Case Study #2: Curriculum Designer SaaS

The Client: A nonprofit organization offering K-12 curriculum development, and curriculum development consulting services.

The Problem: This organization had spent several years developing frameworks and materials, to be used by their internal teams and by their clients, in the development of modern educational curriculum. These materials included a framework of general educational Competencies, as well as sets of discipline-specific Core Concepts and subject-specific Standards.

Their intention was to provide these materials to schools and other curriculum creators, to be used in their curriculum offerings, thereby increasing the value of those offerings. However, they found that training their internal teams and their clients with simple PDFs had only a low impact toward this goal. They were seeing top-level call-outs to their materials, in the courses being developed, but not deep infusion of those materials at the individual lesson level.

The Solution: After going through strategic discovery with the client, Easy Day LLC proposed to develop a private, custom, web-based SaaS tool for the use of their internal teams and clients. No existing curriculum planning tool could support the type of structured data they wanted to infuse into their course materials. Via a custom-tailored solution, their materials could be pulled directly into the curriculum planning UX, along with guidance, insights and feedback to the user regarding the depth and completeness of their infusion of those materials. The custom tool would also allow for process optimizations and 3rd-party service integrations tailored to their organization's unique workflow.

The Result: After deployment of the custom SaaS tool, the client noticed an immediate improvement in the depth and completeness of the infusion of their research materials into the developed courses. The curriculum being developed through the tool was richly embedded with the Competencies, Core Concepts, and Standards, down to the level of the individual lessons, in accordance with the client's desire and intention. One member of one of the client's internal teams even remarked that she was "not even sure how [she] did [her] job before having this tool," due to the increased efficiency from the workflow optimization provided by the custom-tailored software.

The Tech: The SaaS tool was deployed on a Virtual Private Server, and accessed via web browser. The back-end CMS comprises a relational database (MySQL) and Easy Day LLC's own proprietary, lightweight CRUD framework, using object-oriented PHP with PDO for efficient database operations. The application is routed and served via PHP script. The UX consists of custom HTML5 and vanilla JavaScript, using Websockets and a React-like scheme for dynamic UX updates in response to user actions. The system includes user accounts and login authentication, with license-based partitioning to ensure security of organization-proprietary data. API integrations include Airtable (for syncing the client's research), Sendgrid (for email notifications), Google Docs (for course documents and export), and EdX (for import, enhancement, and export of existing curriculum packages).