

Impact Report 2024



Welcome and Overview from Ed Zarecor

Chair of the Technical Oversight Committee



Dear Community,

The Open edX platform was founded with a bold goal: to create meaningful, measurable impact in the lives of learners everywhere. This year, we crossed a remarkable threshold – more than 100 million learners worldwide have benefited from the platform we've built together. That number represents not just scale, but lives changed through access to quality education.

We've also made major strides in expanding and deepening our community. This year, we launched a program to welcome mission-aligned organizations into clarified roles as contributors and thought leaders. Western Governors University and India's National Skills Development Corporation were the first to join us, bringing new energy, resources, and vision to the project. Yet even as we celebrate, we must face the challenges ahead. We are in a moment of rapid transformation. Generative AI is disrupting industries at a breathtaking pace, threatening to upend labor markets and redefine the skills needed to thrive. Meanwhile, the cost of education remains out of reach for many, and public investment in access to education is under threat. At precisely the moment when education, training, and retraining are most needed, they risk becoming less accessible.

So how will we meet this moment? The Open edX platform – and this community – has a critical role to play. But to rise to the challenge, we must continue to evolve. Let's set our sights higher. What would it take to reach a billion learners? How can we harness emerging technologies to expand access while closing, not widening, the digital divide? These are the questions that will define our next chapter – and I believe that openness and open source are essential to answering them.

I am confident because I've seen what this community can do when we work together. Thank you for your continued contributions to the Open edX project.

Warmly,

A handwritten signature in black ink, appearing to read 'Ed Zarecor'.

Ed Zarecor | Chair, Technical Oversight Committee



Ed Zarecor

Vice President of Engineering at
Axim Collaborative



Dustin Tingley

Deputy Vice Provost for Advances
in Learning at Harvard University



Ferdi Alimadhi

Chief Technology Officer at
MIT Open Learning



Anant Agarwal

Chief Academic Officer of 2U &
Founder of edX



Aref Matin

Chief Technology Officer at 2U



Jeremy Ristau

Director of Engineering at 2U



David Morales

Chief Information Officer & Senior
VP of Technology at WGU



Shreshtha Gupta

CTO at NSDC | Director & CTO at
NSDC International



Régis Behmo

VP of Engineering at Edly
by Arbisoft



Ignacio Despujol

MOOC Initiative Coordinator
at UPV



Xavier Antoviaque

Founder & CEO
of OpenCraft

Impact of the Open edX Project

Quantitative Impact: Reach

The mission of the Open edX Platform is to leverage open source to democratize education and power advances in learning. Our mission provides a framework through which to reflect on impact. One key aspect of the mission is scale and reach, in enabling access to education as widely as possible.

Measuring impact is one of the most challenging aspects of the Open edX project. The DIY approach to open-source software enables anyone to spin up an instance, reach hundreds or even thousands of learners, and achieve a number of learning outcomes. Those outcomes range from delivery of a single course to a university degree to a government training program or alternative credential, each with its own framework for defining success. The globally dispersed and diverse nature of instances are two powerful results of the Open edX project, and also the most challenging to wrap into standardized metrics.

Over the past year, we have refined our data collection and analysis process, with significant support from community efforts and inputs. In the process, we have set our focus on tracking the following metrics over time:

- Total number of sites and instances
- Total number of learners ever registered
- Total number of enrollments for all courses

In last year's report, we attempted to lay the groundwork for tracking course completions as additional metrics of impact. However, as we have refined our data gathering processes, it became clear that there were limitations and restraints on tracking this data point accurately over time, due to sample sizes that were too small to generate consistent enough results, and a lack of standardized definitions. As such, we are no longer actively tracking completion rates at a global level.

The Data Pool

The data is drawn from three primary sources:

- **BuiltWith:** A technology profiler services that identifies platforms and frameworks used on websites. BuiltWith provided an initial list of Open edX-powered sites, as well as metadata on these sites' technology stacks.
- **Community-contributed data:** While not comprehensive, self-reported data sets from the community represent a significant slice of the data pool.
- **Historical lists maintained by Axim:** For the past decade, members of the open source community have built lists of Open edX instances. These lists are now maintained by Axim.



