

Project Report Out & Lessons Learned

ENSE 271: People Centered Design

Team: Bridging the Gulfs

April 5, 2023

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Team Name & Members

Team Name: Bridging the Gulfs.

Members (in alphabetical order): Brooklyn Coulson, Jessica Nathanail, and Stephanie Ndulue.

Project Sponsor(s)

- Dr. Tim Maciag: ENSE 271 Lecturer.
- Victor Roman: Manager of Community Impact & Communication at South Saskatchewan Community Foundation (SSCF).
- Colleen Strauch: Director, Nonprofit and Voluntary Sector Studies Network Luther College at University of Regina.

Business Need/Opportunity

1. A design where the key takeaways of the report are impossible to miss. These are the findings of the report for each focus area.
2. A site that is easy and intuitive to navigate through all of the different data points (filtering focus areas and regional information)
3. A site where the content is clear to read and consistently laid out with the three following types of content: Infographics, Stories (video or written), and long-form written content.

Reflections on Project Planning, Execution & Closing

North Star and Carry Over Customers

After the initial meeting with our sponsors, we brainstormed as a group and compared the notes we took during the presentation. Based on the initial information we gathered and our understanding of the client needs, we originally determined the North Star customers to be current donors as well as potential future donors. As such, we also determined that the Carryover Customers would include volunteers, other charities or organizations and government organizations. These specific customers were chosen based on who we figured would be viewing the Vital Signs Reports and why they would be viewing the information within. We decided that people would be viewing the information if they had some sort of investment in the issues highlighted within; be it from volunteering or donating to a cause, wanting to find out more information before committing to a cause, or trying to find out how funds have been distributed at an institutional level.

As the project progressed, and more scrums had taken place, we decided to slightly change who our Customer base should be. We ultimately decided to keep the donors (both current and future) as our North Star Customers, however we shifted the government officials/organizations from Carry Over to North Star; the remaining Carry Over Customers from before (volunteers and charities) still reside in the same category. This change was due Dr. Tim Maciag attempting to ensure all teams were on the right track by asking everyone to reflect on their chosen target customers. As such, we reflected on what we had and determined that government organizations might play a larger role than originally anticipated since large sums of money are being handled by the SSCF; including some government funding.

Assumptions and Constraints

To start we made the assumption that we were to be using WordPress to create our websites since that is the platform the SSCF is currently implementing for their live website. The other assumption made was that we would not be provided any real data to work with; the research team at the SSCF would not have this data available to us until after the course had ended. This meant that we needed to scour through existing Vital Signs Reports and try to extract any useful information that would be useful in enforcing the usability and desirability of our design choices. We also assumed that time, and budget would be a recurring constraint/theme across all teams so we opted to exclude this fact from our project; everyone had about three months to work on it and since we are students it was expected to not cost us anything.

The constraints we initially brainstormed were put into three main categories. Firstly, all members within our team lacked any experience and knowledge in regards to the target platform WordPress. This, at the time, was a little concerning since we wanted to create something that would be easy to integrate into the website that currently exists. Secondly, we figured that there would be some constraints surrounding the filtering of the information and how that would be prioritized. We had no real starting point in terms of data, so we had to gather our own (which meant that we could potentially be grabbing useless data), there was a lot of data/information within the existing Vital Signs Reports that was completely different/lacked relatable content when compared to the three target filtering types (Infographs, Impact Stories, Long Form Information), and it wasn't clear on how different data types could be filtered/handled if they qualified for more than filtering type. Lastly, we were unsure of what WordPress would allow us to do; what was feasible, what was nearly impossible to achieve, how tough would it be to implement without having to purchase anything.

As the project progressed, it became apparent that the largest struggle would be seen with the WordPress plugins. There were lots of promising ones that had potential, however to access all they promised you would have to purchase pro versions. This proved to be frustrating since substantial time would be wasted in researching, downloading it, playing around with it and having it almost work only for it to fall short; if anything this highlighted the importance of time management, knowing what exactly you need in terms of features, doing proper research, and understanding when something is "good enough" rather than forever searching for "perfect".

