my research process and helped me maintain ethical protocol – Calendly. This program not only served as a scheduling source, but also offered other features such as synchronizing the interview location (Zoom room/ID) and my calendar, as well

as offering the “workflow” option to emplace actions and send communications to participants relative to their scheduled interviews.

Workflow

To ensure compliance with my written IRB protocol, I set up a workflow using Calendly (Figure 3.4, right) to send the informed consent document via email to each participant two days before the scheduled

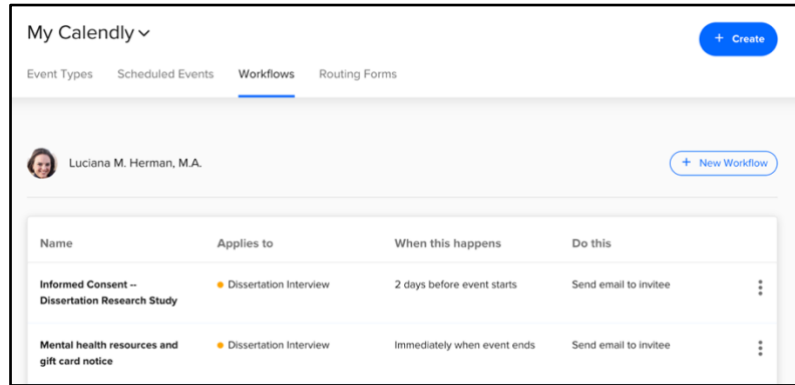


Figure 3.4: Workflow Menu

interview and mental health resources coupled with the gift card notice immediately after the interview session. Calendly’s workflow option (Figure 3.5, below) allowed me to customize timing and actions which helped me maintain consistency in the ethical treatment of each participant. Sending the protocol document prior to the session also served as a reminder of the

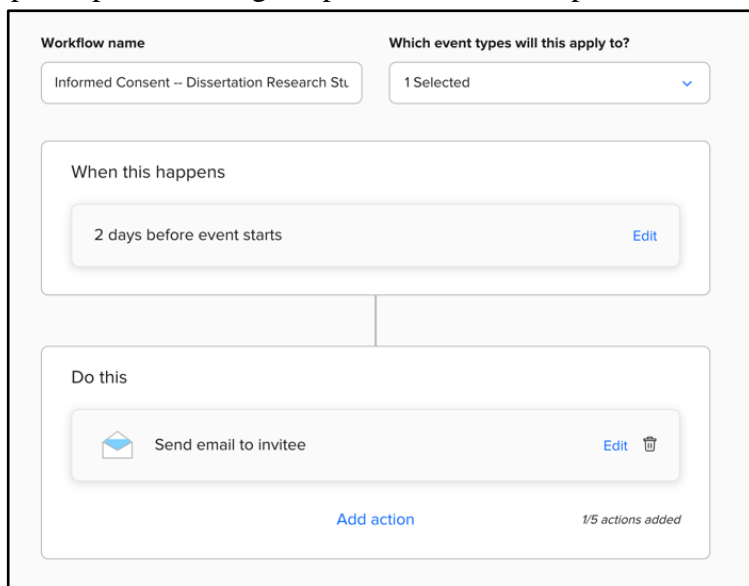


Figure 3.5: Workflow: Informed Consent

upcoming session.

I wrote and uploaded the informed consent document as a PDF then posted it in my UTEP-supplied OneDrive, where I hyperlinked the document as “read only” and uploaded the link within the workflow email (Figure 3.6, right)

for the participants’ easy access to it. From the link, participants read and downloaded the document; they could then print, sign, and send it to me ahead of our session if they chose. Regardless, we went back through the consent ahead of starting the session’s recording pursuant to the IRB protocol.

I used a second workflow to disseminate mental health resources and information about the gift cards given in exchange for participants’ time (Figure 3.7, below). I chose short suspense to send the mental health resources so that participants had access to help if participating in the interview and narrating their experience was troublesome to them.

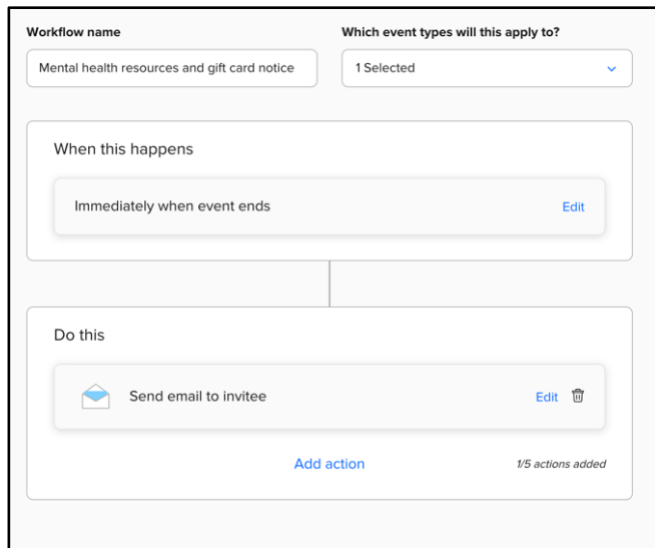


Figure 3.7: Workflow: After Interview

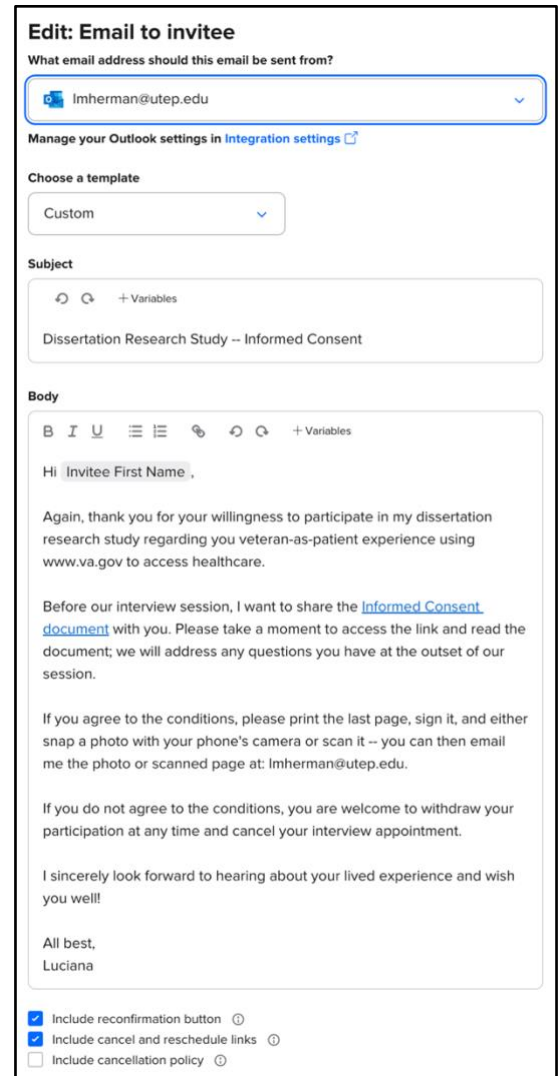


Figure 3.6: Workflow Email: Informed Consent

Similar to the informed consent, I created a PDF (Appendix E) listing mental health resources and safeguarded it in my UTEP OneDrive, linking it in the email with “read only” access (Figure 3.8, on the

following page). Participants could download

the PDF and access any of the hyperlinked resources as the links maintained their integrity given

the documents format (PDF). The document could then also serve as a future point of reference for the participant during a time of need, or as a circulatable resource for others who might benefit from it.

LIMITATIONS

This research is not without limitations. Because I looked at a public-facing, government-controlled, online website, I intended to account for shortfalls in access, resources, linguistic barriers, and varying levels of participants' digital literacy. Additionally, asking participants to reflect on their experiences in a semi-structured interview instead of observing their real-time actions within the space during a usability test introduced the potential for skewed narratives. Yet, reflective responses pulled from memories of events, thus drawing on participants' cognition and emotion which can yield a richness of experience more important than reality

(Norman, 2013). However, these limitations open my work for more discovery beyond this project. Those populations who were not represented (e.g., active duty, dependents, care takers, etc.) in this study are left to be observed, thus broadening my reach and the impact of my work.

Because I did not conduct a purely UX study, I was not able to access the inner workings of the site, discuss coding choices with designers and developers, or directly implement changes based on my analysis of the data collected. I intend, however, to compile my UCD analysis into a

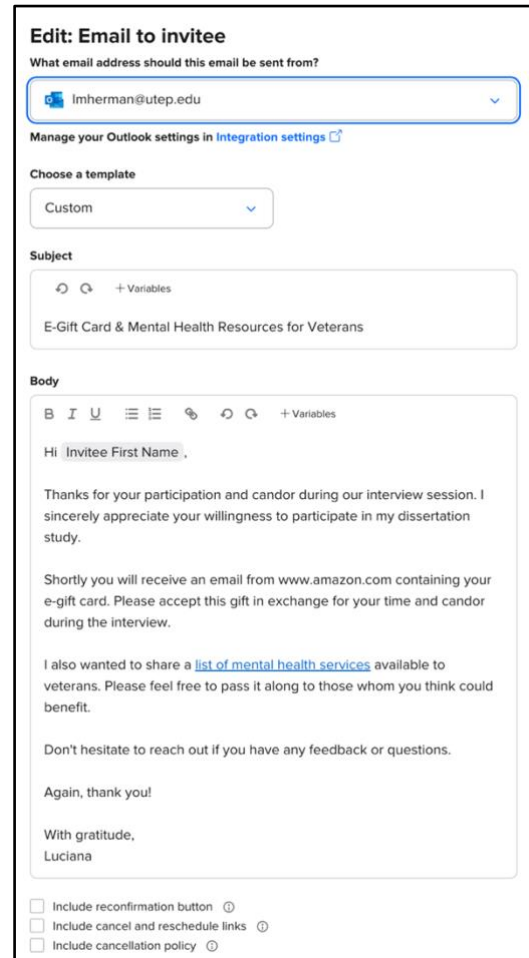


Figure 3.8: Workflow Email: Mental Health Resources

technical feedback report in the form of a white paper and submit it to the site’s designers. As a humanistic pursuit, technical communication has come to terms with an epistemology that can leverage scientific methods without succumbing to scientism (Ballentine, 2022). Also, because I am using non-probability purposive sampling, the data I collected was neither representative nor ubiquitous to all veterans’ experience. Given that I elected to use mixed methods to give me insight, doing so also posed additional limitations. While I did not design the study to observe my participants while they were in the space in real time, conducting semi-structured, virtual interviews allowed me to engage with a wider sample of veterans from varying geographical locations which helped me to better grasp a wider representation of the veteran experience seeking healthcare from www.va.org. To that end, my electing to use mixed-methods proved to be an important choice; using quantitative data to support qualitative data (and vice versa) gave way to analyses that may not have otherwise occurred in single-method studies. I aimed not to generalize for all, but to understand and validate the experiences of those who do participate.

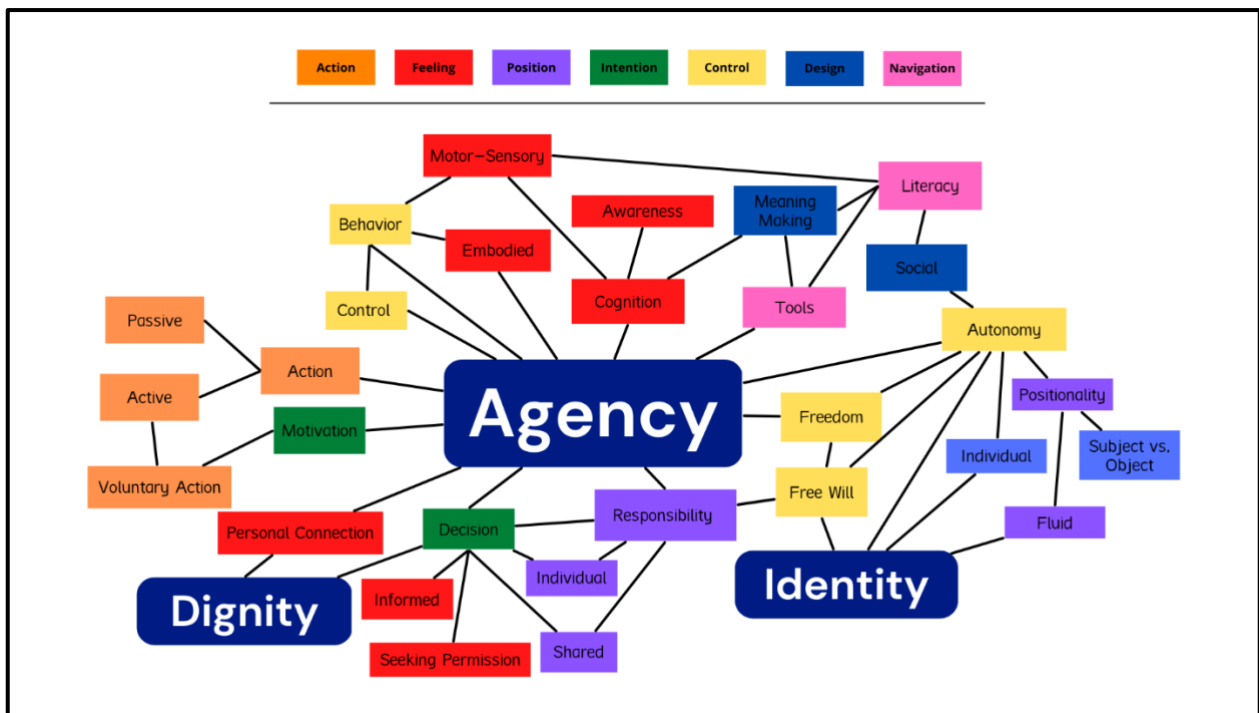
PROCESS OVERVIEW

Data analysis was challenging, insightful, exhausting, and fun. I took thoughtful steps designing this study to ensure that each question I asked would lead to usable data and I ended up yielding more data than I could use and maintain the scope of this project. Gathering the data together and starting to sift through it presented additional challenges—I knew I needed to go backwards and define more terms before I could make sense of the rich information my participants gave me.

I began my analysis by unpacking my theoretical framework further. I took a necessary, deeper dive into agency based on the feedback received at my prospectus defense; I read more sources and pulled apart how agency is used in many different fields, thus leading me to my own

deductive understanding of the term and how it applies to veterans-as-patients, this project, and beyond. To do this, I “mapped” the term. Mind mapping is a useful way to brainstorm, define, parse, and illustrate relationships within a term. I applied the technique here and it proved incredibly useful as *agency* is a complex term; Figure 3.9 below showcases my understanding using deductive methods.

In Figure 3.9, I was grappling with the concept of agency and the part it plays in communication (Aylett et al., 2013; Coyle et al., 2012; Lancaster & King, 2022; Limerick et al.,



2014), healthcare (Ku & Lupton, 2022), psychology (Page-Reeves et al., 2015; Speraw, 2009),

Figure 3.9: Agency Mind Map

and rhetoric (Molloy et al., 2018). Once I gained a handle on the term, I began to read the qualitative data I gathered from the survey and interview responses. I did not expect agency to appear in so many ways, but it quickly became a thick lens through which I was reading. However, I knew that I needed to “code” my data but was wrestling with best practices to

accomplish getting through all of it, ethically handling it, and making sense of it. I returned to mind mapping.

As actions and sentiments began to come to light during my data combing, I compartmentalized them in terms of how they overlaid onto my understanding of agency. At the top of the Agency Mind Map (Figure 3.9), there are seven, different colored boxes that include themes: action, feeling, position, intention, control, design, and navigation. In sum, I conceptualized agency as variable based on levels of control or potential impact wielded from an actor's position(s). I noticed these themes not only when dissecting the concept of agency to better understand it through deduction, but also when inductively parsing out my data sample. These seven themes became tools by which I could analyze and note instances of both individualized and similar experiences from the survey and interview data.

