

Building an Interactive Online Learning Platform



About the Client

The client is a leading higher education publisher committed to improving learning experiences and teaching journeys. They facilitate institutions to create course materials and learning content that align with their curriculum. The client assists instructors in delivering knowledge based on the learning needs. They enable students to understand higher education concepts easily through their customized course delivery.

Business Requirements

In 2010, the client wanted to create an online learning platform with courses, textbooks, eTextbooks, and digital tools to enable online learning. They wanted to create impactful educational content that would make it easy for the students to understand abstract concepts. The client was keen on leveraging the digital transformation EdTech delivers in exceptional education services.

The modern learning environment must incorporate the latest interactive learning technologies. The MRCC team understood the need for student-centered, competency-based, and scientifically designed online learning platform development to improve learning outcomes.

Challenges in Educational Engagement

The modern generation of learners and students brings new challenges, such as evolving learning styles, changing preferences, and varying expectations of the education landscape. The client wanted an innovative platform to modernize pedagogical approaches and deliver high-quality learning experiences. The MRCC team worked towards solving the following challenges:

- Converting mundane educational content to interactive content
- Technological hurdles in creating mobile-first content
- Including transparent assessment methods
- Increasing student motivation with immediate feedback
- Automating interactive content assessments to maintain student engagement
- Creating custom learning journeys using the online platform
- Accommodating diverse learning styles
- Overcoming students' short attention spans
- Encouraging self-paced and effective learning

MRCC Solutions

The MRCC team focused on online learning platform development that can serve as an e-learning source. The interactive educational content must respond to user input, increasing students' concentration and their commitment to learning. Breaking down the physical barrier between learners and learning material will result in improved academic performance. MRCC EdTech became a dynamic catalyst with transformative solutions.

- [Customized platform](#) - enables students to master the subjects they study
- [Customized course plan](#) - empowered instructors to use the same MRCC platform to customize the courses to guide every student to focus on what is important to them
- [Personalized learning journeys](#) - helped learners have individual and personalized learning journeys while maintaining constant communication with the instructors and teachers
- [Rich media utilization for e-books](#) - to adapt textbook content to the online learning needs
- [Gamification of content](#) - to reinforce acquired knowledge
- [Ready-made online study tools](#) - to improve student engagement through videos, flashcards, quizzes, and more
- [Integrated LMS support](#) - built-in LMS support to export digital course content to various LMS like Canvas, Blackboard, Moodle, etc.
- [Standalone eLearning resource](#) - online learning platform development ensured that the solution can be used as a standalone learning resource for the students
- [Interactive content aligning with textbooks](#) - interactive and responsive content aligns with student textbooks to supplement text-based traditional educational style



MRCC Online Learning Platform Development Workflow

01 Project Initiation

MRCC created a project team including developers, designers, content creators, and subject matter experts. The team defined scopes, objectives, and the target audience.

02 Platform Architecture and Design

MRCC designers created platform architecture, including the database structure, server setup, and scalability plan. We created prototypes and wireframes for user interface (UI) and user experience (UX) design. The developers determined the appropriate technologies and frameworks.

03 Content Management

MRCC built a content management system (CMS) to manage courses, textbooks, eTextbooks, digital tools, and other types of digital learning assets. We implemented user roles and permissions to control content access. We also built an upload and editing interface to enable authors and instructors to use the CMS to update the course content.

04 Course Management

The MRCC team integrated multimedia interactives like videos, quizzes, assignments, and other course materials. We also implemented version control and tracking for future course updates.

05 Content Delivery

MRCC established content hosting and delivery systems to enable video streaming and eTextbook rendering. We developed optimized content for multiple devices like desktops, tablets, and smartphones. We also enabled content search and filtering options for users.

06 Assessment Engine

MRCC built an assessment engine that grades quizzes, assignments, and tests to provide immediate feedback to learners who complete the interactive assignments. We also implemented analytics to track student performance and progress. Our assessment engine automatically creates reports for administrators and instructors to review student engagement and performance.

07 Payment Integration

MRCC integrated payment gateways to enable the publisher to accept payments when students enroll for courses using the online platform or purchase textbooks or eTextbooks. We implemented multiple subscription models, one-time purchases, and discounts.

08 Admin Panel

MRCC developed an admin panel for administrators to manage users, content, and analytics. We also set up reporting and error-tracking mechanisms for system monitoring.

09 QA Testing

MRCC's QA team conducted extensive testing such as functionality, usability, security, and performance testing to fix and address issues and bugs.

10 Deployment and Hosting

We deployed the online learning platform using reliable web hosting infrastructure and uploaded digital content to the client LMS.



MRCC Impact

MRCC EdTech fuels digital education renaissance with an interactive online learning platform that benefited our client in many ways.

- Provide personalized learning journeys.
- Accommodate learners with diverse learning needs.
- Foster learning flexibility in blended learning environments.
- Capture detailed data and analytics to track student progress.
- Tailor curriculum through data-driven recommendations.
- Improve student adoption of digital learning tools.
- Increase revenues through student enrolment.
- Accelerate onboarding of new courses.
- Reduce time-to-market of online learning courses.

MRCC EdTech's custom interactive learning platform provides personalized learning experiences, adapts to diverse learning styles, boosts engagement with gamification, ensures experiential learning through simulations, and empowers educators with analytics. With MRCC EdTech, create animation, simulations, and multimedia videos effortlessly, upgrade your existing content seamlessly to incorporate interactivity, and integrate content with new platforms flawlessly.

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