Key Findings From Affinity Diagramming and Empathy Mapping

The affinity diagramming exercise was an excellent way to get us thinking about the project and allowed us to brainstorm ideas and concepts we felt were important to the clients. It was also a great way to "cover more ground" since everyone thinks differently and thus might bring up topics others may not have considered. After brainstorming and sorting the sticky notes, we found that there were a lot of notes surrounding the specific types of data that the site will house, methods on how the filtering will be done, and how the website will feel/look so that the user will have a delightful and interactive experience when navigating the website/content. We did also have quite a few notes relating to funding and this information can be viewed, tracked and accessed, however we ultimately decided that was out of the scope of this project.

The empathy mapping exercise was also valuable in the sense that we can understand the North Star Customer base better and thus create a product that is more personable to them.

It allowed us to try and see things through their eyes based on what already exists on the SSCF website, and gave us the opportunity to pinpoint specific pain points of the customer. After this identification process, we were able to narrow down the scope of the project and have a better understanding of what the true problem was; easily accessing information from the report that the user truly cares about.

Initial User Story Map and the Evolution of Our Minimum Viable Product

When we created our story map we did not have a clear understanding of what a story map actually was. Instead of using it as a step by step walkthrough of how users will complete a task on our site, we used it as an organization tool that broke down our goals into smaller steps

that would then be sorted into MVP's. With this in mind, we initially had 3 main categories; Filter Information, View Information, and Call to Action. From our first USM to our second (Figure 1), not a whole lot changed in regards to MVP1. Everything within the Filter Information section remained the same however we moved "View Info by Year" up to MVP1 instead of MVP2. We completely rearranged the View Info section based on client meetings and suggestions; we decided to focus more on the types of data we will be filtering. For the Call to Action Section we moved "Donation Links" from MVP2 to MVP1. We also added a section regarding

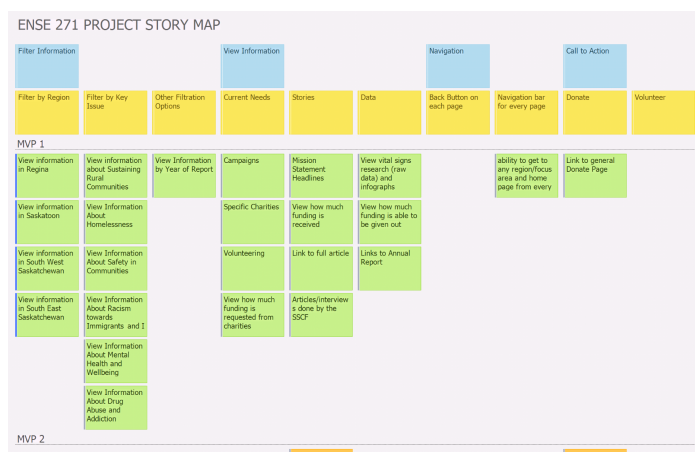


Figure 1: Updated USM

Navigation since that was a concern of Victor's when we showed our Hi-Fi Prototype (it was lacking these features).

When comparing our final product to our updated MVP1, we believe we have pretty much achieved this. Everything highlighted has been accomplished in one form or another except for three tasks. The filter info for Saskatoon was excluded because that was not a specific region outlined by the client. The other two were related to the ability to view funding movement (how much is requested by charities and how it was divided up between charities). We did not have a specific way to do this, however one could argue that this information could be viewed within the Long Form Data section seen within the filtered pages.

Summarized Prototyping Activities & Usability Evaluation Findings

The Lo-Fi prototypes we developed varied significantly since we had all prioritized a different aspect of the problem, this was evident with the designs produced. Stephanie focused more on the Call to Action aspect, whilst Jessica focused more on the interactive engagement portion, and Brooklyn focused heavily on the filtering requirement. This made it interesting when trying to create a new design that would incorporate key features of everyone's individual designs. It was nice since everyone had their own focus since that eliminated overlapping, however it made it more difficult to try to transition between pages and placement of information blocks a little trickier. Victor Roman liked the smart layout choice in regards to Stephanie's

design, and the inviting design choice of Jessica's regional wheel navigation (providing it will work in a mobile setting), and Brooklyn's design for being able to incorporate it into the existing site, keeping things simple, and that there was a master page.

The Hi-Fi design took the best aspects that Victor Roman highlighted and we brought it to life using Figma. We spent a lot of time working on the prototype since there were so many pages that needed to be created to show functionality like opening/closing accordions and including a "functioning carousel" of images. We also created a mobile view of the prototype to demonstrate that we indeed considered the issue of how the wheel would look in a mobile setting since the focus area menu popped out and to the side of the wheel. We instead had a static focus area menu underneath the wheel and had the region the user chose highlighted to indicate what option was picked. Unfortunately, the wheel (and thus the mobile rendition of the design) did not make it into the final WordPress demo due to lack of time, and us trying to stay within the constraint of not purchasing plugins.

