



Applying Human-Centered Design Principles to Agency Customer Experience Efforts

A discussion of cutting-edge industry issues and trends as part of the 2023 AFCEA Bethesda Health IT Summit (HITS) conference



Introduction

Agencies who use human-centered design (HCD) principles to approach their customer experience (CX) improvement efforts are able to re-imagine services in a way that better serves every person involved. Yet, achieving the tremendous outcomes HCD enables can be tricky in practice due to government constraints. Members of the recent HCD in government CX workshop responded and shared wisdom.

Background

The Bethesda Chapter of AFCEA recently hosted a human-centered design (HCD) in customer experience (CX) workshop this year at the 2023 AFCEA Bethesda Health IT Summit (HITS).

The workshop is new this year, in response to agencies' increased emphasis on CX and service design after the [president's recent executive order](#), and the groundswell of interest in HCD to meet these challenges. Many executives and leaders are already aware of the benefits of a human-centered approach, but the government ecosystem provides unique challenges to implementing HCD. Fortunately, leaders from within the ecosystem can share experiences and learn from each other.

The peer workshop attracted over 500 executives and leaders of public agencies, federal technology press, and private industry. Each table of six to eight professionals engaged in spirited discussions and brainstorming, comparing their challenges, successful strategies, and experience to make HCD work. Each table was given time to discuss specific questions about applying HCD practices to the CX of federal health programs and come to a consensus, before recording their best ideas anonymously for the moderators to collect.

This document is the result of their insights.

Before sharing their wisdom and takeaways, however, we'll back up to establish what we mean by some of the key terms.



Defining terms

Customer experience (CX)

The experience that a person has when using an agency's services. This experience is built from whatever channels or services the person uses to interact with the agency, from a phone call, to text message, to waiting in line. Improving CX and service delivery is a major priority of the federal government.

“Backstage” services

While CX only refers to interactions between the customer and the agency directly (“frontstage services”), designing good service delivery often requires addressing many “backstage” processes and technologies that enable a positive direct experience for the customer. Legacy “backstage” systems that do not have a direct impact on the customer, then, can still worsen CX if they result in long wait times and heavy backlogs.

Service Design

By designing and optimizing both the “frontstage” and “backstage” activities of an organization, service design improves the experiences of both the user and employee.¹

Human-Centered Design

A problem solving and design framework that has three central principles:

1. Design for all humans.
2. Think of everything as a system.
3. Continually examine if we're solving the right problem.²

¹Based on Neilson Norman's definition of Service Design.

²Principles from Jakob Nielson's work.

A digital service or system that is designed using HCD principles should function well for every person it touches, not just the customers and employees, and should function smoothly in both the “frontstage” and “backstage.” Delivering this kind of service requires foundational research on both the system as a whole and the people it touches.

HCD centers the experience of people, and puts all other definitions of success in second place. That is not to say that security, reliability, privacy, efficiency, and scalability are not important concerns when building digital services, but they are not enough. The system must first and foremost deliver services to people, or it will fail.

As such, HCD is the perfect lens through which to consider agency CX improvement programs. It guides efforts by both: (1) directly addressing the customer’s experience, and (2) improving it indirectly by improving the experience of people within the organization. (Happy, well-supported employees deliver better services, and smooth, efficient processes are more pleasant for stakeholders and customers alike.)

HCD: More difficult than it seems

The HCD framework is simple in concept but difficult to implement in practice, particularly in government.

Agencies have unique challenges. The “hard constraints” of laws, policy, and back-office processes are constant, and systems *must* work for a very wide group of users. Leaders do not have the luxury of limitless resources, or the option to neglect meaningful accessibility and security. With so many other priorities, it can be difficult to

effectively apply HCD principles in ways that produce the results that agencies look for.

Yet, practitioners of HCD who work in government daily say that the challenges also provide opportunities, and every improvement has an outsized impact on peoples' lives. Never is this difficult work more important than in the life-and-death field of healthcare, and the technology that maintains and enables it.

Opportunities to use HCD to address CX challenges

At the workshop, leaders and executives first discussed the usefulness of applying HCD to their specific challenges.

While improving communication, improving procurement, and breaking down agency siloes were mentioned, many attendees returned to the pressing need to re-imagine key initiatives in terms of their impact on people.

Almost half of respondents emphasized the importance of making mission-critical tools easier to navigate and understand.

More than half of leaders pointed to their agency's medical data systems, collection, and documentation as particularly important to improve from an HCD lens. Cybersecurity and ensuring that data can be securely shared between agencies were themes, as many attendees were concerned about how to balance these constraints with human-centered usability.

Digital modernization was mentioned as both a challenge and an opportunity for agencies to improve their CX delivery as a whole. Attendees discussed the need to streamline complex workflows for better ease of use, and turn manual, paper-based or legacy processes into more efficient digital ones. Others mentioned wanting to avoid the need for people to give the same information twice, say over the phone with two separate representatives. Other common challenges discussed included the need for more and better training of agency personnel, helping customers navigate bureaucracy, and the removal of redundancy.

Celebrating wins

Attendees from a variety of agencies and contractors also weighed in on where they had been successful in using a human-centered approach to CX challenges in their daily work. Some key successes stood out.