Total Number of Sites

2,293*

In May of 2024, analysis that became the basis for the tooling we use to count sites, identified 1,931 live sites. Since that time, additional checks have been added to the web scraping tools and process to improve the quality of our dataset and remove staging sites. Currently we can identify 2283 live Open edX sites. This represents an 18% growth in sites year-over-year.

*Despite massive improvements to our data gathering processes, we still believe there are Open edX instances in existence that are not included in this count.



All Time Registrations

100,526,576

In an effort to standardize a baseline metric going forward, we have opted to capture the number of learners ever registered. This metric has a common definition across the ecosystem, implying a threshold of user engagement by signing up for a site account.

Since last year's report, we are counting an additional ~21,000,000 learners who have registered on an Open edX platform. We can account for some of this growth happening via new national platforms that have come online in the past year, which are poised to reach large numbers of learners.



All Time Enrollments

207,243,814

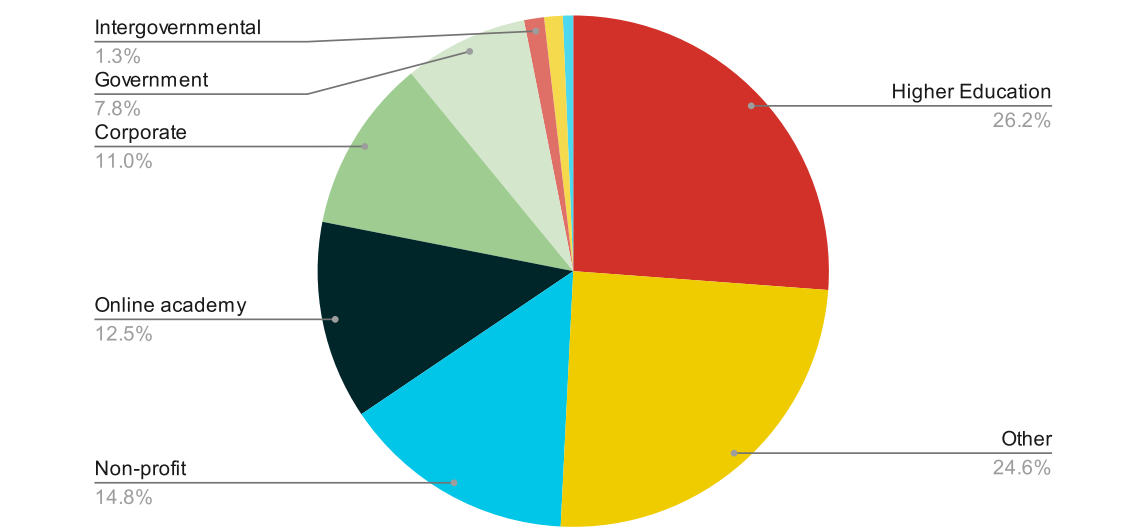
Enrollments represent the number of courses that registered learners have joined. Similar to the increase in numbers of registrations, we can also attribute the growth in number of enrollments to new, large sites that have come online in the past year.

