Chapter 14. Achieving Veteran-Centered Design: Case Study of the Human-Centered Design Process Used During the Vets.gov Project

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Abstract. This chapter examines how human-centered design emerged as a guiding philosophy for the U.S. Digital Service at the Department of Veterans Affairs (DSVA), focusing specifically on how user experience research was conducted for Vets.gov, a website that serves as a hub for all veteran digital services. Based on artifact analysis, a site study, and interviews with two UX researchers in the DSVA, this case study sought to examine the specific methods, design processes, and ethical challenges facing the Vets.gov team as they conducted UX research with veterans. In addition, this chapter provides an overview of core tenets from human-centered design scholarship and calls upon inclusive design as a critique of and complement to traditional UX processes. The chapter concludes by identifying three ethical dimensions of UX research with veterans—compassion, accessibility, and respect—and offers multiple takeaways and implications for technical communication and UX practitioners and scholars.

Over the past decade or so, human-centered design (HCD) has played an increasingly central role in the development of services and products within the Department of Veterans Affairs (VA), resulting in a period of cultural and institutional change for an agency whose primary mission is caring for veterans and their families. As of 2021, the VA was the second largest cabinet department in the Executive Branch of the United States government, with an annual discretionary operating budget of $104.6 billion, behind only the Department of Defense at $703.7 billion and the Department of Health and Human Services at $108.4 billion (Office of Management and Budget, 2022). Because it is one of the largest customer-service-oriented agencies in the federal government, the VA has a greater incentive to apply user-centered design approaches than most other departments. In his testimony to the U.S. Senate Committee on Veterans' Affairs in January 2016, former Secretary of the VA Robert McDonald noted the importance of adopting design thinking to better serve veterans. Among his priorities for transforming the VA were "improving the veteran experience" by "focusing on human-centered design . . . and working with leading design firms to learn and use the technology associated with improving every interaction with

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clients" and "improving the employee experience—so we can better serve Veterans" (McDonald, 2016).

By emphasizing human-centered design as a way to improve the experience of both veterans and those who work to serve them, Secretary McDonald made a deliberate attempt to move the VA toward a more holistic understanding of veterans not just as users of a service, but as people whose experiences, backgrounds, and perspectives shape how and why they interact with the VA. During his brief tenure as Secretary of the VA, McDonald also oversaw the creation of the Digital Service at the Department of Veterans Affairs (DSVA), one of several smaller agency teams within the larger U.S. Digital Service, a "tech startup" founded by former President Barack Obama in 2014. The stated mission of the U.S. Digital Service (USDS) is "to deliver better government services to the American people through technology and design" (Mission). Due to its unique position within the Executive Office of the President, the USDS and its agency teams like the DSVA created a wide range of services for a diverse cross-section of American citizens.

This chapter focuses on one such project: Vets.gov, which was later merged with the flagship Veterans Affairs website, VA.gov (https://www.va.gov/). Developed between 2015 and 2018, the Vets.gov project was a complete redesign of websites through which veterans access essential services like healthcare and educational benefits. Importantly, Vets.gov was also a massive effort to apply principles of human-centered design and the methods of user experience re search to improve the digital experience for millions of veterans.

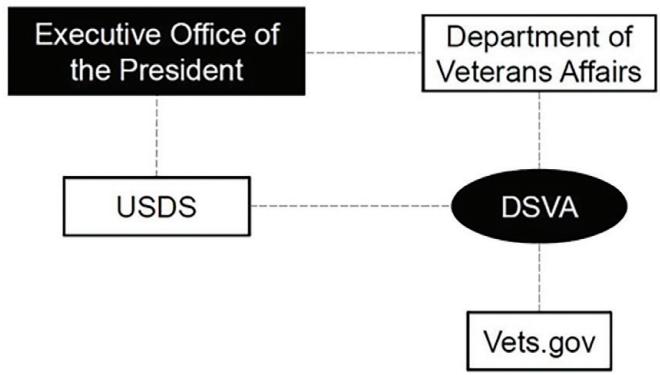

Figure 14.1. A visualization of the relationships between the U.S. Digital Service (USDS), Department of Veterans Affairs (VA), Digital Service at the Department of Veterans Affairs (DSVA), and the Vets.gov Design Team. The VA is a cabinet department within the Executive Office of the President; the USDS is a technology startup within the Executive Office of the President; the DSVA is an agency team within the USDS that was chartered by the VA from 2015 to 2018; Vets.gov was a project developed by the DSVA and later merged with VA.gov.

This case study emerged from interviews with two UX researchers in the DSVA, a site visit to both the DSVA office and USDS Headquarters in Washington, D.C., and analysis of a broad range of documentation, including press releases, reports, blog posts, GitHub repositories, and government websites. By triangulating all this data, I sought to examine the broader context for human-centered design in the Vets.gov project and provide specific accounts of the methods, principles, and practices that directly informed the work of the DSVA and has continued to influence veteran experience initiatives in the broader VA. This chapter ends with discussion of three ethical dimensions of veteran-centered research that emerged from my study—compassion, accessibility, and respect—and considers how this ethical framework for veteran-centered user research has remained resilient in an ever-changing Department of Veterans Affairs.

Case Study Background

Before describing how the case study was conducted, it is necessary to introduce the key institutions featured prominently in the remainder of this chapter. Founded in 2015, the U.S. Digital Service at Veterans Affairs (DSVA) was the oldest of seven "agency teams" operated by the USDS within the federal government (U.S. Digital Service, 2017). These Digital Service agency teams were supervised by the main U.S. Digital Service but operated independently within individual executive departments (see Figure 14.1), each of which maintains its own office space and signs a separate four-year charter with the USDS. As the government technology trade website *NextGov* explains, "The charters essentially act as franchise agreements between Digital Service headquarters and the agency teams. After agreeing to a charter, agencies can use a USDS-developed hiring process that accepts and reviews resumes and funnels potential applicants to agencies" (Moore, 2016). While the Digital Service agency teams are autonomous, they report back to the USDS and have regular "all-hands" meetings at USDS HQ where representatives from each agency team share updates on their work.

Each agency team worked with its respective department to identify projects that would have the most significant impact on users. An impact report marking the two-year anniversary of the USDS in 2016 describes a "digital application for health care built with Veterans, not for them" (White House, para. 4) as a primary example of the UX initiatives pursued by the DSVA. According to the report,

> Previously, less than 10 percent of applicants used the Veteran Online Application for a simple reason: the form would not open for most users. The application was a fillable PDF that required Veterans to use Adobe 8 or 9 via Internet Explorer. More than 70 percent of U.S. Government traffic comes from Chrome, Safari, or Firefox, meaning that more than 70 percent of visitors would have trouble accessing the healthcare application. (Office of the Press Secretary, 2016)

That a seemingly simple change like going from a PDF to a digital form can have such a significant impact on so many veterans highlights the immediate impact the DSVA had on modernizing UX within the VA.

In early 2019 the DSVA's charter with the VA expired and was not renewed, at which point it was "absorbed" by the VA Office of Information and Technology, which is part of the Office of the Chief Technology Officer (CTO) of the VA. In an interview with *FedScoop*, Charles Worthington, CTO of the VA, described the reorganization of the VA's IT initiatives into his office as an opportunity to "scale" and expand the work that had been done by the DSVA, including the continued development and research for new tools, forms, and apps within VA.gov (Chappellet-Lanier, 2020). And in March 2022, the White House proposed a $5.8 billion budget for the VA's Office of Information Technology "to support cybersecurity, financial management business transformation, claims automation and the infrastructure readiness program," as well as an additional $1.8 billion for "health records modernization" (Hewitt Jones, 2022). Though the VA's information technology and digital services mission continues to evolve to this day, this particular case study is an examination of a narrow moment in time—roughly 2014 to 2019—when the DSVA was a satellite agency team, Vets.gov had not yet been integrated into the larger VA website, and human-centered design was still emerging as a foundational set of principles for veteran digital service design. Documenting this era of innovation and experimentation reveals much about the kinds of partnerships, collaborative efforts, and user-centered research that led to the foundation on which future VA information technology initiatives would stand.

