Project Report-Out and Lessons Learned

ZEGA Design Group

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Project Sponsor: Dr. Tim Maciag (ENSE 271 Professor)

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Business Need:

As part of course-based learning activities, work alongside the NVSSN and DFG-SK to explore new and innovative web designs. High-level guidelines, principles, constraints, & assumptions include:

- Design approach: Design Thinking (Agile)/Fast Feedback Cycle
- License: Creative Commons Share & Share Alike (CC BY-SA 4.0)
- Technology/Programming environment: StoriesOnBoard (Tim/Adam will be creating user accounts), Figma, WordPress, Local by Flywheel, GitHub (public repository required)
- Initial design notes: See the following community dashboards that have been created for other cities across Canada and beyond:
    - https://www.mypeg.ca/
    - https://vitalptbo.ca/
    - https://www.tracking-progress.org/
    - https://community-foundations-2023-vital-signs.tracking-progress.org/sdg/

Reflections I (Planning, Execution, & Closing)

Target Customers:

- **NorthStar:** Decision Makers (Municipal Government), NVSSN, DFG-SK
- **Carryover customers:** General Public, Businesses, Outer Residents, Engineers, Researchers, Donors, and investors

Assumptions:

- Using WordPress as our final project
- Usage of data, images, etc to allow for website design building
- Feedback from clients to understand the direction and goal of our project
- The project would be done with 5 people
- Chat GPT was allowed for generic site text, which we used throughout our website in various places.

Constraints:

- The project will be conducted over 2 months.
- Lack of knowledge of WordPress, Figma, and overall professional web design before working on the project.
- Feedback, our source of feedback is primarily from the client, ranging from weekly to bi-weekly check-ins with shorter duration meetings
- Group members either have an engineering full-load of classes or are working full-time.
- There are fewer group members than the majority of other groups.

Summarize key findings from affinity diagramming and empathy mapping

When coming back to our affinity diagram after our WordPress solution, we saw that numerous different cards in the categories we implemented ended up being added to our WordPress site. At least one element from each category made the final cut for the website. The majority of the cards that we implemented came from 3 major categories in our affinity diagram: the main dashboard, visuals, and interactiveness.

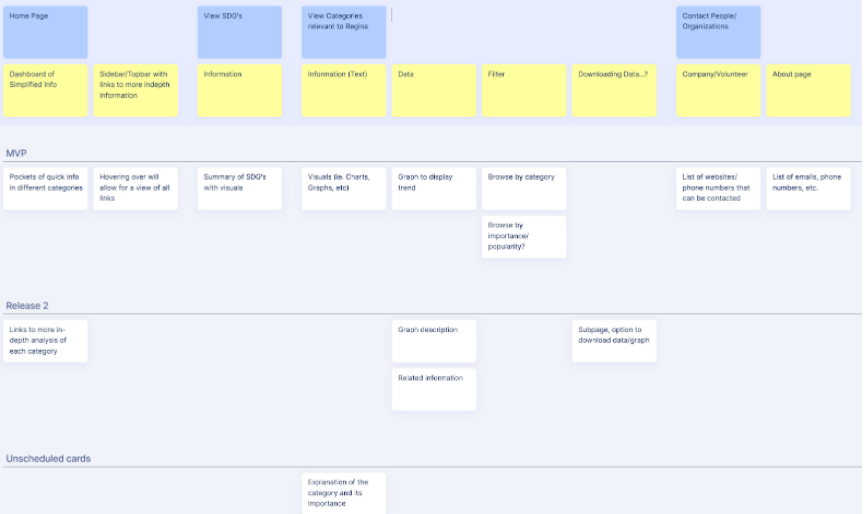
The empathy map was a bit different, as it was tailored more to our users' feelings, than the actual design ideas. Each group member crafted an empathy map. A pattern found in all of our empathy maps is the important messages that the customers have said when first introducing the project to the class. An example of this was the quote, “Inspire and galvanize action.”. While Gursharan and Aaron had similar empathy maps when it came to structure, Zana and Ethan used a different template that had a “Pains” and “Gains section. In these particular sections, Ethan

focused on hitting on the benefits and drawbacks from the designer's point of view. At the same time, Zana used the preferences of the user from our drafted customer notes.