Coding

Using my theoretical framework and noticing which topics from the responses were bubbling to the top, I inductively created new mind maps (I called these "term maps") so that I could look for patterns without aggregating the data and stripping the individuality from the participants' lived experience. The patterns I am referring to are instances where actions and sentiments were repeated or nuanced; therefore, each participant's experience was recorded and treated both individually, but also viewed in the context of others to tease out emerging themes. Melding deductive and inductive methods through mapping yielded a vibrant understanding of the data set; I leaned on deductive understanding to conceptualize my understanding of the terms and in doing so I could more clearly see them inductively emerging from the data provided by my participants. I used the same key from Figure 3.9 (above) across the term maps (Figures 3.10, 3.11, and 3.12) below. Doing so helped me to understand which themes were naturally emerging

and how they might look as I combed through the data. On each term map (Figures 3.10, 3.11, and 3.12), the relevant themes are noted by their rectangular shape and their ascribed color. The round bubbles that offshoot help to connect themes to each other while noting labels coming from the data set.

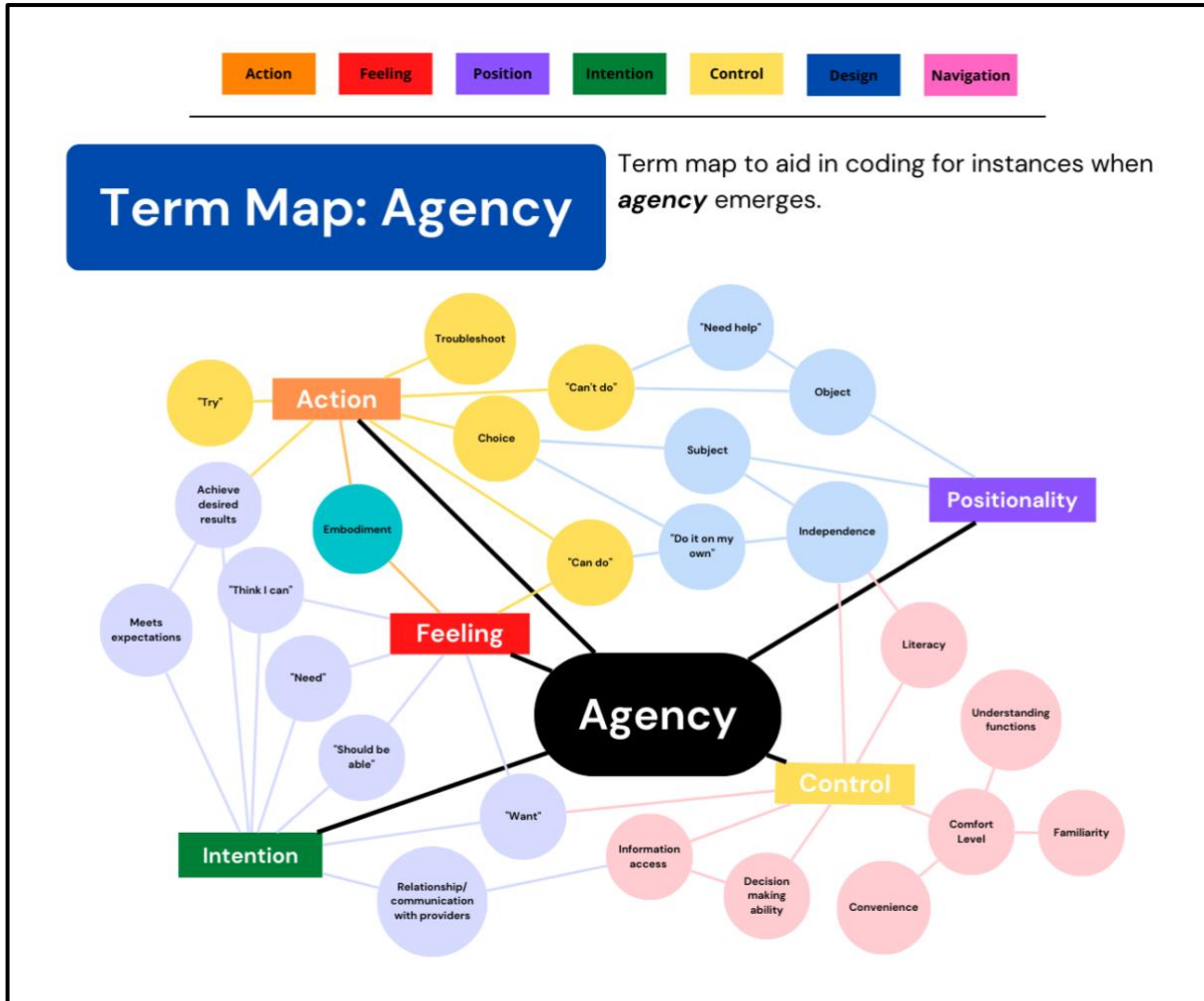


Figure 3.10: Agency Term Map

There are differences between the agency mind map and the agency term map: In the mind map, the purpose was to distill the ways agency appears in many fields so that I could derive my own understanding and definition of it. It helped me to “see” agency in the world. The term map is a

tool I used to code the data featuring frequent quotations—it helped me to “see” agency in the data.

Similar to the agency term map (Figure 3.10 on the previous page), the space and UX/UCD term maps (Figures 3.11 and 3.12, respectively) became useful in helping me “see” where these tenets arose in the data. Seeing where all three (agency, UX, and space) entangled gave way to a significantly deep understanding of agential cuts (Barad, 2007) and the witnessing

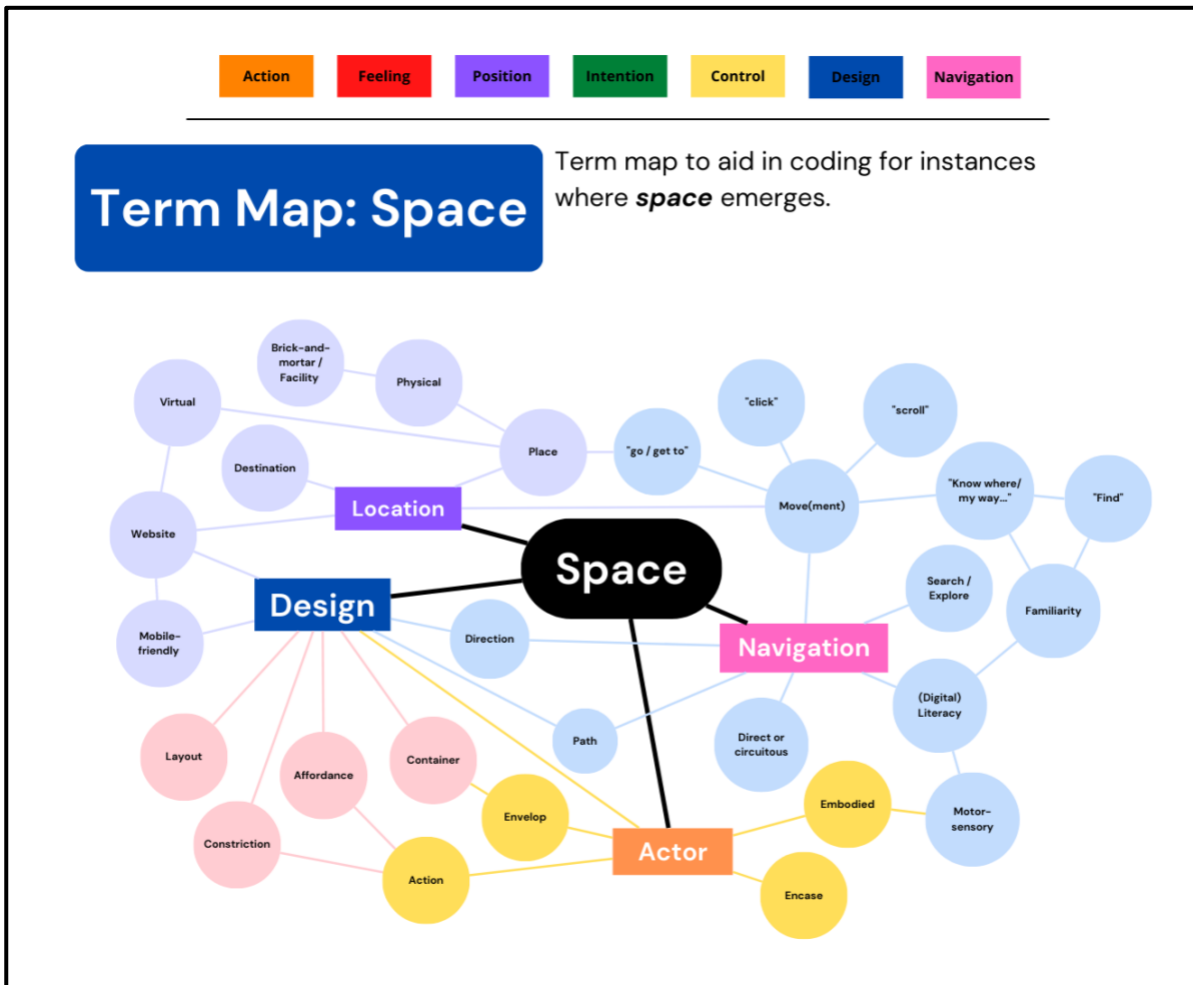


Figure 3.11: Space Term Map

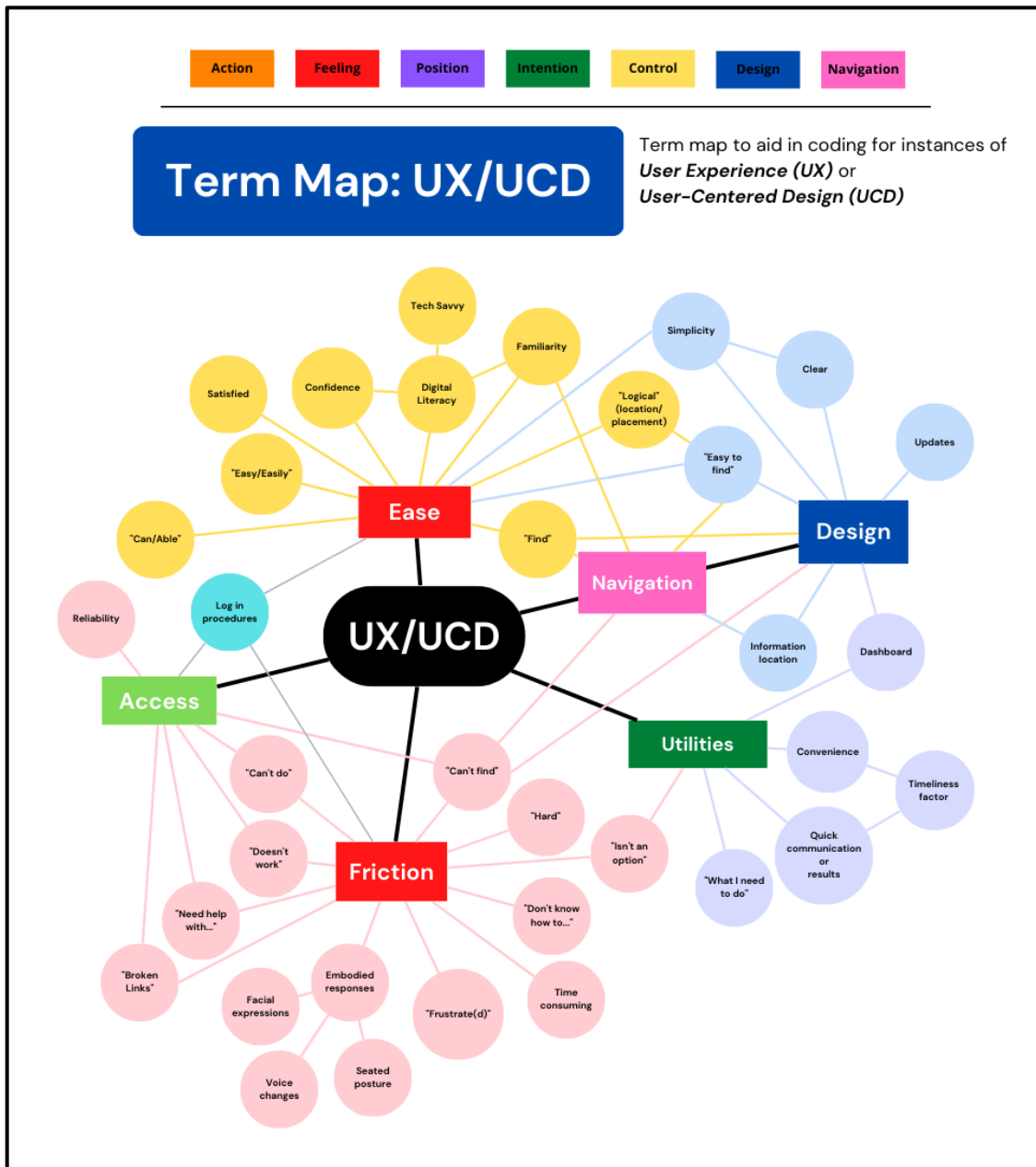


Figure 3.12: UX/UCD Term Map

of them. Continuously combing through the data, making sense of them using coding (via term maps), and locating agential cuts yielded the findings detailed in chapter 5.

Throughout this chapter, I worked through my study’s design, data collection process, technological choices, and illustrated my analytical process through mapping agency, space, and UX/UCD. All of this information is pertinent before moving into the next chapter where I report

my results and give an overview of this study's participant pools (both survey and interview) and data set.

Chapter 4: Results

This chapter includes an overall view of the results of my survey and interview. I begin with detailing the survey, the participant population, and notable data pieces before moving on to showcasing the interview participant pool. It is important to note that the interview pool stems from the survey pool – to self-select for the interview, participants must have completed the survey first. I then break down the logistical data of the interviews before discussing emerging themes and mapping the data collection tools onto my research questions. Happily, I received more survey responses (n=136) and interview participants (n=18) than I thought I would. The responses yielded a rich data set from which I learned a lot, answered my research questions, and have plenty more analytical avenues I can take for future projects. One special note: In accordance with my IRB protocol, participants (survey and interview alike) had the option to skip questions and/or stop the data collection at any point of their choosing. Because of this, the survey data yield varies from section to section and question to question. I make careful note of the true numeric values in my analysis.

SURVEY

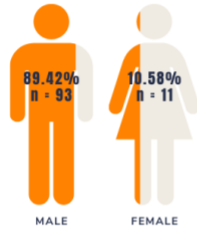
In addition to the quantitative information depicted in the figures 4.1 and 4.2 below, I collected other demographic data that will be useful in future projects but did not give way to correlations suitable for analysis during this work. For example, I asked participants to denote their highest level of completed education, proximity to a VA-approved healthcare facility, employment status, purposes of internet usage, and what (if any) artifacts they use to help access and navigate www.va.gov. All of this data is important yet proves tangential to answering the research questions posed for this project. I archived the data appropriately and intend to use it in future work.