Methodology

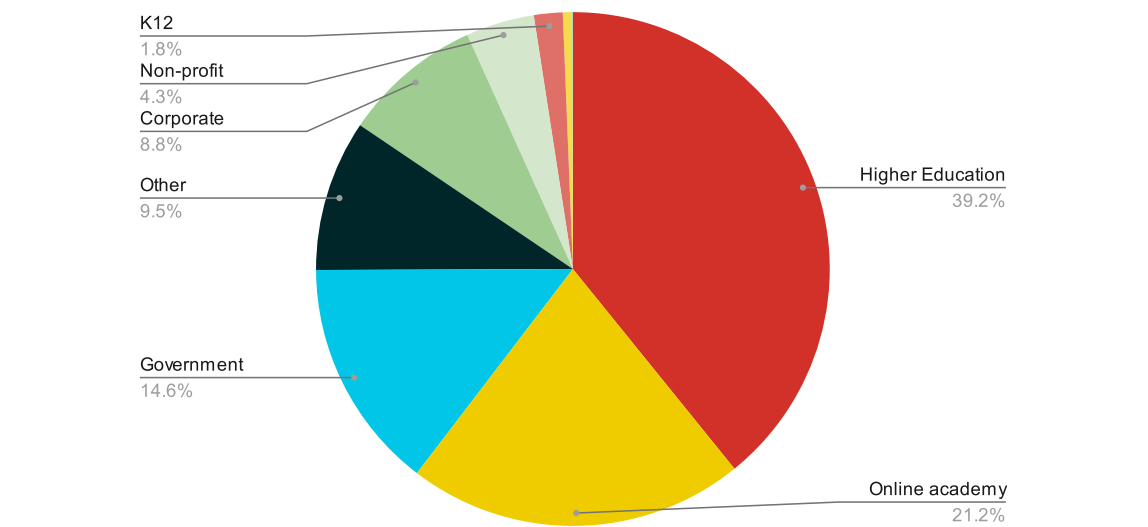
edunext drove an analysis of this data pool, building a replicable analytical framework that included ways of sanitizing and de-duplicating the older sources and automated domain validation and web scraping.

Platform Use by Vertical

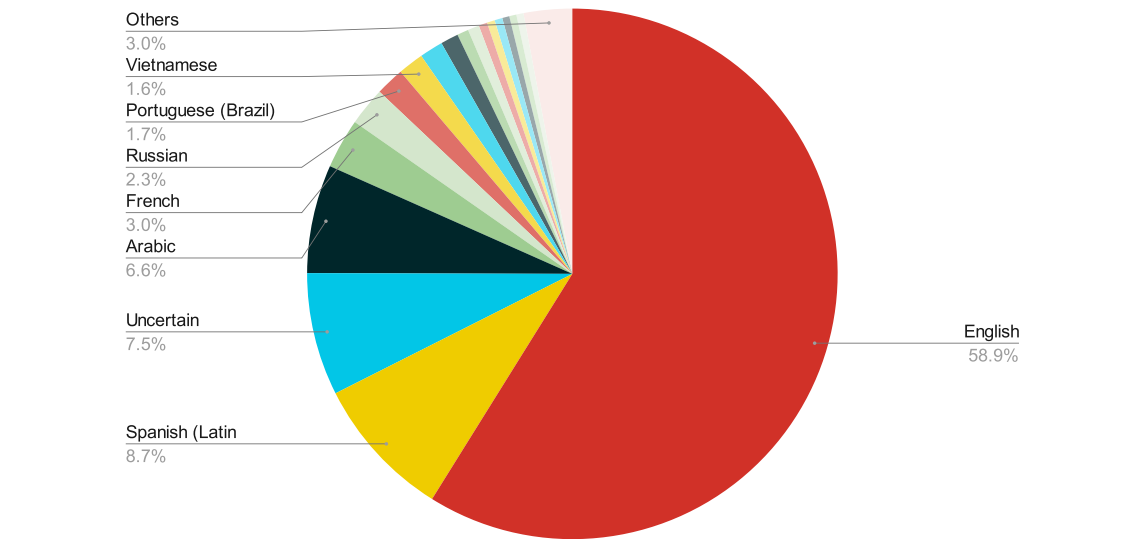
When breaking down the initiatives by their inferred type, the most frequent categories are Higher education, non profit, online academies and Corporate initiatives.



If the total number of course runs is considered instead of the number of sites, the share of the Higher education type sees an increase to 39.2% and the share of Government initiatives rises to 14.6%, as shown in the graph below.



