



Continuous Improvement at WisDOT

DMV Redesigns Knowledge Resource System to Improve Customer Service

With 80 permanent locations and serving two million walk-in customers per year, the Wisconsin Department of Transportation (WisDOT) Division of Motor Vehicles (DMV) is always looking for new ways to improve the customer service experience. The DMV noticed that one source of increased customer service times was due to the internal knowledge system used to assist customers. Over time, duplicate articles and lack of maintenance had caused the search function in the system to become extremely inefficient and ineffective.

"As we began to dig deeper into the system it became clear there was duplication and outdated reference information for DMV staff. This led to dissatisfaction of end users, and increased wait times for customers."

-- Denise Packham, DMV Program Specialist

DMV front-line staff noted increased customer service times whenever the system needed to be used because of needing to scroll through many search results, hold confirmation chats with co-workers and team leads, and make occasional calls to the central office while customers were on hold or waiting.

"My favorite part about this project has been improving internal customer service, which in turn improves external customer service--it's quite the domino effect! It has allowed us to answer more calls and maintain our target of answering each call in less than 3.5 minutes." --Julie Niemeyer, DMV Program Specialist

Knowledge System Cleanup

To alleviate this, DMV created a focus group made up of end users to evaluate the system. The group reviewed what was working well and what needed to be adjusted. This involved evaluating, consolidating, and standardizing over 2,800 articles of information. Additionally, the effort involved creating a governance process for the knowledge system to ensure that front-line staff have the most current information at their fingertips to assist customers.

Results and Improved Customer Service

Consolidating and eliminating over 2,800 articles from the knowledge system database dramatically improved search functionality and effectiveness. This enabled [over 87% of DMV customers to be served within 20 minutes or less in 2024](#) according to MAPSS, which documents multiple DMV service measures. Additionally, this saved over 10,000 hours of staff hours annually, which allows front-line staff to deliver a better customer service experience. For the public, the primary method of interaction with the department is through the DMV so making that a positive experience is key.

Internally, communications were automated which decreased duplication of effort and increased engagement. The solution also eliminated knowledge silos between bureaus and ensured consistency and publishing control going forward.



LEAN AND CONTINUOUS IMPROVEMENT SUMMARY REPORT

Wisconsin Department of Transportation
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Project or Initiative Name: Knowledge OWL Redesign

Team Lead: Michele Grant

Division: Division of Motor Vehicles (DMV)

The Process (Background): Knowledge OWL is a knowledge transfer system DMV purchased in 2016. It is the primary source of information front line staff use to help customers. The Driver's License Manual and the Registration Help manual were transferred manually to the new system, followed by a cleanup effort. A division wide governance system was set up but a decision was made to move governance to the individual Bureaus.

Problem/Opportunity Statement: Over time duplication, lack of maintenance and too many cooks in the kitchen led to a massive database of duplicate articles and information which made the search function extremely inefficient and ineffective. The lack of centralized governance also led to long response times for comments and extended wait times for customers as front-line staff had to scroll through 30 to 40 search results until they found what they needed and then at times doubted if it was the most current information. This led to confirmation chats, discussions with co-workers or Team Leads and calls to central office while a customer stood there or was on hold waiting. In addition, updates to articles required a change to multiple pages creating a host of other issues.

Scope: Create a focus group made up of end users to discover what is good and bad about the system and what they want in a system overhaul. Use this information to evaluate, consolidate and create uniformity of over 3,000 articles. Create and implement a governance system to ensure front line staff have the most current information at their fingertips to help customers.

Stakeholders: All DMV Front Line Staff, Business Area Experts, Mid-Level Management and DMV in person and phone customers.

Magnitude: 600 DMV Staff and 1,000;s of customers daily. 2 Project Teams made up of BAE's from all Bureaus worked on the project. Team 1 handled the consolidation and redesign of articles and Team 2 implemented the new comment and article creation governance system.

Goals: 1. Dramatically reduce the total number of articles. 2. Create Division-wide governance process. 3. Dramatically improve search functionality. 4. Standardize content, layout, appearance, and features

Improvement Methodology: 'Just Do It'

Results: The results of this project exceeded expectations. We consolidated and eliminated over 2,800 articles from the database and standardized the format for all pages. This led to more efficient and effective searches and ease of use for front line Staff. In addition, the governance system that was set up cut most article changes from 3 weeks to 2 days. Communication was automated which decreased duplication and increased engagement. It also eliminated silos between Bureaus and ensured consistency and publishing control going forward.

Performance Metrics:

Metric Name	Initial Unit	Final Unit	Difference
Annual hours required	13,071 hrs.	3,009 hrs.	10,061 hrs.

After Metric Summary: There were multiple areas of focus that led to the FTE savings above. The hours saved were measured in seconds and rolled up to hours. The total hours were substantial but do not reflect true FTE savings, rather the results reflect the impact of 1000's of small time reduction improvements each day.

The areas measured were General Access Look Ups, Search Help Needed, Administration of Comments, and Article Creation/Updates.

General Access Lookup took the average number of "hits" or inquiries into the system (2000/day) and the average time it took Staff to search and find what they were looking for. This was compared to the average time to search and find after the redesign. Features like "Favorites" and article consolidation cut every search by an average of 20 seconds per search.

Search Help Needed was the amount of time Staff spent sending chats, asking co-workers, asking Leads, etc., to help them find the article needed to help the customer. The metric was affected in 2 ways. First the amount of time spent searching before asking for help was reduced by approximately 66% and the need to then ask for help after searching for help was also reduced by approximately 66%. These 2 areas reduced every search/help situation by approximately 160 seconds per search.

Administration of Comments was reduced from 4 hours per day with no collaboration with other Bureaus, to 90 minutes per week by a BAE group that meets 3 times per week for a 1/2 hour with all Bureaus being represented. 80% of all comments are now being handled and published during these meetings. This process saves approximately 18.5 hours per week in comment administration.

Article Creation/Updates considers the time needed to update articles. Before the consolidation, each time an editor would need to update a page they would need to locate and make the change on an average of 6 pages located in multiple areas of the database. Approximately 1000 articles were updated every year which took an average of 10 minutes to update the average 6 pages. Now there is only 1 article to update saving approximately 8.5 minutes per update.

MAPSS Core Goal Area: Accountability

Statewide Goal Area: Staff hours repurposed