Dissertation Study Survey

RESULTS

PARTICIPANTS

N = 104



ARMY

77.48%
n = 86



NAVY

9.01%
n = 10



AIR
FORCE

7.21%
n = 8



MARINES

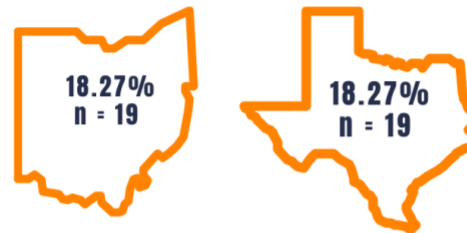
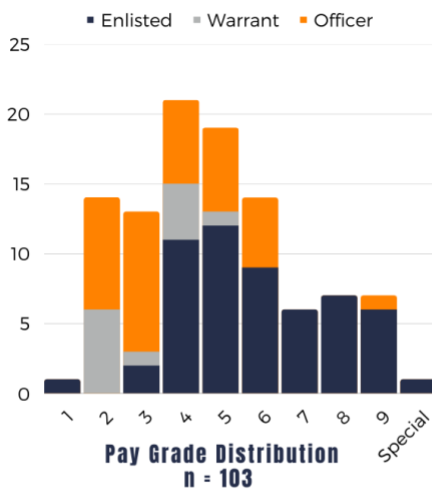
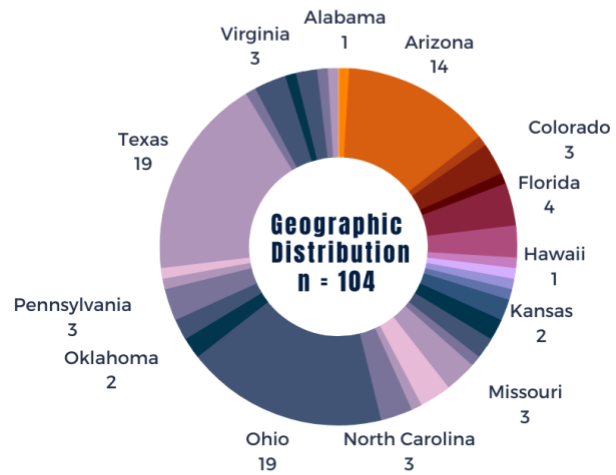
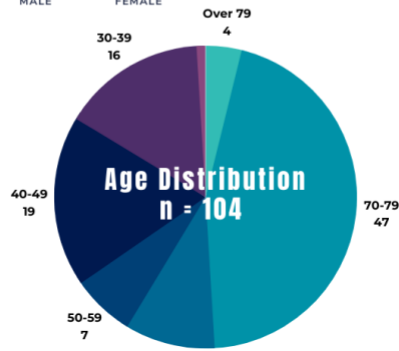
5.41%
n = 6



NATIONAL
GUARD

0.9%
n = 1

n = 111



Greatest Geographic Concentration
n = 38

136

Total Responses*

75

Completed* (all questions)

7 min

Avg. Comption Time

55.15%

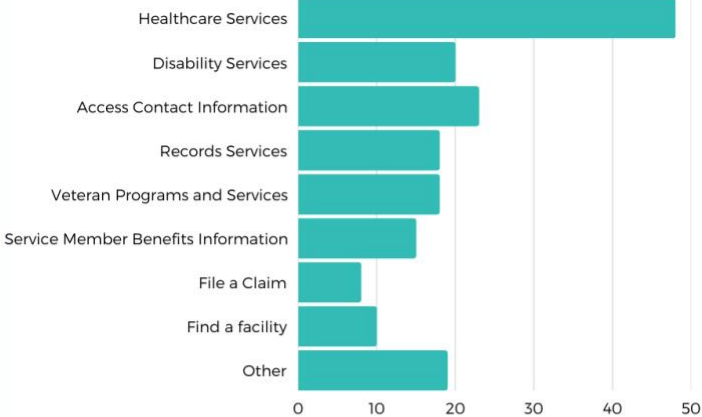
Completion Rate*

*IRB Consent disclaimer states: "...I have the right to skip any questions or stop at any time."

Figure 4.1: Dissertation Study Survey Results, pg. 1

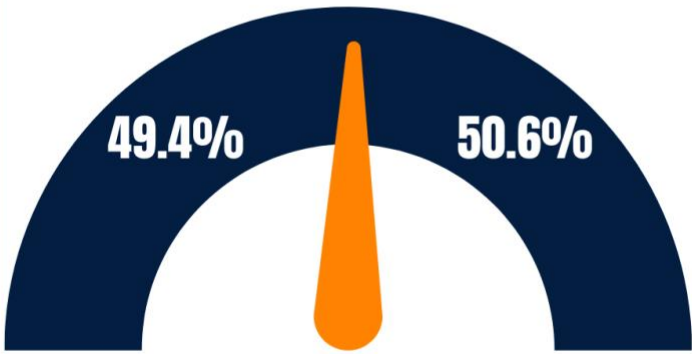
SITE FUNCTIONS

Participants were able to "select all that apply" and note what function(s) they used www.va.gov for in the last 45 days. **48** indicated "**Healthcare Services**," the overwhelming majority.



ASSISTANCE NEEDED

89 respondents (94.7%) reported **not** asking for assistance navigating the website, whereas **5** (5.3%) indicated asking the following for help: "listed point of contact," "disabled veteran group," "help button," "pharmacy support," and "the 1-800 number."



SATISFACTION LEVEL

42 participants (50.6%) indicated feeling "**satisfied**" (n=31) or "**completely satisfied**" (n=11) with their experience navigating www.va.gov to suit their needs.

41 (49.4%) tipped toward dissatisfaction: 22 indicated they were "**somewhat satisfied**" with 13 "**unsatisfied**," 5 "**completely dissatisfied**," and 1 "**unsure**."

Total responses for this question = 83.

Figure 4.2: Dissertation Study Survey Results, pg. 2

Perhaps most interestingly, the survey data reflected that nearly 95% of participants reported feeling confident in their abilities to navigate the site, but only approximately 51% noted feelings of satisfaction (Likert scale value: 4) or complete satisfaction (Likert scale value: 5) with their navigational experience; the mean value for this question's responses was 3.4 (somewhat satisfied), with the median recorded as a 4 (satisfied). Subsequently, participants were given the opportunity to textually describe their satisfaction level choice. Here, responses ran the gamut citing affordances (e.g., "Site is easy to maneuver", "[the]VA keeps me alive", "I can do what I want to do relatively easily", "I know how to...", etc.) and limitations (e.g., "The site [sic] was experiencing technical problems...", "...requires too many clicks...", "It's hard to find answers", "The website is onerously [sic] difficult to navigate", "The user interface is disjointed", "I can't make appointments", etc.). These responses reaffirmed and illuminated facets of agency I pulled from my Agency Mind Map (Figure 3.9): action, feeling, position, intention, control, design, and navigation. Aggregating this quantitative and qualitative data lent a richer analysis of the patient experience and crystalized the choice for mixed methods.

Beyond the additional quantitative markers, the qualitative data collected through the other text box-formatted question gave way to several emerging themes. Participants were prompted to explain the satisfaction level they chose to illustrate their experience navigating www.va.gov for their needs. Through the responses, the following issues arose most:

- Navigation – "can't find...", "easy to get to...", "hard to navigate," "easy to navigate," etc.
- Design – "user interface," "layout," "easy to find where...", "hard to find where...", etc.
- Ability – "can't do what I need to," "found what I wanted," "confusing," "frustrated," etc.

- Access – “doesn’t work,” “can’t log in,” “challenging process,” etc.

I noted these frequent responses and constellated them with my theoretical framework to analyze the data in tandem with the qualitative data collected through the interviews.

Section 2 of the survey was aimed at participants’ use the Internet and online healthcare spaces, specifically the VA online healthcare space. The questions in this section were designed to substantiate the participants’ usage (frequency, currency, and functionality) of online healthcare sites, specifically www.va.gov (questions 1-6 and 9) and their perceived satisfaction levels with operating within the space (questions 7, 8, and 10-13). Of special note, 63% of participants (n = 65) reported that they use other websites for healthcare needs, listing the following as examples (with domain extensions removed):

- Tricare
- Aetna
- MyChart
- myhealthvet
- Mayo Clinic
- Cleveland Clinic
- Web MD
- Blue Cross/Blue Shield
- Baylor Scott & White
- Military Health Services (MHS) Genesis
- Cigna

This data correlates well with the following question which asked, “for what purpose(s) do you use the Internet?” Participants could “select all that apply” and 74% (n = 76) recorded using the

Internet for healthcare purposes among other popular (above 65%) selections: personal 90% (n = 93); email 93% (n = 96); shopping 87% (n = 90); financial 80% (n = 82); social media 75% (n = 77); and communication 68% (n = 70). This data became useful when correlating participants' Internet usage with telehealth service offerings and the relationship that exists between patient agency and access to healthcare.

INTERVIEWS

1. After consent, begin session recording.
 - a. Ask the participant to identify themselves and choose a pseudonym.
2. Can you describe how confident you feel using www.va.gov?
 - a. Do you use other websites to manage your healthcare or in other aspects of your life?
 - b. How does your confidence level using the VA health care website compare to your confidence level using other websites?
3. How successful do you think you are in navigating this site for your needs?
 - a. Can you think of a time when you had a positive experience navigating the site? Can you walk me through that?
 - b. What made the positive experience possible?
4. How accessible do you find the information on the site?
 - a. What do you find the most useful? What do you find the hardest to use?
5. If you have obstacles (have trouble finding what you're looking for), how do you mitigate those?
 - a. Can you walk me through an example of a time when you faced a navigation obstacle? What did you do?
6. If you asked for help, whom did you ask? How did they help?
 - a. How did asking for help make you feel?
7. Do you use any aids or artifacts to help you navigate the site? For example: password keeper, notes/notebook, how-to videos, blogs, crowdsourcing, etc.?
8. How does this navigation process make you feel?
9. How do you think using this health care site has impacted your view of your health care?*
- 9*. How do you think having access to your healthcare information through this site has impacted your choices, practices, and/or view of your health care? (Revised: October 22, 2022, after six completed interviews)
10. Are you able to do what you want or need to do within this online space?
11. If you could do anything to make VA website navigation a better experience for other veterans, what would you do?
12. Would you be willing to be contacted again with additional questions about your experience with www.va.gov and/or for further clarification of the answers you provided here today?

Figure 4.3: Interview Procedure and Questions

During the sessions, I used software to transcribe the audio (Otter.ai) in addition to audio and visually recording the interview through Zoom. I prepared a hard copy “facilitation packet”

for each session containing the consent statement, spaces to fill in the participant’s name, pseudonym, verbal or emailed consent choice, session date and time, interview procedure, and interview questions (Figure 4.3 above) with ample room to annotate answers and observations. I also recorded any technological issues we experienced, whether the participant’s camera was on, and if they accessed www.va.gov during the session.

Figure 4.4 (below) depicts the interview population’s demographic data as well as some key features aggregated from the sessions’ logistical data.



Figure 4.4: Dissertation Study Interview Results

Table 4.1 (below) details the logistical information of each interview, culminating with the total tallies of participants, their sexes, number of video feeds, how many interacted with the site during the session, and the sessions' duration.

Table 4.1: Interview Log

Order	Date (2022)	Pseudonym	Video On	Site Interaction	Duration
1.	Tuesday, 10/11	Nick	No	Yes	41:02
2.	Thursday, 10/13	Megan	Yes	Yes	27:12
3.	Sunday, 10/16	Kontakt	Yes	No	41:30
4.	Monday 10/17	Bob	Yes	Yes	36:41
5.	Monday 10/17	Carl	Yes	Yes	52:32
6.	Tuesday, 10/18	Zulu	No	Yes	57:13
7.	Saturday, 10/22	Jed	Yes	No	59:43
8.	Monday, 10/24	Devon	Yes	Yes	44:55
9.	Tuesday, 10/25	Phillip	Yes	Yes	33:10
10.	Tuesday, 10/25	Roger	No	No	1:01:55
11.	Wednesday, 10/26	George	No	No	44:26
12.	Monday, 10/31	Eli	Yes	No	27:35
13.	Monday, 10/31	Kyle	No	No	37:32
14.	Tuesday, 11/1	Arden	Yes	No	48:47
15.	Wednesday, 11/2	Logan	Yes	Yes	29:25
16.	Thursday, 11/3	Blair	Yes	Yes	50:30
17.	Monday, 11/7	Duke	Yes	Yes	1:10:11
18.	Thursday, 11/17	Opal	No	Yes	51:50
Total: 18 (M=13, F=5)			Y=12, N=6	Y=11, N=7	13:36:09

EMERGING THEMES

Much like my preliminary analysis of the qualitative text gathered during the surveys, for the interviews I used the constant comparative method from grounded theory (Creswell &

Creswell, 2018) and noticed patterns emerging from the answers to each question and from observations I made during the interview sessions. For example, almost all (n=16) participants mentioned their self-ascribed level of digital literacy in relation to their confidence level using www.va.gov. Additionally, several (n=5) mentioned the frequency of site (design) updates in relation to their comfortability achieving their desired results within the online space.

When revisiting the recorded interviews, transcripts, and my notes, I detected visual and auditory changes when participants narrated their experiences. I used these observations to signal some emergent themes. Those whose video feed was activated during the interview and who also accessed the site during our session exhibited like body language when giving similar responses. For example, “Phillip” relaxed his shoulders and moved backwards in his seat when he found that he could, in fact, successfully make an appointment with a provider through the site thanks to an update completed since his last date of access. Analogously but dissimilar, “Duke” tensed his posture and seat position when he noted his frustration with being able to easily access the functions he uses most frequently. He explained that a “dashboard” design would make locating functions he uses most much easier, all while squinting, furrowing his brow, moving closer to the screen, and repeatedly clicking. Observations of physical markers coupled with narrated lived experience (sometimes common, sometimes singular) pushed themes forward and helped me “map” my theoretical terms: space, UX/UCD, and agency. I showcase these “term maps” in the next chapter. To forecast, Table 4.2 below displays the theoretical term and some of its accompanying themes.

Table 4.2: Theoretical Terms and Accompanying Themes

Theoretical Term	Theme
Space	Navigation
	Actor
	Design
	Location
UX/UCD	Navigation
	Design
	Utilities
	Friction
	Access
	Ease
Agency	Positionality
	Control
	Intention
	Feeling
	Action

In sum, I used these themes as my codes to make sense of the rich data set and thus pull my findings and answers to my research questions.

Initially, I had trouble differentiating findings from research question answers, but I realized that they are different in scope. My findings are more generalized statements based on the aggregation of this data relative to the scope of *this* project, whereas the answers to my research questions are based on the individual responses collected here. Specifically, my research questions and their focus intended not to generalize my participants' experiences, but rather preserve their individuality so that I could parse out the ethical considerations of technical

communicators in considering individual users instead of imposing an “one size fits all” approach to space design. To forecast, my findings include

- Space functions as a non-human actor;
- Healthcare space impacts patient agency;
- Agency, like identity, is fluid; and
- Agential cuts can be witnessed when space, UX, and agency entangle.

These findings are explained in Chapter 5 and reside in tandem to the answers to my research questions.

Although I originally presented my research questions (RQs) as a bulleted list so as not to impose a hierarchy, for mapping purposes, I needed to designate each question with a numbered label for reference purposes. However, I wish to reiterate that no one question, or its findings, outweighs any other. I carefully designed survey and interview questions to help me answer my research questions. The wording of the survey and interview questions hinged on key words selected to address the nature of the RQs. To ensure that I gathered a satisfactory level of data in which to answer each RQ, I mapped the questions onto the RQs and included the key words used to draw the correlations.

RQ1: What are veterans’ perceptions of their experiences accessing healthcare through www.va.gov?

RQ2: How does www.va.gov function rhetorically as a non-human actor, posing challenges to and facilitating users’ navigation and access to healthcare?

RQ3: In what ways does virtual healthcare space entangle (or intertwine) with other actors as veterans-as-patients access it via www.va.gov?

RQ4: How does this entanglement affect the work and perspective of technical communicators and designers?