Breakdown by Language



Granular Verticals

An effort was made to differentiate more granularly this category, using the criteria below:

- **K12** – Geared toward children from kindergarten through high school
- **Higher Education** – Targeting adult learners, developed or sponsored by higher education institutions
- **Government** – Part of a government program or agency
- **Intergovernmental Organization** – Part of a multilateral organization or agency
- **Online academy** – Offering public training, possibly paid or monetized
- **Corporate** – Driven by a company for employee/customer training
- **Non-profit** – Driven by a non-profit, foundation, or charity (often free courses)
- **Religious** – Focused on religion or spiritual content
- **Other** – Does not clearly fit any category above

Global Distribution

Region	Sites	Avg. Runs
Unknown	733	69.8
Western Europe	436	45.3
North America	280	242.1
MENA	207	214.9
East Asia	182	129.6
South America	132	44.3
Eastern Europe	114	72.5
Africa	90	134.8
South Asia	86	279.2
Oceania	12	45
Central America and Caribbean	11	23.2
Central Asia	10	45.6

While the most number of sites can be traced back to countries in western Europe, they have an average of only 45.3 course runs. In North America instead, the number of sites is smaller but the average number of courses is much larger (242.1). Even if big outliers as courses.edx.org and edge.edx.org are not included, the North America region still has a high average of 105.3 course runs per site. The region with the largest average number of course runs is South Asia.



Special thanks to edunext for spearheading much of the data gathering and analysis in this report, and for laying the groundwork to track year-over-year trends.

Mission Aligned Organizations

Driving innovation - organizations committing to the future of the platform

With a goal of more deeply engaging with key community members, Open edX welcomed organizations to join the platform as Mission Aligned partners. We created a new category of membership on the Technical Oversight Committee for Mission-Aligned Organizations (MAOs).

Mission-Aligned Organization (MAO) is a new category of institution-level partnerships dedicated to accelerating development of the Open edX platform. The platform is supported by a strong global open-source community that includes developers with deep expertise who service course-offering websites that use the Open edX platform. Mission-Aligned Organizations have a demonstrated commitment to expanding access and impact and a willingness to contribute staff, 10 or more, to the project on an ongoing basis.

Western Governors University is the project's first Mission-Aligned Organization. David Morales, Chief Information Officer and Senior Vice President of Technology at Western Governors University joined the Technical Oversight Committee to provide strategy support, including platform architecture design, tech stack and design templates. Immediate priorities for the WGU engineers on the project include building a roles and permissions framework, creating better facilities for extracting data, setting up libraries of atomic learning units, and improving the upgrade experience for developers.

Western Governors University is the project's first Mission-Aligned Organization.



David Morales, senior vice president for technology and CIO at WGU. "We are committed to supporting WGU students with high-quality learning experiences and are also pleased to support thousands of other organizations embracing competency-based learning, student-first approaches and solutions for documenting skills and credentials through our contributions to the Open edX project."

With WGU's participation, the Open edX project expects to deepen its ability to support competency-based education, which measures skills and learning rather than time spent in a classroom. Students earn competency units (the equivalent of credit hours) when they demonstrate skills proficiency through completing performance and objective assessments. As a result, students progress through courses as they prove mastery of the material, rather than advancing only when a semester or term ends.

Western Governors University and the Open edX Project Transforming Lives Through Scalable, Competency-based Education



Courtney Hills McBeth
Western Governors University (WGU)

Introduction

Western Governors University (WGU), a beacon of innovation in higher education, has forged a partnership with the Open edX platform to continue to enhance the delivery of its Competency-based Education (CBE) courses. WGU is a nonprofit, online university founded by 19 U.S governors in 1997 to provide a new educational model with the flexibility learners, who traditionally have not been well served by higher education, need. Its CBE model measures subject mastery, allowing students to progress at their own pace. The university offers an affordable 6-month term flat rate that averages around \$8,010 per year; 57% of WGU undergraduates completed their degrees in 2022-23 without taking a federal student loan. Importantly, graduates experience positive earnings and employment outcomes. Operating at significant scale, WGU currently serves close to 190,000 full-time, degree-seeking students.

The Organizations That Made This Possible:



Competency-based education empowers students to be self-directed in their learning, focusing on developing the skills and knowledge they need to succeed in their careers. With a focus on real-world skills, CBE's emphasis on workforce readiness helps learners gain the credentials they need to secure meaningful employment. This leads to increased economic mobility and improved life outcomes.

