



WPI

DECEMBER 2021

BUSINESS PLANNING IN NONPROFITS: Improving Data Management in CERES' Student Programs Office

EXECUTIVE SUMMARY

Our Sponsor:

*CERES Environmental Park
Melbourne AUS*

Authors:

*Riley Baranowski
Patrick Hunter
Lucas Kamal*

Project Advisors:

*Prof. Steven McCauley
Prof. Lorraine Higgins*



SCHOOL OF NATURE AND CLIMATE CERES

INTRODUCTION

Successful nonprofits adopt a data-based approach for measuring their impact. Recording data can help nonprofits self-assess themselves to identify areas of improvement and create stories for nonprofits to share with funders. However, keeping track of performance data can be difficult due to underwhelming funding, changing leadership, and a broad range of data collected (Knox, Wang, 2016). The School of Nature and Climate is one of six

enterprises in the CERES Community Environmental Park, a nonprofit organization that welcomes over 450,000 visitors every year. To assess itself and appeal to funders, the school had begun recording data about its operations. However, the School of Nature and Climate has had trouble creating an effective data management system. With better data management, the school could forecast budgets, determine the popularity of different programs, maintain

contact with local schools and councils, and proactively seek marketing or partnership opportunities.

For this project, we worked with the student programs branch of the school to determine areas of improvement with their current data management system and implement a new data management system that addresses their concerns. The Student Programs Office (SPO) suffers from data fragmentation, which is when there are too many subsets of data that cannot be compared with each other. The SPO specifically has locational fragmentation,

which is where data is stored in multiple systems that do not interact with each other. Additionally, the SPO's data flow lacks any automation, and every step in the flow requires human input. This is not only inefficient, but it makes data management highly prone to human error.

Overall, the SPO is looking for a data management system that will reduce the amount of software they're using, and automate parts of the system that. They currently use Podio, which is Customer Relations Management (CRM) software designed to process, store, and analyze customer

information. Monday.com is another CRM software that CERES, as an organization, is trying to implement. With this information in mind, our project goal was to not only to evaluate which of these CRM's can best streamline the SPO's booking, invoicing, and feedback processes, but also address the feedback we collected about their current system. We created four objectives to achieve this, which were to:

01 Map the Organizational structure of the SPO

02 Map the current bookings, invoicing, and feedback processes in the SPO, and identify areas of improvement

03 Compare Podio and Monday.com against criteria gathered from interviews to determine which CRM best addresses the SPO's needs

04 Create resources to familiarize SPO employees with the new data infrastructure

METHODOLOGY

Before we could map the current data flows present in the SPO, we first had to understand the organizational structure of the SPO. To do this, we interviewed Ms. Bakyew, a member of the SPO's bookings department, and Ms. Horner, the Student Programs Manager. Afterwards, we used our organogram to find people to interview so we could understand and gather feedback about their current data management system.

For mapping the flow of data through the SPO, we re-interviewed Ms. Bakyew, who gave us a walkthrough of the bookings and invoicing processes. We then interviewed Ms. Horner and Ms. Pettifer, the director of the Student Programs Office, to learn more about what data they want to report to funders. Finally, Ms. Young, the Bookings Coordinator, and Ms. Sanahon, a member of CERES' Marketing and Communications department, were interviewed to learn more about the feedback processes. Additionally, since both are familiar with Podio, we also asked them what they would like to see improved with the SPO's current data flow. For every interview we conducted, we asked the interviewee about what they would like to see improved with the current data management system.

Now that we understand how their bookings, feedback, and invoicing processes work, we began recreating these processes in our Monday and Podio virtual sandboxes. These sandboxes are special environments separate from CERES' data infrastructure that aim to recreate the processes we learned about and utilize automations and integrations to implement feedback.



FINDINGS

Our organogram gave us insight into the structure of the SPO. Its sessional programs have six different offerings on various environmental topics and are offered in the incursion, excursion, and virtual excursion formats. Incursions are 45 minute sessions at \$200 per session, and involve educators from CERES visiting schools who book them. Excursions involve the students coming to CERES and are offered as full-day and half-day sessions priced at \$500 and \$375, respectively. Virtual excursions are hour-long sessions priced at \$200 each, and take place over Zoom. Other programs are referred to as “Deeper Learning” programs, which are programs that dive deeper into what was taught in the sessional programs.

