

# SustainRegina

Project sponsor: Dr. Tim Maciag

Simranjit Gahra  
Quinn Maloney  
Isabel Mondesi  
Eesh Chowta  
Nyabijek Gatdet

ENSE 271 (Winter Sem.)  
Dr. Tim Maciag  
April 09/2024

**Business need/opportunity:**

This group project's primary objective is to foster awareness and encourage involvement in the Sustainable Development Goals (SDGs) in Regina. In order to accomplish this, we intend to create a well-designed website to serve as a community indicator system that highlights the most pressing issues in the local community that ought to be addressed. Our website could function as a point of reference for potential residents seeking to evaluate the city. In addition, we intend to develop components for Regina that focus on SDG data analysis. These components will focus on leaders and professionals who may employ data to drive change. At the same time, it will provide the general public with an understanding of community development and resources for active participation in attaining these goals.

**Reflections on project planning, execution, & closing:**

SustainRegina aims to serve a diverse group of customers. Our Northstar target customers are decision-makers such as government officials, non-profits, private and public business owners, project managers, etc. These individuals will play a pivotal role in our goal by utilizing the presented data for impactful decision-making that contributes to societal betterment.

In addition, SustainRegina will also be serving a wide range of carryover customers, including the general public, engineers, non-profit organizations, educators, potential volunteers, environmentalists, professionals, immigrants, potential residents, etc. Our website offers a vast amount of information and resources for personal and professional business development, in turn contributing to social and environmental causes.

At the beginning of development, we made assumptions and constraints regarding our expectations. The assumptions we made are as follows:

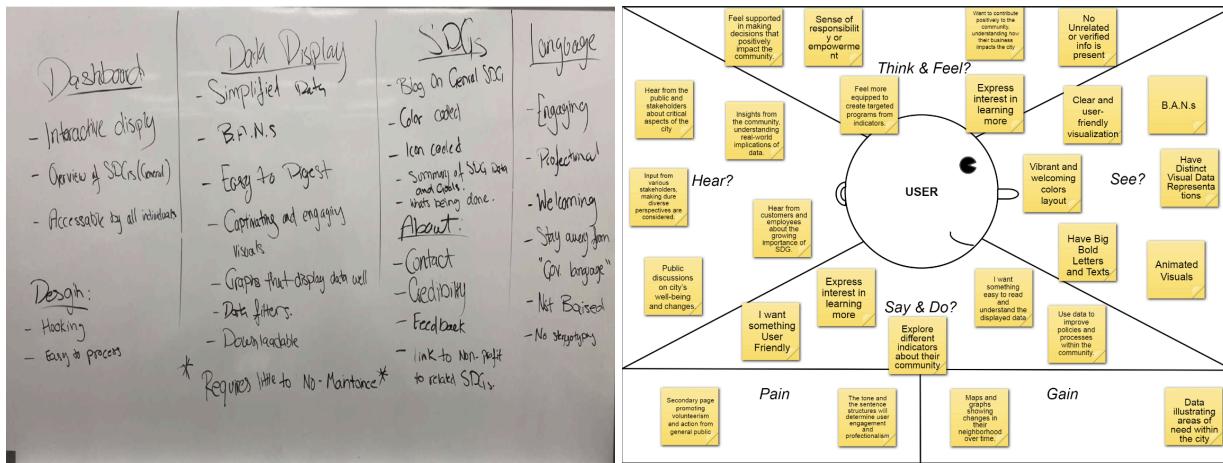
- WordPress Platform: Assuming WordPress will be the platform to construct our website for its ease of use and flexibility.
- Regina Focused: Tailoring the SDGs specifically to Regina, rejecting irrelevant data beyond this area.
- Budget: Assuming there will be no budget allocation.
- Data Quality: Presuming data is downloadable, fairly accurate, and recent for credibility.
- Focused SDGs: Narrowing the focus to the main six SDGs for Regina for relevance and time constraints.
- Website Maintenance: Assuming self-functionality to minimize maintenance needs.
- Learning Curve: Expecting imperfections due to the team's learning process.

The following are the constraints that we anticipated facing during development:

- WordPress Platform: We are limited to functionalities and customization options available only on WordPress.
- Data Dependency: Our project's depth and comprehensiveness is limited to the data provided.
- Scope of SDGs: We may not be able to manage all SDGs simultaneously, which could result in neglect in the majority of areas.
- Technical Limitations: Our limited experience with WordPress may interfere with the implementation of advanced designs.
- Time Restrictions: The limited time provided adds pressure and will compromise the quality of the work.
- User Expectations: Meeting the needs of our users within imposed limitations is a challenge.