The affinity diagrams essentially reinforced much of what the clients relayed into simple categories, which we then implemented into our USM. Overall, the diagrams emphasize an attractive website, with clear and usable features to appeal to anyone who visits the site. Almost everything was implemented in the USM, lo/hi-fi prototype, and website, excluding notes under “Features and Functionality," which were deemed by the group to be a low priority.

Discuss the initial & evolution of your USM/MVP (why is what you produced an MVP?)

Initially, our User Story Map (USM) was a platform to place all of our ideas on what the website would look like. Our first USM was not full of content, as we did not know what to expect with our experience with WordPress at the time, had only met with the clients a couple of times, and weren’t as familiar with user story mapping as we are currently. Our first USM version is:

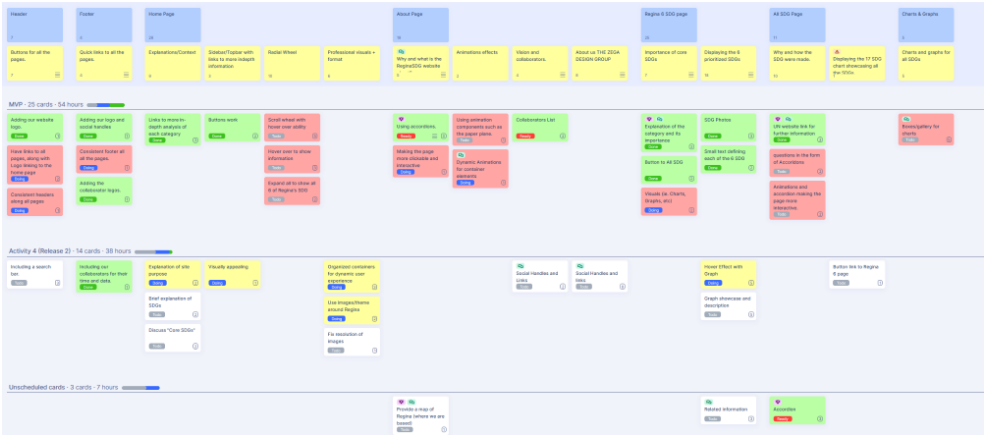


WordPress Site USM V1

Once the project progressed, we slowly started to add and evolve our USM. On our second analysis for the USM, our group started to dive into low-fidelity prototyping and brainstorming. At this time, we started brainstorming for our low-fidelity prototype and future designs. The continuation of progress encouraged us to further evolve our USM, add details while experimenting with time estimations, and organize cards via coloring for a more ambitious project. For the remaining USMs, we followed the same trend of adding minor details that we came across and updating existing tasks and activities.

For our USM V4 and V5, we finalized our MVP with the influence of numerous customer feedback and our experience/implementation with WordPress. This included some

major modifications due to the WordPress site progress, such as adding and reducing cards, color organization, and various rewording based on the current site and future goals. With the experience and time we had as a group, we decided that the activities listed in the MVP are the absolute minimum we can provide as a first release that would still function properly and strike with what the customer gave us for feedback.

