

Assessing HCD Adoption in the Enterprise

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Assessing Human-Centered Design
Adoption in the Enterprise

Rob Fay | Reading time: about 11 min

Think about the last time you placed and picked up an order from your favorite fast food restaurant. The quality of your experience was likely defined by the order along with the customer service you received. But have you thought about what happens behind the scenes to make those few minutes successful? The company's org chart worked together to determine how to build back-office tools and processes to achieve a desired outcome for the customer experience.

Continuous improvement efforts such as Lean, Agile, and Human-Centered Design (HCD), ultimately seek to define these back-office business processes that lead to desirable customer solutions. In the information technology (IT) landscape, the DevOps movement (Atlassian, n.d.) gained traction because siloed teams vied for reliable product solutions. Similarly, DesignOps seeks to optimize the "people, processes, and craft in order to amplify design's value and impact at scale" (1). This is one of the goals of the Human-Centered Design (HCD) Center of Excellence (CoE). However, it is difficult to prove continuous improvement efforts actually work.

The HCD CoE has applied the "HCD Maturity Model" to the Center for Clinical Standards and Quality (CCSQ) Information Systems Group (ISG). Ideally, the design's value and impact at scale, not only towards products, but services and policies as well. The adoption of HCD is the shared responsibility that travels through federal employees alike in this public ecosystem at the Centers for Medicare & Medicaid Services (CMS).

KEY TAKEAWAYS

Following are a few of the takeaways we observed:

- CMS and its contractor partners must share responsibility and accountability in forging a customer-centric culture in "the enterprise," as directed by the President's Management Agenda (PMA) and the 2018 Budget (OMB, 2018);
- HCD, as a continuous improvement business process, must be assessed in order to support CMS strategic objectives; and
- Application Development Organization (ADO) evaluations provide insight for teams to better fulfill the CMS mission by identifying greater opportunities for improvement.

HCD IS A SHARED RESPONSIBILITY

Human-Centered Design, or the application of Design Thinking, is the process we use to understand the people for whom we are writing policies and creating services. As a continuous improvement effort, the application of HCD is neither limited to the context of software development nor limited to specific HCD methods and activities.

This means that HCD is also not limited to the people who must practice it. If you have a customer (i.e., public beneficiary, employee coworker, or otherwise), you should employ HCD methods and activities.

In fact, OMB Circular A-11 (2020) Section 280 (Office of Management and Budget, 2018) provides guidance that impacts how CMS is to manage their customer experience. CMS is responsible for reporting on the public's valuation of its service quality, process, and people. Therefore, we all must own it.

WHO DEFINES THE ENTERPRISE?

Given the unique nature of getting work done in a federal agency setting, public organizations like CMS contract and partner with others in order to achieve creates a fluid definition of “the enterprise” because it includes federal employees and contractor partners, and their combined focus on new and continuous programs, products, services, and policies. The HCD Maturity Model works well given this fluid definition of the enterprise because it is scalable. While this adoption and maturity in a variety of contexts, its true value becomes apparent when applied to the broadest context possible: CMS as an organization.

PROBLEM WITH EXISTING MODELS

Given the unique circumstances of CMS and its contractor partners, the biggest criticism with existing models is that they appear to lack scalability and apply of the spectrum, user experience (UX) models naturally focus on applying HCD to digital product design solutions, which works in narrow contexts, or if the creating or improving digital products for only certain customer (i.e., “user”) types. On the other end of the spectrum, service design and customer experience introduced by OMB (Office of Management and Budget, 2018), have greater applicability to broad holistic contexts but cannot be applied to narrow context

In addition, unlike established frameworks such as Capability Maturity Model Integration (CMMI) (CMMI Institute, n.d.), there are no known evaluation model provide this type of assessment service.

