



College of Engineering

CS CAPSTONE FINAL REPORT FINAL POSTER

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MANY VOICES PLATFORM

PREPARED FOR

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REMIX

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Abstract

The culmination of blog posts created during the development of the Many Voices Publishing Platform by Team Remix; Josh Matteson, Steven Powers, and Evan Tschuy for Dr. Carlos Jensen.

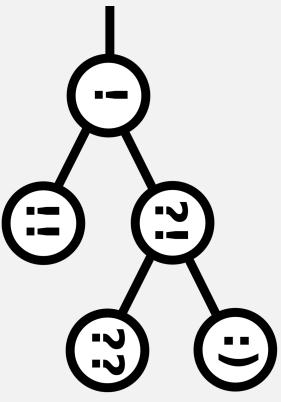
Why does it matter?

TEXTBOOKS NEED IMPROVING

Today, textbooks are filled with yearly updates that are often released with the minimum number of changes needed to justify a new edition.

Textbooks

- can cost hundreds of dollars
- are often outdated or contain incorrect information
- take a long time to write and review



The Many Voices Publishing Platform team logo representing the remixing of ideas and content

MANY VOICES PUBLISHING PLATFORM

Collaborative Textbook Publishing

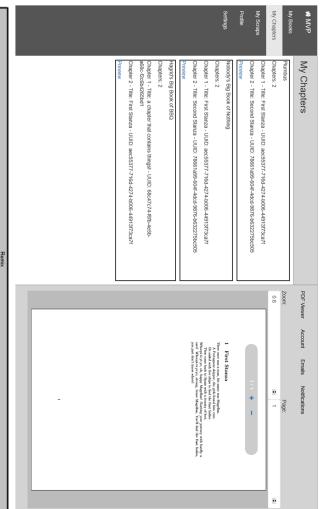
PROJECT OVERVIEW

A remixed textbook created with the Many Voices Publishing (MVP) Platform consists of a textbook object that contains chapters. These chapters are made up of a collection of scraps, which can be plaintext, LaTeX, or images.

TECHNOLOGIES USED

- Aurelia JavaScript Framework that provides a single page application through the use of a page router.
- Git backend for managing each scrap, chapter, and textbook
- NodeJS server interfacing between backend and user application to manage authentication and user relations

When a textbook has been created or remixed, the user is able to create a PDF of their textbook to distribute to their students or other intended audience.



WHAT IS REMIXING?

The idea of ‘remixing’ is that it is not always necessary to rewrite an entire document to cover what is needed for a course.

Instead, the MVP Platform encourages a more publicly available publishing concept where documents aren’t necessarily a single person’s writing, but “open source” documents edited by whomever wants to change them to fit their needs.

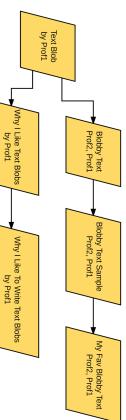


Figure: the “tree” of a paragraph being modified by multiple professors

HOW DOES IT WORK?

The individual parts making up the books and their chapters are all stored separately.

Each individual paragraph is then individually modifiable - so if a professor wants to change a particular paragraph, it can be stored separately and then referenced in a new copy of that chapter.

This is done using a technology called “git”, which allows us to store a tree of changes. This means that we can keep old versions of the paragraph around for those who want them, and allow new users to modify the paragraph however they want.

- Content creators are able to submit materials of all different formats, including: images, small pieces of text, pages, or even entire chapters.
- A knowledgeable professor can contribute a chapter or unit on their specialty, and others are able to modify obtained materials in the way they see fit.
- Provide the ability to publish their textbook as a PDF when they desire.



A brief history of development (bottom to top): Low Level Prototype, Medium Level Prototype, and Alpha Implementation

CS Capstone Team #61 Team Remix



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The Many Voices Publishing Platform allows professors from all walks of life to have an equal opportunity to create the textbook they desire using textbook materials from peers around the world or create them from scratch.