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# MICHIGAN ALL IN FOR THE USER

## HCD - Our Strategy for Better Decisions

**Category:** Business Process Innovations

**State:** Michigan

**Project Start:** March 2021

**Project End:** On-going

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**EXECUTIVE SUMMARY** During the past two years Michigan deployed a project to operationalize Human-Centered Design (HCD) as an IT strategy. Michigan was driven to become more user centric and address the gap between quality IT solutions and good user experience. In this project, Michigan deployed three pilots that demonstrated the value HCD brought no matter the phase of IT life cycle. Michigan realized measurable results and excellent reviews from Business Areas for how HCD improved decisions.

**THE PROBLEM** When deploying solutions many tech teams experience the challenge to ensure all the requirements are met and the business area is satisfied with the completed project. Michigan has been successful in this area and have celebrated when business areas achieve the benefits automation provides to their processes. However, after deployment there can be feedback that users are experiencing problems in their interaction with the solution. Workflows may get the job done but are burdensome to use, users have a hard time finding the right path to completing a task, or navigation is not intuitive. The intended goal of the initiative is to engage stakeholders to help drive innovation, connect customers to services, and deliver better solutions. This is done by understanding and involving the human, or customer, perspective in all steps of designing and delivering solutions.

**WHY IT MATTERS** When users, including internal State of Michigan employees and citizens, have a bad digital experience with government services, it can result in a number of negative outcomes; increases in calls to help desks, inquiries from legislative representatives, incomplete information from users, or abandoned hope in state government. As technology partners, we begin to hear our business leaders question if the technology is working. We see them deploy change notices for more functions or start shopping for the next new solution. Leadership

**88% of users are less likely to return if they have a bad experience.**
**95% of users leave in less than a minute if they can't find a task.**

Nielson Norman Study 9/1/11
InDesign study 11/24/15

at the Michigan Department of Technology Management and Budget (DTMB) aimed to change the technology strategy for the State. IT Strategic Leadership sought better ways to design solutions to meet both the needs of the business areas and enhance the user experience.

**HOW IT'S DIFFERENT** The public sector generally does not consider the user's experience until testing, being reactive to feedback. With the HCD initiative, we proactively engage with end users, ensuring the right problem is being solved the right way, the first time.



**Example HCD Persona**

**HOW IT'S UNIVERSAL** Michigan's model can be readily shared with NASCIO members. This user-centric approach can be universally applied in the public sector to enhance the public and staff experience. This approach is a wholistic strategy that goes beyond individual projects. It is a strategic measure that is changing how DTMB approaches projects.

**ROADMAP** Michigan added Human-Centered Design as a strategy to their IT Strategic Plan in 2021. This is directly overseen by the state's Chief Information Officer and DTMB's Department Director. To kick off the strategy, DTMB began introducing HCD concepts to DTMB employees through a monthly HCD Speaker Series. This informs and educates teams on HCD, and fifteen sessions have been held with over 1,000 participants in attendance. The state spent a year exploring how HCD is executed in projects through a two-pronged approach. The first approach was to establish a vendor pool for businesses to add HCD expertise to their IT projects. Since its establishment this contract has been leveraged ten times. The second approach was to dedicate a subgroup in DTMB to shadow the Vendor projects and pilot their own projects based on learnings. This subgroup included members from the Office of Continuous Improvement (OCI) and the Center for Shared Solutions (CSS). To ensure success, OCI sent their staff to HCD training and provided design experts with a collaborative interface design tool. This supported user research and enabled the development of clickable prototypes, which helped guide developers in ensuring their work enhanced the user interface.

**KEY INVOLVEMENT** When considering how to start, DTMB determined the best approach would be to use HCD methods with its own business process as a pilot. DTMB chose a pilot that it would have the most direct ownership of the required time investment, budget, and follow-up planning. It also needed to be a project that agency leaders from across the state could see the results of. The MiLogin User Experience project was selected. Upon launch of this project the state would roll out the opportunity to the rest of Michigan leaders to identify additional projects.