It is for these two reasons that the HCD CoE crafted a model that would fully support CMS’ mission: “To ensure that the voices and needs of the population agency is developing, implementing, and evaluating its programs and policies” (CMS, n.d.). The HCD CoE reviewed several existing models, but the great capabilities as adapted from Forrester’s *User Experience Capabilities Assessment* (Buley, 2015) and the stages as adapted from Qualtrics’ *The Customer*

THE MODEL

The HCD CoE adapted the best ideas from existing models, resulting in the introduction of this HCD Maturity Model (see Figure 1, page 4). As a scalable model, the design’s adoption within product development teams or it can be applied to assess the customer centrality of large organizations, such as CMS. Because it is an improvement philosophy, it can be applied to any work that benefits any customer (i.e., internal or external).

This model evaluates HCD adoption across the following criteria:

- **Scope** – Scope can range from designing a specific user interface to researching and designing all touchpoints a customer has with an organization
- **Strategy** – Strategy is the game plan to manage the parts of the experience that design drives by force of its scope. This can range from no strategy by others to active design participation in defining a strategy.
- **Research** – Research for customer understanding is a fundamental discipline of design maturity, yet few organizations fully commit to ongoing direct customer experiences. A key measure of design maturity is whether customer research has become a repeatable and integrated practice
- **Design** – Design is the heart of the practice. But there are different ways to approach design. Modern customer-centric organizations embrace iterative design practices that involve customers, de-risk design decisions, and naturally complement Agile and Lean methodologies.
- **Staffing** – Staffing modern design teams for core capabilities often evolves to hub and spoke or matrix models. Teams have dedicated design resources centralized, design resources that focus on cross-product strategy, patterns and guidelines, and capabilities enablement.
- **Measurement** – Measurement means connecting design work to business operational data (O-data). Customer-centric businesses take experience input to measure and improve four core experiences of business: customer, employee, product, and brand.

HCD Maturity Model

KEY PRINCIPLES	STAGE 1 INTERESTED	STAGE 2 INVESTED	STAGE 3 COMMITTED	STAGE 4 ENGAGED	STAGE 5 EMBEDDED
SCOPE Scope can range from designing a specific user interface to researching and designing all touchpoints a customer has with an organization.	• Focus on user interface (UI) development for current sprint development • Digital only	• Focus on user experience (UX) design for current and future sprint development • Digital only	• Focus on user experience (UX) research and design for product planning • Digital only	• Focus on user experience (UX) research and design for product roadmap planning • Digital and non-digital across multiple customer touchpoints (micro)	• Focus on research and design to improve the business ecosystem: customer, employee, product, & brand • Digital and non-digital end-to-end customer journeys (macro)
STRATEGY Strategy is the game plan to manage the parts of the experience that design drives by force of its scope. This can range from no strategy or a passive strategy determined by others to active design participation in defining a strategy.	• No strategy • Research and design activities are not considered essential	• Passive strategy • Research and design activities are not integrated into project planning	• Passive strategy • Research and design activities are integrated into project planning, but determined by others	• Active strategy • Research and design activities are integrated into project planning with full support of leadership	• Active strategy • Research and design activities help shape business strategy
RESEARCH Research for customer understanding is a fundamental discipline of design maturity, yet few organizations fully commit to ongoing direct engagement with their customers. A key measure of design maturity is whether customer research has become a repeatable and integrated practice.	• Infrequent (if at all) • Unstructured qualitative • Findings rarely influence product decisions • Product research with SMEs or end user proxies	• Ad-hoc • Structured qualitative • Findings sometimes influence product decisions • Product research with limited end users	• Milestone-driven • Structured qualitative and quantitative • Findings regularly influence product decisions • Product and end user research with sufficient end users	• Regular integrated practice • Structured qualitative and quantitative • Findings influence product, service, and/or policy decisions for a given division • Product and customer research with sufficient customers	• Regular integrated practice • Structured qualitative and quantitative • Findings influence enterprise business decisions • Product, customer, and employee research with sufficient stakeholders
DESIGN Design is the heart of the practice. But there are different ways to approach design. Modern customer-centric organizations embrace iterative design practices that involve customers, de-risk design decisions, and naturally complement Agile and Lean methodologies.	• Unintended design style ¹ • Single approach ² for a product • High priority features only • Single design delivered once • No documented repeatable process.	• Self-design style ¹ • Multiple approaches ² for a product • Medium and high priority features • Multiple designs delivered once • The design team follows documented standards, guidelines, and patterns	• Genius design style ¹ • Multiple approaches ² across products • All relevant features • Multiple designs delivered iteratively • The product team follows documented standards, guidelines, and patterns	• Activity-focused design style ¹ • Focus on products and services • Customer experiences • Multiple designs delivered iteratively • The program follows documented standards, guidelines, and patterns	• Customer-focused design style ¹ • Focus on customer journeys • Customer & employee experiences ³ • Multiple designs delivered iteratively • The enterprise follows documented standards, guidelines, and patterns
STAFFING Staffing modern design teams for core capabilities often evolves to hub and spoke or matrix models. Teams have dedicated design resources centralized, design resources that focus on cross-product strategy, patterns and guidelines, and capabilities enablement.	• Single person supports entire contract • 1 UX to many developers	• Multiple people support multiple teams • 1 UX to 10+ developers	• Distinct research and design roles span across work streams • 1 UX to 5+ developers	• Distinct teams support the program • UX role is part of program leadership to guide product and customer experiences	• Distinct teams support the enterprise • UX role is part of enterprise leadership to guide product, customer, employee, and brand experiences
MEASUREMENT Measurement means connecting design work to business operational data (O-data). Customer-centric businesses take experience data (X-data) and O-data as an input to measure and improve four core experiences of business: customer, employee, product, and brand.	• Shares X-data with product stakeholders in an effort to measure and improve the product experience	• Shares X-data with program stakeholders in an effort to measure and improve the product and customer experience	• Uses O-data and shares X-data to measure and improve the product and customer experience	• Uses O-data and shares X-data to create and improve operational processes to meet product and customer goals	• Uses O-data and shares X-data to measure and improve product, customer, employee, and brand experiences

