

**State of Michigan, 2007 NASCIO submission**  
**Government-to-Citizen**  
**Project Name: Michigan.Gov release 2.0.**

**Executive Summary**

The state of Michigan first introduced our state-wide integrated government portal in the summer of 2001. [www.michigan.gov](http://www.michigan.gov). This is the official website for the State of Michigan. In the months that followed the official launch, all of our IT development was focused on adding interactive, online services to the portal (we now offer over 200). We took our eye off fundamental navigation and usability “best practices”. We became engrossed in building online services, and, marginalized the importance of having a portal that was intuitive, engaging, and, accessible for all. These usability limitations were surfaced in 2004 when the nationally renowned Taubman Center for Public Policy at Brown University released their annual review of state and federal web sites. The review focuses on key features, such as ADA compliance, usability, foreign language translation, online services etc. Michigan’s web portal was ranked in the bottom 50% (#26) for the fifty states. Michigan validated these findings when we asked the Michigan State University usability lab to critique our portal.

Our business problem was simple – Improve the end user experience of Michigan.Gov by making measured improvements in all categories addressed by the 2004 Brown University report (and validated by MSU). This government-to-citizen nomination lays out our 24 month strategy, completed in April 2006, specifically aimed at improving four key areas of the portal:

- Improve accessibility
- Expand delivery channels
- Cross boundary data sharing
- Public engagement

The project and all of its related improvements were designated as Michigan.Gov release 2.0. This project spanned two years, engaged multiple development teams, and was tracked as a strategic, enterprise-wide project for the State of Michigan. Tangible improvements in those 24 months include:

- the adoption of fifth generation technologies, including, wireless access and web services to extend the reach and utility of the portal
- integrated multi-channel delivery, including KIOSK and multi-media
- adoption of assistive and translation services ensures that ALL citizens have access to their state government
- Practical use of social computing strategies, including web logs, online surveys, and, personalization to make Michigan.Gov truly a two way mechanism for communicating with citizens.

This sustained focus on improving the end-user experience over a twenty-four month period resulted in Michigan.Gov earning a top #5 ranking by Brown University in 2006. This “back-to-basics” approach has taught Michigan not to place quantity over quality, and, resulted in a more deliberate examination of end-user needs as we proceed with continued improvements to our portal.

## **A: Description**

In 2004, Michigan's public facing Internet website, Michigan.Gov was evolving into the "channel of choice" for both citizens and business to conduct transactions with government. In our haste to move more services to the Internet, we overlooked many usability and navigation best practices, and, paid too little attention to feedback and suggestions from the public. These were conscience decisions, based on priorities and available technical resources. Our goal was to move high impact, high profile services to the Internet as priority #1, and worry about usability issues downstream. Many of these issues came to light in the 2004 Brown University study that ranked the Michigan.Gov portal at #26. While Michigan was doing well migrating services to the Internet, we were falling behind in quality and ease of use. It was clear to Michigan IT leadership that expansion of online services must be complemented by a parallel dedication to improving the total end-user experience. Our charge was to re-engineer Michigan.Gov to address usability issues surfaced by Brown University and validated by the Michigan State University usability lab, and, to expand the reach and interactive dimension of the portal using the best available technology.

Our attention was focused on four main themes:

1. Improve accessibility
2. Expand delivery channels
3. Cross boundary data sharing
4. Public engagement

The responsibility for developing our remediation plan, milestones, and, timetable was given to an enterprise development team. The plan and approach was developed in conjunction with the Governor's Office, who served as our Executive sponsor. This same plan was shared with the Michigan Technology Executive Committee (staffed with senior departmental leadership) to ensure support, and, shared vision across each state agency. Michigan.Gov release 2.0 was launched in waves over a 24 month period, with all identified improvements in place by April 1<sup>st</sup>, 2006. Significant, measurable improvements include:

1. Improve accessibility - Our goal was to offer content in multiple languages, and, become a leader in making content available to the disabled community. We first tackled foreign language access. Using census data, we determined our largest concentrations of ethnic communities were Spanish and Arabic. Our primary goal was to make the most downloaded .PDF documents and supporting websites available in both Spanish and Arabic. We initially tried converting documents using translation software. We enlisted the assistance of bilingual staff within the State of Michigan to provide quality control on the translated documents. We had a significant error rate (40%) and decided to use human translators. We enlisted the help of community based agencies for translation services. This partnership allowed us to successfully launch our foreign language portal within twelve months. <http://www.michigan.gov/som/0,1607,7-192-39925---,00.html> We offer online services and documents translated for use by the Albanian, Arab, Chinese, French, Hmong, Polish, Russian, Serbo-Croatian, Spanish and Vietnamese speaking populations of Michigan.

