

Learning Everywhere

A Strategy for Building Without Limits



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How Building Without Limits will Power the Learning Economy

Just decades ago, if you asked where people learn, the answer would most likely be in a classroom. Today, technology is moving at breakneck speed, and connected devices and advanced tools and products are making it essential for end-users to learn in their moments of need.

Not only is this unlikely to be in a classroom (even a virtual one), it could be in-app, offline, in the field under pressure while they perform their role, or for devices without screens or any obvious UI.

To meet these needs, businesses are attempting to deliver highly differentiated and customized learning experiences, and are quickly moving away from cookie-cutter solutions. If they can succeed — they will usher in the expanded growth of the learning economy, and support its **\$70B promise**.

\$70B EXPANDED GROWTH

Expected from the Learning Economy



What Kinds of Education Will Make Up the New Learning Economy?

There's no doubt that technology is outpacing us. Today, businesses are tasked with deploying education and seeing value from content that meets the needs of a huge number of devices, from tablets loaded with complex industry-specific software, to connected devices at home, in the office and even in the vehicles en-route. The smart home market alone is estimated to be **worth \$500B by 2028**, and will be made up of connected IoT sensors, security solutions, utilities and more. Zoom out to consider smart cities, smart manufacturing, smart hospitals... and the sky's the limit.

In this new world, here are just a few of the expanded market opportunities for learning:

- **Product installation:** Professional training to qualify or certify staff to deliver installations and servicing for connected or highly technical devices.
- **Field training:** Support in the moment of need with complex use cases in the field, for example troubleshooting remote IoT devices or sensors.
- **Feature awareness:** Driving upsell and expansion opportunities from existing connected devices, in order to encourage new revenue streams.
- **Step by step instructions:** In-product guidance for customers when buying a new item, removing the friction of switching channels or looking up answers elsewhere.
- **Simulated training:** The use of AR and VR for immersive training experiences, including haptics or other hands-on technologies to augment the journey.
- **Troubleshooting:** Post-sale support where customers or end-users could upload photos of a pain point or moment of friction, and receive real-time feedback.

\$500B

Estimated Smart Home Market by 2028



The Challenges in Building for Learning Everywhere

These use cases paint an exciting picture of the future of learning — a future that is multi-channel, multi-modality, and allows businesses to deliver learning anywhere the user might be.

However, up until now, the reality has failed to live up to the picture. Businesses are struggling to deliver because their software solutions can't be forced to function the way that they need them to. While many of today's LMS solutions are feature rich, they demand workarounds to deliver customization — and this can't help but add complexity and limitations.

Challenges that today's businesses encounter

1

Design
Frustration

2

Difficulty in
Customization

3

Data
Restrictions

4

Integrating
Current
Technology

5

Generic
Learning
Experience

1

From Design to Implementation

Today's UX teams create truly beautiful design visions and inspirations, but fulfilling that design vision is hardly an exercise in copy and paste. Businesses find that even by utilizing workarounds and giving more time than they would like to translating design into production, they can often only get 70% of the way.

This causes frustration for instructional designers, adds to the work of developers, and results in a learning experience that fails to achieve its original goals for customer experience and outcomes.

2

The Capabilities for Modifications

"Wouldn't it be great if...?" Many LMS platforms will channel you into a specific way of creating content, whether that's the format of a course, the structure of an assessment, or the functionality that can be included in a test.

While you might be able to add your branding or change the color scheme — what about more in-depth changes, or highly specific tweaks that would make all the difference to your business or your learners? While the technology might be one size fits all, your learning experience shouldn't have to be.

3**Gaining Value from Data**

LMS data has been becoming increasingly powerful over the past few years. We love watching how our customers can use our robust data collection and aggregation to draw correlations between trained users and metrics such as product adoption, retention, and renewals. But what about the valuable data that lives outside your LMS?

Customers are increasingly held back by data that exists in silos, and the inability to draw from insights in dashboards and catalogs that bring all of that information into a single view.