Vets.gov and VA.gov

Launched in November 2015, Vets.gov was one of the U.S. Digital Service's signature projects and is listed prominently on their online portfolio of work (U.S. Digital Service, n.d.). Described to me by former USDS Director Matt Cutts as a "unified front" for all veteran services, Vets.gov was intended as a cohesive and consistent "front door" for the veteran user experience. Prior to the development of Vets.gov, as many as 500 separate websites existed for the range of services provided by the VA (e.g., applying for insurance, tracking a disability claim, etc.), each with a unique design and interface and its own password and username. According to the U.S. Digital Service's (2017) Report to Congress, many of these services are also based on outdated technology. Vets.gov, in contrast, was designed to be a single access point through which veterans can "discover, apply for, track, and manage their benefits online." Designed according to modern web development practices, Vets.gov was mobile-first and cloud-based, supported multiple browsers, and used entirely open-source code.

The Vets.gov design team, which was comprised of both DSVA employees and government contractors, relied on contemporary technological best practices to solve problems both complex and mundane. In a *Medium* blog entry

describing the technologies used in the project, Alex Yale-Loehr and Raquel Romano (2017), note that "the only remarkable part of [their approach] is that it's actually happening inside government, where software development has generally fallen far behind the pace of that in the tech sector." By aligning the values of human-centered design with the development practices used in both the technology industry and open-source community, the Vets.gov team was able to forge a path toward modernizing electronic systems in government without compromising values.

In 2018, more than a year after site visits for this chapter were completed, Vets.gov "was expanded and ultimately migrated to the VA's primary web domain," VA.gov, where it continues to be managed by a team of individuals from across the VA, including some who worked on the original Vets.gov project with the DSVA (Chappellet-Lanier, 2020). Since merging the DSVA with the VA's Office of Information and Technology's Office of the Chief Technology Officer and migrating Vets.gov to VA.gov, the VA's flagship site has experienced a notable rise in traffic. In a report published a year after the re-launch, *NextGov* noted that

> Veterans submitted nearly 600,000 education forms through the new site in 2019, a two percent increase since the site was overhauled . . . Disability compensation submissions filed digitally rose 27 percent to 291,000; pension submissions increased by 59 percent with 8,000 Veterans filing; and burial requests almost doubled, increasing 91 percent to 6,500 submissions. (Boyd, 2019)

And in January 2022, VA.gov set a single-month record of 1.5 million unique individual users, "a roughly 20 percent increase compared to" the year prior (DigitalVA, 2022). Although the Vets.gov project may have ended in 2018, the effort to establish an accessible, inclusive, and user-centered "digital front door" for veterans clearly endures.

Research Design and Methods

This chapter emerged from a much broader dissertation project that used a multicase study research design to examine the user-experience methods applied to digital service design in the U.S. federal government. A case study research design was selected because, as Robert Yin (2003) notes, case studies are effective for research where contextual conditions are "highly pertinent to your phenomenon of study" but contain "many more variables of interest than data points" (p. 13). Because my goal was to examine cases where user experience research was applied within federal agencies, I had to first determine where this kind of work was being done and by whom. After researching the larger digital services movement and its various embodiments in the U.S. federal government, I began sending "cold" emails to several agencies of interest, to which I received few responses and only one interview.

Separately, a colleague put me in touch with a contact in the federal government who ended up playing the pivotal role of ethnographic "gatekeeper," allowing me to send my recruitment letter to people I would not have had access to otherwise. This process of recruiting participants through word of mouth and networking is described as snowball sampling, which begins "with a small sample of people who are readily available and easy to contact and then expands the sample by asking each participant to recommend other potential participants" (Koerber & McMichael, 2008). Although snowball sampling is a form of convenience sampling, it fit the exploratory nature of this project and allowed me to slowly build relationships as I conducted interviews and gained greater access to participants and sites. While this technique does not result in a randomized sampling that would allow for generalizable results, it does allow access to participants that I would not otherwise have known about, which in turn led to greater awareness of the scope and scale of the phenomena I sought to study. Three interviews formed the basis of this chapter: two UX researchers on the Vets.gov team, "Sarah" and "Maria" (both pseudonyms), and former U.S. Digital Service Administrator Matt Cutts, who met with me at the USDS headquarters and provided useful background information and historical context for this chapter.

Semi-Structured Interviews

Given the high degree of variability and uncertainty within my study, it was critical to proceed inductively and iteratively, with the scope and focus adjusting as new data was collected, initial impressions recorded, and further opportunities encountered. The case featured in this chapter was selected after conducting over a dozen initial semi-structured interviews with employees across different parts of the federal government. By conducting these interviews *before* identifying which cases I would feature in my study, I was able to cede a measure of control to participants, who were invited to respond to my interview protocol in whatever way they felt was important. Beginning research with interviews also allowed me to first develop an awareness of the work different agencies and offices perform and then later select cases from among those projects mentioned by participants. To better understand the values, practices, and methods used in the Vets.gov project, semi-structured interviews were selected to gather firsthand accounts from members of the DSVA in July 2017. Several interviews with technologists who worked at the DSVA were conducted but ultimately omitted from the final case study as the focus of the research narrowed to include only the Vets.gov project.

A semi-structured interview protocol allowed for significant flexibility in responses, both to accommodate a range of participants with different titles and responsibilities, and to allow for responses from both current and former government employees. The primary goal of the interviews was to get participants to reflect on one or more of the projects they worked on during their time in government and to interpret other aspects of the questions (e.g., technology, users,

expertise, etc.) as they saw fit. This was particularly important because I did not want to lead participants to specific topics or influence how they responded; rather, I wanted participants' responses to guide me toward topics and ideas they felt were valuable or important which could be explored further through follow-up questions. Because this was one case study of several conducted as part of a much larger study, the questions were written to be deliberately broad so that the same protocol could be used for each case. Questions included on the IRB-reviewed interview protocol are listed below:

1. In your current position or role, what is one typical digital service or civic technology project you have worked on?
2. What recent projects illustrate how users are integrated into your projects? What methods or techniques are used to facilitate this interaction?
3. What is one example of how your organization/agency/office communicates about your work to the public? What tools are most often used? What responses did you receive from citizens?
4. When collaborating with those who do not specialize in your area of expertise, how do you explain the purpose of your organization/agency/office and the work that you do?

Interviews were conducted either by video conference or in-person and recorded to ensure accuracy and allow for transcription, which was done using a commercial transcription service and checked for accuracy. Interview data were analyzed using NVivo to code within and across interview transcripts, as needed to triangulate responses from multiple participants. Ethnographic memos were also written to develop further connections between key concepts that emerged in coding. For instance, while coding transcripts for this chapter, "trust" emerged as a critical concept with multiple meanings and was mentioned with regards to veterans' trust in the VA to meet their needs; VA employee's initial distrust of "outsiders" in the USDS; and DSVA's attempts to build trust within the veteran support network. Teasing out these various meanings of "trust" enabled connections to artifacts and observations from site visits. Together, each of these nodes led to a more nuanced and interconnected understanding of the relationships that exist in the digital service movement between designers, users, and stakeholders.