Table 4.3: Research Question and Data Collection Map

Research Question	Method	Question(s)	Key Words
RQ1	Survey	2.7, 2.8,	Satisfaction level, choice
	Interview	2, 3, 4, 8, 10, 11	Confident, feel, confidence level, successful, accessible, needs, experience, possible, useful, hardest, able, navigation better experience
RQ2	Survey	2.9, 2.10, 2.11, 2.12	Functions, find, complete actions, functions needed, could not complete, assistance navigating
	Interview	2, 3, 4, 5, 6, 7, 8, 10	Confident, feel, confidence level, successful, accessible, obstacles, mitigate, help, needs, experience, possible, useful, hardest, able, better experience
RQ3	Survey	2.11, 2.12	Functions needed, could not complete, assistance navigating
	Interview	3, 5, 6, 7, 9, 11	Successful, navigating, obstacles, mitigate, help, artifacts, access, choices, navigation process, navigation better experience
RQ4	Survey	2.10, 2.11	Complete actions, functions needed, could not complete
	Interview	2, 3, 4, 5, 6, 7, 8, 9, 10, 11	Confident, feel, confidence level, successful, accessible, needs, obstacles, mitigate, help, needs, experience, possible, useful, hardest, access, choices, able, better experience

Following the mural of results and their correlation to the study’s design (i.e., data collection methods and tools), the discussion of the data I collected via survey and interview and my analysis of it follows. In the next chapter, I include data-supported analysis and substantiation to my findings and answered research questions. The chapter is sub-divided to arrange my findings first, and then the research question answers to follow, yet I also include answers to my research questions as the thread that knits my findings to this specific study.

Chapter 5: Discussion and Analysis

FINDINGS

In this chapter, I pull data I compiled from both the surveys and interviews and discuss my findings. My analysis of this data set and the aggregation of the responses led to three key findings; the individual coding of the responses consequently helped me answer each of my four research questions. While I tease out my thematic findings and answers to my research questions in separate sections, each influenced the analysis of the other and is weaved throughout the discussion providing continuity.

Space Functions as a Non-Human Actor

Drawing from my theoretical framework, I define space as “a set of relations between things” (Lefebvre, 1991) that is articulated with boundaries to localize action yet belongs to a vast idea that has neither a beginning nor an end. Before completing the research for this study, I understood this definition as theoretical, but now I understand it as practical. For example, during the interviews, the “It’s [the site] not letting me do....” sentiment arose frequently bringing forth the correlation among action, access, and space. Rickert (2013) explains that rhetoric is tethered to material being; this reaffirms that *where* rhetoric occurs matters and that the space itself functions as an actor and is thus part of the actor network (Latour, 2005).

The notion of “relations between things” becomes increasingly important when discussing access to healthcare information via the online space. In this way, the space itself “things” (i.e., assembles, brings together that which exists within it); it acts and functions as an actor. One’s access experience to this information through the site, then, plays a role in their decision-making ability through reflecting on personal data (e.g., blood test results) and making choices (e.g., changing one’s diet). For example, one participant’s account of his information

access through a privatized healthcare site (Epic) different from the www.va.gov reaffirms that his (and his family's) decision making abilities are affected by Duke's ability to look up his medical information and share it with providers. In this case, the online space acts as a "relation between things" and though it is not VA-connected, it showcases how healthcare space impacts patient agency (RQ3). Duke narrated:

During the COVID, we found [our medical information] in, you know, on Epic, I've got this, I've got a summary of pretty much everything that's there. And it's useful in that it is interchangeable amongst the different providers. I can go in and allow access to those providers, you know, I can go into what I was at a Houston Methodist, I can go in there and say, well, here's all my blood tests, the University of Maryland. And they're there. Here's all the, you know, here's the results of my visits to other doctors that you can go give them permission to go through and pull it up. It's just a lot easier. It's very, it's useful, almost a necessity. Important because some of the problems, I have medical problems, but it's very useful to have all of that sort of in one place out on access to it. It's all out on the cloud somewhere. The other thing that's good about that is and I guess it could be done with VA or any other site, but my wife has access to my phone. My kid needs to have "X" they don't have the easy access, but they know the six-digit number after punch in I think they do they may or may not; my son is a little iffy. But that makes it easy. You know, it's all right there. If they ask a question, hey, it's all right there. What drugs are you on? It's all right there. What allergies? It's all right there. What are your vaccinations' ID? That's a little that's somewhere else but because I haven't figured out how to get all the vaccinations into that system. But that's somewhere else on the phone.

The shared decision making among Duke, his family, and practitioners in Duke's best interest that can happen because of the streamlined access to Duke's information impacts his patient agency. And while this healthcare information format is not currently featured on www.va.gov, it presents some potential fodder for design improvement and room for integration with outside healthcare sites, which could ultimately strengthen patient agency across platforms (RQ4). In this instance, Duke's narrated experience sheds light on how this virtual healthcare space entangles with his, his family's, and his practitioners' access to his healthcare information ultimately impacting his perception of his patient agency and illuminating the work and perspectives of technical communicators and designers.

Along the same lines, George's access to his diagnostic reports via www.va.gov impacts his agency as decision-making through his ability to monitor his baseline numbers and seek help if changes arise:

Well, the only way [accessing test results] would affect my decision would be if something appears to be out of line in terms of the prior blood draw and also to make sure that if I do have any questions, I can ask my attending physician then he in turn can give me advice as to what may have caused the deviation from the prior blood draw and what action we can take to go forward. So that would be the only reason I would look at that. I mean that's the major reason I would want to do that.

Accessing bloodwork information through the site has the potential to become increasingly important for George; he prefers to stay as informed about his health as possible and act when needed. Therefore, the site's function of showcasing his healthcare information behaves as a conduit to his decision making (RQ2). In this way, the online space functions as a non-human actor facilitating George's access to healthcare.

Conversely, challenges to accessing information on www.va.gov can have the inverse effect and act as an impediment to accessing healthcare. To mitigate the friction experienced by inaccessibility of his medical information on the VA site, Jed keeps hard copies of his test results. He prefers not to rely on the site so that his care is not contingent upon the site's functionality and waiting for information to pass from one practitioner to the next (RQ2). His explanation of how he keeps his health records very clearly communicated a sense of agency and charge in his participation: "So I mean, every lab I've ever had is in this binder. All the X rays, everything. So, you know, that's nice for me because we're able just to print it off the eHealth site, instead of waiting for somebody to mail it to me or come back in two weeks, and we'll have it printed out." Having all his medical information in one place and personally controlling the dissemination of the information when seeking healthcare firmly emplaces Jed in the subject position, thus making him feel as though he has more power over his healthcare choices and increases his participation.

Accessing healthcare information through the digital space also mediates Jed's interactions with practitioners in physical space. He can make copies of pertinent test results or notes and relay them to new or different practitioners involved in his care which can greatly impact the standard of care Jed receives. Further, William Mitchell (qtd. In Rice, 2012) discusses the "economy of presence" as a "means to interact with one another both locally and remotely, both synchronously and asynchronously, and in all possible combinations of these". Logan shared a similar use to Jed for accessing his test results: "It's not a day-to-day thing that I check. But on the other side of that, it comes in handy with like, a backup for appointments." Mediating their agency through information access via www.va.gov is integral for Jed's and Logan's economy of presence and substantiates their participation in their own healthcare process.

Having simplified access to healthcare information through the online space enables Jed and Logan to monitor upcoming appointments, converse with practitioners, and review diagnostic reports; through these actions, each gains autonomy, makes his own decisions, and can advocate for himself. In these ways, www.va.gov (virtual healthcare space) collects information and forwards it to the user, thus performing as a non-human actor and impacting patient agency through affording and limiting access to information. Therefore, the space functions as a non-human actor and entangles (intertwines) with other actors impacting user experience and agency. Space, or “a set of relations between things” (Lefebvre, 1991), houses the action among the person (user), their experience, and the available information, thus intertwining with all facets of the interchange and mediating the propensity for action (rhetoricity). Ultimately, adding a new materialist view of space (e.g., space as a non-human actor) can offer technical communicators and designers a unique vantage point in seeing the space as more than a product and viewing it as an entity that engages with its user, impacting their experience and sense of agency.

Healthcare Space Impacts Patient Agency

As telehealth²³ users, patients’ digital literacy impacts their agency by affecting their feelings of control of achieving their intended results, affording them navigational access to information used to make decisions, and operate from an autonomous position. For example, several common threads related to patient agency emerged from both the survey and interview data:

- “I can’t do it [access the information] myself. Now I have to call someone.”
- “I can see everything here; I can make decisions.”

²³ By definition, “telehealth uses technology to create a medical encounter between two parties” (Ku & Lupton, 2022).

- “I can look at my test results and figure out what I need to do next.”
- “I can get in contact with my provider.”
- “I can make appointments and fill prescriptions.”
- “I can monitor my condition and make decisions based on my needs.”

In these statements we see how the participants’ patient agency is shaped by what actions they perceive that they can and cannot complete. The actions they (do not) take have a direct correlation to the degree in which they can participate in their healthcare through autonomous behavior.

While many participants noted positive aspects of accessing healthcare and information via www.va.gov (RQ1), some negative points arose when participants narrated their experience during the interviews. Referring to the points listed above, the participants seemed more relaxed (evidenced in voice and posture) when recounting what they *could* do as opposed to what they *could not*. In this way, I classify these perceived maneuvers within the space into affordances (positive) and limitations (negative) which directly impact the level of control a participant has over their own actions and decision-making ability.

Specifically, Jed’s experience accessing healthcare via www.va.gov is one fraught with friction and limitation. His frustration with his positionality came in the form of having to seek outside help for an action he expected to complete independently:

It was a little frustrating, because it's like, why isn't this [information] easy for me to find? Why do I have to reach out to have somebody else try to find this information? When it should be right there, you know, you have a website, have make an app, you know, where you click on something, and hey, do it by location if you want to. But, um, you know, so it was kind of frustrating that here's this big organization, that, I mean, it's,

it's a bunch of red tape to get any information from and it just kind of made you feel. I don't know, it was kind of demeaning in a way that like, oh, I can't even go in and make my own appointments.

During this retelling, Jed's posture appeared tense, his voice got louder, and his brow furrowed. He was visibly and audibly recanting points of friction and showcasing how having limited access to information and routing functions (i.e., making appointments) impacts his patient agency and relegates him to the object position. In answer to RQ1 which points to veterans' perceptions of their experiences accessing healthcare through www.va.gov, Jed's perception of his experience was clearly one saturated with frustration and roadblocks.

Specifically turning to digital literacy, some participants gave caveats to accompany their articulated troubles with the site. Kontakt pressed his age forward as reasoning behind why he has issues achieving results through the site: “[A]s generations come up, they understand this stuff [websites]. It doesn't matter how convoluted it is. But it's the old people like me that, and I'm sure there's others besides me that are affected by this, because we're trying to get pills and stuff.” He seemed somewhat resigned to his friction and treated his inability to “understand” digital spaces as a function of his age. However, when asked how successful he felt he was navigating the site for his needs, Kontakt said he was “Moderately successful. I, you know, it's, it's frustrating. But I'll get there if I get in trouble. And I'm really fast. And my wife sometimes either helped me or make me go away. And if I really get in trouble, my son can fix it like that [snaps fingers]. I mean, it's over the phone, but he can fix a site he's never seen, you know.”

When he has issues navigating or accessing the site, Kontakt has a clear help system in place, but stipulates that he uses trusted members of his family to help him. Here, I can tease out some ways that virtual healthcare space entangles with other actors, thus answering RQ3; the space,

the participant, his self-ascribed level of digital literacy, and his family members intertwine to push his patient agency forward.

Linking his digital literacy to his confidence using the site, Kontakt offered a metaphor to illustrate the relationship: “But think of flying, flying on instruments, you have to really believe in your instruments, or you can really get the helicopter turned upside down quick and it'll eat it; it'll turn itself to pieces. So, you don't want to not have confidence. You can't do it [fly the plane] if you don't have confidence. Well, just getting medical supplies is not the same, but it is you know, it's the same. If you don't have confidence, it doesn't work as well. you would die fast if you did not have confidence in instruments.” Therefore, Kontakt’s confidence in using the site (as an instrument) directly correlates his feelings of patient agency in that his perceived ability to use the site to fully participate in his healthcare is related to his trust of the site as an instrument (non-human actor). When he has confidence in his ability to maneuver within the site and complete desired tasks (e.g., order medical supplies), the site (as a non-human actor) facilitates his access to healthcare supplies needed to live healthfully (RQ2).

Switching gears from Kontakt’s experience seeking routine or long-standing care, instances where veterans-as-patients look for urgent or emergent healthcare can further impact their dealings within the space. For example, regarding asking for help when an acute healthcare need arises, Carl stated:

I can do things. When I need it, to a great extent, like I said, you know, if I'm feeling bad today, for example, and I need to see my doc, I send them a message, and the nurse will get right back to you. So rather than being on there for 20-25 minutes, or being told to leave a message, this is great. I left a message they get back to me. And can you come in such and such a date? Please call me at this number, and they'll give you their number. Or

at least my provider? Does the nurse call me? And we'll set something up? So yes, it's impacted me, I think it's, it's, and I'd rather do that I don't like to necessarily deal with a whole bunch of people, you know, especially when you're not feeling well, you know, and this, this helps.

Earlier in his interview, Carl explained that he feels comfortable asking for help when he cannot find information on the site. In the case of an acute need, he knows whom to contact to get in touch with his provider and can circumvent using the communication features on the site as he stipulated not feeling as comfortable using those features. Taking action by phoning a point of contact and having the choice to not use the site to get in touch with a practitioner further illustrates agency—Carl acts on his own behalf and can make informed choices based on avenues he knows will get him the results he desires. In this retelling, I see that, for Carl, the site operates as a non-human actor by challenging his access to information and forcing additional action (making a phone call), thus entangling with other actors (communication methods, points of contact, etc.) in the process of his navigation and access to healthcare (RQ2 and RQ3).

Similarly, George expressed his confidence in seeking help when navigational challenges with the site arise. Though, overall, he reported his positive impression of the site and its features and very little friction performing desired actions within the space. George valued having the choice of using the site (autonomously) or speaking to a point of contact if he desires more or clearer information. He expressed:

I feel confident enough to realize that when I have a concern or a question, I can contact my provider at the VA, and I have done so in the past and I have been greatly appreciative of the fact that they got back to me by an email response to any of my questions. And then also, what's available on that site is I can access any of my test

results that I've had in the past which is a very nice feature. So, in answer to the question, yes, I enjoy the availability of having access to it. And I do not have any problem using it when I have a question.

In this instance, George correlates his confidence to his autonomy; his patient positionality is enhanced by his understanding of his proficiency to move and function within the space, and when met with instances of limitation, he readily chooses a different action to lead him to desired results (calling a point of contact).

Therefore, looking at the correlation between healthcare space, “a set of relations between things” (Lefebvre, 1991), and patient by agency using these participants’ perceptions of their experiences accessing healthcare through www.va.gov (RQ1), we see that none of these concepts is fixed, but rather is situationally dependent (i.e., rhetorical), intertwined (RQ3), and contingent upon the actors’ impact on each other. Consequently, the participant’s positionality is impacted by their digital literacy (navigation of the space), which ultimately influences their level of participation and agency in their healthcare. However, patient positionality is not fixed, and it readily intersects with their agency and identity; each of these can be influenced by *where* (healthcare space) the engagement occurs.

To reiterate, where patients interact with their healthcare and their comfortability navigating that space can directly impact the outcome of the encounter. Barriers to access or navigation can shift the patient’s positionality from subject (completing the action) to object (receiving the action), which can challenge their agency and abilities to fully participate in their own healthcare. This could potentially push the patient farther away from getting the healthcare they need, resulting in negative healthcare consequences. This potential outcome is important for designers and healthcare professionals to consider to better care for their clients and patients.