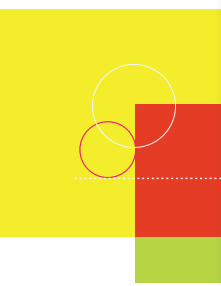
4**Utilizing Home Grown Systems**

No business goes from zero to a hundred with a single technology purchase. The road to creating impactful learning experiences can be a complex one, and involve in-house building of many different technologies, some of which work — and others which don't!

From assessment engines and recommendation engines, to partial LMS solutions that have a lot of effort and time invested into their success, it makes sense that customers don't want to throw out the baby with the bathwater. However, incorporating these into the learning experience can involve an integration roadmap that takes months or even years to complete.

5**Out of the Box Learning Experiences**

How can today's design and implementation teams create content that meets the lightning-fast pace of technology? Businesses are struggling with configuring their software to create contextual delivery of education in-app or in-product, mobile-enabled solutions, and learning via modern channels such as VR/AR and IoT devices.



In some cases, they have an industry-specific use case that's integral to their product but will never see widespread adoption — making it extremely unlikely that an LMS provider will build for their need. The same question is coming up time and time again — [how can they build for themselves?](#)



Helium: Empowering Businesses to Take Control with Full Extensibility

At Thought Industries, we set out on a mission to solve these problems, and to provide customers with the independence to fully customize and extend the functionality of our Learning Cloud. Instead of being tied to our feature releases, our prioritizations and our roadmap, we created Helium so that our customers could take full control, and design and deliver on their own vision, according to their own terms.

At its core, Helium is a front-end web development framework for building highly contextual, dynamic, and personalized learning experiences. Businesses receive a complete library of UI components, hooks and utilities, which allow for the creation of quick, custom learning experiences with no limits.

The modern technology stack includes React, the component-based JavaScript library, TailwindCSS as a smart styling and design framework which does so much more than simple CSS customizations, but truly allows customers to build new functionality on top of the Customer Learning Cloud, and GraphQL, to make accessing the data that you need intuitive and fast.