Artifact Analysis

While interviews were useful for gathering a participant's perspectives in their own words, it was necessary to triangulate this data with information found in various artifacts and documents online to create connections and more accurately describe concepts and terminology used in each case. In my project, this process allowed me to examine a range of artifacts to understand the role they play as a source of methods, procedures, and values. The artifacts selected for this project can be broken down into five general categories:

- Reports published by offices and agencies within the VA, such as the VACI.
- Blog posts on *Medium* published by technologists with the USDS and DSVA.
- GitHub repositories connected to specific web pages, like the Vets.gov Playbook.
- Congressional testimony and press releases issued by the VA, the White House, etc.
- Government websites and individual web pages such as Vets.gov, VA.gov, DigitalVA, etc.

Artifacts were discovered in three ways: through independent online research, by direct reference in participant interviews, and from secondary sources. Artifacts were read closely to determine their relevancy to the case and identify connections to other data points. Several dozen artifacts were read and annotated while only a dozen or so were included in the final text. Artifacts were excluded for a variety of reasons, most commonly due to lack of relevance as the scope and scale of the project naturally narrowed during research. As described in the interview section, Nvivo was used to develop connections between interview transcripts and artifact annotations. This proved particularly useful for this case study as several participants referenced documents that would not have been found independently, such as those created by older or less visible agencies like the VACI. After reading interviews notes and final transcripts I was able to locate copies of several documents that I would then read, annotate, and add as nodes on Nvivo to indicate the connection between data points. The more connections I observed the more likely a document was to be featured in the case study.

Site Visits

The final source of empirical data for this project was a series of site visits conducted during a trip to Washington, D.C., in July 2017. During my week-long trip I was able visit a number of offices, including two sites pertinent to this chapter: the headquarters of the U.S. Digital Service, where I was given a tour and conducted a brief interview with former Administrator of the U.S. Digital Service Matt Cutts; and the office of the U.S. Digital Service at the Department of Veterans Affairs (DSVA), where I received a tour, conducted two interviews, and observed a retrospective meeting of the Vets.gov design team. During these visits, I took notes, made observations, drew sketches, recorded audio, and took photographs where permitted. After each visit, I wrote an ethnographic memo that contained a description of the visit, sketches of the office space, relevant quotations, any questions that required further investigation, and connections between the site visits and interviews or artifacts previously examined. Despite the short duration of site visits, they provided ample opportunities for triangulation,

which gave the study a level of contextual richness that would have been missing had only interviews and document analysis been conducted.

Limitations

The most significant limitation of this project is the lack of generalizability created by the decision to use a looser and more inductive sampling technique. Snowball sampling has several recognized limitations, including its reputation as "accidental" and "opportunistic," the risk of overgeneralization of results beyond a narrow population, and a general lack of acceptance in interdisciplinary scholarship (Koerber & McMichael, 2008). While this technique was justified by time constraints and the unique difficulty of gaining access and permission within the federal government, these limitations were a constant challenge with which I had to grapple. In addition, my own position as a researcher external to the federal government was another significant limitation. Though I tried as much as possible to allow interview participants to shape the direction and scope of the study, my understanding of the topic is still constrained by my status as someone outside of government. Finally, site visits were significantly limited in terms of the amount of time I was able to spend at each site, ranging from a few hours at the DSVA office to just 30-minutes at the USDS HQ. As one would expect, security also limited where I could go and what I could observe during my site visits to federal buildings.

Applying Human-Centered Design to Serve Veterans

As both a design philosophy and a research process, human-centered design prioritizes considerations of "the needs, perspectives, and input of users" (Walton, 2016, p. 406). In the introduction to their special issue on human-centered design and technical communication, Mark Zachry and Jan Spyridakis (2016) write,

> HCD is fundamentally about accounting for and reflecting shared human values in the creation of the technologies, artifacts, and systems that humanity shares in the collective pursuit of life. Recognizing that values vary from context to context, and that they are subject to change as people and technologies interact, we remain grounded in the assumption that human values are primary and should guide the world that people collectively create. (p. 394)

Placing collective human values at the foundation of design activity attempts to shift control of technology away from system-centered models. As Rebecca Walton (2016) writes, "a key issue of discussion is whose perspectives, expertise, and goals should direct decision making: In other words, which humans should be at the center of HCD" (p. 406).

Recognizing the need to design systems that are fundamentally humane, and not just efficient and easy to use, is one reason "human-centered design" has

challenged "user-centered design" as the preferred term since the 1990s, Walton (2016) argues. While the latter "frames people solely as users," the former "emphasizes the importance of having users themselves provide input to shape design" (Walton, 2016, pp. 404-405). Similarly, Emma Rose (2016) argues that using the term human-centered design rather than the more common user-centered design "moves away from the idea that we are focusing on people solely in their relationship to and use of technology" (p. 428). It is not enough "to consider users and their needs alone"; instead, designers and UX researchers must adopt "a principled stance to understand the lives, needs, and values of vulnerable populations . . . to ask different questions and . . . bring about different, and more equitable, design solutions" (Rose, 2016, p. 443). Though there have been many different interpretations and definitions of human-centered design, they all share a common basis in applying empirical research conducted with actual users of a product "to drive the design solution" (Friess, 2010, p. 42). The four principles of human-centered design, according to Don Norman (2019, July 23), are "ensuring that we solve the core, root issues, not just the problem as presented to us;" "focusing on people;" "taking a systems point of view;" and "continually testing and refining our proposals, ensuring they truly meet the needs of the people for whom they are intended" (section 1). Norman further identifies three issues that must be addressed in the application of human-centered design to large, complex problems: "proceed slowly, with incremental, opportunistic steps;" design systems that "provide understandable explanations;" and involve "local communities… in determining the outcomes" (section 3) not just technologists and specialists.

Refocusing user experience research around these principles and best practices illustrates the need for user experience researchers to acknowledge their work as "a sustained dialogue between user and designer" (Salvo, 2001, p. 288). Michael Salvo (2001) examines user-centered design as a continuum based on the degree of interaction between users and designers. Specifically, he focuses on the far end of the spectrum, "user-centered design strategy with a high degree of dialogic interaction" (Salvo, 2001, p. 288), which can lead to blurring of boundaries that traditionally exist between users and designers. "In dialogic ethics," Salvo explains, "the self is constituted through its interactions with the other. Identity is created in the interplay between self and other, a making of one's self through communication. When one engages another person as an individual, as a person, one recognizes the humanity of the other" (2001, p. 276). In her analysis of Salvo's argument, Rose (2016) notes that dialogical ethics emphasize ethical responsibility of researchers to become advocates for the needs and interest of users *and* for more ethical application of user research within broader design processes. "Dialogical ethics are critical to researchers," she explains, "because they help us avoid the deployment of usability practices that are motivated solely by commercial interests and that focus on efficiency above all else. Dialogical ethics require us to be with the user in their discomfort and frustration" (2016, p. 429).

Toward More Inclusive UX Design Practices

Inclusive design has emerged as an important complement to human-centered design practices, one that centers the needs of marginalized users who are too often ignored in the creation of new digital tools and user interfaces. According to Alita Joyce of the Nielsen Norman Group, inclusive design is a set of methodologies that "enable people of all backgrounds and abilities," with the goal of "fulfilling as many *user needs* as possible, not just as many users as possible" (Joyce, 2022). One of the most frequently cited definitions of inclusive design comes from Microsoft: "Inclusive Design is a methodology, born out of digital environments, that enables and draws on the full range of human diversity. Most importantly, this means including and learning from people with a range of perspectives" (Microsoft, n.d.). In her introduction to the special issue about inclusive design published in *Intercomm*, the magazine of the Society for Technical Communication, Huatong Sun (2021) describes inclusive design as a process of empowering communities from within. "Being consciously aware of our systemic and personal biases," she notes, "is an important step leading towards" a design process that foregrounds humility, empathy, and reciprocity. "Through this process, we help users utter their own voices and plant seeds to nurture culturally sustainable changes mutually," rather than imposing external preferences, timelines, biases, and hierarchies on partner organizations and the communities they serve (Sun, 2021, p. 5).