Agency, Like Identity, Is Fluid

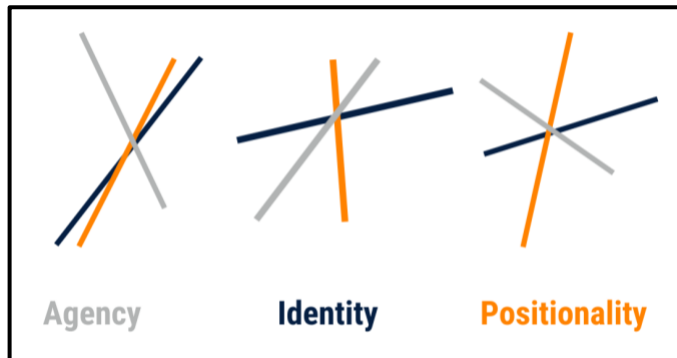


Figure 5.1: Illustration of Fluidity of Agency, Identity, and Positionality

Moving from the previous section where I concluded that patient agency is not fixed, it follows that identity, as a facet of agency, and the position at which they intersect, are also fluid (Lyotard, 1984). To reiterate, the relationship between agency and identity hinges on positionality.

Agency refers to the control one has over their own actions and the sense of self (identity) that stems from that enactment; positionality encompasses the station(s) from which one enacts their agency. The intersectional fluidity of the relationship among agency, identity, and positionality is illustrated in Figure 5 (left). None of these entities is temporally-spatially stagnant, but rather in flux depending on the situation and its conditions. This indicates the rhetoricity (i.e., contextual and situational dependence and propensity to affect action) of this relationship and illuminates how this intersection is not fixed in time and place, but ever evolving.

For example, figuring out when to make one's own decisions and when to contact a practitioner for consultation or permission (agency) illustrates the movement on the spectrum between (fluidity) the subject and object patient positionalities. The tandem occupation and simultaneous switch between polar positions has a direct impact on a patient's sense of control over their own actions. For Phillip, his identity as a veteran, patient, and person is impacted by his service-connected hearing loss. In his everyday life, especially with the sharp shift in telecommunication use during COVID-19, Phillip vacillates between the subject and object position. When we discussed how he seeks with www.va.gov, he discussed his reliance upon

points of contact completing actions for him within the virtual space given his hearing difficulties and using the phone:

Now do they [contacts reached by phone] complete the action for me? Yeah, they completed the action for me because like at that point, I don't even recall if they, you know, tried to navigate me to the right spot on the site. It was just like I'm, I'm very frustrated with the site and I don't want to deal with that right now. Can you help me do this? . . . not being able to do self-service in general, for me is frustrating, like, I ordered pizzas online now I don't like making the phone call to chat with people. And again, a good portion of that is due to my, to my hearing loss. Like I, I have challenges understanding speech if I can't see the mouth moving, which is why I love video polls like I even like work related stuff. I'm always the guy who turns my camera on to every meeting, if for no other reason that peer pressure people to do it so I can actually see their mouth moving when they're talking. So yeah, it kind of played against the disability that I'm calling them about, in that sense, you know, having to having to do it verbally instead of just clicking through a website like it's 2022 or something. (RQ1, RQ2, and RQ3)

In his retelling of his experience, Phillip lays out the actions he takes in order to properly access the healthcare services he needs via www.va.gov (RQ1) and details how the site functions as a non-human actor (RQ2) in forcing his need to contact an external agent for help locating information (RQ3). In this case, Phillip's patient agency is directly correlated to his positionality (as the autonomous decision-maker and the person in need of assistance) and depending on his ability to move throughout the space and accomplish his desired actions, both his agency and his identity remain fluid in that they are situationally and conditionally dependent and, as such, unfixed.

Another illustration of the fluidity of agency and identity comes from Arden. Her narration centered on the space's design and function and not as much with her impairments using it. When asked how confident she feels navigating the site for her needs, Arden explained, "I feel pretty confident in my abilities, but in navigating [the site] and utilizing it, it's just not very user friendly, or very, what's the word? Helpful, we'll go with helpful." She went on to explain that her frustration with the site is not just from her navigation troubles, but also in the errors she receives when she finds where desired information *should* be accessible:

Um, you can review all your stuff on the VA. But as far as like finding out all their information, you really can't like even though they scan all your information in, like, say, I wanted to go look up from when I was pregnant with [my daughter], and all the testing or if there was any documentation about my varicose veins, you can't find it. It won't. It's just errors like, loading. And I still have my hardcopy ones, but it's the pure convenience of scrolling instead of paper, paper, paper. You know what I mean? But you can't. But it's, I mean, it's hit or miss? I mean, I don't really, I don't rely on [the site].

For Arden, the site's unreliability impacts her access to her medical information and therefore frustrates her when going to seek additional healthcare for her established problems. Her negative interaction with the site, in this case, has ramifications and can impact her future choices in her healthcare. Here we see how navigation of the site and access to the information housed within it impact the fluidity of veteran-as-patient's agency (feeling of control and perceived decision-making ability). This is important because it illustrates how the site (virtual space) poses challenges to Arden's access to healthcare (RQ2) which alters her positionality (subject vs. object), agency (sense of control in her actions), and identity (sense of self; a choice or an enactment of her agency). The confluence of these factors is not fixed; Arden adjusts her

actions based on the entanglement of the space, her experience, and her agency, thus presenting an agential cut. Accounting for this fluidity is an important step forward in healthcare space design because it opens designers' aperture in considering how spaces' interactions with their users can be variable based on other dynamic, rhetorical (contextual and situationally dependent) factors (e.g., stress, emergent need, confidence level, etc.). Observing the fluid convergence of agency, identity, and space can help technical communicators and designers better understand the spaces they design through the lenses of a new materialist view of space and agential cuts.

Agential Cuts Can Be Witnessed When Space, UX, and Agency Entangle

To review, I use the verb “entangle” interchangeably with “intertwine” as an illustration of the relationship among actors which helps me understand the constellation (network) at play. Entanglements illustrate the network among actors (Latour, 2005) and points to connection and gaps among them illuminating space for meaning making and deeper capacity for knowing through being (onto-epistemology). Agential cuts are an enaction of an actor's agency on another actor (e.g., space), thus impacting outcomes and the potential for future outcomes. Inman (2004) defines “cyborg” as a “synergistic interrelation of technology, person, and context.” This is another useful way of looking at agential cuts in that we can see the confluence of three actors and how their relationship impacts action. Take the “ripple effect” as an example. When I throw (action) a pebble (technology) into a pond, the pebble's force (UX) on the water ripples (action) the water, which then changes the relationship the water has with everything else it touches (space).

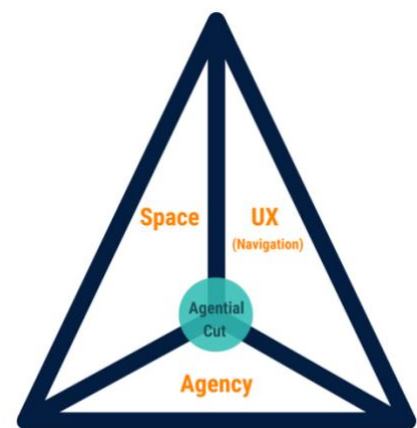


Figure 5.2: Visual Representation of Agential Cut

During my interview with Nick, I witnessed in real time how his user experience impacted his agency while in the digital space:

Nick: Well, while we're doing this, I'm, I'm at my computer now. Okay, it's clicked. On "myhealthvet." Okay, I'm clicking on Sign In. Now. When I do that, it it comes up and it gives me options. The new VA sign in recommended option to continue to "myhealthvet" only, or option three secure, chooses secure sign and pointer. I always go to the continue my healthy vet only because I have gone to the other one, which says start using the new VA sign in. I've done that numerous times and never get to where I want to go. So, I just skip it.

Luciana Herman: Okay, describe what you mean. What do you mean by you can't get to where you want to go?

Nick: Alright, so I have you on the phone with me now. So, I'm going to go to option one. New VA sign in, in parentheses "recommended". So, I'm going to start using the new VA sign. Delete this, and then it comes up, you know, login.gov Id me and I look at all of those and it's not clear to me, the recommended sign in. There's four options here. I don't know which one to choose. So, I go to "myhealthvet", but it says an account well, don't I already have an account choice it says sign in. Then in red, "login.gov." Green, "ID me." "DS log on", or "myhealthvet." Now underneath that in big black letters, or create an account that says, "create an account with login.gov; create an account with my with ID me." I don't know. I don't remember what I have done now. I don't know if I've created an account. I think I've skipped that because I'm relatively sure that I have an account because I have a username and a password.

Luciana Herman: So, if you are having issues like this What would you do? Where would you go to figure it out?

Nick: Well, I can answer that quite easily and that I don't go anywhere. I go back to signing in with myhealthvet, okay because I have done it several times. And I've not been able to get where I think they want me to go. I just don't you know I have not been able to do it and I just skip it now and go to my healthy vet and log in there. Because it's easy, and I don't know that I don't they may want me to go to the sign in a different way for some other reason based on their programming, but I haven't figured it out and I don't trouble myself with it.

Therefore, Nick's UX with the digital space impacts his agency and prompts alternative action, thus revealing an agential cut which impacts his actions within the space going forward.

Analyzing this excerpt illuminates how, for Nick, the space (virtual site) acts on him and pushes him to abandon action ("I just skip it"), thus posing challenges to his navigation and access to healthcare services (RQ2). His inability to log into the site yields Nick's need to bounce back and forth between login pages, illustrating an agential cut (the joining of his agency, the space, and his navigation of it).

Similarly, Bob showcased an agential cut when attempting to make an appointment during our session:

I'm gonna try to do this just for giggles. If sometimes there's no appointments available, so like you kick. I'm just clicking it here just to see here. So yeah, you may have trouble using the VA appointments tool right now. So, so my quick schedule, and I just say, with flu shot be something on here. Let's say I care. I think I'm doing an eye appointment. So just for giggles, right, so I'm clicking eye appointment, and I just need a normal

optometry no worries, it's been about a year. So far, we've run into a problem, you know what I mean? So, and again, and I can share my screen so you can see this, and this is not an uncommon thing, a normal routine I applied. "We're sorry, problem." [error message on screen] So I just, I don't typically use the system unless I'm trying to print something. . . Essentially, this says, "something went wrong on our end. Please try again," later but it always will do this. Like it's like I said it almost never ever worked.

This experience then forced him to take additional action, calling multiple phone numbers to achieve the desired result of scheduling an eye exam appointment. His agency became challenged by his experience and the limitations of the space, precipitating additional action on his part and yielding a noticeable agential cut. Ultimately, this occasion revealed Bob's challenging experience navigating the site (RQ2) and the external actors he introduced to complete the action he was unable to because of his experienced navigational friction (RQ3). Here, it becomes clear that the agential cut indicates that the relationship among Bob's agency, the space, and his experience is problematized, illuminating that using agential cuts and a new materialist view of space (e.g., space as a non-human actor) can be helpful lenses to add to UX research methods.

Charting the entanglement (intertwining) of the (human and non-human) actors at play with the space (non-human actor) sheds further light onto the nature of Bob's experience accessing healthcare through www.va.gov as well as his perceived sense of agency. In this way, Bob's pivot in action illustrates an agential cut. The touchpoint among the space, his experience, and his agency combined with the fluidity of his positionality, agency, and identity pushed him to alter his action to achieve his desired result, thus demonstrating the complexity and evidence of an agential cut. Technical communicators and designers could use agential cuts as a lens to

enhance their research methods and design analyses to better understand the impact that the space they design has on their users' experiences and their perceived senses of agency.

ANSWERS TO RESEARCH QUESTIONS

Unlike the previous section where I report my findings, I treated the data to answer my research questions a bit differently. Here, I aggregate the data not to conflate the participants' experiences, but to compartmentalize where sentiments seem to repeat. Each participant's retelling is indicated by their pseudonym followed by an excerpted quotation from their interview session. Analyzing the data in this way helped me to treat each of their experiences organically, or not to over-process it. Rather, I was able to learn more about the research process this way—the answers to my research questions for this dissertation project are valid for the scope of *this* project and for *these* participants, but not ubiquitous or factual answers for all veterans-as-patients or virtual healthcare spaces. Yet, the conclusions I draw from the answers to these questions help me better understand how, as a technical communicator and designer, I can move towards more social justice in my work and how the field of healthcare communication design can conduct research to better serve its clients.

RQ1

Veterans' perceptions of their experiences accessing healthcare through www.va.gov vary based on their needs and digital literacy. What participants feel like they *can* do based on what they *need* to do and their familiarity / confidence level within the site directly impacts their self-ascribed success levels and their overall assessment of their experiences with the site. Participants who recorded successful interactions with the site attributed their accomplishment to their familiarity with the virtual space or their overall digital competence:

Roger: I have competence once I get in.

Eli: I mean, we live in a tech world, right? So, it's easy to maneuver and kind of understand what needs to get done. I noticed that when they have something new or having to pull up passwords differently, it's easier for me to do. I'm only because we deal with technology every day. And I'm a techie as far as the website itself. Seems pretty self-explanatory. And to be honest, outside of my actual disabilities stuff, I haven't had too much of a reason to go on and turn off letters and stuff like that. Okay. Whenever I have a question, I just put it on that message. Somebody answers.

Logan: I feel pretty comfortable. For the most part, the interface has been pretty user friendly and intuitive. This once I got into some of the subpages, like the burn pit registry, where I started having more problems. ... I think part of those website design. And I think the menus were logical, and they were just placed in a way that you know, caught the eye and it had an eye a good flow.

Nick: I feel confident and quite comfortable with [using the site] . . . Well, because I'm familiar with it. I've used it for quite a while now. I think I know I've had no difficulty. I can say this happily. I haven't had no difficulty getting where I want to go and get the information I want on the website for the VA as opposed to most anything else.

Opal: I mean, you know, on like a [confidence] scale of one to 10, I, you know, probably 10.

Specifically, each of the excerpts above showcases the veterans' perceptions of their experiences and their self-determined success rate and/or comfort level. This information is useful in understanding the bigger picture of how the space shapes patients' perceived senses of agency. Zooming farther out, the offered features and layout of the space's design intersect with

the participants' aptness to maneuver within it, thus revealing a broader user experience and impacting the work of technical communicators.

Zooming back in, those who articulated that they "can't" perform an intended function within the space blamed the site's design, its broken links, or their digital literacy and had to ask for help. For example:

Jed: Um, yeah, so they just did like a revamp, not too long ago of the website. And before that, it was atrocious to try to navigate to find any information other than just your general overview of like, say you're looking for a program information, you would have to click on it, it gives you the overview, then you'd have to scroll down to the very bottom, then there'd be a bunch of different links, and then you'd have to click on those links, which sent you down another rabbit hole.

Roger: So, generally speaking, it's, it's fairly, fairly simple. But again, I will tell you this, I'm not getting the page that I normally get where I can go through all of the like I told you about appointments and pharmacy and all that sort of stuff and getting totally different pages.

Kyle: It depends on how long I use [the site] for, you know, just jumping on the website, I'm not confident that I can log on, you know, within a minute or two.

Zulu: Having navigated that now for four years, it's something I'm comfortable with. I know where to go.

For these participants, there is a direct correlation among what they need, their confidence level, and what they are ultimately able to perform within the space which impacts the perceptions of their experiences. Much like the reports of those who had high confidence performing expected or needed functions within the space, these excerpts elucidate that these participants' (veterans')

perceptions of their experiences accessing healthcare through www.va.gov vary based on situational and circumstantial factors including (but not limited to) familiarity, self-determined digital literacy, and overall functionality of the site. This becomes significant for healthcare professionals because these veterans-as-patients' experiences illustrate how the virtual healthcare space entangles (intertwines) with their perceived agency, ultimately enriching the understanding of patient centered care through patient centered design. Additionally, technical communicators can consider open-ended experience inquiry as a data collection method to enrich their understanding of how space and users interact with each other.

RQ2

After combing the data for evidence of veterans' perceptions of their experiences accessing healthcare through www.va.gov, I looked for instances where I could better understand how the site (space) functions rhetorically as a non-human actor. One of the ways I was able to see this manifest in interview participant responses was through their answers to my "magic wand" question: If you could do anything to make VA website navigation a better experience for other veterans, what would you do? As expected, each participant had their own answer, but a common theme of "I cannot perform X function because it's not available to me" seemed to emerge. In this way, participants were not necessarily discussing their navigational experience, but rather their perceptions of the tasks they felt they could perform based on the available features within the space. Virtual healthcare space often serves as a portal to other actors (practitioners, points of contact, "helpers") and becomes conduit to a network of actors, thus elucidating that it is an actor itself.