We had the opportunity to demo our Hi-Fi prototype to Victor Roman, as well as have some colleagues test out the navigation/usability of our website using a guided evaluation questionnaire. Through these methods of interaction, we gained valuable information that helped us to make the design better. Our client mentioned that our home page navigation did not reflect natural guidance, we did not place things in such a way where the user clicks options in order from left -> middle -> right; instead it was left -> right -> middle. He also noted that we were missing the long-form information, we should have a section dedicated to this rather than a taste of it and then have the user click a link to the "original report". Lastly, both our client and colleagues mentioned how we lacked internal navigation bars once they are within the filtered pages (didn't have an option for them to go back and refilter).

Following the input we gathered, revisions were made to our final design. Within this design, we ensured that the natural mapping of the filtering options were considered when placing blocks (text instructions appear to the left of the buttons, the order of the filtering is region -> focus area -> year -> submit all side by side, etc). We also provided affordances like allowing the user to choose a report year they want to have displayed; this also allows the SSCF to add and organize their data easily. We have also included signifiers within our website, an example of this would be the pictures used on the buttons found in the footer. They signify where the button will take you once pressed (the bird is a famous logo belonging to Twitter for example).

Final WordPress Solution

For our final solution we ended up using *pages* to display the landing page, the regional transitional pages, and the filtered content pages. We then reserved *posts* to display the Impact Stories that will be accessible within the filtered const pages depending on the sorting in the back end. In terms of how things were organized/filtered in the back end, we utilized the Category taxonomy that already comes with WordPress (exclusively used for *posts*) and we downloaded CPT UI in order to create custom taxonomies that can be used exclusively for *pages*. This separation of taxonomies allowed us to only display the filtered content pages within the regional transitional pages and only the Impact Stories within the filtered content pages even though they both share the same "focus areas", "report years", and "regions".

On our landing page, we wanted to include the interactive wheel we had initially designed, however we were unable to find a plugin that had the desired effect whilst also being free. One of our constraints was to keep the project “free” so we opted to go for a grouping of buttons instead so that we still had some form of interactive engagement. Since we removed the wheel navigation from the design, we opted to include region transitional pages to replace the pop up focus area menu; the comparison between the two designs can be viewed within Image 1.

Another issue we came across was how the blocks work in terms of submission on WordPress. With our initial design we had the option to choose a report year in a drop down menu, however we did not include a “submission” link. This would mean we would have to include some form of JavaScript in the backend to allow the site to be updated dynamically and somehow have this information utilized to choose the appropriate filtered pages. Ultimately we did not have to go

down this rabbit hole since the wheel idea was not feasible, so instead we opted to have the year filtering done within the region transitional pages. We used a Tabbed Content Block found within the Ultimate Blocks plugin to house a Post Grid Block. The tabs would represent the Report Year filtering option and the grid would house the six focus areas found within the specified year. With the help of the taxonomies in the backend, this made it easier for us to separate the pages and display them in a way that makes sense whilst encouraging interactive engagement from the user (Image 2).

We also decided to add a way to backtrack, as suggested by both client and colleagues, by including the region transitional pages within the main navigation bar located within the header of our site. This allows the user to have more freedom and control of their journey

through our site. As such, it generates a more delightful experience for our users and gives them the option to back track in case they end up somewhere they didn’t want to be.