Inclusive design is thus a necessary reminder that user-centered and human-centered design practices can easily be exclusionary to marginalized populations, despite the best intentions of designers. In her book *Design Justice*, Sasha Costanza-Chock (2020) presents a compelling critique of user-centered design. "Design always involves centering the desires and needs of some users over others," they write. "The choice of which users are at the center of any given UCD process is political, and it produces outcomes (designed interfaces, products, processes) that are better for some people than others (sometimes very much better, sometimes only marginally so)" (Costanza-Chock, 2020, p. 77). Because designers often "unconsciously default to imagined users whose experiences are similar to their own," Costanza-Chock argues, this "relatively small, but potentially highly profitable" set of users form the "unmarked" dominant group whose needs are prioritized. In the United States, this unmarked group is comprised of people who are "(cis) male, white, heterosexual, 'able-bodied,' literate, college educated, not a young child and not elderly, with broadband internet access, with a smartphone, and so on" (2020, p. 77). Catering to the needs of this unmarked group contributes to what Costanza-Chock terms "the spiral of exclusion," through which

> design industries center the most socially and economically powerful users, while other users are systematically excluded on multiple levels: their user stories, preferred platforms, aesthetics, language,

> and so on are not taken into consideration. This in turn makes them less likely to use the designed product or service. Because they are not among the users, or are only marginally present, their needs, desires, and potential contributions will continue to be ignored, sidelined, or deprioritized. (2020, pp. 77-78)

Applying the methods of inclusive design begins with understanding the fundamental need to change the underlying causes of marginalization within designed systems. As Kat Holmes (2018), former Principal Director of Inclusive Design at Microsoft, writes in her book *Mismatch: How Inclusion Shapes Design*, exclusionary design results in difficult interactions between end-users and "access points" (e.g., tools, technologies, spaces, relationships, etc.). When a user attempts to participate in an interaction that is not easy for them to access, they can attempt to "adapt [them]selves to make the interaction work," but often "no degree of creativity will make it possible to use a solution that simply doesn't fit a person's body or mind" (Holmes, 2018, p. 2). Such "mismatched interactions" are "barriers to interacting with the world around us," "a byproduct of how our world is designed," and "the building blocks of exclusion" (Holmes, 2018, p. 2). Inclusive design, in contrast, begins with three basic principles: "recognize exclusion," "learn from human diversity," and "solve for one, extend to many" (Holmes, 2018, p. 13). "An inclusive designer," Holmes notes, "is someone, arguably anyone, who recognizes and remedies mismatched interactions between people and their world. They seek out the expertise of people who navigate exclusionary designs. The expertise of excluded communities gives insight into a diversity of ways to participate in an experience" (2018, pp. 56-57).

Inclusive design is particularly important for the application of user-centered and human-centered design practices in government digital services given the long history of mismatched interactions and exclusionary design prevalent in government access points. Historically marginalized and under-represented populations have a relationship with government service providers—like the VA—that is informed by generations of unequitable treatment and oppression within deeply-rooted systems of discrimination. Trying to build trust in and reliance on human-centered designs within such systems without first identifying and addressing the systemic problems that lead to the "spiral of exclusion" will only continue to perpetuate, reinforce, and strengthen the privileging of "unmarked" end-users. In a post to the U.S. Digital Services blog, Digital Services Expert Suzanne Chapman (2018) argues that inclusive design "isn't just about accessibility . . . or compliance, it's about the whole experience." While the VA has ostensibly always been "veteran-centered," many veterans have had mismatched interactions with VA services. Though the DSVA sought to do things differently, UX design can easily perpetuate exclusionary practices.

Chapman tells a story that effectively illustrates this problem: while conducting user-experience research with a veteran who had Parkinson's disease, the

participant struggled to remember questions posed by the researchers, had difficulty using the provided computer mouse to access the interface being tested, and "said he probably wasn't the best person to get feedback from" (Chapman, 2018, para. 1). This veteran's experience, Chapman writes, made him "exactly who we want to make sure our site works for" and as a result the design team "collectively made it a priority to ensure we were deliberate in our research, design, and content practices" so as not to reinforce the spiral of exclusion that led to this participant's marginalization in the UX research and design process in the first place. This recognition, and the resulting commitment by the design team to address this mismatched interaction, is the first step toward slowing and eventually ending the spiral of exclusion experienced by this veteran and the countless others who rely on VA services.

When applied to the design of services for veterans, human-centered design and inclusive design must take into consideration the unique life experiences and backgrounds of those who have served in the armed forces. According to the National Center for Veterans Analysis and Statistics, as of January 2022 there were 19.1 million veterans in the United States, of which:

- 2.4 million were Black.
- 1.5 million were Hispanic.
- 0.9 million were American Indian/Alaskan Native/Other.
- 0.4 million were Asian/Pacific Islander.
- 2 million were women.
- 8.8 million were aged 65 years or older.
- 5.26 million received disability accommodations.
- 0.84 million received education benefits.

While this community is unified by both the unique experiences of servicemembers as well as common access to and reliance on government programs and services (e.g., pensions, life insurance, education benefits, health care, etc.), interactions with the VA system are not monolithic. According to the 2014 *Minority Veteran Report*, published in 2019 by the U.S. Department of Veterans Affairs, "In 2014, minorities comprised 22.6 percent of the total veteran population in the United States. By 2040, they are projected to make up 35.7 percent of all living veterans" (para. 3). Human-centered UX design initiatives like those described in the remainder of this chapter can perpetuate the marginalization of veterans if they do not actively acknowledge and intentionally work toward addressing inequities within their own practices and systems.

Human-Centered Design Initiatives in the VA

Frustration with government services is a familiar experience to many Americans. For veterans and their dependents and survivors, however, there can be few

other options for accessing essential benefits. A 2014 report by Ruskin et al. (2014) titled "Toward a Veteran-Centered VA" describes the unique problem of services for veterans: "As a service-delivery government agency, unlike comparable service providers in the private sector," authors Mollie Ruskin and colleagues write, "the VA does not compete for business of our customers. As a result, we may take for granted the loyalty of our customers and miss the opportunity to understand their core needs and motivations" (Ruskin, et al., 2016, p. 7). Because many veterans rely on the VA for benefits that they often cannot get elsewhere, such as health insurance or funding for college, the risks associated with what Robert Johnson (1998) terms a "systems-centered" approach to design are much higher. In a systems-centered design, Johnson writes, "the technology, the humans, and the context within which they reside are perceived as constituting one system that operates in a rational manner toward the achievement of a predetermined goal" (1998, p. 25). Avoiding a systems-centered orientation requires acknowledging the inherently limited perspectives of researchers and designers. As Ruskin et al. explain,

> From within our organization, we cannot fully understand what it feels like to approach our services. We are acquainted with the acronyms, we know the business lines and service offerings. We may think a sign is clear or that a form makes sense. Yet we, the dedicated people who deliver vital services to Veterans, cannot fully grasp what it feels like to access these services—unless we ask. (2016, p. 7)

The solution detailed in the report is to embrace "the research tools of a Human-Centered Design process" by speaking directly with veterans and their families "about their experiences with the VA and how our services fit into the fabric of their lives" (Ruskin, et al., 2016, pp. 7-8)

Over the last fifteen years, concerted efforts have been made within the VA to modernize the department's approach to technology, design, and user experience. One of the first such initiatives, the VA Center for Innovation (VACI), was founded in 2010 "to identify, test, and evaluate new approaches to the agency's most pressing challenges" (VA Center For Innovation, 2017). Until it was merged with the Veterans Experience Office in 2019, the VACI was at the forefront of promoting human-centered design in the VA, including publishing two documents that together outline how the HCD process can improve the development of services for veterans. The first, Toward a Veteran-Centered VA, was released in 2014 and provides an overview of human-centered design methodology, including definitions, methods, and misconceptions. The report also presents the results of a pilot study with the dual-purpose of "test[ing] the usefulness and application of a human-centered design methodology within the context of the VA" and collecting data "to understand veterans' experiences interacting with the VA, identify pain points in the present-day service delivery model, and explore

opportunities to transform these interactions into a more veteran-centered experience" (Ruskin, et al., 2014, p. 1).

