Our Online Textbook

CS390: Spring 2023
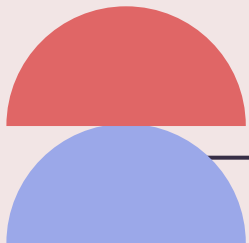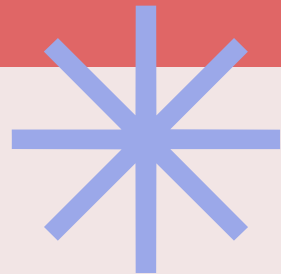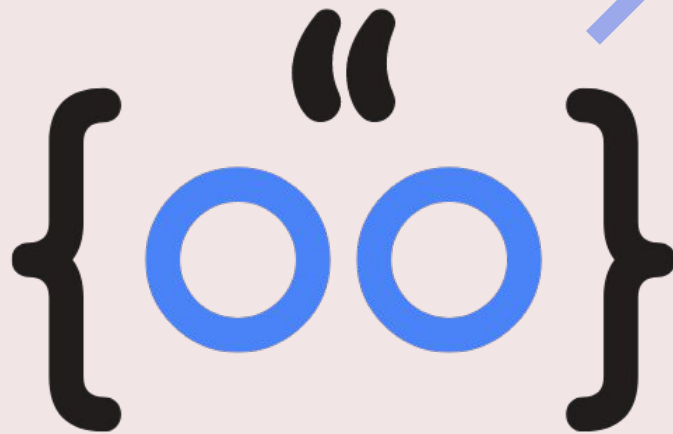
Table of contents

Value

Pain Points in Current Online Textbooks:

Value

What our Online Textbook offers?

Community

Latest AI Technology
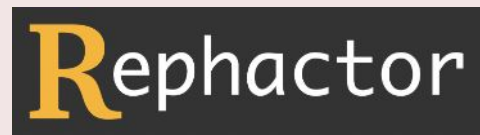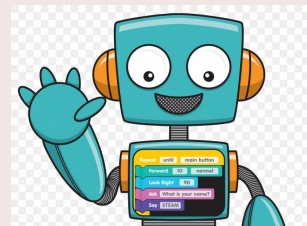

Engaging UI

>> a personalized education and student experience

Impacts

Positive
→ Can improve learning outcomes, motivation, sense of community.
→ help students who struggle with traditional learning methods
→ Sense of belonging, Mutual Support

Negative
→ Digital Divide
→ Interface may resemble more blog post than textbook

Three Personas

Data Collection

Main Goals for Data Collection:
1. Improve the Product & Student Experience
2. Monitor & Evaluate Impact & Effectiveness

We will collect
→ Engagement Metrics
→ Voluntary User Feedback

LEAN DATA COLLECTION!!

Learning Theories at Work

Constructivism

Cognitivism

Active Construction of Knowledge

Features in Textbook
- AI Helper
- Multiple modes of representation

Knowledge through Personal Experiences

Features in Textbook
- Knowledge Checks
- AI Helper

Connectivism

Process of Connecting Information Sources
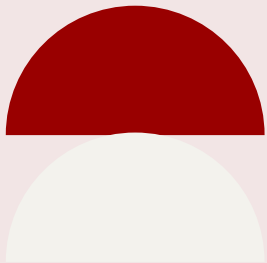
Features in Textbook
- Collaborative Features

Brief overview of Architecture

Front-end

Future work?

Implement back-end

Serve various data, like threads, chats, users, etc.

Example MDXOnDemand

Make MDX dynamically rendered. Allow for edits outside of source code.

Build professor side

Allow for in-loco changes to textbook, APTs, etc.