Fast and simple data retrieval
supporting fully "headless"
experiences

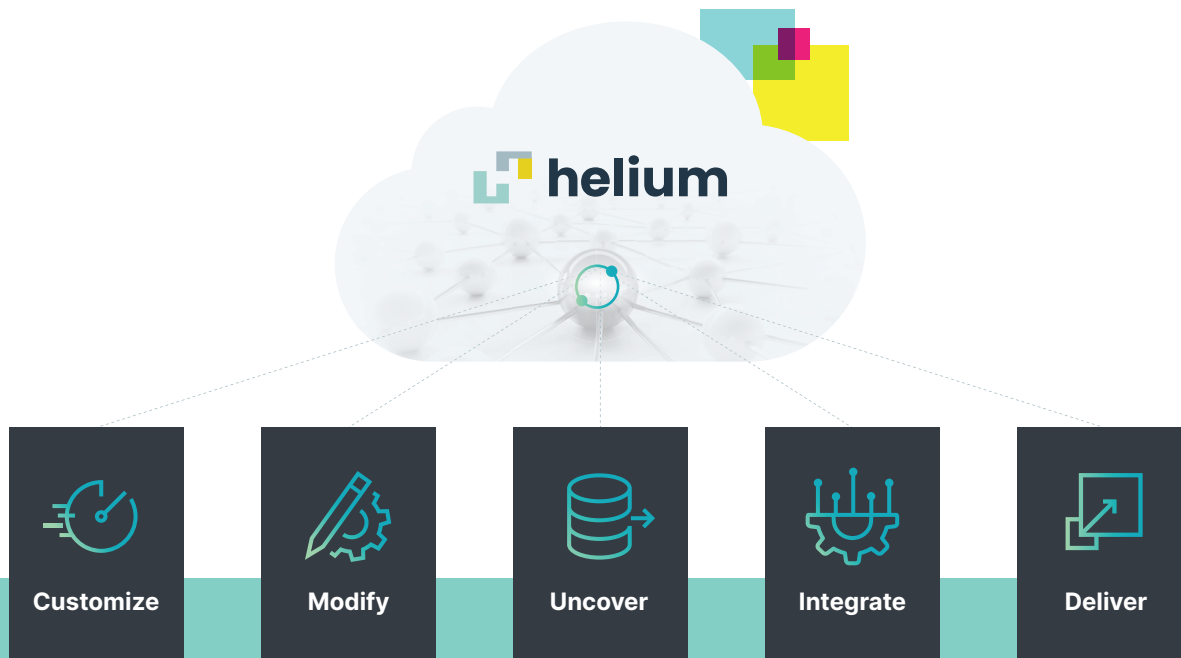


Fully customizable and
extensible JavaScript-based
components



Flexible and intuitive styling
and design framework





Helium Allows Our Customers to:

Customize

Gaining full autonomy over the website and learner experience to achieve any and all design goals. No more being satisfied with 70%.

Modify

Not just the structure, but also the appearance and functionality of courses, training, assessments, tests, certifications, and more.

Uncover

Incorporating external datasets into learner-facing components, bringing greater insight into dashboards and course catalogs for a richer experience.

Integrate

Take home-grown systems, processes and tools, and let them work seamlessly with the rest of the learner experience on the Learning Cloud.

Deliver

In the moment training, natively across multiple platforms, future-ready, and far beyond simply web and HTML. return 6,500 hours to the Customer Support team, and add hundreds of certified users, achieving consistency in product training and ensuring the high quality of the education being delivered to the end users.

CASE STUDY

Industrial Training International Empowers High-risk Professionals Through Learning Everywhere

Industrial Training International (ITI) saw 260% overall sales growth and an increase of 520% in subscriptions in the 12 months since they launched the ITI Learning Hub, hosted on Thought Industries.

As a worldwide leader in training solutions for the construction and manufacturing industries, ITI has customers that range in size from 30 employees to 30,000. Learners come from a variety of industries, working in anything from steel mills to Petro-chemical plants. Workers are at real risk of physical harm, as well as in danger of causing damage to plant equipment, and responsible for critical business and manufacturing processes. The stakes couldn't be higher.

With a tremendous diversity in types of training content, and the duty of care inherent in ensuring that customers are adequately trained and certified, a headless LMS will enable ITI to diversify and customize their training offerings, and to continue the journey of consolidating the multiple disjointed systems they had relied on in the past.



With the ITI Learning Hub, we see an opportunity to provide a more custom feature set to smaller companies in a sustainable way, and also to better manage our content for serving up courses for enterprise accounts. We now have a VR Crane Operator Simulator solution that customers set up in training centers for construction and industrial cranes. And we have various simulations for hazard awareness, inspections, and maintenance as well. These can be delivered offline, or through a simulator in the LMS."

ZACK PARNELL
CEO, ITI





One of the greatest points of value in using a headless LMS will be the data.

With a single consolidated system, ITI can track information such as areas of improvement for individuals and at a workforce level, the time-savings of using real equipment for training versus simulations, or even equipment damage to plan out maintenance schedules and repairs. ITI is also experimenting with pulling in data from new systems like facial recognition software, potentially tracking how learners are acting and feeling, and then bringing that experiential information about cognitive load and wellbeing back into the LMS.