The second document, known as the HCD Toolkit and published in 2015, offers project leaders within the VA an introduction to "the HCD process, goals, and activities you can use with your teams to design and deliver new programs, services, and products for Veterans" (Veterans Affairs Center for Innovation, 2015, p. 6). The toolkit is organized into four stages of human-centered design—frame, discover, design, and deliver—and offers a breakdown of several possible steps within each stage. For example, the discovery stage includes a detailed explanation of both contextual and ethnographic research as well as an explanation of several different approaches for analyzing collected data to identify insights. The toolkit also presents case studies for each stage based on work completed by UX researchers and design teams in the VA Center for Innovation. One case study described in the "discovery" section of the toolkit summarizes a pilot study of HCD research methodology conducted in 2014, which "surfaced themes about the needs, perceptions, and expectations of Veterans" and "helped guide the development of more veteran-centric efforts, including the work of the new Veterans Experience Office at VA and of VA offices across the country" (Veterans Affairs Center for Innovation, 2015, p. 30). Together these two documents preserve an important history of human-centered design methodology within the VA, highlight the extensive work that was done to scale HCD methods for expansion to other parts of the department, and establish a solid foundation for future initiatives, including the Vets.gov project.

While much of this work continues, the institutional structures that support it are in a continuous state of flux. In 2019, for instance, the VA Center for Innovation became the similarly named VA Innovation Center, but its mission shifted significantly, from exploring research and design practices to creating new service models for the Veterans Health Administration. Much of the VACI's HCD efforts are now continued by the Veterans Experience Office (VEO), which was created by former Secretary McDonald in 2016 "to enable VA to be the leading customer service organization in government so that veterans, their families, caregivers and survivors Choose VA" (Veterans Experience Office, 2019). What follows, then, is a description of the human-centered design research that occurred during the five-year period during which the DSVA developed Vets.gov but before it merged with VA.gov.

Veteran-Centered User Experience Research

The design process used by the Vets.gov and later VA.gov design teams resembled in many ways the process identified in the VA Center for Innovation's "HCD Toolkit," but reflects the specific approach to HCD used for such a large and complex project. This process is best described in the Vets.gov Playbook

(Veterans Affairs, n.d.), a set of design principles that provided the foundation for the work of the Vets.gov team and that has since been migrated to VA.gov. The Vets.gov Playbook contains seven sections detailing the team's process and best practices, including a design guide, an editorial and content guide, a migration strategy, and a description of the team's HCD process. As the introduction to this page notes, "We've asked our customers what they want and need and we've designed in response to that. We've tested and made adjustments based on their feedback and will continue to do so as we add new features and information to the site" (Veterans Affairs, n.d.). The VA.gov HCD process is subdivided into three stages—discover, design, and measure and refine—and the full list of steps within each stage has been provided in the Table 14.1.

Table 14.1. A Description of the Three Stages of the VA.gov Human-Centered Design Process as Described in the Vets.gov Playbook (Veterans Affairs, n.d.)

Discover	**Design**	**Measure and Refine**
"Conduct user research."	"Generate potential solutions."	"Build new services or products in agile increments."
"Synthesize findings to define user needs."	"Translate ideas into prototypes."	"Release new offerings with feedback loops included."
"Formulate statement of the problem to solve."	"Conduct tests with users."	"Continuously monitor and refine to increase user satisfaction."
	"Refine based on feedback."	
	"Prepare for implementation."	

Four Types of User Research in the DSVA

Because the Vets.gov design team worked on multiple components of the website at various stages of development and for a range of stakeholders and users, the human-centered design process just described is critical for keeping teams organized and ensuring the same basic process is replicated consistently on every part of the project. This also means that user research is potentially conducted at every single step, from initial discovery phases at the very start of the process, all the way through identifying and resolving user-reported bugs after delivery. Through interviews with Maria and Sarah, two UX researchers on the Vets.gov team, I was able to get an even more complete sense of how the team handles the massive amount of user research conducted for every component of the Vets.gov project. As Sarah explained, user research plays a pivotal role in how the team approaches its work: "everything we do is very much . . . user-centered. That is a core principle for everything we do. It is not questioned by anyone on the team . . . It's just a fully baked-in part of the process."

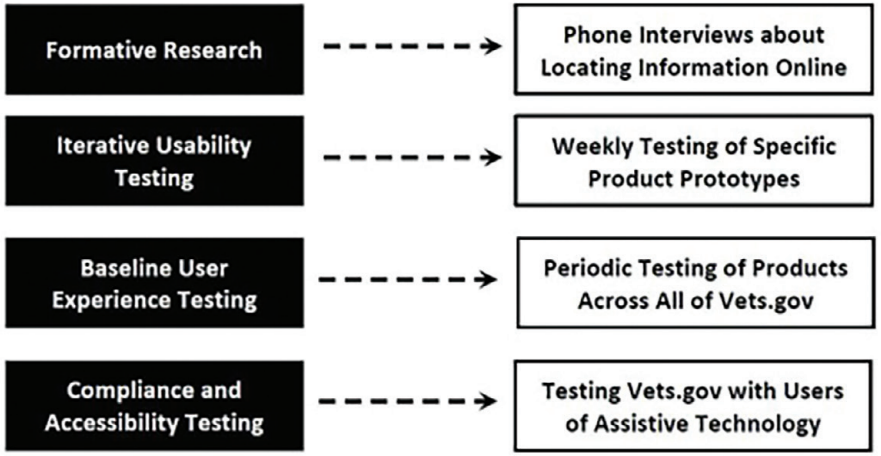

Figure 14.2. A visualization showing the four types of user research conducted by the Vets.gov design team.

The research process used by the Vets.gov team includes four broad types of user research: formative research, iterative usability testing, baseline user experience testing, and compliance and accessibility testing (see Figure 14.2). Though the order below roughly follows the progression of the product development cycle, each of the four types can be used at multiple points throughout the design process.

Formative Research

Formative research occurs at the very beginning of the process as the team determines what product they are working to improve. According to Sarah, the team does not usually begin a project knowing which existing tool or form they are going to modernize; rather, the product they will work on is determined through interviews with stakeholders and by gathering information about existing systems. Maria described this type of research as "exploratory" and noted that it was on the opposite end of the research continuum from usability testing. For example, during exploratory testing the team might conduct phone interviews asking broader questions about where veterans go online to find information. "[T]he VA has a very large amount of content about health on its many websites," Maria explained. "What of that is relevant for this particular website that is hosting benefits and services, and what kind of health information do veterans even come to the VA for versus other sources?" Formative research allows the team to better understand "the greater sphere of ways veterans want information" and their overall "relationship with the military and the VA." Results from formative research allows the team to identify elements of Vets.gov that have a high impact on the veteran experience and could be prime candidates for redesign or the development of new tools.

