

Team Mandocello

## Project report

Members		
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### Project sponsor

Dr. Tim Maciag (ENSE 271 Lecturer)

### Business need/opportunity

The Regina Mandolin Orchestra has issues with their members-only website. Currently, the site is disorganized, and it's difficult to notify individual members and distribute music. There is currently an opportunity for us to improve the RMO's website by planning, prototyping and implementing a new website which fixes those issues and better fits the RMO's needs.

### Reflections on Project Planning

#### Northstar/Carryover Customers

We considered the sitting members of the RMO as our Northstar customers. Most of our initial ideas centered around improving their general experiences. We considered the RMO's students as carryover customers. A lot of the planned improvements would also make it more desirable for students to join the RMO later on. Later on, we switched to consider the leading members of the RMO as Northstar Customers. This is because many of the functions were only for their direct use. Likewise, we also shifted our carryover customers to the general members, as well as students.

#### Project Assumptions

Throughout the planning phase, there were many assumptions. Initially, we assumed that we'd be able to meet expectations with minimal costs, since we envisioned the website as relatively small-scale, and able to run with a few plugins at no cost. However, during development, we realized that the functionality we were looking for was more advanced, so we had to adjust our assumptions, and instead assumed that the RMO could pay a small fee to maintain the plugins required to give the site that functionality.

Due to the nature of this project as a class assignment, we were also easily able to make assumptions about the technology used (Stories On Board, Figma, WordPress), and time, with the entire project happening within the six week course.

## Project Constraints

- Time: Due to the nature of the course, with deadlines every week, as well as taking other courses, we had a limited number of hours to work on the project, and mostly committed to working on deliverables during the weekend, and after each presentation/check-in.
- Scope: Because we were also learning during the project, we needed to limit our scope. We tried to limit our scope to account for our inexperience.
- Cost: Because we assumed the RMO wanted the site running at minimal cost, we tried to limit our design to non-premium plugins.

Additionally, we considered the physical circumstances of our customers as a constraint. Specifically, that members of the RMO might be less familiar with technology and frequently access the site from tablets or other mobile devices. As such, we tried to limit the complexity of our designs, so make them easily readable and adaptable for different screen sizes.

## Affinity Diagram/Empathy Map

Using an Affinity diagrams and an Empathy Map, we were able to summarize a lot of our notes from the in-person sessions into a few key areas that needed work, as well as some solutions.

- Empathy map:
  - Says - Received comments were made about the disorganization of documents and how COVID-19 has highlighted the importance of better online communication
  - Feels - Lots of frustration about where to locate music sheets, but they also want to preserve the RMO's history and current structure
  - Does - Lots of repetitive behavior (i.e. mass emailing music sheets) that could be solved with a centralized platform.
  - Thinks - Lots of opinions of how their new website should function such as user accounts and the ability to communicate on the website
- Affinity Diagram:
  - Communication- contact list, google calendar, website dm's
  - Archive - Searchable Archive as current one is ineffective
  - Ease of use - Simplified UI and navigation with labels
  - User Accounts- Personal accounts and customized levels of accessibility to admin privileges
  - Music Distribution- simplified and organized music distribution

## User story Map/ MVP

Our initial MVP was the result of combining the user affinities we got into certain experiences, so it had a lot of items that weren't possible with the allotted amount of time and our inexperience with Wordpress.

Even though we didn't change our MVP too heavily, we focused more on the two key user stories that were the most important to fixing the issues. Even though some user stories were already on the right side, this lack of importance became more and more pronounced as the project progressed.

Overall, we felt that the main problem the RMO needed solving was a lack of organization, most prominently felt in the difficulty they had sending music out to different sections. To that end, our focus was on implementing individual user accounts for each person, with an option for each section, and allowing the music to be filtered by section, thus making it significantly easier to distribute music. Alongside this, we planned on implementing front end blog posting so that the conductor and section leader who may not have extensive technological knowledge could easily upload music without having to interact with the complicated

### Connecting Our Designs to Course Concepts

- Waypointing/Landmarks
  - Looking at the RMO's current site, we felt navigation was somewhat confusing. To fix this issue, our plans and prototypes included icons that were visible at the top of every page. As well, we planned to match to icons on the navbar, so the user could easily see their relative location.
- Signifiers
  - We considered that some would be able to easily infer the functions icons. Especially in regards to the users' familiarity with technology. As such, we also tried to include at least one label alongside an instance of a symbol, as a direct explanation. As well we highlighted icons with distinct colours, to signal that they're interactive.
- Metaphors
  - In keeping with our assumptions about the RMO's technological literacy, we also tried an increased size of icons. Many of the selected icons were already used as metaphors on other systems. For instance, one of the prototypes visualized the member list as a series of labeled folders containing various user's information.

## Reflections on Project Development

Generally, the project was a good way of applying the concepts we learned in the class to a real world problem. We had a positive experience learning several techniques that are applicable to other real world problems. The affinity diagram was an effective way of sorting and condensing our customer notes into specific needs and issues. Figma was the most interesting, it seems genuinely useful for quickly making and getting feedback on a live design. However, there were some parts of the project that were less enjoyable. There was a lot of disconnect going from the plans and prototypes to switching to Wordpress in the later parts of the project. We didn't feel experienced enough with Wordpress to make a website with the desired functionality, and were improving a lot during the process. As such, getting the website to follow our plans was a struggle, and we expended a lot of effort into trying to get plugins to fit into our use-case instead of actually creating the functionality by coding it ourselves. In spite of this, while there may have been some difficulties, on the whole, it was a positive learning experience.