Our group's empathy and affinity mapping showed that we would like to involve the residents in shaping their cities inclusively and sustainably. To accomplish this, we intended to develop a website that capitalizes on aesthetics and ease of use, aiming to offer information and

statistics about the SDGs. By making data easily accessible, we hope to empower the local community and encourage informed decisions and positive change. We believe that to engage the audience and foster a sense of ownership and commitment to enacting positive change, the language, tone, and images utilized on the website will be essential.



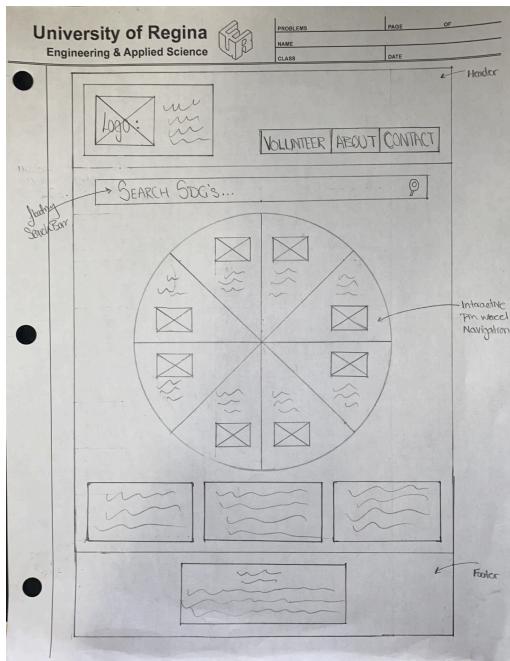
We begin our initial User Story Map with an overview of the SDGs, the data, and community engagement in the epics. We proceed to add more user steps like an interactive dashboard, data, blog, and volunteer pages. The goal was to build a website that gave relevant information about the sustainable development goals (SDGs), and their data while also involving the community. We wanted the website to be more interactive and easy to navigate than similar pages.

Our initial USM had more user steps that we thought our customers would find interesting and crucial to our MVP. As continually received feedback from our customers, those features were reduced to the most critical ones that our customers would find useful and interactive. With this feedback, we were able to narrow down our focus to the important user steps. In our MVP, we

only included the homepage, All SDGs, and the About page. Our customers can navigate within those 3 pages to find all the graphs and additional SDG information. What we produced is an MVP because we met the requirements of our customers and had functionality on all features that were implemented. We had to remove the download and share functionality as it was not working and would hinder the design as it would no longer be an MVP with broken features.

We began our prototyping by creating low-fidelity diagrams and sitemaps individually. After this step, we came together to give each other feedback about what we did and did not like about each design. From this, we chose a few designs for the team to show to Colleen and Scott. We received feedback on our initial designs which helped us choose a direction to take our design. Some of the feedback we received that influenced the direction of our design were: positive reaction to the pinwheel on the homepage, they liked the simplistic site map design, would prefer that data be sorted by cause, and wanted us to scrap the volunteer page as it is not necessary.

With this constructive criticism, we were able to have a clear focus on the direction of our high-fidelity diagram. We also used Figma for our high-fidelity diagramming like with our low-fidelity diagramming. This time, we made a rough map of the elements we liked from each low-fidelity design and how they would be applied in our high-fidelity prototype. We then each created a separate page and connected them afterward. Our main goals were to make the website easy to navigate and interactive. We showed our high-fidelity prototype to Colleen where we received even more feedback to build upon. The significant changes requested were: to move the mission to the landing page, add back buttons for smoother navigation, ensure it was Regina-specific, and have clear word choices for clarity.



*Low-Fidelity Homepage*

A high-fidelity mockup of the EcoNEXUS homepage. At the top is a header with the 'EcoNEXUS' logo, 'ABOUT', 'All SDGs', and 'CONTACT' buttons. Below the header is a section titled 'SDG's are...' with a detailed description of the Sustainable Development Goals. To the right is a large circular graphic titled 'SUSTAINABLE DEVELOPMENT GOALS' featuring the UN logo and the 17 SDGs numbered 1 through 17. Below this is a 'Land Acknowledgment' section with text about the city of Regina's location on Treaty 4 territory. At the bottom is a 'Our Collaborators' section featuring the Google logo and social media links for Facebook, X, and LinkedIn.