Iterative Usability Testing

Once the team has decided where their efforts are most needed, iterative usability testing is conducted on a particular product with a constantly changing group of veterans. This testing occurs at any stage of the process, whether this is gathering impressions of an early prototype; toward the middle of a development cycle to isolate a particularly complicated problem; or at the very end of the process after extensive testing has already been completed. As Maria told me, "I'm personally willing to test things at any stage whether it's just words, card sorting, talking through something—sketches, an online prototype, something that's not clickable . . . we'll look at whatever's available to get the team the answers to make decisions that they need to keep working." The ultimate goal of iterative testing, Sarah explained, is to get continuous feedback: "we interact with veterans every single week primarily through the usability testing that we're running . . . So, three to five [participants] would be our average number of interactions per week." Though this is a small number of participants, prototyping occurs frequently with the goal "to get every new feature on the site in front of veterans two-to-three times before launch." In addition to weekly iterative testing, the team also conducts longitudinal studies with as many as thirty veterans from across the country participating in remote moderated testing for several weeks. While most of the research conducted by the team is done through remote screen sharing, Maria noted they were able to conduct in-person usability testing with one veteran service organization (VSO). This allowed usability researchers to observe tasks being completed by "a few different people [using] their own custom set-ups with some different accessibility tools" that could not be observed otherwise.

Baseline User Experience Testing

Baseline experience testing, in contrast, is more holistic in nature, occurs less often, and is conducted longitudinally. As Sarah noted, baseline testing often begins with researchers observing "maybe ten kind of general tasks that span across the whole site and all the different tools. Obviously, we can't go deep in any of those, but can people find what they're looking for and do they understand what they've found?" Because it focuses on the broader experience of using the entire website, rather than one particular tool or form, baseline testing is not as deep as continuous testing. However, it can provide the team with data to make comparisons across multiple iterations of the site, which allows them to examine "how . . . those changes add up and improve the whole experience." Like formative research, baseline testing allows the team to make decisions about where to prioritize their time and resources based on direct input from and observation of veterans completing typical tasks on Vets.gov.

Compliance and Accessibility Testing

Finally, compliance and accessibility testing ensure websites are usable for veterans with cognitive impairments, motor skills impairments, and those who use

assistive technology. As Sarah explained, compliance is "often referred to as a sort of coding challenge, that you want to make sure your sites are coded well . . . but there's also the parts not talked about as much, [such as] how do you design for accessibility so it's not just the downstream coding thing, but how do you make sure that what you're designing is accessible?" By combining "rigorous automated testing" of the code and design elements of the website with qualitative usability research, the team strives to account for the unique needs of veterans who use assistive technology when accessing services online.

Participant Recruitment and Community Outreach

Because of the sheer amount of user testing conducted on Vets.gov, participant recruitment poses a unique problem for the DSVA. As Maria explained, the demand for feedback from veterans is often greater than their ability to recruit participants: "We haven't had a ton of research capacity on [our] team compared to how fast the designers and developers are moving. It's awesome that we have a lot of demand for veteran feedback, but it's been a bit of a struggle to keep up sometimes." The primary method of recruitment is from other veterans and family members. According to Sarah, "veteran-to-veteran" recruitment has been effective, but they have to be careful about over-saturation and being respectful of veterans' right to privacy:

> We have a lot of different methods of trying to find people . . . There's a really strong veteran-to-veteran support network. We try to be careful about that because veterans get spammed a lot and, on the surface, people who've never experienced usability testing [laughs] might see it as weird. So, we've tried to be really careful about our language and use a VA email address connected to it and things like that.

Outreach takes a number of other forms, including printed materials, like fliers and palm cards; phone calls to friends and family of VA employees; direct recruitment through veteran service organizations (VSOs); and more unproven or experimental methods, such as posting to veteran Facebook groups and subreddits or placing ads on Craigslist. The team also makes a conscious effort to recruit beyond the D.C. area to ensure participants are more fully representative of the veteran population as a whole.

Recruitment is complicated by several factors. First and foremost, there is no single listserv or other form of mass communication that can reach every veteran, nor are there simple ways to send messages to specific niche groups of veterans. "With 22 million veterans, you would think [recruitment] would be relatively easy," Sarah said, "but it is one of our biggest challenges lately because we do it so often. And sometimes, we just need any veteran; sometimes, we need a veteran who has already engaged with the VA in some way.

So, [there are] 22 million veterans and I think the number of veterans who have interacted with the VA in some capacity is down to like 9 million . . . then it just keeps getting smaller and smaller depending on how niche of an audience we're looking for." A second, related problem is that depending on what tool or component of the website is being tested, researchers may need to recruit veterans who have recently used a particular service on Vets.gov. As Sarah explained further, "we have some . . . individual tools that we're testing where it's important that [participants] have been through that process or are currently going through whatever process it is . . . And somewhat recently so that the memory's fresh."

Finally, the VA is careful to avoid spamming veterans by overusing communication channels or specific recruiting methods that could potentially risk damaging integral partnerships with VSOs and other organizations that advocate on behalf of veterans. Such organizations are critical not just for participant recruitment, but also for establishing long-term collaborations between the DSVA and the broader veteran community. For instance, Maria described a project the team was working on when I visited the DSVA office in July 2017 that involved conducting usability demonstrations with representatives from VSOs. Because they are highly protective about their members, this project was as much about gaining the trust of VSOs and informing them of the process veterans go through when they participate, as it was about getting feedback on the process itself. As Maria described it, the project involved conducting "a sample session with [the VSO representative] where we're going to look at part of the website and I am going to run the conversation like we do when we get veteran feedback and [they] get to experience that as what it's like from the veteran's side. And then we . . . give [them] time to answer their questions about our work and . . . ask whether they're willing to send information about our work to some of their members." By taking time to model the research process for VSO representatives, the team seeks their trust and attempts to earn their support in encouraging VSO members to see the potential value of and impact from their participation in UX research.

This outreach initiative with community-based organizations like veterans service organizations ultimately reveals a significant difference between human-centered design within the Department of Veterans Affairs and user research conducted in other areas of government: direct collaboration with the community of support built around veterans. Because this community existed long before Vets.gov was established and will continue to exist long after the current services are outdated, the team must work to establish their reputation within this diverse and ever-changing community. Even if veterans rely on services from the VA and have few alternatives to access services, their advocates hold power and influence within the system. To gain the trust and support of these advocates, the Vets.gov team actively embedded ethical interactions with veterans into their ongoing research and design processes.

Three Ethical Dimensions of UX Research in the DSVA

Based on my analysis of interviews conducted with Maria and Sarah, I have identified three ethical dimensions of user-research in the VA Digital Service: compassion, accessibility, and respect. These dimensions are particularly important for the development process embraced by the VA to achieve the ideals of advocacy and human dignity indicative of a more ethical approach to service design. While these dimensions reflect only the DSVA's practices, and not necessarily those adopted by the Department of Veterans Affairs more broadly, they indicate a promising trajectory for using human-centered design methods in the design of services for veterans. Because Vets.gov was a stated priority of the main U.S. Digital Service and received considerable attention in the press and elsewhere outside of government, its potential impact on applications of user experience research within the VA and the entire federal government is considerable.

Compassion: "No, we actually care about your opinion."

A veteran-centered approach to design acknowledges that the services provided to veterans have a direct impact on user's lives, both in the sense of providing more effective access to necessary services (e.g., healthcare, insurance, etc.) and by reducing the barriers of access and "pain points" in the process. It also means considering how users' lives are impacted by a design and valuing their expertise even if it clashes or contrasts with views of designers, programmers, or administrators. A more compassionate approach to user research requires more than just acknowledging that users can contribute to the design process; it also requires researchers to demonstrate that participants' contributions will be valued, respected, and used in good faith throughout the design process. As Maria explained, because many veterans already have a complicated relationship with the VA, researchers have to acknowledge that participants' experiences will be complex and varied:

> It's been surprising how emotional the work has been . . . a lot of veterans have had pretty negative experiences with the VA over the years. It's a really big system and over the years, some parts have worked less well for veterans. And so, it has been pleasantly surprising how much just asking someone's opinion on something can make a difference in that and saying, "No, we actually care about your opinion, your feedback, and your experience in the moment."

