

Designing the future of complex training and simulation

Redefining the educational experience for an engineering and manufacturing business

Case study



Client:

A Fortune 100 engineering and manufacturing business

Industry:

High-Tech

Project Type:

End-to-end application development and adoption of lean methodology



Challenge

A reimagined training program

A Fortune 100 engineering and manufacturing industry leader sought to redefine a decades-old approach to the required and complex maintenance training for their primary product. They knew that technology had not only changed what was possible in enterprise training, but had also altered the expectations of trainees entering their programs.

Smashing Ideas, the design and innovation arm of Luxoft, believed a reimagined approach to how training was created and delivered would increase student engagement, decrease costs to the company, create new revenue streams, and provide the same level of experience whether it was performed on-site in the manufacturer's classroom, at a remote location, or in one of their buyer's classrooms.

A critical component of the maintenance education was the need for a "hands-on" experience when the physical product was not available. Due to cost and scale of the product, this was often the case. A portable simulation experience that combined a custom, scalable software solution with a robust front-end user experience with enough stability and flexibility for new and expanding content was the basis of a refined digital learning experience.



Approach

Research, design, innovation and a lean UX

With training being a critical component of new product delivery, and a new product launch on the horizon, Smashing began by embarking on a significant research and design phase. They identified and prioritized the business goals of the direct client, and surfaced the needs, motivations, and pain points of the high-profile clientele who would ultimately be the core users and purveyors of the training package. Interviews with stakeholders, instructors, end-users, current students, and the customers of the service led to the identification of behavioral archetypes that became our north star throughout all phases of execution.

At the same time, Smashing worked to establish a strong culture of innovation and inclusion in the working team. Smashing also helped make the client a lean business by introducing the client team members to agile and lean UX, and established a working cadence that was just slightly faster than comfortable. This new way of working, powered by lean management, allowed the team to quickly begin prototyping various simulation environments, while simultaneously conducting critical rounds of user testing until the correct user-centered approach to the training was established. As this lean, iterative approach was a new way for the client's company to work, the team established Demo Days in which the progress of the project — and the work of all concurrently producing disciplines — was on display to anyone within the organization. This created a new level of transparency that helped accelerate input and alignment from interested parties across the company.



Solution

Minimizing the learning curve and maximizing efficiency

Equipped with application development expertise, Smashing designed and developed a high-tech digital training program that is scalable, can be deployed worldwide, and allows for students to move through the training at a pace that minimizes the learning curve, while maximizing proficiency and efficiency.

However, the partnership extended beyond software engineering, leading to changes in how the lessons themselves were created. Smashing trained the client's team members on utilizing a lean methodology, which lead to lesson and asset development workshops, content creation, and cross-functional team collaboration tools that could be implemented globally, delivering technology innovation.

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Smashing Ideas





Results

A new benchmark for innovation

With continued and expanded phases of the simulation training being deployed, the project is redefining the educational experience within the engineering and manufacturing industry. Additionally, it has opened up new lines of revenue for the client and spurred new ways of thinking about innovation and creating value-added services for their business. This project has become a benchmark for other innovation teams within the client's organization, sparking innovation and change.



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