With language translation completed, we moved onto accessibility improvements. The disability access improvements needed on Michigan.Gov were quantified using software tools that measure online properties such as text colors, and content tags. This list of areas needing improvements was shared with Michigan's Commission on Disability Concerns for validation and input. The outcome of this effort was the development of a "text only" version of Michigan.Gov that greatly enhances the ability for sight impaired users to take full advantage of assistive translation software. Likewise, Michigan.Gov offers a large font edition. These new improvements have been "institutionalized" within the Michigan web development community with the publication of the 2006 revised look and feel standards for all Michigan web applications and content – which includes new sections on disability access.

Navigation Improvements - Our home page has been redesigned based on customer feedback, and now features our most requested online services “above the fold”. Users are taking advantage of our new personalization feature to create a “customized” home page. <https://www.michigan.gov/som/0,1607,7-192--L,00.html>

## 2. Expand delivery channels

Our next core area for improvement was expanding how users “experience” content on Michigan.Gov. The approach was twofold. Focuses #1 – re-engineer the website to run on alternative channels, specifically mobile devices and KIOSK. Focus #2 – Re-engineer content delivery to include interactive media as an alternative to static web pages. Our first project was making Michigan.Gov accessible to run on devices other than desktop and laptop computers. Internal research supplemented by end-user feedback highlighted the demand for a “mobile” Michigan.Gov. To that end, we began building content templates that could display information on mobile devices. In early 2006, Michigan launched our new mobile website - <http://www.michigan.gov/som/0,1607,7-192--136436--00.html> Michigan.Gov is now optimized for wireless access. Working with each state agency, we identified websites and content that likely would be accessed via wireless devices. Our approach was validated based on surveys of users of wireless devices. Adoption rates continue to climb. In 2007, we are experiencing an average of 100,000 monthly visitors, viewing an average of 356,000 monthly page views. Michigan’s multi channel approach also includes a “podcast” site that allows streamed media to be downloaded to portable players - a great mechanism for reaching young audiences.

The Michigan.Gov brand is widely recognized throughout the state as the symbol for citizen self-service. We carried this branding effort into the development of self-service KIOSKS for citizens to renew their vehicle license tabs. These self service stations are in over 30 locations, and, have been used for over 100,000 renewal transactions since March 2005.

Another popular channel we are using for delivering content is our robust “multi-media” offering. Research has shown us that many users prefer to “see and hear” content rather than reading static content. The web team supporting Michigan.Gov now helps agencies film, edit and offer multimedia presentations for delivering public service announcements, press releases and instructional aids (i.e. how to complete an application for food nutrition assistance). This has proven to be a non-intrusive mechanism for helping end-users with limited reading skills to access important information. All multi-media presentations can be found at one website. The presentations are also integrated within agency specific content. <http://www.michigan.gov/som/0,1607,7-192-46314---00.html>

## 3. Cross boundary data (resource) sharing

The State of Michigan has developed partnerships with the specific goal of making more information available to more people. One partnership extends Michigan.Gov to local government, and integrates our reservoir of geographic information into targeted websites. Below are highlights:

- Less than 40% of local communities had a web presence in early 2005. Michigan’s IT leadership teamed up with local colleges and had students build (at no cost) over 50 local government websites, hosted on Michigan.Gov. Since the Michigan.Gov brand is trusted and well established, this proved to be a logical extension of our infrastructure. We now have a section dedicated to local government.
- Another extension of technology has been the partnership between the Center for Geographic Information (CGI) and Michigan.Gov. Michigan.Gov has several websites offering information on state parks, and other recreational locations. Michigan now offers “richer” geographic content by integrating mapping technology into these web sites. Michigan has over 30 applications using geographic data sets, via web services, to help users locate campgrounds, harbors etc. by adding satellite images and mapping directions into web content.