In the same vein, several participants (survey and interview) explained that a "dashboard feature" displayed on the landing page (after login) with curated functions based on participant

need or common usage could be especially helpful. Based on the survey and interview responses, the most performed functions within the space included

- Secure messaging / communication with healthcare providers
- Prescription refills
- Making or checking appointments
- Accessing lab results and diagnostic reports

With this in mind, if, and when, the site undergoes a redesign, including a dashboard on the landing page that prominently displays these features could enhance the patient experience and increase feelings of patient agency by removing navigational barriers. The feedback and food for thought helps me to understand that www.va.gov functions rhetorically as a non-human actor by providing and inhibiting perceived access to healthcare through its current and potential design and available utilities. Altering the design to emplace commonly sought actions could better facilitate users' access to healthcare and their navigation towards desired results, prompting better participation in their own healthcare practices and an increase in their perceived levels of patient agency.

RQ3

Beyond understanding how the available features within the site rhetorically influence users' experiences, my analysis of the data made it clear that virtual healthcare space entangles with other actors through points of friction and ease as veterans-as-patients access it via www.va.gov. Harkening back to findings mentioned earlier in this chapter, agential cuts are also evidence of how the space intertwines with agency and user experience (other actors). Agential cuts occur within the space through touchpoints and are mediated through an interface. The user's experience acting within the space reflects points of friction and ease.

Points of friction and ease materialize as evidence of entanglement between the space and user (two actors) and visibly and audibly manifest in several ways, including changes in posture, facial expressions, motor-sensory inputs (clicking, scrolling, etc.), voice intonation, and mood. I paid careful attention to instances of friction and ease during each interview session and made special note where they occurred. There were some commonalities of participants' experiences that yielded common consternation or facility.

Several participants marked "accessibility" as a point of friction with the site and their experience. Specifically, many discussed the common threads of extended hold times and digital literacy as barriers to access:

Carl: I think that part of the problem with a lot of technology is that accessibility becomes an issue, when they don't take into account that a lot of older veterans, for example, in the case of this website, this particular website, a lot of older veterans either do not have access because they choose not to have it. Or if they have access, they don't know how to utilize it. And even though, you know, a lot of our older vets, you know, are a little bit more knowledgeable about technology and the use of websites, there are still a very large portion of this community, that that does not understand it. And to make that a little bit more difficult, you know, just from my perspective, it seems that that's the only way you can actually get anything accomplished without being on hold for a period of time. And again, accessibility is the key. I don't know how much they take into account that that you know, people have lives and even if you're an older veteran, you still have stuff that you want. to do and remaining on hold. To get an appointment, for example, can be a long, it can have a long waiting period.

Bob: There's a lot of tabs, there's a lot of, it's a lot of information. There, but it's all here just getting into it sometimes can be a little frustrating. Sometimes, we get just, it depends on what I was looking for. And I can't think of a good case. But I was only here for I think 10 minutes once trying to find like one specific piece of information. And it just kept routing me around. I was I think I was trying to make an appointment. And it would send me from this to like, like a different site. And then it would say, well, you gotta log in, and then it would kick me back to the beginning where I'm logged in for the VA system. And then I was like in this endless loop.

Devon: It's frustrating. Okay to take additional time out of my day to sit on hold. Okay, I haven't had to sit on hold that long. But the phone menu is very long. Plus, you have to sit through the whole, like, this is the, "if you're in crisis, you need to call this number, this is not a crisis line, if you are in an emergency medical situation call 911." Or that, you know, you have to sit through all of that, even if you're just calling about your education benefits, because it's all the same. But once you get a person, they are wonderful. But yeah, it's still, you're gonna be taking, you know, 15-20 minutes out of your, your day to sit on the phone. I'm trying to get a hold of them.

Not only is perceived inaccessibility (RQ1) a palpable issue, but also the overarching functionality of the site and its sub-parts seem to collide with the users' experiences and agency creating difficulty. Participants often brought up the circumnavigation and "broken" aspects of the site as friction points and the need to seek outside help for achieving intended results.

Nick: I may be more familiar with the VA because I have dealt with it off and on on a much more regular basis than I do the other two sides and not familiar how to get where I want to go. I ultimately get there but you know what some frustration. . . I mean, you

know, you go looking for something and you can't find it and you open something else, and it directs you to some other place and you know it takes it takes time, more time and effort to get where I want to be and that is frustrating.

Roger: I'm a little disturbed that I'm not getting the place that I normally get. But I'm gonna go and work up here at the top, it says my VA, so I'm gonna click on that. You see what happens there? No, that goes back to the same thing that we had before. Like, for instance, right now. I don't know how to go out and find. Okay, I click this page is whole, all different from anything I've ever seen before. I'm going to click on VA benefits and health care, and housing assistance, life insurance, those records. See, I can't find pharmacy in here, anywhere that I've been so far now that that's irritating. Because I've never had this problem before.

Phillip: One of the biggest challenges I remember having every time I've tried to get into the VA website is actually getting the website to do what I want it to do. As in like, I feel like in the past, I've attempted to click a link that's like Make your appointment here, then takes me to another webpage. And I click what appears to be the appropriate link. And that link takes me back to the first place where I started. So, my, what just happened. So, then I ended up poking around on the website. And usually, I'm not one who likes getting on the phone. Because again, hearing loss it's kind of difficult for me to communicate verbally, or like just with audio. But more often than not when I've needed to make an appointment with the VA. I ended up on the telephone network instead of working through the website.

Here, Phillip's inability to "get the website to do what he wants it to do" points to friction in his experience as a user. The circumnavigation to achieve the desired result not only illustrates an

agential cut, but also how the space entangles with the user and a needed, external point of contact to complete the intended action.

Illuminating a specific instance of friction, Arden explained her travel reimbursement claim process. Because she lives outside the radius (greater than 50 miles) to receive care at a VA-approved facility, she submits a travel reimbursement after traveling the great distance to recoup funds for mileage and gas. For her, this online submission process is frustrating:

You click on the Travel Reimbursement, then it takes you to another one. And then you click on that, and it sends you to the website where you're supposed to do your DS login, and you do that, but then there's no page, like and I've called, they're working on it, but it's been like that consistently, consistently. So, it's just some things are almost pointless for them to have, because I think too much is too much for them [VA agents].

Although tangential to the healthcare section of the website, this online reimbursement process is necessary for Arden. Without it, she may experience challenges by not having the financial access to seek needed healthcare to treat her service-related, chronic injuries. In this way, her anecdote also answers RQ2.

Turning attention to how effective they find the information on the site, Duke has trouble getting a “real” answer, while Jed looks to speak to an agent to find what he needs:

Duke: Mechanically, I think the website works, you click on buttons things open. So mechanically, technically, I think that works fine. My problem is that so many of the so much of the information is canned, and often repetitive, and it is very difficult to get an answer, a real answer.

Jed: If I can't find it, um, I'll do one or two things, I'll call the VA directly. And I will try to navigate it that way. Sometimes I'll even try to go through like the social worker to see if because a lot of times they're good.

For these two participants, their experience within the space is complicated by the text offered on the pages. Often, they are unable to find what they are looking for and need to move outside the space to locate answers.

Conversely, getting into the space, or the login process, becomes a sticking point for several participants further causing rubs with their user experience and agency. Some note the difficulty with the process and its impact on the entirety of their experience, while others explain that the login function is merely a speedbump on an otherwise smooth road:

Zulu: [The login process] just annoys me. But when you hear about all these different sites being hacked and all the nonsense going on, I understand its necessity.

Roger: But I never know which one [login option] and I gotten rid of about three of them, which was the gov ID login or some sub garbage is that anyway, it's an absolute mess trying to get in there. But once I get in, it works really well. It's still very frustrating that they don't cover the problems that I will I need to address even though I'm in a site that is supposed to tell you everything there is to know about how to how to track your disability claims.

Nick: I don't know. I don't remember what I have done now. I don't know if I've created an account. I think I've skipped that because I'm relatively sure that I have an account because I have a username and a password. . . Well, here we go. To redirecting and it comes in sign in my healthy vet user ID, which is already in there, my password which is in there but not shown. And I can click sign in and it will take me there.

Kyle: So, something that's easy, just so get to the site? Who isn't? What do you want, and then an easy process to log in. And VA gives multiple options to do that. I don't know what some of them are. Most of them haven't worked for me in the past. So, I stick with the DS login. And I think we have that option for a DS login. But from a website to an ease of login location, and then to a main screen that's not full of I'll say mumbo jumbo, but not full of a lot of of texts, specifically for users that are on mobile devices. And then an ease of access once you are logged on to the main page. What is it that you need to do? Click for me from what I can find prescriptions, click the prescription button, and then go right to what I've been prescribed. So essentially, in my mind, it's four to five easy clicks. And you're aware you need to be without the rigor of all the searching through the words and hyperlinks that are on the pages.

Phillip: Because unless you're logging in regularly it like changes every six months or something like that. So, I was on like my 10th login. But the, the new the newer VA login has like Google or Google Facebook, it's got id.me. It's got myhealthvet. So, there's lots and lots of different logins, you can still do that kind of inefficient DSX login. But yeah, so the like the id.me, pretty convenient. Granted, you do have to go through and like, set up your account with them and like validate lots of information with id.me. But once you've done so, yeah, much simpler process.

In sum, once they have gained access, most interview participants noted their overall satisfaction achieving their desired results, yet almost all explained that the “login process needs to be fixed” to enhance the usability of the site. However, it remains unclear *how* a designer would “fix” the issue given that most of the participants’ friction seemed to come from not remembering their password or selecting the “wrong” login token from the menu of four choices.

Turning now to marked points of ease, many participants were candid about the functions they use most within the space and how well they can maneuver within the site for their needs.

Particularly, Carl, Opal, and Megan sung of the convenience of the site's functions:

Carl: I can message my provider which is really important. Because there are times when you don't really need to go in and talk to him, but you can relay information to him. . . It's very accessible. There are no issues, like I said.

Opal: I can click on the person that I need to speak to, and I'm pretty confident that that person's, that person is going to get back to me from the VA. Like I can, I can send my provider a note. . . . And I liked the ease of being able to order prescriptions, because all I usually use it for is just to order prescriptions, and to either ask my provider a question or to get some sort of character set up.

Megan: Well, for example, when I used it yesterday, I was able to click on all the tabs at the top that I could see, I could go to my messages. I could check my appointments. I could check my lab reports, past and current appointments past and current about it. . . I mean, I, I can schedule I can cancel appointments from there. I can renew or refill prescriptions from there. It's just it's, it is it is easy. You know, if you have it on the platform that it works on me, I looked at all those things yesterday, pharmacy and you know, it's convenient.

For these three participants, the virtual healthcare space entangles with their user experience, agency, and outside actors (e.g., providers and pharmacy personnel) which impacts their participation in their healthcare, decision making abilities, and potentially their overall health. This is significant because the space and their capabilities to perform the needed and desired actions within it impacts the economy of their care and, thus, their overall healthfulness.

Ultimately, these actors impress upon each other altering these participants' courses of action and perceived levels of agency. Technical communicators' and designers' understanding of this entanglement could be important for their research about the effectiveness of their designs; emplacing the user's needs and goals at the center of the interface's design pushes towards user-centered design (Chammas et al., 2015) and a more socially just considerations in technical communication (Rose & Walton, 2018).

RQ4

The entanglement (or intertwining) of virtual healthcare space and other actors affects the work and perspectives of technical communicators and designers through the clear need for additional considerations of individual perceptions and alternative UX testing methods. Beginning with the logon process and advancing to the overall site's design, it is difficult to understand what usability testing was completed by the designers before launching the site. Some participants stipulated no issues with the site, while others noted their extreme frustration. In several cases, participants cited the need for a dashboard for their specific needs curated by the frequency of which they access and use specific functions (e.g., secure messaging, prescription refills, making appointments, etc.). Zooming out and looking at how technical communicators and designers can amass this type of data could help when updating the site's design features.

Looking at how the user interfaces with the space through its design we can see what facets become most salient to users thus impacting the evergreen work of technical communicators and designers. Some participants reacted to the site's updated design in real time during their interview session. For those who had this nuanced experience seemed happy with what they saw:

Blair: Has this [main page] changed? I remember looking this looks this looks good. This looks actually really good. The four boxes.

Phillip: It does look like they've improved made some improvements since last time, I was logged in. So, let's see about "scheduling manager appointments." "Start scheduling." Yeah, but it does, it does seem a little bit better. So, I'll give them okay for the for VA.

Blair and Phillip's ease was evident through the raised pitch in their voices, relaxed posture, and vocabulary choices.

Other participants voiced which functions they used most and subsequently explained the potential benefit of streamlining the page design to highlight those actions:

Devon: For the limited amount that I use it for, like, tracking appointments, it is actually very easy to track my appointments. It's like right there on your homepage, when you sign in, like, my upcoming appointments is right there. Like they do have the most frequently used information right there.

Eli: What I'll check up on the most the healthcare functions, the biggest one, I guess, is what I'll go to for anything else on the on the personal like refilling prescriptions. And what I like about it is it has the links right at the beginning too.

Yet although Kyle seems to use the prescription refill function the most, he has issues with the presentation of his medication information and the ability to contact his provider for a prescription renewal:

I'm on a lot of medication. So, the medication you don't have an option to see the medication name, and then have like a drop-down window beside it to see other information about the medication. You know, it's you have everything in one block,

which could be 12 lines-ish, if not more. So, then you're just scrolling through on multiple pages to try to determine what's available for refill what you need to talk to your doctor about in order to get another prescription. And then the history behind how many refills you have left that is definitely not a user-friendly portion. Messaging is once you get to it is relatively straightforward and have, you know, navigating to the right location? Within the portal? It has been a challenge for me from day one.

Kyle's experience is individual, but not unique. His frustration with the pharmacy stems from his need for reminders to contact his providers, so not with the coded pharmacy function itself.

Conversely, Jed explained his happiness with the recent improvement with the site's design and its impact on his ability to find desired information:

Jed: Um, yeah, so they just did like a revamp, not too long ago of the website. And before that, it was atrocious to try to navigate to find any information other than just your general overview of like, say you're looking for a program information, you would have to click on it, it gives you the overview, then you'd have to scroll down to the very bottom, then there'd be a bunch of different links, and then you'd have to click on those links, which sent you down another rabbit hole.

Carl also discussed the ease with which he can find information based on the site's design:

Okay, so those are three areas where you can go to now, if you go to the drop-down menu, again, a whole bunch of stuff, family member benefits, service member benefits, records, burials, and memorials, life insurance, housing assistance, pension, careers, and employment, education and training. So, all of that is right there on this website. And it's just a click of a button.

While some were happy with the site's overall design and access to information, others explained that their experiences were overly complicated because of it:

Arden: The “va.gov” and “myhealthvet,” all that it's just a lot of unnecessary jargon and junk on there. And half the time when you click the links, like I just said, for example, like the Travel Reimbursement, it doesn't even work, you get a constant error code or website not found or, and it's just I mean, who has time to mess around with that constantly, or waiting on hold to try to get an actual individual on the phone to be told to do it online.

Roger: And what happens, I think, is that over the years, they they keep changing what they want to do. And, and you've got to create some kind of a “.gov,” “id.me,” or something like that and then that works. And then the next time you go to use it, it doesn't work. It just drives me insane.

Phillip: Well, just because it's one, one place to, to log into instead of multiple. So, if they are able to consolidate all of these different and honestly, I can't even think of why I would go to one instead of the other anymore. But if they're able to consolidate it all under one umbrella, that's easier to remember as well, because like, I can imagine a Vietnam veteran right now. You know, trying to figure out where the hell he's supposed to go not knowing myhealthvet[.gov] and like sort of getting it all under the umbrella of VA would be more convenient, I think or at least more conducive, especially as populations age.