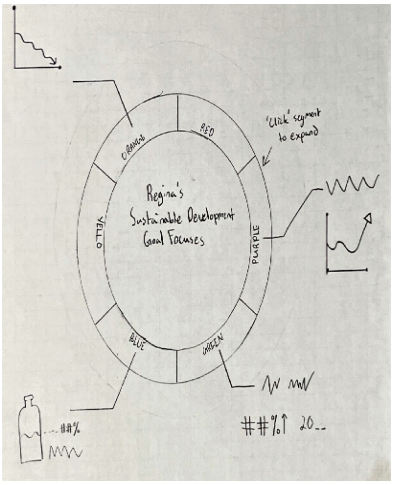


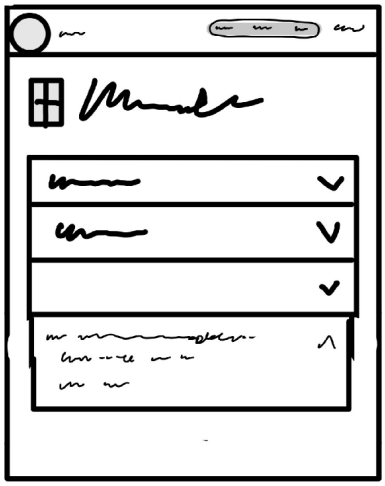
WordPress Site USM V4

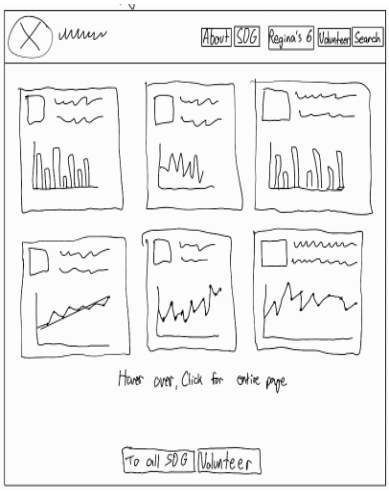
Summarize prototyping activities and usability evaluation findings

During the early stages of the project, we were tasked with creating two types of prototypes: A low-fidelity and a high-fidelity prototype. We each presented a low-fidelity prototype to our customers, and we found that the feedback they provided us with greatly influenced the outcome of our high-fidelity prototype and even our website. Based on the low-fidelity prototypes, the customers preferred the wheel Ethan had made, the concept layout of the “About Page” that Aaron put together, and the hover effect for some of the SDGs that were related to Regina that Zana had come up with. In hindsight, this allowed us to branch off of our respective ideas and develop ideas about how to create and enhance what the customer already liked. The feedback received on the low-fidelity prototype was one of the most impactful pieces of information that we obtained during the project. This greatly influenced our high-fidelity prototype, which then influenced our final WordPress site.

Below are images of what the clients liked about the low-fidelity prototypes.