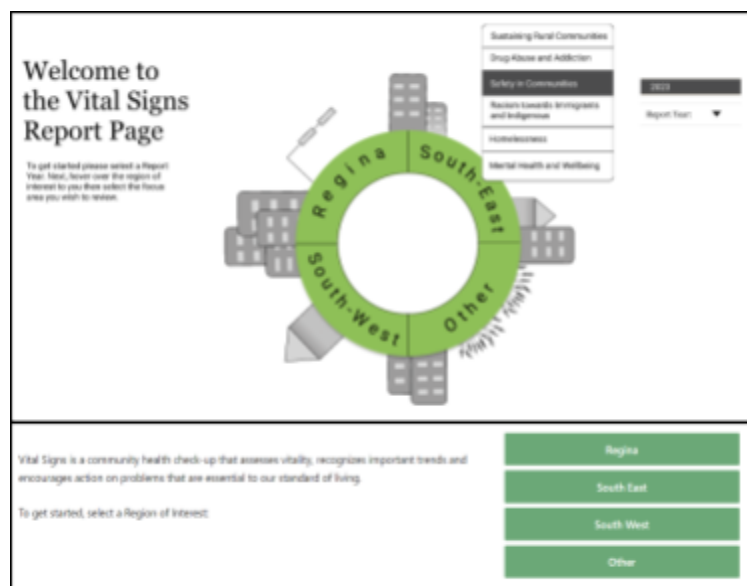


Image 1: Original design (top) compared to the final design (bottom)

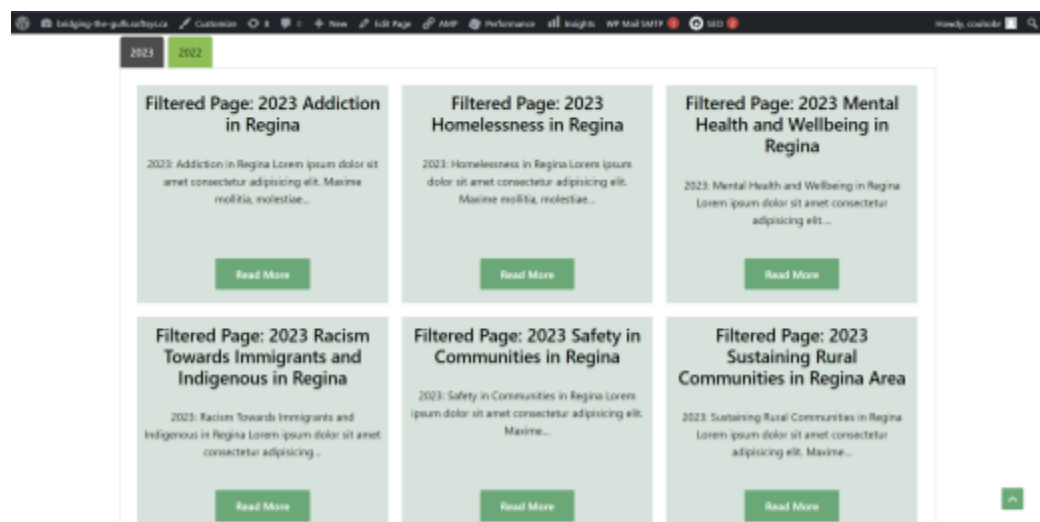


Image 2: The Tabbed Content Block used to allow interactive filtering of Report Year and Focus Areas simultaneously.

Reflections on Project Results

Brooklyn's Reflection

There were quite a few aspects that I enjoyed about this project. I liked the creative freedom we had and how we had to break down the information we received to develop a problem statement and thus a solution. I also enjoyed all the different steps and how this was treated like an actual project we would come across in industry; I find this way of learning most beneficial since I can apply the knowledge gained and see its value and importance within a safe learning environment. One thing I disliked was how in the beginning we didn't have any data to use as a starting point to assist us in what direction we should take in terms of filtering. I only mention this as a "dislike" since at the time it felt a little bit like we were thrown in the deep end. After reflecting on the entire project, at the end I wouldn't consider it a dislike anymore since it provided a more realistic example of what awaits us; the problems will not be cookie cutter and straight forward, sometimes we will have to make our own informed decisions based upon knowledge gained and take things as a learning experience if we are wrong.

Overall our group worked well together, we were all open to ideas, feedback and constructive criticism both from outside sources as well as from within. We communicated well, and ensured all deliverables were completed on time and to the best of our abilities. I also still love how all of our Lo-Fi designs were so different yet we were able to combine them together to incorporate the key features Victor Roman desired (Jessica focused on interactive engagement, Stephanie focused on the Call to Action, and I focused on filtration). One thing I believe that went poorly was perhaps how busy we all were in terms of other courses and outside commitments. I only say this because it made it tough to try and schedule a time that worked for everyone to get together and work on the deliverables. We made it work, however I wished we were able to work together a little bit more; this is by no fault of anyone though, it's just the way things go!

When comparing the project prototypes to the end solution, I think we were successful when it came to realizing the concepts and the key functionality we wanted to include (filtering, donation options, navigation, interaction). I think we were unsuccessful in terms of how this was exactly done; the landing page in the prototype was not feasible and had to be changed within the solution. I believe this partially stems from us not having a ton of experience in web development, having no knowledge on how WordPress works/limitations of plugins, and how the constraints would affect the plugins to be used.