Phillip, like other participants, was not only troubled for himself, but also for aging populations of veterans in need of seeking healthcare through the site. His concern spanned issues with access coupled with digital literacy and the fear for this population was both visual and audible.

During the interview session, he circled back to how important it is for the website to properly serve older veterans several times. Phillip's concern left a lasting impression on me in that it furthers the call for advocacy in making virtual healthcare space more accessible for the veteran population, especially the older group.

One such older veteran, George, reiterated Phillip's sentiment; he would like to see more prominently displayed support to help new or returning users navigate the site:

George: When a person first goes to the site, if there could be like an intro video, to show that person out or where to go from where they are now to where they want to go, whether it's instant messaging or lab results, or scheduling or whatever, and just do a little walkthrough demo on a video to help them better understand how to use the site. I mean, as I said earlier, if you go to any commercial site, and they it's a software driven type setup, they're usually going to have an intro video to show you how to navigate on that site. That would be my suggestion to the VA in terms of trying to make the experience better or quicker or, or whatever. And more comfortable. Okay, that would be my only suggestion.

An added layer of multimodal resources (e.g., videos, pop-up text, icons, etc.) to help users locate needed information could increase their sense of agency and forward their participation in their healthcare. However, a lack of help could alter the experience and users' perception altogether.

Perhaps most pointedly, Zulu (an older veteran than Phillip) stated the gravity of not being able to access the information he needs within the site: "If my initial strategies, checking everywhere and searching doesn't work, I will abandon the site." This realization was among the most impactful statements in my data set – if Zulu cannot find what he is looking for or complete

the action he needs, his recourse is to withdraw from the space altogether. This could have grave implications and speaks to the importance of this work; healthcare space designers' and technical communicators' efforts impact patient livelihood. Based on my findings and the answers to my research questions, there is room for improvement here. In aggregating the data, I found that healthcare space impacts patient agency in its performance as a non-human actor (agent impacting and/or facilitating action through affordances and limitations; entangling or intertwining with other actors in a situation or context). Therefore, the space can facilitate or challenge patients' access to healthcare through its design and the requirements placed on the users' digital literacy to achieve their desired results.

In this chapter I laid out my findings, relayed curated data that answered my research questions, and discussed my thinking behind my analysis choices. From here, I draw conclusions from the project in its entirety, forecast where my work can go, and consider broader implications for work in this field based on this project and beyond.

Chapter 6: Conclusion

After completing this dissertation study, I now better understand the rhetoricity of space from the user's (veteran-as-patient's) positionality. It remains unclear what kind of usability testing was conducted on the healthcare portions of www.va.gov; the only published metrics I could find exist in www.va.gov's web governance and compliance page furnished in reference to www.usability.gov (VA Web Governance, 2018). Because of this gap, I paid special attention to the user's vantage point. In crafting my study, I ventured to understand at the common UX situations as they related to virtual space (Garrett, 2011):

- What goals are users trying to achieve?
- How do they currently achieve them?
- What aspects of the experience do they love or hate?
- What difficulties do they experience along the way?
- What workarounds do they use when they encounter friction?

The best way for me to understand the space and the users' engagement with it was to use a mixed-methods approach informed by UX usability testing practices. I gathered a rich data set through 136 survey responses and 18 subsequent interviews.

Using the constant comparative method from grounded theory (Creswell & Creswell, 2018) was a helpful in my analysis because that it did not presuppose the results I drew from the data or prove the validity of a preexisting theory (deductive method), but rather gave me space to develop my own conclusions and theories about the stories the data was telling me (inductive method). It opened my aperture and became an incredible experience where I could fully learn more (knowing) through my process (being), proving the benefits of onto-epistemology. My results and how I arrived at them are not only helpful for furthering the work in the field, but also

brought new findings and proved useful in answering my research questions. Using term maps to overlay definitions with emergent themes from my data clarified my findings and pointed toward evidence of agential cuts. These conscious choices were beneficial but did not presuppose what findings would organically arise when combing the data. In fact, the term maps and my correlation of data points to the emerging themes yielded the following findings:

- Space functions as a non-human actor;
- Healthcare space impacts patient agency;
- Agency, like identity, is fluid;
- Agential cuts can be witnessed when space, UX, and agency entangle.

Beyond the findings, I was able to sufficiently answer my research questions given the richness of the data set and the careful consideration of the data collection methods in tandem with the posed questions (Table 4.3). In this light, my study was not only insightful, but also successful.

The answers to my research questions are as follows:

- **RQ1** – Veterans’ perceptions of their experiences accessing healthcare through www.va.gov vary based on their needs and digital literacy.
- **RQ2** – www.va.gov functions rhetorically as a non-human actor (space) by providing and inhibiting perceived access to healthcare through its design and available utilities.
- **RQ3** – Virtual healthcare space entangles with other actors through points of friction and ease as veterans-as-patients access it via www.va.gov.
- **RQ4** – The entanglement of virtual healthcare space and other actors affects the work and perspectives of technical communicators and designers through the clear need for additional considerations of individual perceptions and alternative UX testing methods.

Overall, the actions participants felt like they could complete within the space were based on what actions they needed to perform and their familiarity with and confidence levels maneuvering within the site. Those who “couldn’t” achieve their desired results blamed either the site’s design, its broken links, or their self-ascribed, low level of digital literacy. The matched their difficulty in achieving desired results with their digital abilities, with many noting that they had to “ask for help.” Furthermore, there was a direct correlation among what participants needed, their confidence level, and what they were able to accomplish within the space.

Ultimately, several participants’ experience illuminated points of friction and ease, evidenced by visible and auditory observations during the survey sessions. Working through the hard data collected coupled with my annotated observations, I noted that I witnessed agential cuts (Barad, 2007) in instances where the space, user, and their experience entangled. The entanglement of the space, user, and the user’s experience. Lastly, this new understanding of ways of knowing (witnessing) through ways of being (observing) pushed me to consider how technical communicators’ and designers’ work can evolve by considering other vantage points, perceptions, and differing data collection/testing methods.

Technical communicators and designers could use a new materialist view of space and agential cuts as lenses to enhance their research methods and design analyses to better understand the impact that the space they design has on their users’ experiences and users’ perceived senses of agency. Specifically, within healthcare, this method illustrates how the virtual healthcare space entangles (intertwines) with the veteran-as-patient (user) and the effect

this relationship has on the patient's agency. Furthermore, this method could enrich patient-centered-care²⁴ practices by privileging patient centered design²⁵ considerations.

The data I collected in this study and my analysis of it have indicated places for improvement when www.va.gov undergoes future updates and redesigns. There is a clear need for alternative UX testing methods to chart (virtual, healthcare, physical, etc.) space's impact on perceived user (e.g., patient) agency. Current UX research methods (i.e., usability testing) that are used to study online spaces treat the space as a product and the user as a customer (Potts, 2014) by evaluating a user's ability to perform a set of defined tasks easily and effectively. The method I developed through this work treats both entities (space and user) as actors (Latour, 2005) and illuminates touchpoints between them by using open-ended questions framed with UCD principles (Williamson & Kowaleski, 2017). Asking participants to recall their encounters through narration revealed a richness in their experiences and added heft to their physical and/or audible reactions and vocabulary choices. This method elucidated agential cuts (momentary actions that create movements and boundaries) further revealing points of friction and ease while intensifying my understanding of the user's experience through highlighting the user's agency.

To reiterate, I observed agential cuts by noting participants' physical and/or audible reactions to narrating their experiences, coupled with the vocabulary they chose to describe their encounters with the space. Once the data was collected, I combed the set for emerging themes from which I created term maps. I then used the term maps to code the data and find instances

²⁴ Active patient engagement where patients work in close partnership with practitioners and healthcare professionals (Khodyakov et al., 2016)

²⁵ Reis et al. (2011) define patient centered design as "a particular type of User Centered Design (UCD) where the end-user is a patient that will use an Information and Communications Technology (ICT) solution for healthcare. It focuses on needs, wants and skills of the product's primary user and implies involving end-users in the decision-making and development process of the solution."

where space, agency, and user experience converged, revealing agential cuts. Helping others put this method into practice, a researcher (technical communicator, UX designer, etc.) could pose open-ended interview questions where participants narrate their methods for accessing the space, motivations they have within the space, (un)successful actions they completed, issues that elicited external help, and overall levels of comfortability maneuvering within the space to achieve desired results.

This method, then, becomes useful in expanding UX research methods by enriching user data collection. A usability test may reveal facets of a user's experience by scoring their ability to perform a set list of tasks, but my method focuses more on a holistic view of how users organically maneuver within a space based on their individual expectations and needs. Therefore, this mixed-methods study quantified and qualified a select set of veteran-as-patient experiences accessing healthcare via www.va.gov resulting in a greater sense of my own onto-epistemology and ignited my drive to enter the field of healthcare communication and design to hopefully improve the (specifically, service-connected) patient experience.

LIMITATIONS

The work I completed in this study is not without limitations. In identifying the qualifying participation factors (veteran status and experience with the website), I made assumptions regarding age and access. As I circulated the call for participants on social media and via email, I noted that the greatest pockets of came from Ohio and Texas; my husband and I hail from Ohio and have lived most of our service-related, adult lives in Texas. I realize that while veterans residing in many other locations are included in my data set, the overwhelming majority come from these two places. This is a function of my positionality and not an accurate read on the overall veteran-as-patient experience.

Additionally, I removed the one interview I conducted with a soldier currently serving on active duty as the participation requirements specifically point toward veteran status. Because active-duty soldiers are privy to TRICARE benefits, I wanted to focus on healthcare accessed through www.va.gov and after the conclusion of participants' active service life. In the future, I would like to study the active-duty population and their dependents' experience with government-supplied healthcare in connection with their service commitments.

Lastly, because the data collection period began on September 30, 2022, and lasted until November 17, 2022, I realize that I could have potentially expanded my participant pool with the addition of time. However, because of my personal constraints, I needed to maintain a brief data collection window; my family and I moved overseas in December 2022, and I wanted to ensure that data collection for this project was complete before the move to maintain the privacy and integrity of the collected samples.

BROAD SCALE INQUIRY CONCLUSIONS

Using patients' experience with the Veterans Affairs' online healthcare portal as fodder for my study, I wanted to further investigate the rhetoricity of space and how it functions as an actor. Subsequently, I noted the power implications laced within the space's design choices, and the underlying impact that these choices have on the users' experience. Exploring this space and the power constellations in it debunks what I call the "myth of universality"; that is, asserting that places or spaces (physical or virtual) function universally for all patients is impossible and socially unjust. Emplacing individualized populations and designing for their tailored needs is toward social justice action; selecting the centered population, designing for it, and dubbing said design as "universal" is oppressive to the marginalized. The line of inquiry of this project lends itself to space for future research and can be applicable to navigation of other virtual public

spaces (e.g., government websites, public transportation portals, etc.) and the users' access to them, yet the scope of this project called for an isolated example. The evolution of the academic conversation in technical communication writing looks at consistently examines power relations.

Moving forward with this project and an active research profile, looking at the “patient-considerate” design of space, the “universal design elements,” wayfinding cues, ideographic labeling and mapping used throughout, and how patients are able to navigate the space despite the space's newness and unfamiliarity to them helps to uncover the assumptions the designers have made about the users' literacy and the demands placed on the users' literacy to meet the expectations of the designer and uncover the action the space asserts on the user and their literacy. This will exploit the space between the designer and the user and help to reveal the underlying power relations between the representer and the represented and beyond, thus furthering the linear connection space as an actor and the positionality of the user (patient). The virtual space's design pulls on the user's literacy as well as asserting its rhetoricity in the intersection among purpose, audience, context, exigence, and genre.

IMPLICATIONS FOR FUTURE RESEARCH

Beyond this project's scope of looking at facets of the veteran-as-patient experience accessing healthcare through www.va.gov, I would like to conduct a secondary analysis of the data to link it to precision medicine (FDA, 2018, The White House, 2016), patient activation (Greene & Hibbard, 2011, Foster et al., 2018; Hibbard & Greene, 2013), and patient engagement (Primary Care Collaborative, 2022). Understanding patient activation as “having the knowledge, skills, and confidence to manage one's health” (Greene & Hibbard, 2011) marries well with the conclusions I drew regarding patient agency and its impact on participation in healthcare practices. And though I did not use the “patient activation measure” (PAM) to assess veteran-as-

patients' "beliefs and confidence in managing health-related tasks" (Hibbard & Greene, 2013), I would be interested to research how my work on the space's impact on the user's experience and the mixed-methods I used fits with or alongside this metric and what combining these views could do for healthcare practitioners scholars, and UX designers.

Further, there could be room to uncover touchpoints in the economy of presence through researching the patient and provider experience as a subsequent node of patients', including specific patient groups based on demographics or differently abled bodies, experience within the healthcare space. Yet, these avenues could be explored beyond the veteran experience and or certainly include a more robust and more representative participant population.

Though the limitations may have affected the data yield, they prove fruitful for an active research profile. Often in the military community we hear, "You get what you get, and you don't pitch a fit;" some people think that if the government is providing our healthcare that we should be grateful and take what we get without complaint. But why? Regardless of who is footing the bill, we are still patients. Even if we "paid" for it with service, shouldn't we (especially veterans) still have the chance for full participation in our care? These questions fuel me and my desire to push this work further into researching additional populations (i.e., active-duty, dependents, caregivers, etc.) and spaces (e.g., TRICARE, Exceptional Family Medical Program, Military Health Services Genesis, etc.). There is much more work to do here, and I hope that this project helps launch my career in both advocacy and healthcare communication and design.

I seek to advance this inquiry in the healthcare design and communication fields, specifically within United States Armed Forces active-duty and veterans' healthcare spaces so that these populations may have more agency in the healthcare they are provided through their service affiliations. Beyond the social justice implications of researching inclusive spaces for

healthcare access, I find this work important to human rights conversations regarding healthcare. All persons should not only have access to their personal healthcare information, but also *correct* information and the opportunity to participate in their healthcare decisions. Accessing information is enacting participation and agency itself. This is my life's work and I eagerly look forward to entering the healthcare communication and space design industry as a researcher and advocate.

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Appendices

APPENDIX A: RECRUITMENT TOOLS

Infographic

UTEP

Are you a U.S. Armed Forces
VETERAN?
Do you have experience with the
VA HEALTH CARE WEBSITE ?
Consider participating in a
RESEARCH STUDY

Participation requirement(s):

- Online, anonymous survey (<20 minutes)
 - Survey accessible [HERE](#) or via QR code
 - Complete before **November 1, 2022**
- (Optional) Recorded Interview (approx. 30 minutes)
 - Conducted via Zoom:
October - November 2022

Study conducted by:
Luciana M. Herman, M. A.
lmherman@utep.edu
PhD Candidate,
Rhetoric and Composition
The University of Texas at El Paso
Study Number: [1850228-2]

INVITATION

Social Media Posts

Initial post

CALL FOR RESEARCH STUDY PARTICIPANTS!

Are you, or do you know of, a veteran* of the U.S. Armed Forces who has experience with www.va.gov? Consider participating in a dissertation research study that explores the veteran-as-patient experience accessing healthcare through the VA's website.

Access the anonymous survey via this link: <https://lherman-dissertation-survey.questionpro.com>

Feel free to share widely with others who fit the participation criteria. Thanks in advance!

*A veteran is defined as “a person who served in the active military, naval, air, or space service, and who was discharged or released therefrom under conditions other than dishonorable.” Those still serving on active duty are not the target population of this research study.

#veterans #vahealthcare #patientexperience #veteran #experience #healthcare #research #share

Follow-up post (near end of data collection window):

There's still time to participate! The survey closes on 1 NOV, but interviews can be scheduled until late into NOV.