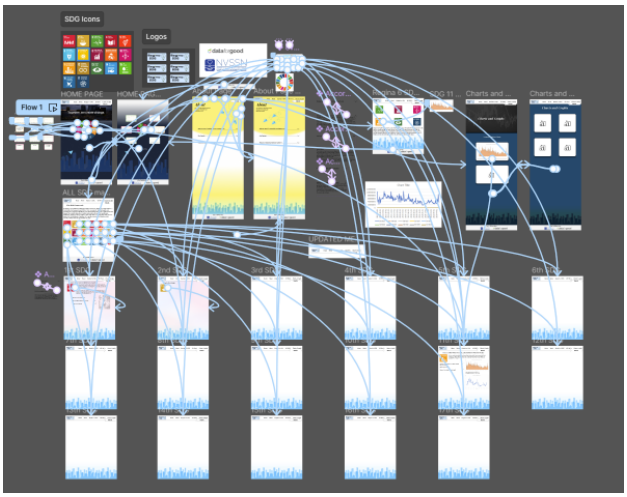






Ethan Behl's Wheel Aaron Borja's About Page Zana Osman's Hover Effect

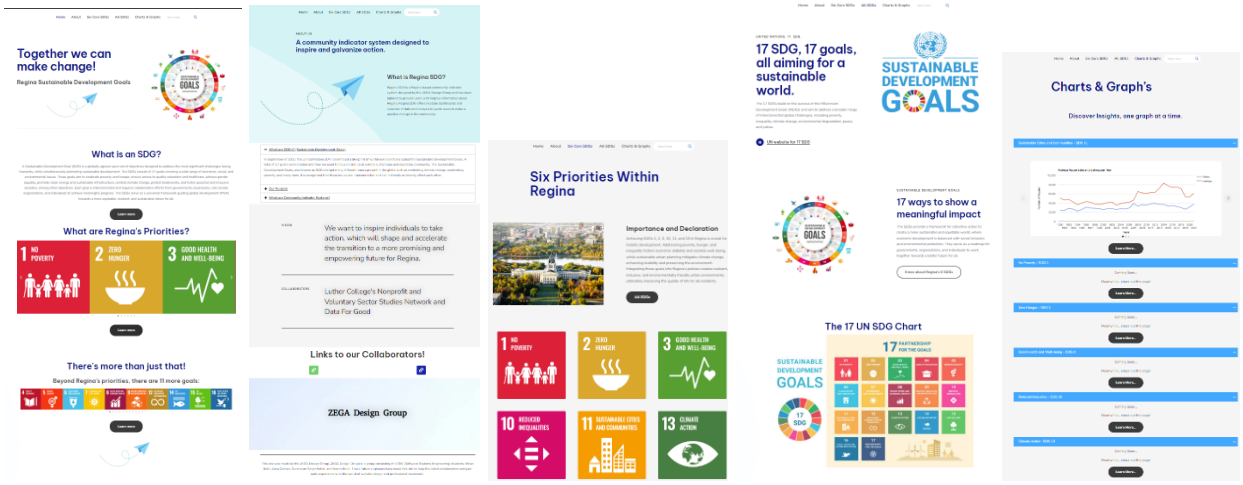
For our high-fidelity prototype, we all used Figma and its cross-collaboration feature to work on the same prototype. Although we had great feedback from our low-fidelity prototype, we still need to add content placeholders for the rest of the pages. This is where the site maps we previously made greatly affected our prototype. When presenting our high-fidelity prototype to our customers, they provided us with great feedback once again, to help guide what we should focus on in the final site. They told us that the idea for the "About" page was good, and not much needed to be changed. However, they critiqued us more on the visual appearance of our whole site in general and the elements within each page. Aspects such as color consistency throughout the site, accordion placement, and image size, were all things we've been told to keep an eye out for when transferring our prototype to WordPress.



Prototype view of high-fidelity prototype

When going through the prototyping process, we ensured we used some of the ideas taught in the lecture to craft some designs. We tried to combine more than one topic on each page, but in some cases, a certain topic was more abundant. An example that we implemented throughout the site was the idea of forcing functions. We had placed certain elements in a way where they were not fully visible, which would force you to scroll down. A couple of examples would be the wheel in the high-fidelity prototype and the accordion in the About page. Inspiring, galvanizing, and initiating actions were emphasized during this project, so we decided to add images that act as metaphors to encourage users in that direction. An example of this is the paper planes on the About page. This dynamic visual relates to "taking off" or finally starting to take action. Another design topic that was talked about was skeuomorphs. An example of this is on our website: the magnifying glass within the search bar (a symbol often associated with "searching"). Signifiers were also present throughout the site. We had multiple arrows to tell users that elements can be opened or a new page can be navigated to.

Summarize your final WordPress solution. Include screenshots of your final solution, linking back to prototyping activities, feedback/comments gathered, and lecture topics



(Zoomed-out images cut out blue wave theming.)

Our final WordPress solution contrasts with our final prototype, as we did not have a consistent theme in our prototype. As the client suggested, we used a white and light blue color scheme for each page's final design. For the Home and About page, we implemented skeuomorphs (magnifying glasses) and metaphors (paper airplanes), which were discussed in the lectures, to help the user connect much more easily to our envisioned mission with the website. We also kept a consistent emphasis on discoverability, by keeping the next section mostly out of view to encourage downward scrolling. This can be seen mostly on pages such as the About page (accordion), the Home page (what is the SDG description), and the Charts and Graphs page (accordion).

Reflections II (Project Results)

Summarize how you felt about this project (likes/dislikes)

Overall, for our first real customer-based project, it was acceptable. We liked and disliked multiple aspects, which come normally with every project. One thing we liked about this project was the presentation aspect. As stated many times before, 80% of engineering has to deal with people, while the other 20% deals with designs. Presenting to clients on multiple occasions allowed us to grasp the communication and feedback aspects of engineering early, which we think can help when we all go out into the industry.