#### 4. Public engagement

The fourth leg of Michigan's portal upgrade was focused on the adoption of "social computing technology". Michigan.Gov was originally created to push content and information to end users, in a structured and consistent manner. Likewise, information was categorized according to function to help users intuitively search (and find) relevant data. Release 2.0 of Michigan.Gov recognizes that citizens have useful and relevant information to share, and, offers a mechanism for two-way interactive e-Democracy. Features supporting e-Democracy have been released at regular intervals between 2005-06, and include:

- The use of web logs (Blogs) as a new channel for receiving input. We have created an easy to access web log content category at: <http://www.michigan.gov/som/0,1607,7-192-41004---,00.html>
- Instantaneous self-service feedback. Citizens (or businesses) that use a new application are encouraged to complete a "satisfaction" survey. The surveys are tied to new services, and, aggregated in a "survey" category on our homepage. <http://www.michigan.gov/som/0,1607,7-192-141079---,00.html>
- Michigan uses "Live" video streaming to broadcast, real-time, high visibility meetings, including State Board of Education meetings and, speeches by the Governor.
- Michigan has embraced real simple syndication as an innovative way of updating user's homepages with information important to them. RSS allows us to "push" information to over 200,000 subscribed users. <http://www.michigan.gov/som/0,1607,7-192----RA,00.html>
- "Send us your best shot" promotion. This feature invites users to e-mail us a picture of a Michigan location that may be included in our web photo album. This is a unique way of exposing home photos to millions of visitors.

#### **B. Government Benefit**

Michigan.Gov release 2.0 is completely aligned with Michigan's stated policy of citizen inclusion, citizen access, and, open and accessible government. This approach is realizing several benefits to the operation of State government, including:

- Branding – The Michigan.Gov brand and website as been extended to local government. We have dozens of local websites developed within our content management software, and, prominently displayed on our homepage. This has allowed local and state government to offer citizens seamless access to data. This extension of technology allows local government without funding to support Internet technology to use the states investment for free. [http://www.michigan.gov/som/0,1607,7-192-29701\\_31713\\_31714\\_31720---,00.html](http://www.michigan.gov/som/0,1607,7-192-29701_31713_31714_31720---,00.html)
- Real simple syndication (RSS) allows us to push relevant information to subscribed users at regular intervals. This has minimized our need for direct mailings to citizens. For example, The Department of Natural Resources will automatically notify subscribed users when seasonal applications or seasonal hunting lottery results have been posted. Likewise, The Department of Agriculture will automatically issue food recall notices to subscribed users. Agencies continue to use this technology as a mechanism to reduce (or element) call center functions. Currently, over 50 subscription services are offered.
- Information sharing – Responsibility for creating and maintaining agency web content has been delegated to each state agency. This workflow places the responsibility into the hand of the business owners – not IT. There are over 1,100 authors' editors and publishers for Michigan.Gov, responsible for the upkeep of over 95,000 unique content items. Over 40% of this content is shared across multiple agencies (eliminating redundancy, and inconsistent information for users).
- The use of online public comment tools has been helpful in gauging public opinion on policy issues across state government. This mechanism helps minimize the need for public polling services, while providing relevant and timely citizen feedback. When we release a new online service, we will ask if additional complimentary services are needed – This virtual "focus group" helps align IT projects with end-user demand, and, broadly expands our end-user requirements gathering audience (absent expensive consultants).

- Our use of multi-media technology allows state agencies to reduce travel and training expenses using web-based multi media training presentations. This training supports “in-house” employee training and targeted training to assist citizens’ in completing application forms offered online. Recent law changes in Michigan governing data security were included in a training video for both state employees and citizens.  
<http://www.michigan.gov/cybersecurity> (“click” on protecting information video)
- Michigan citizens downloaded over 95 million .PDF documents in the last 12 months. This is now the preferred mechanism for citizens to receive reports, forms and publications. Printing and mailing costs have been significantly reduced.
- Adoption strategy – Each of the four improvement areas within Michigan.Gov has been communicated to government leadership via several forums including The Michigan Technology Executive Committee, and the Web liaison group. We make sure that all levels of decision makers within State government understands what services are available, so each agency fully utilizes resources available to keep citizens informed and engaged.
- Transferability – All of the improvement areas within Michigan.Gov release 2.0 are included in our look & feel guidelines. Any entity wishing to review and perhaps adopt some of these Michigan practices are welcome to review our online documentation.  
[http://michigan.gov/documents/Look and Feel Standards 2006 v3 166408 7.pdf](http://michigan.gov/documents/Look_and_Feel_Standards_2006_v3_166408_7.pdf)

### **Public Value of Michigan.Gov release 2.0**

The primary goal of Michigan.Gov release 2.0 was to measurably increase the value of our portal to the public – not as measured by new online services, but rather, measured by improved accessibility, expansion (and adoption) of new delivery channels, and, substantive e-Democracy whereby citizens truly have a role in decision making. Here’s how we are doing on each of these main themes.