Please consider helping me enrich my research sample by participating (if you're a veteran--not active duty--and you have experiencing accessing healthcare via www.va.gov) and/or sharing widely!

Survey link: <https://lherman-dissertation-survey.questionpro.com>

Thanks in advance!

Email Text

Hello,

Are you, or do you know of, a **veteran*** of the U.S. Armed Forces who has **experience with** www.va.gov? Consider participating in a dissertation research study that explores the veteran-as-patient experience accessing healthcare through the VA's website.

Access the **anonymous survey** via this link: <https://lherman-dissertation-survey.questionpro.com>.

Feel free to share widely with others who fit the participation criteria. Thanks in advance for your time, candor, and assistance!

*A veteran is defined as “a person who served in the active military, naval, air, or space service, and who was **discharged or released therefrom** under conditions other than dishonorable.” Those still serving on active duty are not the target population of this research study.

<Infographic>

All best,
Luciana Herman
Doctoral Candidate, Rhetoric and Composition

APPENDIX B: DATA COLLECTION TOOLS—CONSENT STATEMENT

I crafted the following consent statement using the language from the IRB's protocol:

I understand that taking part in this study is voluntary. I have the right to choose not to take part in this study. If I do not take part in the study, there will be no penalty or loss of benefit.

If I choose to take part, I have the right to skip any questions or stop at any time.

The researcher may decide to stop my participation without my permission, if she thinks that being in the study may cause me harm.

My part in this study is confidential. The results of this research study may be presented at meetings or in publications; however, my name will not be disclosed in those presentations.

From there, participants chose one of the following:

1. I consent that the answers I provide during this study can be used by the facilitator, Luciana Herman, for her academic and professional research. I understand that this data will be retained by Luciana for a period lasting 5 years beyond the final publication of research on this topic.
2. I DO NOT consent for the answers I provide during this study to be used for Luciana Herman's academic and professional research.

APPENDIX C: DATA COLLECTION TOOLS—SURVEY

Survey Description

- Anonymous
- Question Pro
 - Behind UTEP's Single Sign On to maintain closed, protected record of data
- Disseminated via infographic through digital means:
 - Email blasts
 - E-newsletters
 - Social media (Facebook, Twitter, and LinkedIn)

Survey Questions

Introduction

Thank you for responding to the participation invitation and taking part in my research. I am gathering data to help me answer my research questions of: *What are veterans' perceptions of their experiences accessing healthcare through www.va.gov? And how does space rhetorically function as a non-human actor, posing challenges to and facilitating users' navigation and access to healthcare?* I sincerely appreciate your participation and candor.

This study includes two participation options: the online, anonymous survey and the optional, one-on-one interview*.

*Please note that should you self-select to participate in the interview portion of the study, it will involve remote and/or virtual research interactions with the researcher. You will be audio **AND/OR** video recorded by the web conferencing system **AND/OR** a device that is separate from the online conferencing system. Therefore, privacy and confidentiality are not guaranteed due to the nature of the research environment.

Consent -- Before survey begins

Disclaimer:

I understand that taking part in this study is voluntary. I have the right to choose not to take part in this study. If I do not take part in the study, there will be no penalty or loss of benefit.

If I choose to take part, I have the right to skip any questions or stop at any time.

The researcher may decide to stop my participation without my permission, if she thinks that being in the study may cause me harm.

My part in this study is confidential. The results of this research study may be presented at meetings or in publications; however, my name will not be disclosed in those presentations.

Consent: choose one

1. I consent that the answers I provide during this study can be used by the facilitator, Luciana Herman, for her academic and professional research. I understand that this data will be retained by Luciana for a period lasting 5 years beyond the final publication of research on this topic.
2. I DO NOT consent for the answers I provide during this study to be used for Luciana Herman's academic and professional research.

Section 1: Service History and Demographic Information

1. Yes/No
 - a. A veteran is defined as: "a person who served in the active military, naval, air, or space service, and who was discharged or release therefrom under conditions other than dishonorable." (Title 38, U.S. Code, Servicemembers Civil Relief Act, 2011). I am a veteran of the United States Armed Forces
2. Select all that apply:
 - a. During my time in service, I served in the:
 - i. Army
 - ii. Navy
 - iii. Marines
 - iv. Air Force
 - v. Coast Guard
 - vi. Merchant Marine
 - vii. Women's Army Corps (WAC)
 - viii. Other
 1. Fill in
3. Select one:
 - a. At the end of my term of service, the highest pay grade I achieved was:
 - i. E-1
 - ii. E-2
 - iii. E-3
 - iv. E-4
 - v. E-5
 - vi. E-6
 - vii. E-7
 - viii. E-8
 - ix. E-9
 - x. E-9 Special
 - xi. W-1
 - xii. W-2
 - xiii. W-3
 - xiv. W-4
 - xv. W-5
 - xvi. O-1

- xvii. O-2
- xviii. O-3
- xix. O-4
- xx. O-5
- xxi. O-6
- xxii. O-7
- xxiii. O-8
- xxiv. O-9
- xxv. O-10
- xxvi. Special
- xxvii. Unsure
- xxviii. Other

1. Fill in

4. Select one:

- a. What is your highest level of completed education?
 - i. Elementary school (8th grade)
 - ii. High School or GED
 - iii. Associate's degree
 - iv. Bachelor's Degree
 - v. Master's Degree
 - vi. Professional/Doctoral Degree (MD, DO, JD, PhD, etc.)
 - vii. Other

1. Fill in

5. Select one:

- a. At the present time, what is your age range?
 - i. Over 79
 - ii. 70-79
 - iii. 60-69
 - iv. 50-59
 - v. 40-49
 - vi. 30-39
 - vii. 20-29
 - viii. Under 20

6. Select one:

- a. What is your gender?
 - i. Male
 - ii. Female
 - iii. Other
 - iv. Prefer not to disclose

7. Select all that apply:

- a. What is your current employment status?
 - i. Unemployed
 - ii. Employed part time
 - iii. Employed full time
 - iv. Employed: contract/self
 - v. Retired

- vi. Disabled
- 8. Drop down menu
 - a. I currently reside in _____.
 - i. 50 states and “other” option
- 9. Select one:
 - a. My proximity to a VA-approved healthcare facility or provider is:
 - i. 0-5 miles
 - ii. 6-10 miles
 - iii. 10-25 miles
 - iv. >25 miles
 - v. >50 miles
 - vi. Unknown

Section 2: VA Online Health Care Space

- 1. Yes/No
 - a. Have you used the VA for past or present healthcare needs?
- 2. Yes/No
 - a. Do you use other websites for healthcare needs?
- 3. Text box
 - a. If yes, which sites do you use?
- 4. Select all that apply:
 - a. For what purpose(s) do you use the Internet?
 - i. Personal
 - ii. Email
 - iii. Shopping (e.g., Amazon.com, groceries, Walmart, etc.)
 - iv. Social media (e.g., Facebook, Twitter, Instagram, etc.)
 - v. Health care
 - vi. Communication (e.g., FaceTime, Skype, Zoom, etc.)
 - vii. Financial (e.g., logging investments, banking, bill pay, stock market, etc.)
 - viii. Research (e.g., “Googling” answers, etc.)
 - ix. Professional
 - x. Other
 - 1. Fill in
- 5. Select one:
 - a. Approximately how often do you use www.va.gov?
 - i. Daily
 - ii. Weekly
 - iii. Monthly
 - iv. Every few months
 - v. More than once a year
 - vi. Yearly
 - vii. Less than yearly
 - viii. Never
- 6. Yes/No

- a. In the last 45-days, have you accessed the VA’s website (www.va.gov) for healthcare purposes?
7. Likert Scale
- a. On a scale of 1-5, with 5 indicating complete satisfaction, how would you rate your satisfaction level in your experience navigating www.va.gov to suit your needs?
 - i. 1: Completely dissatisfied
 - ii. 2: Unsatisfied
 - iii. 3: Somewhat satisfied
 - iv. 4: Satisfied
 - v. 5: Completely satisfied
 - vi. Unsure
8. Text box
- a. Why did you choose this satisfaction level?
9. Select all that apply:
- a. If you have visited www.va.gov in the last 45 days, what function(s) did you use the site for?
 - i. Access contact information
 - ii. File a claim
 - iii. Disability services
 - iv. Education benefits services
 - v. Health care services
 - vi. Records services
 - vii. Service member benefits information
 - viii. Family member benefits information
 - ix. Burials and memorials information and registration
 - x. Careers and employment services
 - xi. Housing assistance
 - xii. Pension information
 - xiii. Life insurance information and services
 - xiv. Veterans Crisis Line
 - xv. Create an account
 - xvi. Find a VA health facility, regional office, or cemetery
 - xvii. Support for Afghanistan Veterans and families
 - xviii. Access VAntage Point (VA’s official blog)
 - xix. Access State Veterans Affairs Offices
 - xx. Veteran programs and services
 - xxi. Other
 - 1. Fill in
10. Yes/No
- a. Were you able to find what you were looking for and/or complete all the actions to you needed to on the www.va.gov site?
 - i. Yes/No
11. Text box – If “no” was selected for previous answer
- a. Because you were unable to locate information or complete all the actions you needed to, please describe what functions you needed, but could not complete:

12. Yes/No
 - a. Did you ask for assistance navigating the website?
13. Text box – If “yes” was selected for previous answer
 - a. Whom did you ask? How did they help you? How did that make you feel?
14. Yes/No
 - a. Do/did you use anything (e.g., password keeper, notes/notebook, instructions, how-to videos, blogs, crowdsourcing, etc.) to help you access and navigate the www.va.gov site?
15. Text box
 - a. Which items (e.g., password keeper, notes/notebook, instructions, how-to videos, blogs, crowdsourcing, etc.) do/did you use to help you access and navigate www.va.gov?

Section 3: Optional Interview

1. Yes/No
 - a. Would you be willing to participate in a 30-minute audio/visually recorded interview via Zoom where the researcher would ask you about your experience navigating the VA’s website for healthcare purposes? Note: the subject of the interview is your experience with the website and NOT about your personal health care needs.
The requirements to participate in this recorded interview are:
 - Consent to an audio/visual recording of the interview session;
 - Access to Zoom; and
 - Reliable internet access and connectivity.
2. Fill in
 - a. If you answered “yes” to the previous question, please click the provided link to provide your contact information and access Luciana’s contact information to schedule an interview.
 - i. Link leads to -- space to fill in participant’s name and email address
 1. Provides my UTEP email address
 2. Link to an online calendar for them to schedule their own interview based on my prescribed availability:
<https://calendly.com/luciana-m-herman/dissertation-interview>

Thank you for your participation and candor!

APPENDIX D: DATA COLLECTION TOOLS—INTERVIEW

This is an outline of questions I may asked during audio/visually recorded interviews conducted via Zoom. The goal of these interviews was to help me learn about veterans-as-patients' experiences in accessing healthcare through www.va.gov through recording participants' expressions of their lived experience. Each interview occurred between a single participant and me and was audio and video recorded to maintain integrity of the responses during transcription. Interviews ranged from 27-70 minutes in duration, and I interviewed 19 participants. One participant's interview was excluded from the final data set given that they did not properly satisfy the participation criteria.

Prior to beginning the recording, I read and visually shared the consent statement to participants using screen-sharing of my screen. I asked them if they have any questions or concerns about the procedure and/or the topic of the research. I instructed them that they are permitted to stop the interview at any time. I reiterated that I was using third-party software (Otter.ai) to transcribe our interaction and that I intend to keep any data collected for 5 years past the final publication of my research on this topic. I asked each participant for a preferred pseudonym; if they did not provide one, I assigned one to them.

Consent Statement

“Please note that your participation in this study involves remote and/or virtual research interactions with our research staff. You will be audio **AND** video recorded by the web conferencing system **AND** a device that is separate from the online conferencing system. Therefore, privacy and confidentiality are not guaranteed due to the nature of the research environment.”

Procedure and Interview Questions

1. After consent, begin session recording.
 - a. Ask the participant to identify themselves and choose a pseudonym.
2. Can you describe how confident you feel using www.va.gov?
 - a. Do you use other websites to manage your healthcare or in other aspects of your life?
 - b. How does your confidence level using the VA health care website compare to your confidence level using other websites?
3. How successful do you think you are in navigating this site for your needs?
 - a. Can you think of a time when you had a positive experience navigating the site? Can you walk me through that?
 - b. What made the positive experience possible?
4. How accessible do you find the information on the site?
 - a. What do you find the most useful? What do you find the hardest to use?
5. If you have obstacles (have trouble finding what you're looking for), how do you mitigate those?

- a. Can you walk me through an example of a time when you faced a navigation obstacle? What did you do?
6. If you asked for help, whom did you ask? How did they help?
 - a. How did asking for help make you feel?
7. Do you use any aids or artifacts to help you navigate the site? For example: password keeper, notes/notebook, how-to videos, blogs, crowdsourcing, etc.?
8. How does this navigation process make you feel?
9. How do you think using this health care site has impacted your view of your health care?*
- 9*. How do you think having access to your healthcare information through this site has impacted your choices, practices, and/or view of your health care? (Revised: October 22, 2022, after six completed interviews)
10. Are you able to do what you want or need to do within this online space?
11. If you could do anything to make VA website navigation a better experience for other veterans, what would you do?
12. Would you be willing to be contacted again with additional questions about your experience with www.va.gov and/or for further clarification of the answers you provided here today?

MENTAL HEALTH SERVICES AND RESOURCES FOR VETERANS

Immediate Care: Available 24-hours

Connect with a Veterans Crisis Line responder:

- Call: 1.800.273.8255, press 1
- Text: 838255
- Chat: Click [HERE](#)
- If you have hearing loss, call TTY: 1.800.799.4889

You can also:

- Call: 911
- Visit the nearest emergency facility (e.g., urgent care center or emergency room)
- Go to the nearest VA medical center: find a center [HERE](#)

Care During Set Hours: Monday – Friday, 8AM – 8PM (Eastern)

VA Mental Health Services

Call: 1.877.222.8387

If you have hearing loss, call TTY: 1.800.877.8339

Visit any Vet Center during clinic hours: find a center [HERE](#)

Online Resources

Resources for Veterans and transitioning service members

- [Military OneSource](#)
- [Mental health website for transitioning service members](#)

Vita

Luciana M. Herman earned her B.A. in English from the University of Dayton, M.A. in English Literature from Cleveland State University, and Ph.D. in Rhetoric and Composition at the University of Texas at El Paso (UTEP). She has taught English (Composition, Literature, Technical Writing, etc.) at the college level at several colleges and universities across the United States. She also has elementary and high school teaching experience, all in the English/Language Arts field. In addition to teaching and research, she is a professional materials consultant.

Current publications to date include:

Herman, L. (2020). *Essential Bites: A Brief Guide to Academic Writing*. A15 Publishing.

Herman, L. (2018). *Keleher Learning Commons Peer Tutor Handbook*. University of Saint Mary, 2018.

Herman, L., Freitas, V., and Hollister, S. (Eds.) (2018). *Cadet Fellow Sourcebook*. Mounger Writing Center, United States Military Academy.

Herman, L. (2022). Carework in COVID-19: Rhetoric in (un)conventional spaces. *Journal of Multimodal Rhetorics, Special Issue: Carework and Writing*. 7(2).

<http://journalofmultimodalrhetorics.com/7-1-herman>

Herman, L. (July 2020). Book review: D. Alexis Hart and Roger Thompson's *writing programs, veterans studies, and the Post-9/11 university*. *Journal of Veterans Studies*.

<http://doi.org/10.21061/jvs.v6i1.179>

Herman, L. (2017). More than getting by with a little help from a friend: The benefits of peer-enhanced learning." *Center for Teaching Excellence: Master Teacher Program (MTP)*.

Center for Teaching Excellence. https://www.usma.edu/cfe/Literature/Herman_17.pdf

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