In mapping the bookings, feedback, and incursion processes we found that almost every part of the booking and incursion processes required manual entry of data, with lots of switching between different software. In the bookings process diagram shown below, the icons underneath each step represent the programs involved in that step. For example, sending an email to a customer requires Gmail and Podio, as the email’s template is stored in Gmail, but must be filled out using information from Podio.

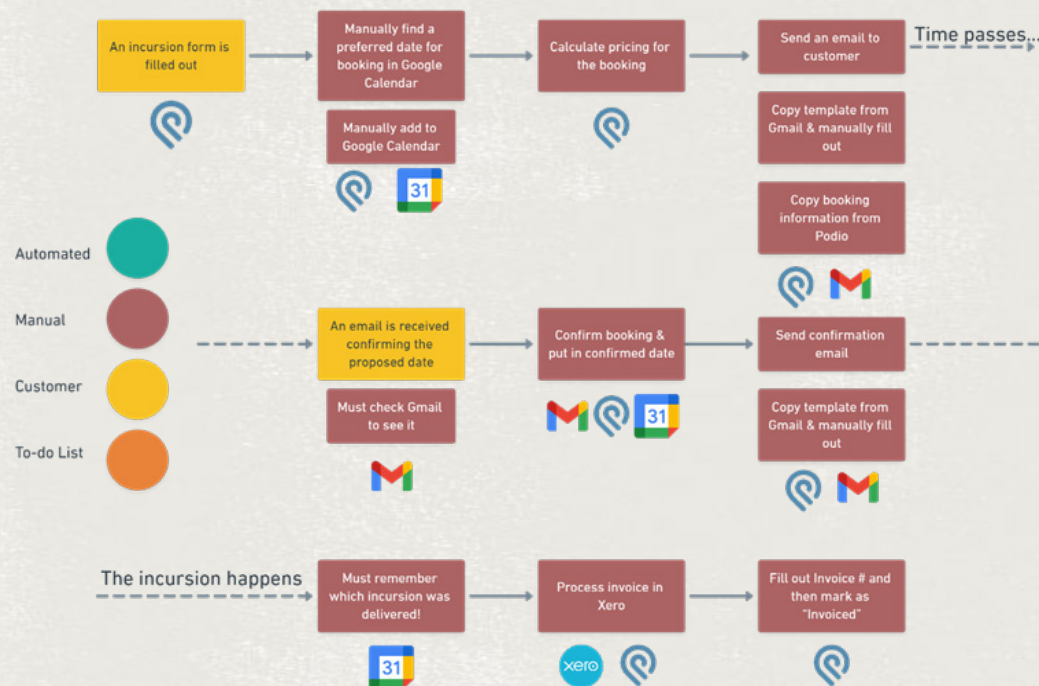


Figure 1: Student Programs’s existing bookings and invoicing process

During their interviews, Ms. Pettifer and Ms. Horner told us that they report statistics like the total number of students that attended their programs to “tell their story” and appeal to funders. Since data is stored across multiple programs, analyzing data to find those statistics and create a report may introduce human error. Other staff members told us about SPO’s previous adoption of Salesforce.com and how it failed because they did not have enough time to understand how to use it, helping us understand how important training would be. They also emphasized the importance of communication with customers, noting how it helps to build a better stream of communication and a better long-term relationship. Using an optimized CRM allows for less human error and decreased response times to the customer due to the centralized nature of the system. In addition, a CRM can help facilitate communication between customers and the SPO, like automatically sending a follow-up form a few months after a program is delivered. Mr. Manassah, the strategic partnerships coordinator for CERES, told us more about the enterprise version of Monday, which is the version of Monday that CERES is considering adopting. The enterprise version of Monday covers the entirety of CERES, and it comes with a dedicated support team. If Monday.com became an organizational-wide system, this would decrease costs in the long run and further be a better choice for CERES down the road.

With these criteria, we recreated each process in two sandboxes. To compare both CRMs, we analyzed our feedback from the interviews and established a list of criteria that each CRM should meet. The first of these categories is scalability, which is the ability of a CRM to increase the amount of data it is collecting, storing, and analyzing. System modification rates how easy it is to perform back-end operations, like adding, moving, or deleting data, or implementing automations. User Interface rates how ergonomic the user interface is, in the context of both front-end users accessing data and back-end users modifying data. Documentation and Tutorials refer to currently available resources documenting the features of each CRM – such as video tutorials, online articles, and forums. Customer Support rates the response time and thoroughness of the CRM’s customer support.