¹ <https://articles.uxie.com/five-design-decision-styles>

² Good product design considers multiple approaches including visual design, interactive design, information architecture, content strategy, and more.

³ Design broadens focus from product “end users” to stakeholders that define the customer’s experience journeys with the business, including end users, customers, and employees.

[Click here to enlarge image](#)

These criteria are given an HCD adoption rating that falls within one of five stages of enterprise maturity:

- **Interested** (lowest adoption) - In the first level of HCD maturity, organizations begin to believe that human-centered design is an important part of undertaking a number of different efforts without making any major investments, attempting to get a handle on the current situation. There's a floundering leadership for customer experience activities.
- **Invested** - Organizations enter into the second level of HCD maturity after they recognize that human-centered design is worthy of a significant investment in personnel. Therefore, the approach to customer experience becomes more organized with an intensified focus on fixing problems.
- **Committed** - In the third level of HCD maturity, organizations are embracing human-centered design because they understand the specific impact on quality, cost effectiveness and customer satisfaction. The effort is no longer isolated to a few groups as customer experience becomes a major trend for the organization. Instead of just trying to fix problems, the focus turns to redesigning processes.
- **Engaged** - When organizations enter into the fourth level of HCD maturity, human-centered design is a key component of everything they do. Instead of just trying to fix problems, the focus turns to designing break-through experiences and solidifying the culture. There's significant emphasis on employee engagement and organizational focus dependent on a centralized group responsible for creating and improving the customer experience.
- **Embedded** (highest adoption) - At the highest level of HCD maturity, which can take organizations several years to achieve, human-centered design is embedded in the organization. Just about every employee feels ownership for maintaining the culture. The leadership team no longer focuses on change but on maintaining a customer-centric culture, which is viewed as a critical asset.