To provide context for DTMB's role, the State of Michigan has eighteen distinctive agencies with over 48,000 employees. DTMB is at each of these agencies' governance tables as their leadership plan for IT initiatives. DTMB hosts meetings with liaisons from all the agencies at quarterly customer service partnership meetings. Our MiLogin pilot launch and the roll out of this HCD strategy was shared at that meeting. DTMB also offered to have agencies try our vendor pool or a pilot HCD project through OCI & CSS. If the agencies wanted to pilot with OCI and CSS, limited funds were available so that the research and design work was at no cost to the agency. Agencies were not obligated to implement changes based on the findings and did not have to commit funds for implementation. Two agencies volunteered to participate in pilots. Staffing costs associated with the projects did not surpass $30,000 per pilot. Finally, it should be noted that the three pilot projects fell into different phases of IT projects, the business requirement phase, implementation phase, and maintenance phase.

**IMPLEMENTATION** The State of Michigan set the projects up for success by arranging resources for the projects. OCI assigned staff to scope each project, created project plans, and managed each project. OCI ensured the business area had established sponsorship and assigned a team leader to work with OCI. OCI ensured the General Managers and Business Relationship Managers that work with the agency were engaged to ensure the project aligned to IT Governance and resources were readily available. OCI also facilitated interviews, usability studies, and focus groups. CSS staff were available to consult and provide design expertise. CSS met monthly with OCI on design resource planning. The design software was made available to both designers and developers, supporting successful implementation of HCD findings.

OCI assessed the success of the pilots in three ways. **Agency investment**; would the business area invest time or funding to implement recommendations from the results of HCD? **Agency endorsement**; would the business area recommend HCD methods to other agencies? **Quality delivery**; could OCI and CSS resources deploy HCD methods and deliver quality services to the Agency?

OCI had a stretch target to see a measurable change in user experience from the agency's application of user feedback. Upon completion of these projects an update was shared with all DTMB IT Leadership and at the customer service partnership meeting. These projects were highlighted in the HCD speaker series event so the experience could be celebrated and understood throughout DTMB.

## PROJECT: **MILOGIN USABILITY EXPLORATION**

MiLogin is Michigan's Identity Access Management and Single Sign-On Solution that allows users the ability to access many state services and systems online, across multiple departments, using a single user ID and password.

### MAINTENANCE PHASE PILOT

**MAKING IT BETTER** The MiLogin system had been deployed for a few years and was monitoring user interaction through system data and compliance data from agencies utilizing the system. The MiLogin project was owned by DTMB and had a standing advisory group that had been providing items to improve the system from the agency perspective. Members of this advisory group were asked to be part of the MiLogin user experience research. The buy-in of this group to the user research was critical to investment decisions that would be made on improvements to the MiLogin system. The system owner, system administrator, and developers who maintained the system were engaged in the research and design activities. DTMB selected a vendor to facilitate the HCD research and design for this project. OCI and CSS participated with alongside the vendor to facilitate and provide design resources. This was intentionally done to understand the methods and approach for lifting an HCD project.

### HCD APPROACH

This project used an independent source to bring in residents of Michigan for feedback. To understand the user experience, artifact reviews, a competitive landscape, personas, experience and empathy mapping, service blueprinting, usability testing, prototyping, and metrics planning were completed.

**Before HCD**

"[Developers] are out there to build the perfect IT solution [but] we don't necessarily build the perfect end-user solution."

-Rex Menold, Director
Enterprise Information, Content and Identify Management

**$**

Data that resulted in increased investment from the legislature

### KEY FINDINGS

Users need assurance. Too many tasks are overwhelming. Contacts must connect to a real person. Access must be built around usability. Value of the Single Sign On experience must be clear.