*High-Fidelity Homepage*

After receiving feedback on our high-fidelity prototype we were ready to begin designing our MVP using WordPress. We used all the feedback received throughout the design and feedback cycle to create the ideal solution. While designing the webpage we had some core design concepts at the forefront of our design. First, we wanted to make good use of our affordances. We wanted to make sure that all of our “clickable” elements were perceived to be clickable and not just decoration. We utilized elements that had hover functionality to ensure users would know that they were interactive. We also kept Gestalt principles in mind when designing our pages. By keeping everything from fonts to headers to menus consistent, the design looks sleek but is also very easy to understand and navigate. Lastly, we wanted to make sure to overcome the constraints of WordPress. WordPress is a great tool to start off but as your ideas become more complex, so does WordPress. An example of this is when we were designing the pinwheel on the homepage. There were not any plugins within our budget to do what we had

hoped for initially. We came up with an alternative solution that looks and functions similar to overcome this constraint.

Our final design combines these design principles to create an easily traversable, informative webpage that is pleasing to the eye. By having a strong landing page we can grab users attention and easily direct it towards the targeted content of Regina's SDG focuses. Once directed to the data regarding Regina's focuses, the user can dive deeper and explore how the SDGs impact Regina and how they can support it.



*Homepage Final Design*

#### **Reflections on project results:**

We felt that the project was a good way of learning about design and project management while having a platform to apply that practical experience and learn the difference between theory and reality, which will help us later in our tech careers. Throughout the project we agreed to have enjoyed the design process, especially in Figma, where we got to do low and high-fidelity prototypes; it was a way to set our minds and creativity free. Meanwhile, when we got to work

with WordPress, we all had a bad time. We didn't enjoy working with WordPress due to the restrictive nature of the website, especially with the paywalls that have been added in recent years. It was quite challenging to create a website as envisioned, even if doing the simplest of things. Unfortunately, as our experience with WordPress wasn't the best, we couldn't do all that we wanted, but that didn't hinder our results. Even with the challenges and restrictions, our website is pretty close to what we wanted it to look like in the prototype. Some pages even look better than the prototype, while others look a little better in Figma. Fortunately, not by much.

Ultimately, a very fun and important class, that not only allowed us to experience some of what we will live in the "real world", but it gave us the tools to make better designs. The lectures and discussions in class helped shape how we look at products and design and made us better designers, more humane designers. While working with WordPress, some of us even saw certain design decisions that could have been improved, not because the function is difficult or broken, but because there are always ways to make a design more user-friendly and, most importantly, human-centered.

These learnings will undoubtedly help us in future projects and our careers. We have learned to take more time to plan with real users in mind and not only think about an app for its features, or rather try not to see it that way. Instead, we can approach design as "how can we help our users have a better experience with our product?" Not only choosing to focus on quantitative data, but also assigning the same importance to qualitative data. People are more than processes and numbers. Being human is about emotion and connection, which is not easily perceivable in statistics, but rather in interviews and conversations about how they may feel with a certain product.

## Appendix: WordPress themes and plugin

Plugin Name	User Rating	Last Updated	Active Installs	Purpose
Chart Builder	5/5	March 31, 2024	1000+	Chart builder plugins in WordPress provide tools to easily create and customize charts, graphs, and visual representations of data, enhancing the presentation and analysis capabilities of websites.
Kubio	4.5/5	March 30, 2024	30000+	Kubio gives you a head start by generating a first draft of your website, which you can further customize to your liking.
WP Data Access	5/5	March 14, 2024	10000+	Effortlessly create and customize professional data tables and apps with advanced features and database management

				capabilities, all within the WordPress dashboard.
wpDataTables- Tables & Table Charts	4.5/5	April 1, 2024	70000+	wpDataTables, a popular WordPress table plugin, streamlines the creation of data tables and charts from various sources like Excel, CSV, XML, JSON, and PHP, saving time and eliminating the need for coding knowledge.
Elementor	4.5/5	April 1, 2024	5M +	Elementor plugins in WordPress enhance the functionality and customization options of the Elementor page builder, enabling users to create professional websites with ease and flexibility