

Matt's Maker Space

Executive Summary

Community Partner

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Background

Matt's Maker Space was created in memory of Matt Conover, a creative and courageous boy who unfortunately died of cancer at age 12. His parents started this program in Mt. Lebanon elementary district where Matt attended as a child. Now, Matt's Maker Space supports at least 26 locations, and their goal is to create a new makerspace every year. A makerspace is a collaborative work space inside a school, library or separate public/private facility for making, learning, exploring and sharing that uses high tech to no tech tools. The main purpose of installing a Matt's Maker Space is to facilitate the growth of children through hands on learning. These spaces and the lessons taught in them are targeted at youth. All of this is meant to bless children just like Matt, and fulfill the mission:

"to inspire a new generation of creative, collaborative and experiential learners through science, technology, engineering, arts, mathematics (STEAM) focused programming."

Project Description

Project Opportunity

While Matt's Maker Space serves young students by equipping schools, libraries, and hospitals with makerspaces, these children are only served if they get to use the spaces and if the spaces are used well. Currently, teachers are individually creating lesson plans for their students, with no way to find pre-made lesson plans. The lesson plans that are created are scattered throughout districts, with no central repository or location to store them. This leads to wasted time and efficiency for the teachers and also for the makerspaces to not be used to their full potential.

Project Vision

The goal of our project is to simplify makerspace curriculum sharing. The best way to serve Matt's Maker Space, the affiliated instructors, and ultimately the students involved, is to provide a simple and effective way for instructors to share lesson plans. This will increase the use and benefits of the makerspaces. We want to create a lesson plan sharing platform that will easily allow teachers to create, upload, search, and browse lesson plans.

Project Outcomes

The main outcome of our project was creating a Matt's Maker Space Lesson Library website that can be found through the original Matt's Maker Space website. This website allows instructors to create lesson plans easily through a Google Form. It also allows users to browse, comment, and search lesson plans by keyword, grade level, subject, materials, and more, which makes it easy for teachers to find lesson plans that are uniquely catered towards their students and their specific makerspace. Our team incorporated user feedback into every step of our project to ensure that the final product would be user friendly. We conducted user research at the beginning of our project as well as user tested with real teachers between website versions to ensure a product that would please all stakeholders. We also included our client on project decisions during our regular meetings and adhered to an agile methodology to deliver tasks on a weekly basis. Overall, the outcomes of our project will help teachers across all Matt's Maker Space locations, and promote more learning for youth.

Project Deliverables

The project deliverables include access and ownership of a Google Drive which contains the Matt's Maker Space Lesson Library website. This Google Drive also contains all Google Sheets, Forms, and Documents used in the website, as well as the Apps Script code for user authentication. We also gave our client documentation for how to use the website, and how to update it in the future. Lastly, we gave them a demo video that they can use to educate teachers and promote the website.

Recommendations

We recommend Matt's Maker Space to input all the information needed first. This includes inputting existing lesson plans, and registering users to access the website. This is important because without information, users will have no incentive to use the website and nothing to base their lesson plans on. And without teachers and facilitators and admin, there would be no user base to the website. If a future 373 team were to continue the project, we recommend looking to loading speeds, lesson plan image resizing, and saving comments across different lesson plan versions.

Student Consulting Team

Matt Kern served as lead programmer and product manager. He is a junior in Information Systems with a heavy interest in software. He looks forward to a software engineering internship with Capital One this summer.

Jeevika Ghosh was in charge of the client relations of the project. She is a junior in Information Systems with a minor in Human Computer Interaction. Jeevika will be working at Pegasystems this summer.

Eileen Mao led design and assisted in technology. She is a junior in Information Systems with a minor in Human Computer Interaction. This summer she will be a software engineering intern at Google.