## THE RESULT: **A PRIORITIZED APPROACH FOR IMPROVEMENTS**
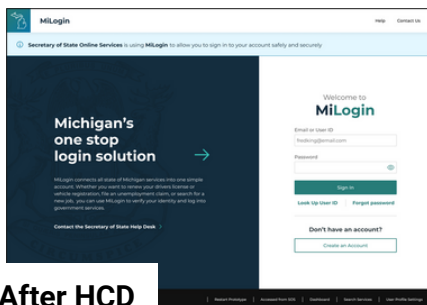
**After HCD**

- ✓ A brand refresh with eMichigan standards
- ✓ Alternative login options (email/passwordless)
- ✓ Continuity with agency services
- ✓ User feedback loop to rate experience
- ✓ Real-time analytics tools for metrics

- ✓ Drop down help menus
- ✓ Chatbot assistant
- ✓ Multi-language support
- ✓ In-line instruction
- ✓ Improved user flows

## PROJECT: LEO GOING PRO TALENT FUND

The Going PRO Talent Fund in the Michigan Department of Labor and Economic Development (LEO) makes awards to employers to assist in training, developing and retaining current and newly hired employees.

### IMPLEMENTATION PHASE PILOT

**MAKING IT BETTER** LEO had just implemented a new system, Work Based Online Management System (WBLOMS), in partnership with DTMB. LEO's leadership team was happy with the operational efficiency the system provided them, but perplexed by the negative feedback from users. Leadership bought-in to user experience research to inform decision making around engaging DTMB for change notices or adding new functionality to improve the solution. LEO chose to work with OCI to conduct the HCD research at no cost to LEO. The subject matter experts in LEO were involved in all activities of HCD along with the system administrator. Michigan Works Agency representatives and small, medium, and large scale business leaders were recruited to participate in HCD formatted interviews and usability studies.

### UNDERSTAND THE USER EXPERIENCE

**The initial goal** of the project was to gain an understanding of the *application experience applying for funds using the WBLOMS application.*

*"Requiring details for so many employees makes me feel like this application is built for small businesses."*

### MAKE STRATEGIC CHANGE

**As a result** of the end user feedback, *significant changes* were made, in *just five short months*.

### SOLVE THE RIGHT PROBLEM

**Feedback from external users** of the application indicated that *WBLOMS was not the root cause of user frustration; process, policy, and procedure was*.

## THE RESULT: A 22% INCREASE IN OVERALL CUSTOMER SATISFACTION

Bar chart (Before HCD / After HCD):
- Comms: 70.6% → 73.3%
- Process: 64.3% → 68%
- WBLOMS: 38.6% → 59%
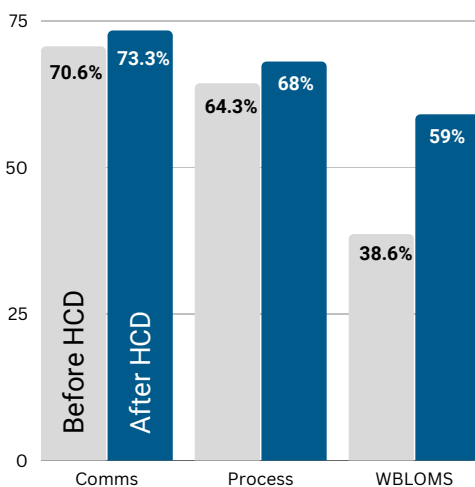
➡ Small Business satisfaction with WBLOMS increased from **29% to 64%**

➡ Medium Business satisfaction with communication increased from **69% to 81%**

➡ Large Business satisfaction increased by **10%**

✓ **Employer-friendly policy**  ✓ **Improved job aids**

✓ **Eliminated rework**  ✓ **Timely status updates**

# IMPACT: HCD BASED BUSINESS REQUIREMENTS ARE A GAME CHANGER

## PROJECT: **LARA CHILD CARE LICENSING**

The Department of Licensing and Regulatory Affairs (LARA) was looking for a new IT solution for its Childcare Licensing team. LARA's Leadership wanted a solution that would ensure their customers could easily complete the application and re-licensing actions. LARA wanted state childcare investigators focus to be on child welfare over incomplete data or document tracking.

### BUSINESS REQUIREMENTS PHASE PILOT

**MAKING IT BETTER** LARA had just completed a Lean Process Improvement project to streamline operational efficiency and to prepare for a system procurement. The Business leaders wanted to ensure they had business requirements that reflected end users needs. The subject matter experts and business analysts in LARA were involved to craft business requirements based on user experience research.