On the other hand, a constant pattern of being the first presenter and being a group member down from the beginning (four instead of five) felt like a disadvantage compared to other groups. It sometimes felt that the direction of the project was a bit too open-ended compared to what was expected of us (more precise explanations and requirements were needed). There were conflicting expectations about what the client and professor wanted in a presentation.

Summarize what went well during the project.

After the first activity, we went into more of a rhythm for producing activities. We adapted to better teamwork, communication, presentation, and more, which allowed an overall better result. Because this is a design project, our creativity skills were challenged and developed throughout the project.

Summarize what did not go well during the project.

As one of our first software projects, many issues arose throughout. The main thing that we all struggled with was time management. With this being our first group experience with each other, we weren't familiar with each other's time, and we had difficulty coming together on our proposed meeting times. We found that we were quite unorganized when we first started, especially when presenting at the first checkpoint. Once we started working on WordPress, we took some time to adjust to the learning curve, so that took up more of our time than we hoped for.

How successful was your team in translating prototypes into WordPress reality?

In terms of the overall basic structure of the website prototype we developed in Figma, we would say it was mostly successful, with a few exceptions. The capabilities of implementing certain elements in Figma were simple compared to WordPress, which we didn't consider thinking about at the time of creating the prototype. The prototype allowed us to develop a better understanding of website element layouts such as headers, buttons, animations, etc. When we tried to move the prototype over to WordPress, the outcome did not look aesthetically pleasing,

so we opted to apply a theme to WordPress and continue from there. We edited it in a way that resembles the structure that we had on our prototype, but with very different visuals/theming to give the site a sense of professionalism and consistency.

Did the people-centered design ideas discussed in the lectures help/hinder your design explorations?

The topics and elements discussed in the lectures greatly affected our process when trying to formulate designs. The topics displayed in class were tools that were given to us to complete a structural backbone for our design and allowed us to push and develop our design ideas much faster. Without the knowledge of people-centered design ideas, the process of brainstorming, adapting to the customers' feedback, and creating prototypes would take a significant amount of time, which is a consequential constraint we have with this project. Those ideas guided our group in the right direction and made us think about the project and our designs more thoroughly, and how they affected not only us as designers, but also the customers and maybe potential future users of the website we have developed.

Would you do the same on future projects?

We think that the same pattern we used on this project should be replicated in the future; starting with affinity diagrams and a USM to form the basis of a project. For large-scale projects, we believe high-fidelity and low-fidelity prototypes can be extremely helpful when tasked with designing something. In future design projects, we will take some time to develop at least some type of prototype, whether it be a high-fidelity or low-fidelity one.

What would you do differently on future projects?

This project was a great learning experience, and our mistakes taught us lessons to implement when working on future projects. One thing we would do differently for future projects would be to implement constant user testing with each checkpoint. For the majority of the project, we would run it through ourselves and the clients when presenting a design. It would be helpful to potentially have an unbiased set of eyes run through the website or prototype to gather as much feedback from as many sources as possible. Additionally, our group made many assumptions about WordPress without much experience. It will be important to become familiar with the major programs we will be using to develop a product before and during the planning process, rather than almost completely after the process.

Summarize opportunities and design ideas for future work.

- Implementing a volunteer page
- Implement a download/share function for data
- Displaying the data in other forms of charts/graphs.

Future Updates:

Based on the reviews we received during our final presentation, we were asked about the ways our website can evolve and upgrade from time to time. Here are some key points on how our website can be updated with minimal effort.

- The website currently focuses on Regina's six prioritized Sustainable Development Goals (SDGs). However, we can expand our database to include all 17 SDGs with just a few clicks, thanks to the Duplicate Post plugin. This plugin allows us to easily create a copy of an existing page, such as the SDG 11 page, and then update it with new information to create a page for SDG 7 or any other goal. This streamlined process empowers non-technical individuals to make updates to the website efficiently and effectively, ensuring that our platform remains comprehensive and up-to-date with the latest information on sustainable development efforts.
- Implementing the graphs is a simple task in itself, with the only difficult part being navigating and using the built-in modifier. To create the graph, the user would have to create a CSV file and have a box for the x and y. Following this, the data would be implemented in a table. Data to help with layout can be found in the plugin. Once the user has created a CSV file with the necessary data in the proper format, they can then import it to Visualizer; the plugin for charts. Once the data is imported, settings for the line, titles, and overall graph design can be changed, and a shortcode will be created. This shortcode can be implemented into a shortcode box anywhere within a WordPress page. Any edits made to the graph can be saved and will automatically update on any graph within the site.
- The Charts & Graphs page was finalized during the website's final stages, and the result was well worth the wait. We introduced a creative solution by implementing accordions for each Sustainable Development Goal and inserting a carousel of the interactive graphs that were related to that specific SDG. This innovative approach ensures that visitors can easily view all of the charts and graphs available on the website on one page. This saves some clicks on the user end and provides a nice visual summary of all of the data.