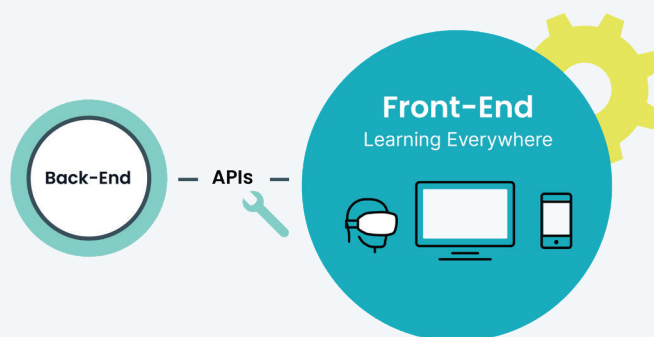
It's very rare for organizations to gain access to that kind of experiential data. Emotional feeling is a big factor in people's performance, and being able to capture that in learning mode is a powerful opportunity. It's this kind of benefit that makes us excited, and has us looking forward to building without limits!"

ZACK PARNELL, CEO, ITI

What is a Headless LMS?

Removing the rigid boundaries that come with a traditional LMS, a headless LMS decouples the front-end presentation layer from back-end services, allowing digital content providers to create a fully custom front-end experience. Offering complete flexibility and extensibility, a headless LMS hands over complete control to digital content creators, allowing them to extend the core back-end services to any channel or device through rich API integrations, and deliver on ambitious design aspirations.

While traditional LMS solutions were monolithic, operated with mainly web and HTML options, and demanded lengthy or complex roadmaps to achieve integration, a headless LMS recognizes that today's businesses need to create custom learning experiences which don't arrive out of the box.



The move to a headless LMS has a whole host of benefits.

- Designers and developers can lean into their creative sides to create tailored learning experiences, and aren't boxed in by the capabilities of the LMS itself.
- Businesses can deliver omnichannel content where their learners are, such as on mobile, via AR or VR, and natively through any other embedded system or product.
- Data can be imported from any system, providing a single pane of glass into the learner experience, seeing it all with both business and training data side by side.
- Organizations can continue using home-grown LMS and internally developed tools and tech, with ultimate extensibility to integrate without limits.
- Scale and growth become frictionless, without the need to think about migrating or upgrading to a new platform to meet a future-focused roadmap.



Unlocked: Learning Everywhere. But What Does it Mean for Business ROI?

The technology is now available for organizations to deliver highly customized training and learning experiences, whether that's for professional training and certification, customer education, partner training, or any other use case under the sun.

The promise of “Learning Everywhere” will ultimately be defined by the customers who design, develop and build future-focused solutions, and their only limit is their imagination.

But they can't make it happen alone. They will need the right technology to enable that vision.

With Helium in place, L&D teams will be able to prove business impact from their learning initiatives, and move the needle on essential organizational goals, including the ability to:

- **See quick time to market:** With custom learning experiences out of the box, businesses will be able to deliver personalized training and education, even for complex or niche industry use cases.
- **Enjoy design flexibility:** Utilizing headless architecture to separate out the part of the

website that's visible to learners, and the component that manages data and back-end functionality. That's total design freedom.

- **Streamline developers' workload:** Another benefit of headless architecture, developers can manage everything themselves, developing locally with ease. They can get deep into the code or enjoy no-code tools for ease of use.
- **Ensure optimized performance:** Server-side rendering is a powerful technology that ensures reduced bandwidth and better SEO. That means increased organic search traffic and better core web vitals to boot.
- **Offer true personalization:** Display dynamic content and tailor the learner experience by pulling in the right data at the right time about each user from multiple sources, both internal and external.
- **Deliver differentiated experiences:** Speed up the development process with a modern tech stack that's built for purpose. Plus, it's fully integrated with your existing Customer Learning Cloud and ready to go with a starter application out the box.

Ready to build out your own learning solution without limits?

Speak to us about getting started with Helium, our Headless LMS solution.



About Thought Industries

Thought Industries powers the business of learning with our industry-leading learning technology. We were founded in 2014 around the core belief that online learning experiences should be modern, intuitive, engaging, and scalable. Today, our growing team builds and maintains the only learning solution with completely native tools and integrations that drive higher engagement, learner proficiency, and retention rates for our customers.

thoughtindustries.com