I think the lecture topics were incredibly useful, and I admit to reviewing/referencing them constantly. I also think that for future projects I will continue to reference this knowledge gained, and I will try to do some research on the platforms/technologies that will be used more extensively. My fault was that I began research into WordPress and plugins AFTER the planning phase, and I feel like it would have been far more beneficial if this had been done PRIOR TO/DURING the planning phases. I think I will use these topics learned in the future for sure; my mom wants me to design a website for her crafting activities/products. I definitely feel more comfortable tackling this project after having taken this course and experiencing this project!

Jessica's Reflection

I thought that with the taxonomy/filtering that Brooklyn developed, our site had a very good basis and structure. I really liked that selecting certain filters would bring up all pages and posts (impact stories) that were relating to that filter, and each impact story can be relating to multiple focus areas which is a good feature.

This "in between" page, while it is just links, I think is a good feature for navigating a lot of content.

I thought that the structure of our solution was good, and I think that finding the impact stories and focus areas felt intuitive. Although we had to adjust our original prototype quite a bit, I think the spirit of our idea stayed mostly intact.

I think our focus area pages were really well done and covered all of the bases of infographics, impact stories, long-form content and a link to the report.

My favourite part of our site was the filtering, the search page that showed links to selected filter criteria, and the focus area pages themselves.

Stephanie's Reflection

I am quite happy about the outcome of the project. It presented an avenue for me to put into practice the exciting topics I learned during the class lectures. It also brought out my creative side while I collaborated with my teammates to diverge and converge on a solution. The only thing I disliked about this project was the design constraints that WordPress has. It was difficult to implement our initial design with the current free plugins available in WordPress.

Although I have a little previous experience with WordPress, I was very happy learning about some fundamentals I missed and creating a website from scratch. Most importantly, being able to meet up with a real customer and develop a solution for his complex problem was the main highlight of this project to me. The people-centered design ideas discussed in lectures was a big influence on our project as we always made referrals to them when discussing and agreeing upon ideas to be implemented.

There were various things we did during this project which would be done in future projects. My team used an agile approach in this project. It allowed us progressively iterate and make changes which were influenced by external feedbacks. We were also able to evaluate each other's strength and shortcoming and assigned work according. The only thing we would possibly do different in the future, in my opinion, is producing a design prototype to our customer out of creativity to solve the customer's problem without making sure the designs of the prototype can be carried out within our constraints.

Future improvement on our project could involve making infographics more interactive, embedding videos, and providing a donation system that would enable donors donate to specific focus areas and regions.

Appendix: WordPress Themes & Plugins

Themes

Name: Astra

Rating: 5 stars based on 5241 ratings

Last Update: March 29, 2023

Active Installations: 1+ million

What it does: WordPress theme suitable for blog, personal portfolio, business sites or WooCommerce storefronts. Is compatible with builders like Elementor, Beaver Builder, Visual Composer, SiteOrigin, Divi and more. Comes with Schema.org code already integrated and is compatible with Native AMP too. Is a fast, fully customizable theme.

Cost: Free; Pro options: \$59 - \$249 annually, \$299 - \$1249 one time payment

Plugins we Downloaded and/or Used

Name: Custom Post Type UI

Rating: 4.5 stars based on 257 ratings

Last Update: March 27, 2023

Active Installations: 1+ million

What it does: Provides an easy way to register/manage custom post types and taxonomies for your website. Uses an interface to be able to add/delete/edit the taxonomies and post types.

Cost: Free

Name: Search & Filter

Rating: 4.5 stars based on 161 ratings

Last Update: December, 2022

Active Installations: 50 000+

What it does: It's a simple search and filtering plugin and is an advancement of WordPress's existing search box. Search field options: Category, Tag, Custom Taxonomy, Post Type, Post Date. Search field display options: search box, dropdowns, checkboxes, radio buttons, multi selects.