Acknowledging this complicated history, rather than ignoring it in favor of a more positive spin, is critical for addressing inequitable and exclusionary practices. After talking with DSVA employees, it is clear that compassion for veterans and the desire to use their technical skills to make government services more effective and transparent drives many technologists to public service in the first place. But as Sarah noted, outside of the DSVA employees of the VA are similarly

service-oriented but are new to the philosophy of human-centered design. "Even though they might be bureaucrats and lifelong employees of the organization," she said, "for the most part, they are deeply invested in making things better for the veterans. They just maybe don't have the full understanding or sort of modern way of figuring out how to solve those problems." Linking such commitment with the established practices of UX, human-centered design, and inclusive design thinking ensure compassion leads to actual change.

Accessibility: "Just because it passes compliance does not mean it's user friendly."

A key component of design for the Vets.gov team is achieving 508-compliance. Within the federal government, accessibility of electronic information is regulated by Section 508 of The Rehabilitation Act of 1973, which was revised in 1998 to set new precedents that apply "to all Federal agencies when they develop, procure, maintain, or use electronic and information technology" (U. S. General Services Administration, 2024, para. 1). Specifically, to comply with Section 508, "agencies must give disabled employees and members of the public access to information that is comparable to the access available to others" (U. S. General Services Administration, 2024, para. 2). Accessibility is particularly important for the VA, Sarah noted, because "we do have a lot of users who have full range of disabilities . . . that's why they're using the VA: because they need support and resources for injuries and health impairments and old age."

For the Vets.gov team, key components of accessible design include using plain language, simple design aesthetic, mobile-first design, and developing with assistive technology in mind. Plain language is critical, according to the "Editorial and Content Guide" in the "VA.gov Playbook" (Veterans Affairs, n.d.) because "language communicates our humanity. In the context of a website, it conjures up the people on the other side of that glowing screen. It engages, builds trust, and guides visitors through processes and information that can be stressful and confusing." For Maria, plain language is less a design principle and more a guiding philosophy that extends to all of her interactions with participants and stakeholders:

> User experience work has a lot of jargon, as does government work, and so you may notice I've been calling them "feedback sessions" rather than "user testing." . . . That's one of my personal missions, to use language that's more comfortable for our participants as well as our partners in and out of government that we're working with.

Checking off the requirements for compliance does not necessarily mean that a website is accessible, yet alone inclusive. Rather than viewing 508-compliance as a "big stamp of approval at the end of the process," Sarah explained, the Vets.gov team builds accessibility into the process from the beginning. Usability testing plays a key role in determining usefulness to a diverse range of

veterans, particularly those who use assistive technology. Even after the code has gone through automatic testing and has been determined to be in compliance, the team continues to do usability testing because, as Sarah put it, "just because something passes compliance does not mean it's still user friendly. You can have something that passes all of the tests but it's still garbage . . . everything can pass but still be hard to use." The design aesthetic for Vets.gov, according to the Playbook, "aspires to be honest, transparent, respectful, and accessible to all visitors" (Veterans Affairs, n.d.). While compliance is important for achieving legal requirements, for the DSVA accessible design was a baseline internal expectation.

Respect: "They've been burned before by shiny people coming in wanting to change the world."

Placed within context of the institutional history of the VA, the digital services movement is only the most recent attempt at changing or "modernizing" established systems and processes. As Sarah explained, previous attempts at introducing new methods or practices have been attempted but failed often enough for career VA employees to be suspicious of any change perceived as being introduced from the outside. Sarah told a story from the early years of the DSVA where the team was more active with outreach and encountered resistance from others within the department:

> they tried to go around and talk about the things that they wanted to do and how they sort of aimed to operate and people just were like, "Okay. I don't care. Goodbye." Just like, "Yeah. I talked to some group two years ago that said the same thing and they didn't do anything and I talked to somebody three years before that and they never did anything." You know? They've been burned many times by these shiny new people coming in wanting to change the world and had not really worked or had worked in really small scale.

Implementing change respectfully acknowledges that the principles of human-centered design and inclusive design must extend to the process of design and not just the products. Any change must thus be done in a way that puts trust in people over the system and acknowledges both the successes and failures of those who advocated for change previously.

Respect is particularly important in a large and complex organization like the VA, where new initiatives, policies, and leaders come and go frequently while many career employees continue to work on the same projects and with the same tools for decades and across multiple administrations. Given that the DSVA's charter lasted for only four years, a longitudinal view is necessary for retaining institutional memory and for allowing philosophies like human-centered design and inclusive design the time and resources necessary to become effective on a larger scale. Treating veterans with respect and dignity is a primary stated goal

of the VA and a point that has been repeatedly emphasized by the department's leadership, but it remains a constantly moving target.

Conclusion

In many ways, this chapter serves as a time capsule of sorts, documenting the practices, policies, and initiatives that existed during a particularly narrow timeframe. Over the six years that I conducted this research, much has changed about the offices, teams, and initiatives documented in this chapter. Despite large-scale institutional change, there has been some degree of continuity from one iteration to the next; remnants of prior efforts that preserve the institutional memory of projects that have come and gone. For instance, since the end of the Vets.gov project and the lapse of the DSVA's charter in 2018, most of its projects were absorbed into other parts of the Department of Veterans Affairs. The DSVA still exists but now operates within the VA's Office of Information Technology rather than as a chartered agency team of the U.S. Digital Service. The existing Veterans Experience Office emerged directly from the work on human-centered design completed by the VA Center for Innovation, which has since shifted its mission away from research. But the work completed by the VACI, like the two documents described earlier in this chapter, are still accessible from VA websites. Similarly, to some extent the DSVA I observed no longer exists. And yet its work can still readily be found online and, perhaps more importantly, its influence continues in the work of its successor team—the VA Digital Service team housed with the VA Office of the Chief Technology Officer—which is at once distinct from and inherently connected to an earlier era of veteran experience design.

Since I began this research in 2016 there have been three presidential administrations and four secretaries of the VA. With each administrative shift, I feared the day when the USDS or the DSVA would simply disappear overnight; though this has not (yet) happened, there have been many changes to how, where, and to what extent human-centered design is practiced. As an outside observer, I frequently questioned whether UX and HCD would still be a priority to each incoming administration. But if anything, I have been surprised by the *resiliency* of these principles and practices, which have lasted far beyond the initiatives and partnerships through which they were initially developed. As such, human-centered design shows signs of long-term integration into the institutional fabric of the Department of Veterans Affairs. Part of the unique identity of the VA is that its mission endures as long as there are veterans who still depend upon its services. While administrations change, institutional structures rise and fall, and initiatives come and go, the *demand* for continuous improvement to veteran services will exist as long as there are veterans, their families and dependents, their supporters and allies in various organizations, and a broader coalition of advocates working on their behalf. The alphabet soup of offices and initiatives created to improve the veteran experience over the last decade (VACI, DSVA,

VEO, etc.) illustrates the necessity of such initiatives in the VA, the complexity and scale of the problems they were meant to solve, and the realization that such impactful and challenging work cannot be the responsibility of any single project, team, or office.

Implications

The implications from this research for technical communication practitioners, researchers, scholars, and educators are numerous. First and foremost, this research stresses the importance of examining public sites of UX design, particularly within imposing and often opaque governmental institutions. Though getting access can be challenging, UX in government is an under-studied area of research that can complement work conducted in corporate, nonprofit, and academic sites. Methodologically, this study underscores the importance of ethnographic approaches to studying UX design. The slow, inductive, iterative approach taken in this project was imperative for studying such a complex and multifaceted phenomenon. In particular, triangulating data collected through artifact analysis, site visits, and interviews allowed for unexpected, serendipitous, and *kairotic* moments to surface that made for a stronger (if somewhat unwieldy) study. The results of this study offer many paths for further research, including expanding ethnographic methodologies in studies of UX design teams, identifying further cites of governmental and civic UX design, examining other nontraditional sites of UX design, and continuing to develop theories using human-centered and inclusive design as foundational concepts.

