



Government Services

IMPROVING ACCESSIBILITY FOR THE VISUALLY IMPAIRED

As application and web development specialists, Moser understands firsthand how important it is to be sure every person can access and use your website – but it can be difficult to consider all disabilities and circumstances. The goal of human-centered design (HCD) is to leverage empathy and understanding to find the right solutions for problems people experience.

When Moser assumed responsibility for applications under the purview of a State Human Services Agency, we corrected and enhanced the usability and accessibility of not only the main portal, but also the other supporting components. In addition, Moser conducted proactive Section 508 and Americans with Disabilities Act (ADA) compliance scanning of all new features to ensure compliant and accessible deployments.

While we successfully remediated historical issues and

prevented the introduction of new issues, we wanted to take our efforts a step further to verify our designs and solutions are inclusive of the most vulnerable populations. As such, we reached out to a local nationally recognized learning institution that educates the visually impaired community to introduce ourselves, explain our mission, and ask for advice on how we can better design and develop public-facing websites.

The introduction was well received, and we are pleased that our relationship has grown into a productive partnership. Through several meetings with key stakeholders, we have begun to better understand visual impairments, the complexities associated with low vision, and the assistive technologies available to support the sight impaired community.

We also quickly realized that the information and experiences personally shared in the meetings should be a driving factor in our everyday Software Development Life Cycle (SDLC).





Moser conducted a usability session, with the goal of gaining a deeper understanding of how we can build more accessible products for the residents of the State, with volunteers from the learning institution who were not only seeking to help the organization's mission, but to also help create awareness about the importance of accessible and usable technology platforms. To accomplish this goal, we identified seven volunteers with varying levels of accessibility needs, ages, occupations, and technological competency forming a diverse sample with multiple and potentially disparate viewpoints.

To provide additional support and ensure success, Moser enlisted the help of our employees, who gladly participated as they are passionate about the mission and eager to share their findings and experiences with their respective projects and teams, encouraging further awareness within the company.

We selected twelve (12) Moser employees to support this effort, with diverse jobs and career experiences including Directors, User Interface/User Experience (UI/UX) Designers, Business Analysts, Developers, and Product Owners. This diverse group created a safe space that cultivated productive conversations, allowing us to gain a deeper understanding of visually impaired or low vision users.

Using the current version of the portal as a tool for evaluation, Moser developed a script for our facilitators to follow to ensure consistency and coverage of the essential portal functionality.

Session Logistics

Moser leveraged breakout groups, with each having a facilitator and note taker. When the user volunteers arrived, Moser paired them with a facilitator and note taker and provided lunch in the small breakout groups.

Sharing lunch in these small groups provided a great start to the event as it created a relaxed atmosphere, encouraging the group members to openly share their everyday struggles with accessibility. During this time, the Moser participants listened and learned.

Each user volunteer brought their own assistive technology to use – Apple iPads, smart phones, laptops using both Job Access with Speech (JAWS) and Non-Visual Desktop Access (NVDA), as well as one laptop equipped with a Refreshable Braille Display – during the session, as we understood that there are substantial personal preferences on how to best ingest information from websites.

Some of the user volunteers even took time to show the Moser participants their braille keyboards, further increasing our knowledge of their assistive technology. We walked the user volunteers through the current version of the portal, using the script created for the session.





During this time, we gathered feedback on the following items:

- Alternate ways the users would prefer information to be displayed
- Gaps in what appears on screen vs. what the screen readers communicate
- Applications they like, which Moser could draw inspiration from, or, others that are difficult to use

Once Moser executed the entire script with the user volunteers, we conducted an extensive discussion about our findings and observations.

At the conclusion of the event, we had many participants ask about partaking in future events as everyone enjoyed the interaction with Moser and the opportunity to make a difference for the larger State community.

Feedback Analysis

Following this event, Moser transferred our notes into an application called Miro. Within Miro we created an affinity map, which is a process that will enable us to group themes that we see within the data and feedback. Following the affinity map exercise, we shared the data with the team and formulated a plan of how to update the portal in the future, avoiding the pitfalls and issues identified in the session.

Immediate Actions

From the session, the Moser team identified a few “quick wins”, which we will implement, enabling enhanced usability. We will also ensure these suggestions are incorporated into future designs.

- Verify checkboxes have detailed labels
- Verify labels for buttons have clear indicators of what will happen on click
- Label required fields in a consistent manner
- Verify tab order is correct and user friendly
- Verify users quickly understand the expected date format on fields

In addition to the “quick wins” outlined above, the following are findings that we will incorporate into the future phases.

- Explore ways to make navigation cleaner through each step of the process
- Enable users to understand how far they are in a process
- Keep layouts simple supporting ease of navigation for users

Next Steps

Moser intends to continue this productive partnership, leveraging similar focus group sessions to obtain feedback on our supported products.

We used this first session primarily as an opportunity for our team to baseline our supported applications, but also to measure our progress in further incorporating accessibility and usability design standards.

Additionally, as new, impactful features are added to the applications we support, we will engage with the focus groups to ensure our designs are optimal in terms of usability and accessibility.



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