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Case Study | TechTrep supports STEM education using multitenant Moodle Workplace

TechTrep is a US-based company that provides comprehensive, affordable and sustainable STEM, CTE (Career and Technical Education) and entrepreneurship programs for kids.

Their platform allows any organisation that serves children to launch a virtual STEM and CTE academy: from school districts and charter schools to YMCA's, public libraries or homeschooling. TechTrep's project-based, self-paced, and personalized courses provide a solution to the STEM teacher shortage by turning any teacher or willing adult into STEM and CTE mentors. By enabling STEM education in-school, after-school or out-of-school, TechTrep fights inequality ensuring that all kids can have exposure to quality STEM experiences and resources.

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Challenge

As TechTrep grew and evolved as an organisation, they encountered a series of caveats with the learning management system they were using at the time. The most blatant issue was their previous platform did not support any multitenancy option, which meant that TechTrep had to house all their clients on one site instead of being able to create a separate entity for each of their various client organisations.

This lead to a host of additional roadblocks that slowed down TechTrep's processes and hampered the user experience, including:

- Not being able to delegate any rights or administrative tasks to the schools and organisations they worked with
- Not being able to do any branding or personalisation of the site and content for each of their organisations
- Very limited reporting capabilities, always centrally managed by TechTrep since they were unable to give permission-based access to each institution or to isolate the data belonging to them.

Moreover, TechTrep needed to cater to the very different needs of three groups of users: school districts, prospect members and homeschooled students.

When their previous platform failed to provide tailored support and a flexible enough approach, TechTrep looked for an LMS that would enable them to reach their goals.

"There were several pain points due to the platform's limitations that prevented us from being able to give our customers what they were asking for," said Kathleen Farris, Implementation Manager at TechTrep. "We could not quickly or simply pull data. We could not allow superintendents/principals to have access to a '30,000-foot view' of usage or learner data. Teachers had to drill down into each course to see progress/scores. When students or teachers needed a password changed it had to go through us."
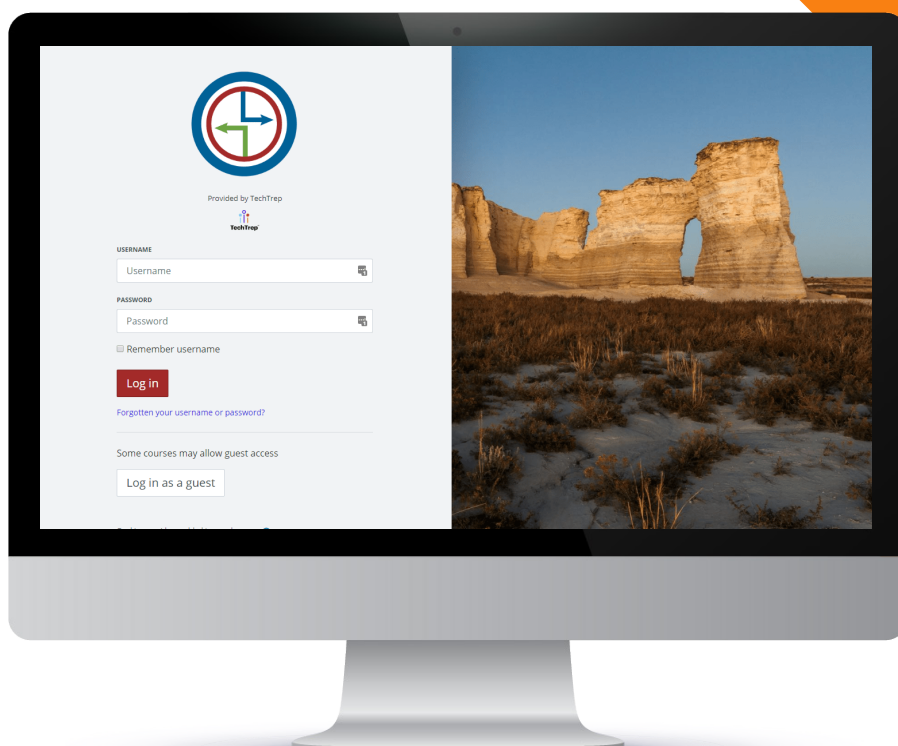
Action

For personalised support and to acquire the learning environment they needed, TechTrep contacted a Certified Premium Moodle Partner to provide a custom-fit solution for TechTrep with Moodle Workplace - Moodle's LMS for organisational learning.

Streamlining TechTrep with Moodle Workplace

After working together with TechTrep to identify their goals for the project, the Moodle Partner designed and built up the structure of their new site around the three base user types: school districts, prospects and homeschoolers, creating different tenants for each of the cases.

School districts

For TechTrep's school district clients, a "master tenant" was created as a template of the typical style that would be used for a school district, containing all courses available. The TechTrep team can now clone this "master tenant" as the base for each of their new clients.

These new tenants take advantage of Moodle's Workplace strongly customisable features to create an overall improved customer and user experience.