### AGENCY NEED

LARA wanted hinderances removed from the process so they could have higher data collection from business owners. After streamlining their process through a Lean Process Improvement project, LARA needed tools to gather real input from a Child Care provider rather than the data they collected through surveys or lobbying groups.

### HCD APPROACH

LARA crafted user personas and journey maps from the *key insights* generated from HCD interviews with business owners.

### KEY FINDINGS

LARA found that the majority of business owners were small and had one or two employees with more *nuanced needs* than those of large business owners.

## THE RESULT: **BETTER ALIGNMENT OF BIDS TO BUSINESS**

> "These were the best [vendor] responses to a solicitation we have ever seen."
>
> -Giget Schlyer
> Director of IT for LARA

- ✓ Comprehensive and targeted responses to a solicitation from the vendor community.

- ✓ There were no outliers in pricing submitted by vendors, and pricing was transparent to the deliverables.

- ✓ Pricing included HCD activities in the implementation phase of the project plan including user engagement in the design phase.
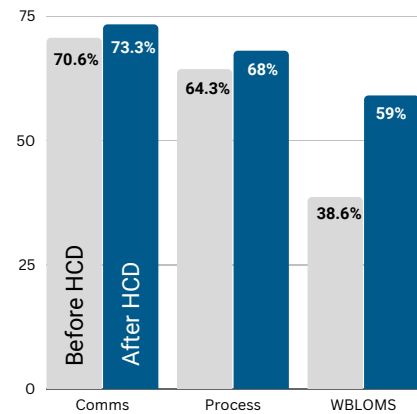
Going forward HCD end user research will be a requirement for all IT projects. The Childcare Licensing team is in the midst of their IT implementation and are bringing small businesses in to complete usability tests of prototypes of the new system throughout the design process.

**WHAT WAS BETTER? HOW DO WE KNOW?** The business sponsors of the HCD projects realized benefits that ranged from increasing customer satisfaction by over 20%, improved bids from vendors, and stronger business cases for legislative funding requests. The three key metrics for the project; Agency Investment, Agency Endorsement, and Quality Delivery were all met. All business sponsors invested in their staffs time and found funding to implement recommendations. All business sponsors would recommend an HCD approach to other Agency Leaders. When it came to quality delivery, we were most surprised to find the project that utilized state employee resources to facilitate the HCD methods obtained measurable improvement to customer satisfaction. That project also fully implemented changes in less than five months. An HCD vendor was asked to review OCI's user experience research methodology and results. The results were in line with the vendor's standards of delivery. The vendor working on a pilot project utilized the expert designers from CSS who provided high quality designs in line with state digital standards.

As a result of these pilots DTMB found new methods to help agencies see the road ahead for an improved user experience, regardless of its phase in an IT lifecycle. These pilots were critically important to DTMB for adding new clarifying questions to leadership decision making. Conversations have moved from "what is the next solution?" to "how can we improve user experience with the current system?". Decisions are made based on which complaints reflect the majority of users and what issues can be resolved without technology investment. At the subject matter expert level, conversations can be had as to if a change notice will actually fix what matters to the user, or if this business requirement actually address a user need.

**200% increase in design resources as a result of the project**

Customer satisfaction pre- and post-project impact

(Chart values — Before HCD / After HCD: Comms 70.6% / 73.3%; Process 64.3% / 68%; WBLOMS 38.6% / 59%)

**WHAT NOW?** Michigan has utilized these pilots and other research to develop a t-shirt size approach to HCD projects. OCI and CSS provide consultations to better define activities and estimate the cost of HCD for IT projects. Optional boilerplate language has been crafted for Agencies to add to contracts. Michigan is creating learning tracks for DTMB employees on HCD principles and job specific skills. CSS is crafting strategies to provide more designer expertise to state projects. OCI is also developing a team of HCD facilitators and facilitator training to conduct user experience research. The state is also reviewing software to make resident engagement easier in moderated or unmoderated user testing.

Although the learning curve was steep for the State of Michigan to lift our first HCD pilots, the journey is worthy of our sister states to take. A Human-Centered Design strategy can be developed, and deployment is scalable based on the state's resource availability. Some NASCIO members have already requested access to our HCD Vendor Pool as a start to their journey.