It is important to acknowledge that while this model is scalable, there are shortcomings. For example, if applied to the adoption of design and research to services by federal employees and contractor partners likely would never reach stages four or five, in part because the context and organizational focus is different and why this model is better suited to assess the enterprise rather than teams, is because the latter adoption stages reflect a shared ownership for achieving a customer-centric culture that transcends the defined work for any given contract. Yet this model is meant to assist teams with a crawl, walk, run approach to maturity capabilities towards adopting a mindset of continuous improvement and shared responsibility towards becoming customer-centric organizations.

ASSESSMENT

The team was charged with evaluating adoption in Application Development Organizations (ADOs) to support organizational goals. These ADOs reflect a mix of federal and contractor organizations to deliver specific information system solutions for ISG's customers.

The assessment process is intentionally qualitative in nature, relying on interviews and reviewing any artifacts provided during the interviews. For this initial assessment, the team wanted to gain transparent feedback from key stakeholders. To achieve this, the following objectives were stated from the onset:

- Candid feedback is critical to the efficacy of the baseline assessment.
- The assessment is decoupled from the contract relationship (i.e., this plays no part in the performance assessment of any contract).
- In this context, HCD adoption is assessed at the ADO organizational context or assessing the level of shared adoption among federal employees and contractors.

To achieve this assessment, the team conducted interviews with three key stakeholders for each targeted ADO:

- **Contractor HCD point of contact** – Person who can speak to the research and design activities that take place to fulfill a statement of work on behalf of the contractor.
- **CMS HCD point of contact** – Person who can speak to the research and design activities that take place to fulfill a statement of work on behalf of CMS.
- **Contractor lead** – Person who represents the overall statement of work on behalf of the contractor organization.

To reiterate, this approach to interviews means that the goal of such assessments is not about assessing the health or value of any contract or contracting relationship, but to understand the cultural adoption of and application of such a philosophy in practice in the "enterprise" as defined by the relationship CMS has with its contractors.

SYNTHESIS

After conducting interviews with these key stakeholders and reviewing any documents and artifacts to support the research, a team of evaluators synthesized the artifact data and mapped it to the model's assessment rubric. The rubric itself attempts to define what people, processes, and outputs are present across a range of maturity ratings.

Understandably there may be overlap between stages, yet evaluators were able to confidently plot the findings based on their qualitative and quantitative data. The model will likely include additional quantitative measures as data becomes available.

NEXT STEPS

Human-Centered Design is not simply a focus on digital product user interface (UI) design. It is not just about making something pretty. HCD is the application of design thinking to the work that organizations undertake. Fundamentally, this philosophy posits that businesses can better define, design, and implement products, services, processes, and thought out strategy for understanding customer needs and goals and involving their customers throughout the process.

The HCD CoE proposes that organizations who truly want to be customer-centric adopt a model of continuous improvement that points to a desired state. If the current method is truly objective and one-size-fits-all, the HCD CoE wants to serve CMS by defining the current state "health check" and providing recommendations to adopt a customer-centric mindset.

To that end, the HCD CoE offers the following recommended next steps:

- HCD CoE offers partnership with ADOs to provide ongoing coaching to support this ISG-led continuous improvement initiative;
- HCD CoE offers best practices and coaching to ISG leadership to instill a culture of customer centricity and continuous improvement; and
- HCD CoE recommends recurring assessments of both ADOs and other scalable contexts as a way to demonstrate increasing enterprise adoption of HCD.

[A PDF of this article \(originally published as a whitepaper\), including its bibliography, can be found here.](#)



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Rob currently leads the CCSQ [Human-Centered Design Center of Excellence](#) (HCD CoE). The HCD CoE is an organization that impacts the way the CCSQ delivers policy, products and services to its customers. Through the provision of education, support and resources, we will promote the continued implementation and usage of HCD best practices and seek to fulfill the charge of [OMB Circular A-11 Section 280](#) (i.e., "Managing Customer Experience and Service Delivery").

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