The master tenant was designed with custom CSS so that each school district could add their logo and branding on their learning sites, along with TechTrep's. The tenant style also features the ability for districts to change and amend their course catalogue by adding or removing activities based on their goals, which can be completed using the Course Upload feature.

The new tenants include two new custom roles. The "Tenant Admin" is a classic tenant administrator role; the new "Tech Mentor" role has the capabilities of enrolling and managing students as well as running comprehensive reports themselves.
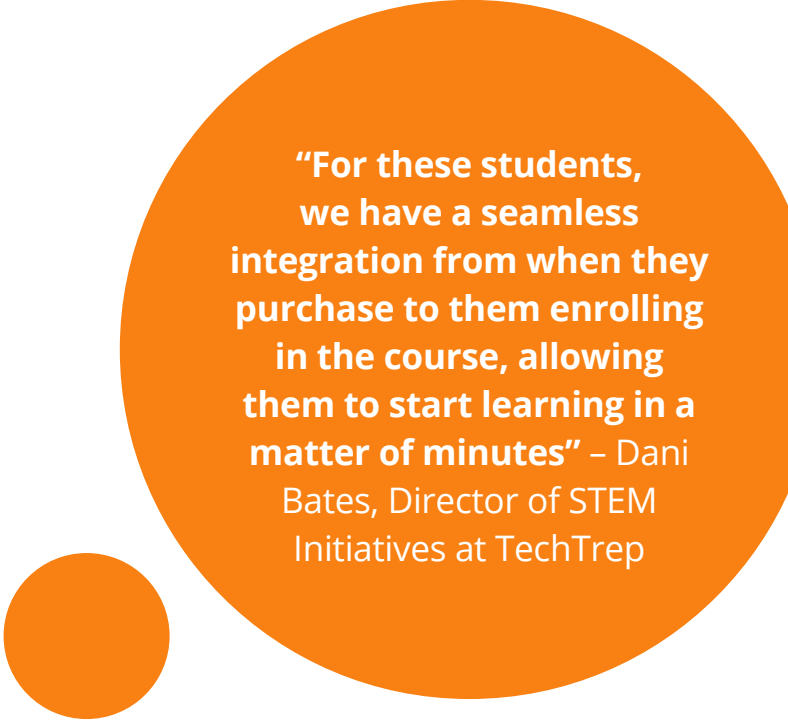
Prospects

It was important to TechTrep that prospect customers could browse sample content and see what the learning environment looked like. For this, the default tenant was given a customised Guest Access, so that prospects could access the platform without needing to set up and manage new accounts for each prospect.

Homeschoolers

For individual homeschooled students, TechTrep's platform was integrated with an eCommerce tool that links the TechTrep website with the LMS. When a student purchases a course, they are automatically enrolled in it and have access to the content immediately.

The homeschool student profiles are subject to specific permissions, so they are not able to view or access prospect-specific courses or the categories to which they belong, even though they are in the same tenant.

Finally, a new role was created so that parents or tutors could view the content and sit in the course with the children. Families of homeschooled students are able to access different roles, where you can have more than one seat in an individual course.

"For these students, we have a seamless integration from when they purchase to them enrolling in the course, allowing them to start learning in a matter of minutes" – Dani Bates, Director of STEM Initiatives at TechTrep

Results

Tailored learning experiences for each client with multitenancy

Moodle Workplaceprovided TechTrep with an effective solution to meet their digital learning platform needs. With multitenancy, TechTrep is now able to seamlessly cater to multiple audiences of learners without limiting the user experience. Moreover, TechTrep is no longer running into issues with student information imports, limited reporting, or lack of administrative access for teachers and school administrators.

Improved processes and efficiency

The new platform allows TechTrep to give their clients administrative access for their individual tenant so that they can enrol and manage students and run reports and make changes for themselves as needed. With the reduction of admin tasks, the TechTrep team has been freed up to focus on the bigger picture of providing their clients with the most effective service and STEM content.

A platform that grows with the business

With a new LMS that can be configured on a client-by-client basis, TechTrep is better able to meet their business goals and to scale their STEM programs. With the flexibility of Moodle Workplace and support from their Moodle Partner, they are confident that their platform can continue to grow with them as they scale their operations and provide STEM resources to more learners.

"We hope that [our new platform] will allow us to empower our school districts to be able to take more control of their implementations; to be flexible in assigning students to courses, editing passwords and more; and to truly be able to see data as part of their bigger picture," said Farris.

Moving forward, TechTrep has already begun to envision additional ways they can use their new LMS to increase the impact of their STEM programs while supporting their business goals. One such goal is for their team to create badges and digital portfolios that students can carry with them as they progress in their learning.

"The idea of digital reporting, badging, and creating a portfolio is really crucial to 21st century education. As our students move onto higher education and the workforce, part of their qualifications will depend on their course portfolio, so the opportunity to establish a repository of accomplishments for our learners becomes a powerful feature for school districts and a competitive advantage for us." – Marlon Lindsay, Co-Founder and CEO, TechTrep

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