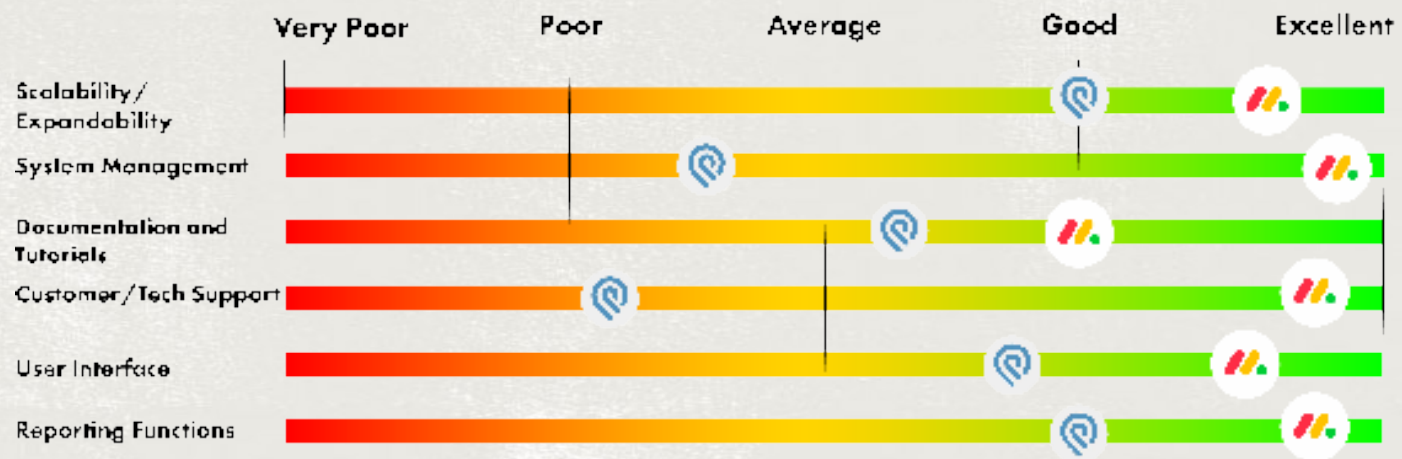


Figure II: Monday.com Enterprise vs. Podio Premium Subjective Evaluation

Finally, Reporting Functions refers to the CRM's ability to filter data and generate reports based on that data. The user interface was easy to use within the Monday sandbox, and we found tutorials from Monday that demonstrated how to set up data entry. We could automate most of the data flow and integrate almost every existing app the staff used into Monday itself. Additionally, we found that Monday's reporting features were versatile with striking visuals.

In our Podio sandbox, we initially found the user interface confusing. We did find tutorials online on how to set up data entry but found the data management tools to be lacking compared to Monday. Setting up automations in Podio was a complex process, and the apps that Podio supported were very limited. Podio's reporting functions were also lackluster, as it supported only a few graphs and could not integrate data from multiple sources.

	Monday.com	Podio Free	Podio Plus	Podio Premium
Integration with Google Suite Apps	Green	Red	Green	Green
Integration with Jotform	Green	Red	Yellow	Green
Integration with Keypay	Yellow	Red	Red	Red
Integration with Xero	Yellow	Red	Yellow	Yellow

Figure III: Integration capabilities for each software

IN THE END, WE RECOMMENDED THAT THE SPO SHOULD SWITCH TO MONDAY.COM AS THEIR MAIN CRM. WHILE THIS IS ANOTHER BRAND-NEW CRM THEY'RE SWITCHING TO, WE FOUND THAT THE BENEFITS OF MONDAY OUTWEIGH THE SWITCHING COSTS ASSOCIATED WITH IT, MONDAY NOT ONLY BEST STREAMLINED THE BOOKINGS, FEEDBACK, AND INVOICING PROCESSES, BUT ALSO BEST ADDRESSED THE SPO'S FEEDBACK. TO HELP EASE THE TRANSITION, WE CREATED TUTORIAL RESOURCES SPECIFICALLY GEARED TO EXPLAIN HOW WE SET UP THE SPO'S MONDAY.COM INFRASTRUCTURE AND HOW IT WOULD INTEGRATE WITH THEIR DAY-TO-DAY WORKFLOW.



Organisation: "CERES" is the organisation

Workspace: "Sandbox" is one of multiple workspaces

Folders: "student programs office" is a folder within the sandbox

Boards and Dashboards: "Excursions" and "Incursions" are subfolders within the "SPO" folder

Excursions to process: "Excursions to process" is a folder

Figure IV: Transition Tutorial