Cost: Free; Pro options: \$20 single site license, \$75 developer license (unlimited sites)

Name: Ultimate Blocks - Gutenberg Blocks Plugin

Rating: 5 stars based on 563 ratings

Last Update: March 27, 2023

Active Installations: 50 000+

What it does: Makes it easier to create better/engaging content with Gutenberg. Blocks included: Content Filter, Review (Schema Markup Enabled), HowTo Schema, Table of Contents, Tabbed Content, Call to Action, Content Toggle (Accordion), Styled Box, Styled List, Expand, Testimonial, Click to Tweet, Social Share, Countdown, Progress Bar, Post Grid, Star Rating, Image Slider, Button (Improved), Divider.

Cost: Free

Name: Duplicate Page
Rating: 5 stars based on 321 ratings
Last Update: February 8, 2023
Active Installations: 2+ million
What it does: Duplicate posts, pages, and custom posts with a single click.
Cost: Free; Pro options: \$15 single site, \$99 10 sites

Name: Spectra
Rating: 4.5 stars based on 934 ratings
Last Update: March 28, 2023
Active Installations: 400 000+
What it does: Utilizes the Gutenberg editor and contains powerful blocks to build websites; also compatible with the Astra theme. Blocks include: Container, Image, Tabs, Heading, Call To Action, Buttons, Post Grid, and more.
Cost: Free

Name: AMP
Rating: 4 stars based on 349 ratings
Last Update: Week of March 20, 2023
Active Installations: 400 000+
What it does: Measures the user experience of interacting with the web page and helps apply optimizations and best practices automatically to your webpage.
Cost: Free

Name: Elementor
Rating: 4.5 stars based on 6485 ratings
Last Update: April 2, 2023
Active Installations: 5+ million
What it does: Web creation platform which enables creators to build professional with an intuitive builder. **Tried using in the beginning but Gutenberg and traditional WordPress builder proved to be easier to work with from our experience**
Cost: Free; Pro options \$59/year - \$399/year

Plugins Automatically Downloaded (but weren't used directly)

Name: Akismet Anti-Spam
Rating: 4.5 stars based on 969 ratings
Last Update: April 4, 2023
Active Installations: 5+ million
What it does: Blocks spam comments and spam within a contact form.
Cost: Free

Name: All in One SEO
Rating: 4.5 stars based on 3197 ratings
Last Update: Week of March 28, 2023

Active Installations: 3+ million

What it does: Allows the website to be ranked higher in search engines

Cost: Free; Pro options: \$249/year - \$749/year

Name: All-in-One WP Migration

Rating: 4.5 stars based on 7157 ratings

Last Update: Week of March 28, 2023

Active Installations: 5+ million

What it does: Plugin to move websites with ease and little to no tech knowledge/experience required.

Cost: Free

Name: AWS for WordPress

Rating: N/A

Last Update: 2021

Active Installations: N/A

What it does: Create audio versions of posts, translate them and create podcasts.

Cost: N/A for download anymore

Name: Google Analytics for WordPress by MonsterInsights

Rating: 4.5 stars based on 2599 ratings

Last Update: March 29, 2023

Active Installations: 3+ million

What it does: Provides analytic information to help you make decisions that will boost traffic to your website.

Cost: Free; Pro options: \$199/year - \$799/year

Name: Jetpack

Rating: 4 stars based on 1865 ratings

Last Update: April 4, 2023

Active Installations: 5+ million

What it does: Makes sites safer, faster, and helps to grow traffic to your site.

Cost: Free; Por options: \$10.95/year - \$75/year

Name: Prime Slider

Rating: 4.5 stars based on 31 ratings

Last Update: April 1, 2023

Active Installations: 80 000+

What it does: Slider plugin that is compatible with Elementor builder and any WP theme.

Cost: Free

Name: TaxoPress

Rating: 4.5 stars based on 127 ratings

Last Update: April 4, 2023

Active Installations: 70 000+

What it does: Create and manage tags, categories, and WordPress taxonomy items.

Cost: Free; Pro options: \$69 - \$199

Name: W3 Total Cache

Rating: 4.5 stars based on 5175 ratings

Last Update: Week of March 28, 2023

Active Installations: 1+ million

What it does: Improves SEO, Core Web Vitals and overall user experience of your site by increasing web performance and reducing load times by leveraging features like content delivery network (CDN) integration and the latest best practices.

Cost: Free

Name: WP Mail SMTP by WPForms

Rating: 5 stars based on 3732 ratings

Last Update: December 15, 2022

Active Installations: 3+ million

What it does: Fixes email deliverability by reconfiguring WordPress to use a proper SMTP provider when sending emails.

Cost: Free; Pro options: \$99/year - \$449/year