#### Improved Accessibility

Inclusion - Of Michigan's nearly 10 million residents, about 1.9 million have a disability. That's one in every five residents. Michigan recognizes the importance of making its digital government services available to the largest possible audience and has attempted to design the Michigan.gov Web site to be accessible by everyone. This Web site was coded to comply with both the Americans with Disabilities Act and the Priority 1 Level Checkpoints of the World Wide Web Consortium (W3C). Efforts have been made to ensure compatibility with common technologies utilized by the adaptive community. Michigan is one of the first states to develop a website wholly dedicated to issues concerning the disabled community.

<http://www.michigan.gov/disabilityresources>

#### Expanded delivery channels

- Practicality – Our mobile Michigan.Gov allows citizens to access timely traffic information, and weather alerts from a mobile device.
- Convenience - The adoption of our KIOSK technology allows vehicle license tabs to be purchased day or night. These self-service stations allow branch office staff to spend more time with customers with more complex service needs.
- Relevancy – Our use of real simple syndication helps subscribed users receive relevant information updates as soon as new information is updated. Once you download your news reader, you can customize it to go and fetch the news every five minutes, or every hour - depending on how you want it. This has been a useful and cost effective method of pushing information to citizens outside of the traditional e-mail and mass mail channels.

#### Cross Boundary data (resource) sharing-

- Savings – Revenue sharing payments to local government has been significantly reduced in recent years. One small measure to help local government cope has been the free extension of our website to local government. Any local government that asks can use our content management solution, and, infrastructure to build and maintain local information. The programming is done, gratis, by participating colleges.

- Data sharing - Michigan maintains nearly 5 terabyte (5 trillion characters!) of geographical information available for public consumption [www.michigan.gov/cgi](http://www.michigan.gov/cgi). This data has been integrated into over 30 web applications, servicing over 800,000 unique visitors each year. Some of these services include:
  - Watercraft enthusiasts can easily locate over 1,300 public boating access sites and over 80 harbors and marinas throughout the State.
  - Firefighters use this data to identify high risk infrastructures (oil wells) within a wildfire burn zone
  - Tax reverted land parcels under control by both state and local government can be identified for possible redevelopment. This is a key strategy in our economic development strategy for urban centers. <http://www.michigan.gov/cis/0,1607,7-154-34176---.00.html>

#### Public engagement

- Turnaround time – Our public engagement software allows surveys and citizen commentary to be received within one day. The software application is easy to use, and training has been given to all web development teams. Costs associated with collecting, analyzing and reporting public comments has been minimized by this “self-service” tool-set extended to all state agencies.
- Barometers of effectiveness – Most web applications are launched with a companion survey that asks for satisfaction metrics, and, ideas for continued improvement. This helps SOM leadership prioritize IT projects. Our online filing service of Corporation annual reports included a 95% approval rating (based on 500 completed surveys). We reduced from 10 days to 10 minutes the time needed to submit and pay filing fees. Information gathered here was used to focus development on not-for-profit and limited liability filers next.
- Travel reduction and expanded reach – Administrative law changes, or, public comment hearings on policy issues are now taken using public comment software. This has significantly expanded citizen’s ability to voice their opinion without having to travel to Lansing Michigan, or, regional field offices.
- Inclusion – Our use of web logs (BLOGS) demonstrates government’s interest in two-way exchanges with citizens. These moderated BLOGS have been used to solicit feedback from high school students on their perception of manufacturing careers in Michigan (which led to the development of a multi-media based website highlighting new career opportunities). <http://www.michigan.gov/manufacturingcareers>

In summary, Michigan believes our focus on usability and an enhanced end user experience when visiting [www.michigan.gov](http://www.michigan.gov) has been well planned and executed. The 2006 Brown University web survey identified Michigan as one of the top 5 state websites – a significant leap from position #26 twenty-four months earlier.