- The Department of Veteran's Affairs work on **technology innovation** for Veteran care particularly impressed our readers. For example, the program conceptualized a bathroom floor mat that takes readings of the Veteran's health, then shares the data with their doctor's office.
- The Department of Health and Human Services and an additional anonymous agency shifted their digital properties to a structure **focused on user needs** rather than internal agency structure. They saw measurable increases in usage and user satisfaction.
- The Food and Drug Administration created a **journey map** of the process field inspectors used on their tablets during inspections, and consulted stakeholders in the redesign for tablet systems.

- Another agency **made data more accessible for users, incorporating human-centered design into point of care information** for both provider and patients.

Strategies for success

Attendees discussed the strategies and approaches to HCD that they found most helpful in practice.

To get the most benefit from HCD, respondents highlighted the **importance of questioning assumptions and existing processes.**

While this work was difficult and counterintuitive, it ensured that agencies solved the root issue rather than merely symptoms.

Many respondents cited early stakeholder and end user engagement, as well as trust building, as particularly important to their eventual success. Others referenced the utility of journey maps and persona development as helpful in establishing a baseline understanding of their systems and people. “Product” leadership close to the user and/or frontline employees and early foundational research were also cited as helpful.

Some agency leaders recommended a quick pilot or Minimum Viable Product (MVP) followed by iteration to gain quick wins and establish momentum. Other, unexpected drivers of success included open-mindedness, frequent communication, and flexibility in procurement approaches.

Big picture changes needed

During the working session, leaders and executives were asked what needed to change structurally (such as with policy or procurement) within the government ecosystem. What specific actions or changes would help build a people-centered approach to strategic decision making in the industry?

Leaders and executives highlighted the need to move away from traditional multi-year planning and development and **towards agile development methods.**

Small-scale, iterative decision-making and studies would be needed to adjust to changing circumstances, and contracts and funding (particularly IT modernization funding) would need to shift to match.

The procurement process would need to evolve. Some respondents recommended adding HCD and other digital best practices as requirements in the RFP process, while others suggested a “bake off” structure to narrow down contractor pools during vendor selection. It was frequently suggested that HCD needs to be a clear requirement for contractors to address in their proposals and demonstrations. Attendees debated how to incentivize discovery and strategic thinking, perhaps with problem definition language added to proposal guidance, or outcome benchmarks in lieu of requirements.

Overhauling policy would also make an impact. Including HCD concepts in policy would make their inclusion in development easier and more intuitive. Policy changes would allow for data sharing and

funding across agencies. It would also remove barriers to performing user and employee research, which would enable HCD gains in a variety of contexts.

Lastly, many attendees highlighted ground-level changes to the way work is conducted. Research in particular would need to take a bigger role, being incorporated earlier, with improved methodologies, and including marginalized groups and users throughout the design process. Training and education on HCD and related concepts would be helpful for a variety of agency personnel.

One insightful person suggested designing an HCD-based pilot template which all scalable projects would follow. Another discussed the need to invest in change management as policy to ensure HCD is incorporated across the organization. All agreed that baking HCD into all levels of agency work will take planning and care.

Opportunities to continue applying HCD

Before they left the working session, attendees were asked to share their ideas on how to extend a human-centered focus into their CX efforts in the future.

Here is where attendees wanted to apply a HCD lens next.

- Reducing the paperwork (charting, documentation) burden on employees and constituents.
- Reducing wait times and waiting room experiences.
- Increasing reimbursement for primary care doctors.
- Expanding residency and nursing programs.

- Improving training and education.
- Increasing emphasis on accessibility across a variety of users (diversity) in upcoming agency projects.

Respondents ended the session by **calling out specific HCD and other workflow techniques they were planning to use in the future.**

- Requiring agile delivery in procurements and reflecting this in required deliverables.
- Prioritizing roles for HCD on delivery teams (not just designers).
- “Knowing your mission and who it affects and design from there.”
- Setting realistic expectations.
- Interviewing with users early, and applying the knowledge to the development phase.
- Including stakeholders in the development process.
- Testing ideas with Minimum Viable Products (MVPs) and iterating.
- “Listening like you are wrong.”
- Making HCD part of the strategic planning process.

Before leaving, respondents thanked the facilitators for organizing the peer workshop, and left still discussing approaches to HCD in each of their agencies.

In conclusion

Improving CX in federal health programs is about more than simply measuring satisfaction; it is an opportunity to re-imagine services in a way that serves all the humans touched by the system. Attendees at the 2023 AFCEA Bethesda HITS convened in this workshop to share successes, challenges, and ideas to continue this work in agencies across the federal government.

While a human-centered approach to solving agency CX problems may not be simple in practice, the rewards are significant, and leaders and executives learn daily from the experience of others.



AFCEA Bethesda, a 501(c)(6) non-profit organization, encourages dialogue and partnership between the federal government and industry to solve today's most critical IT challenges. Through widely attended programs, AFCEA Bethesda strives to foster better inter-agency communication, share best practices, identify mission-critical issues and management approaches, and increase engagement with industry IT solutions and service providers.

AFCEA Bethesda is the civilian-focused chapter of AFCEA International. With more than 139 chapters worldwide, AFCEA is a membership organization dedicated to increasing knowledge through the exploration of issues relevant to its members in information technology, communications, and electronics for defense, homeland security, and intelligence communities.



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