### What we did well

Recreating the basic look of the prototypes and some of the pages went well during development. It took a lot of custom CSS, but we were able to mostly follow the same design scheme as our prototypes. We were also able to generally implement most of the features with individual user roles and the calendar, withc

## What didn't go well

A lot of development in wordpress went less smoothly. Getting specific functionalities was more complicated. For instance, we had a lot of difficulty implementing music and media sharing. We went through several iterations of forms and plugins. Even at complete development, the plugin for dynamically generating and displaying posts from forms is locked behind a paywall. We had to compromise on a lot of our user stories, and rethink the way they were implemented to suit WordPress, which was frustrating.

## Prototype Realization

We were somewhat successful in realizing our prototypes. As mentioned previously, we were able to get the general design of our prototype, as well as several features, but we did have some difficulties. We weren't able to implement music sharing the way we intended. We compromised, thinking it would be possible to manage sharing with posts. However, upon realizing that making posts requires going on the admin site, we realized that the back-end wordpress editing is too confusing and inconsistent for users. We settled for forms, a way for users to upload blog posts to the website on the front end. First, we tested User Submitted Posts but adding PDFs was premium. We opted for a trial of Formidable forms to allow for users to upload multiple PDFs per post, and this made organizing the music into each section much easier. Overall, we got somewhat lost with plugins. Some of the solutions we need plugins for could have been done more simply, but were overcomplicated by our expectations and choices.

## Usefulness of People Centered Design Concepts

For planning and part of development, People centered design concepts were quite useful at focusing our planning and designs, they genuinely helped us focus on actually solving the users' problems and making our designs usable and discoverable. However, when it came to more advanced implementations, following those principles was a hindrance because some of our people centred plans wasn't very achievable in Wordpress, and we may have wasted time trying to recreate those designs.

## What we'd do the same in the future

We'd probably keep doing a lot of the initial design concepts, such as the affinity diagram and user story board, as well as the high fidelity prototypes, as those were useful for condensing our notes into ideas, and getting feedback on those ideas.

## What we'd do differently in the future

Rather than leaving Wordpress for the later half of the project, we would try to look at Wordpress much earlier on, to prevent the making of plans that are not feasible in WordPress. As well, another change we'd make would be trying to update the User Story Map more consistently to avoid what happened this time.

## Opportunities/Ideas for future design work

While we might have had mixed success in actually realizing our ambitions, we feel we've learned how to use Wordpress to create a basic website. It might be helpful to try recreating the site in a functional way without the use of premium plugins. Alternatively, we could try to implement the remaining planned

features, such as notifications, or multiple roles per user. Finally, we could try applying what we've learned to the public site, as it could likely benefit from similar changes.

## WordPress themes and plugins

Foreword from Nicolas about the plugins,

Although most of the plugins accomplished what we needed, I wanted to talk about the predatory nature of some of the plugins we used, especially Formidable Forms. Initially, I got Formidable Pro which was a 14 day trial that I could refund at any time, the cost of this to use would have been \$50 a year. So we built everything we needed using this plugin and once we got to the final step of making the forms generate into posts it informed us that we needed their (More premium version) for this feature. This version costed \$100 a year instead, I found this to be very deceiving as they allowed you to make the forms titled "Post generation forms" but once you spent a bunch of time making them at the end was it revealed that you didn't have the full functionality. I think this is a way to bait customers into investing time so they feel like they have to pay for it. Below is a list of plugins we used as well as a short description of their usage on the site.

Name	Rating	Last Update	# of Installations	Usage ( <b>might need work</b> )
<a href="#">Advanced Custom Fields</a>	5 stars 1,148 ratings	5 days ago	2+ million	Custom Edit screens
<a href="#">Content Views</a>	5 stars, 313 ratings	4 weeks ago	100,000+	Displaying posts w/ grid or list
<a href="#">Custom Post Type UI</a>	4.5 stars, 250 ratings	4 weeks ago	1+ million	Custom post types interface
<a href="#">Elementor</a>	4.5 stars, 6,211 ratings	12 hours ago	5+ million	Alternative Visual Website builder
<a href="#">Elementor Header &amp; Footer Builder</a>	5 stars, 1,733 ratings	3 weeks ago	1+ million	Layout builder for Headers Footers, Blocks
<a href="#">Formidable Forms (Pro)</a>	4.5 stars, 859 ratings	5 days ago	300,000+	Form builder
<a href="#">Forminator</a>	5 stars, 947 ratings	2 weeks ago	300,000+	Form builder (didn't end up using)
<a href="#">Jetpack</a>	4 stars, 1,770 ratings	5 days ago	5+ million	Security/ performance/ Design tools

<a href="#">Menu Icons</a>	5 stars, 726 ratings	2 weeks ago	200,000+	Adds icons to menu items
<a href="#">Search &amp; Filter</a>	4.5 stars, 153 ratings	1 month ago	50,000+	Adds functions to search box
<a href="#">Shortcode to display post and user data</a>	5 stars, 6 ratings	5 days ago	800+	Displays User Info
<a href="#">The Events Calendar</a>	4.5 stars, 1,924 ratings	3 days ago	800,000+	Calendar for scheduling events
<a href="#">Ultimate Addons for Gutenberg</a>	5 stars, 829 ratings	2 weeks ago	300,000+	Additional Blocks for Gutenberg Editor
<a href="#">Ultimate Member</a>	4.5 stars, 1,343 ratings	2 weeks ago	200,000+	User profiles/ memberships
<a href="#">Hello Elementor</a>	4.5 stars, 91 ratings	N/A	1+ million	Default theme for Elementor
<a href="#">Multiple User Roles</a>	4.5 stars, 12 ratings	2 weeks ago	5000+	(Unused) allows one user to have several roles