Appendix:

- Document the WordPress theme(s) and plugin(s) selected in your proposed WordPress instance. Ensure to include the following in your summary:
    - Theme/plugin name
    - The user rating (and the number of users who rated the theme/plugin)
    - When was the theme/plugin last updated?
    - How many active installations are there for the theme/plugin?
    - What, generally, does the theme/plugin do?

Theme: Astra - 5 stars for 5,544 ratings, last updated Apr. 4, 2024, 1+ million installations. Provides various theme and editing options for a WordPress site.

Plugin: Duplicate Post - 5 stars for 1,077 ratings, last updated 2 months ago, 300,000+ installations. Duplicates a page in WordPress.

Plugin: Elementor - 4.5 Star rating based on 6,757 ratings, last updated April 3rd, 2024, 5+ million installations. It's a WordPress website builder that lets you design a website without coding.

Plugin: Flipbox - Awesomes Flip Boxes Image Overlay, 4.5 star rating based on 134 ratings, last updated March 9th, 2024, 10,000+ active installations. It is a plugin that gives you the effect of a square flipping to the other side as you hover your mouse over it.

Plugin: Ultimate Blocks - 5 star rating based on 633 ratings, last updated March 26th, 2024, 50,000 active installations. It's a plugin that provides the designer with more blocks in the WordPress editor. (slider, accordion, etc.)

Plugin: Visualizer - 4.5 star rating based on 220 ratings, last updated on April 2nd, 2024, with 30,000 active installations. It's a plugin that allows the implementation of interactive and dynamic charts and graphs.

Plugin: Starter Templates - 5 star rating based on 4,595 ratings, last updated on April 9th, 2024, 1+ million active installations. Starter Templates uses AI to generate a starting template for your website.

Plugin: Spectra - 4.5 star rating based on 1,264 ratings, last updated on April 2nd, 2024, with 600,000 active installations. Spectra extends the WordPress block editor by giving you more features and blocks.

Plugin: Shortcode in Menu - 4.5 star rating based on 81 ratings, last updated in May 2023, 70,000 active installations. This allows you to add shortcodes to WordPress navigation menus.

Plugin: LiteSpeed Cache - 5 star rating based on 2,415 ratings, last updated on Feb 5th, 2024, with 5+ million active installations. For optimization services.

Plugin: Image optimization service by Optimole - 5 star rating based on 572 ratings, last updated on March 22nd, 2024, 200,000+ active installations. Optimizes images on the website.

Plugin: Borderless - 5 star rating based on 3 ratings, last updated on Jan 24, 2024, with 6,000+ active installations. Extends the features of existing site builders.

Plugin: Ajax Search Lite - 4.5-star rating based on 216 ratings, last updated on April 6th, 2024, with 80,000 active installations. Search plugins for WordPress.

Plugin: Advanced WordPress Backgrounds, 5-star rating based on 43 ratings, last updated on March 27th, 2024, 30,000+ active installations. Creates advanced backgrounds using block settings.

Plugin: WP-Optimize - Clean, Compress, Cache - 5 star rating based on 2,252 ratings, last updated on Mar 6th, 2024, 1+ million active installations. Makes the website fast and efficient

Plugin: WPForms Lite - 5-star rating on 13,769 ratings, last updated 1 month ago, 5+ million active installations. It's a drag-and-drop WordPress form builder.