For practitioners of UX and TC, both the research and design practices of the DSVA and the broader ecology of materials created to establish human-centered design in the VA can be instructional for launching new projects or updating existing initiatives. The experiences described by Maria and Sarah offer a number of important insights for any UX team, and the many artifacts cited throughout this chapter provide concrete, actionable steps teams can take to replicate an HCD-influenced approach to user experience design. For example, artifacts like the HCD Toolkit, USDS Playbook, and DSVA GitHub repositories are public and open source, meaning they can be modified or expanded upon by those who may want to learn from, experiment with, or replicate best practices of the U.S. Digital Service. Further, the inclusive design literature surveyed here offers an important reminder that even the most well-intentioned applications of UX and HCD principles can very easily perpetuate exclusion and oppression of historically marginalized populations. Technologists, UX researchers, and technical communicators unfamiliar with inclusive design principles would benefit from surveying the many readings, trainings, and programs that have emerged around inclusive design and design justice.

Finally, this case study is a potential resource for teachers and students of technical communication who wish to deepen their understanding of UX

practices, human centered design principles, and inclusive design. Integrating case studies into technical communication courses at all levels of higher education can make such work accessible to students for whom user experience can often seem abstract. Further, students at both the undergraduate and graduate level may benefit from reading this case study of government UX design, as it can inspire further research into governmental UX, promote curiosity about public and open-source design practices, and even foster a commitment to pursuing UX in various public sector contexts, including all levels of government, nonprofits, civic tech organizations, civic hackathons, and more. My sincere hope is that this case study, which emerged from my dissertation research, may also inspire other graduate students to aim high when identifying public sites of UX research to study

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References

Boyd, A. (2019, November 8). More vets are taking advantage of digital services through new VA.gov. *NextGov.* https://tinyurl.com/52uzx5sp

Chapman, S. (2018). A quick guide to inclusive design. The U.S. Digital Service. *Medium*. https://tinyurl.com/397pje7d

Chappellet-Lanier, T. (2020). Looking for "balance," U.S. Digital Service team adapts to changes at VA. *FedScoop*. https://www.fedscoop.com/us-digital-service-veterans-affairs-transition

Costanza-Chock, S. (2020). *Design justice: Community-led practices to build the worlds we need*. MIT Press.

DigitalVA. (2022). VA.gov hits 1.5 million-in-a-month milestone. https://www.oit.va.gov/news/article/?read=va-website-hits-milestone

Friess, E. (2010). The sword of data: Does human-centered design fulfill its rhetorical responsibility? *Design Issues*, *26*(3), 40–50. https://doi.org/10.1162/DESI_a_00028

Hewitt Jones, J. (2022). President's budget includes $1.8B for health records modernization at the VA. *FedScoop*. https://www.fedscoop.com/biden-budget-2023–va-health-records-modernization/

Holmes, K. (2018). *Mismatch: How inclusion shapes design*. MIT Press.

Johnson, R. R. (1998). *User-centered technology: A rhetorical theory for computers and other mundane artifacts*. State University of New York Press.

Joyce, A. (2022). Inclusive design. *Nielsen Norman Group*. https://www.nngroup.com/articles/inclusive-design/

Koerber, A., & McMichael, L. (2008). Qualitative sampling methods: A primer for technical communicators. *Journal of Business and Technical Communication*, *22*(4), 454–473. https://doi.org/10.1177/1050651908320362

McDonald, R. A. (2016, January 21). Testimony of Secretary of Veterans Affairs Robert A. McDonald before the United States Senate Committee on Veterans' Affairs. D1E4CDA5–AEB1–4DC1–B63C-8B680BA15365

Microsoft. (n.d.). Inclusive design. Retrieved November 24, 2024 from https://www.microsoft.com/design/inclusive/

Moore, J. (2016). Lack of funding means several agencies won't be getting digital service teams after all. *Nextgov*. https://tinyurl.com/4kdmh977

National Center for Veterans Analysis and Statistics. (n.d.). VA benefits and health care utilization. Retrieved April 10, 2022 from https://www.va.gov/vetdata/docs/pocketcards/fy2022q2.pdf

Norman, D. (2019). The four fundamental principles of human-centered design and application. JND.org. https://jnd.org/the-four-fundamental-principles-ofhuman-centered-design/

Office of Management and Budget. (n.d.). Budget of the U.S. government: Fiscal Year 2022. Retrieved April 10, 2022 from https://www.whitehouse.gov/wp-content/uploads/2021/05/budget_fy22.pdf

Office of the Press Secretary. (2016). Transforming government services through technology and innovation. The White House. https://tinyurl.com/9uncwccr

Rose, E. J. (2016). Design as advocacy: Using a human-centered approach to investigate the needs of vulnerable populations. *Journal of Technical Writing and Communication, 46*(4), 427–445. https://doi.org/10.1177/0047281616653494

Ruskin, M., Schleuning, A., Tavoulareas, E., & Chapman, M. (2014). Toward a veteran-centered VA: Piloting tools of human-centered design for America's vets. Department of Veterans Affairs Center for Innovation. https://library.alnap.org/system/files/content/resource/files/main/Toward_A_Veteran_Centered_VA.pdf

Salvo, M. J. (2001). Ethics of engagement: User-centered design and rhetorical methodology. *Technical Communication Quarterly*, *10*(3), 273–290. https://doi.org/10.1207/s15427625tcq1003_3

Sun, H. (2021). Empowering from within: Uttering voices and planting seeds. *Intercom*, *68*(3), 4–8.

U.S. Department of Veterans Affairs. (2019, June 4). Minority veteran report. https://tinyurl.com/3v28shua

U.S. Digital Service. (n.d.). Mission. Retrieved October 13, 2024 from https://www.usds.gov/mission

U.S. Digital Service. (n.d.). How we work. Retrieved April 10, 2022 from https://www.usds.gov/work

U. S. Digital Service. (2017). The United States Digital Service report to Congress. https://www.usds.gov/report-to-congress/2017/07/

U.S. General Services Administration. (2018). IT Accessibility Laws and Policies. November 24, 2024 from https://www.section508.gov/manage/laws-and-policies/

Veterans Affairs. (n.d.). Vets.gov playbook. https://tinyurl.com/y3cyrk5s

Veterans Affairs Center for Innovation. (n.d.). About VACI. Internet Archive. Retrieved November 24, 2024 from https://tinyurl.com/469hfnfv

Veterans Affairs Center for Innovation. (2015). Designing for veterans: A toolkit for human-centered design. https://www.vets.gov/playbook/downloads/vaci-project-toolkit.pdf

Veterans Affairs Innovation Center (2019). About the VA Innovation Center. https://web.archive.org/web/20200605005501/https://www.innovation.va.gov/about

Veterans Experience Office. (2019, March 29.) Veterans, family, and community engagement. U. S. Department of Veterans Affairs. Internet Arhcive. https://tinyurl.com/nfk9pdde

Walton, R. (2016). Supporting human dignity and human rights: A call to adopt the first principle of human-centered design. *Journal of Technical Writing and Communication, 46*(4), 402–426. https://doi.org/10.1177/0047281616653496

The White House. (2016, August 09). Impact Report: Transforming Government Services through Technology and Innovation. https://tinyurl.com/9uncwccr

Yale-Loehr, A., & Romano, R. (2017, June 15). Vets.gov: A modern software development environment in government. The U.S. Digital Service. *Medium*. https://tinyurl.com/yc5288dd

Yin, R. K. (2003). *Case study research: Design and methods* (3rd ed.). Sage.

Zachry, M., & Spyridakis, J. H. (2016). Human-centered design and the field of technical communication. *Journal of Technical Writing and Communication*, *46*(4), 392–401. https://doi.org/10.1177/0047281616653497