This case study delves into WGU's strategic adoption of Open edX, exploring the challenges WGU overcame, the transformative impact for learners, and its pivotal role as the first Mission-Aligned Organization, driving the future of open-source education.



"Most learning management systems and platforms are built around the traditional model of learning that is limited to the requirement of a calendar and a gradebook. Our competency-based education model lets our students learn on their own schedule and pace, requiring students to prove mastery rather than achieve a grade or certain seat time."

Courtney Hills McBeth | Chief Academic Officer and Provost at WGU

Problem

WGU's commitment to delivering accessible, high-quality education through its unique CBE model faced scaling challenges. Their legacy learning management systems (LMS) were ill-equipped to handle the institution's rapid growth and the nuanced demands of CBE. The need for granular student data to facilitate personalized support, the imperative to efficiently reuse and adapt content, and the desire to integrate cutting-edge technologies like AI demanded a more robust and flexible solution.



"Open edX gives us total control to customize the platform for our students and our learning model, including allowing us to directly author and leverage third-party authoring or design and useful development process tools."

Courtney Hills McBeth | Chief Academic Officer and Provost at WGU

The Solution

WGU selected Open edX, recognizing its open-source nature, inherent scalability, modularity, adaptability, and powerful data analytics capabilities. By becoming the first Mission-Aligned Organization, WGU signaled its commitment to not just utilizing the platform but actively shaping its future. Open edX empowered WGU to:

- **Implement a Data-driven Ecosystem:**
Establishing a robust data infrastructure enabled WGU to track student progress with unprecedented precision, facilitating timely interventions and personalized support. For instance, data analysis allows WGU to identify students struggling with specific competencies and deliver targeted resources, significantly improving completion rates.
- **Optimize Content Creation and Delivery:**
Leveraging content reusability features, WGU streamlined the creation and maintenance of its extensive course catalog. This modular approach allows for rapid updates and customizations, ensuring the curriculum remains relevant and engaging.
- **Provide a Truly Personalized Learning Experience:**
The platform's flexibility allowed WGU to tailor the learning environment to its unique curriculum structure, enabling students to progress at their own pace and demonstrate mastery in a way that aligns with their individual learning styles.
- **Drive Innovation Through Community Collaboration:**
By actively engaging with the Open edX community, WGU gained access to a wealth of expertise and facilitated the integration of innovative technologies, including AI-driven learning tools. This collaborative approach accelerates the pace of innovation and enhances the overall learning experience.

By partnering with Open edX, WGU harnesses the power of open source to scale and evolve its innovative approach to education.



WGU's strategic implementation of Open edX involved:

- **A Strategic Partnership:** Becoming the first Mission-Aligned Organization underscored WGU's commitment to long-term collaboration and platform development.
- **A Rigorous Data-driven Approach:** Implementing advanced analytics to track student progress and personalize learning experiences.
- **Strategic Content Migration:** Migrating existing course materials and developing new content within the Open edX framework, aiming for near-complete platform utilization.
- **Seamless Customization and Integration:** Leveraging Open edX's open-source architecture to customize the platform and integrate it with existing WGU systems.
- **Active Community Engagement:** Contributing to the Open edX community through knowledge sharing and collaborative development.



"One of the reasons we are excited about Open edX is the open-source model, as it enables us to understand the architecture and data flow of the components that allow us to create the right abstraction layer to push the data for our students into the system."

David Morales | Chief Information Officer and Senior Vice President of Technology at WGU

WGU's adoption of Open edX has yielded measurable results & impact:

- **Unprecedented Scalability:** Open edX's robust architecture has enabled WGU to serve a rapidly growing student body, expanding access to high-quality, affordable education. WGU now serves nearly 190,000 students.
- **Accelerated Innovation and Agility:** Collaboration with the Open edX community has fostered the rapid development and integration of cutting-edge learning tools, ensuring WGU remains at the forefront of educational innovation.
- **Optimized Content Delivery and Maintenance:** Content libraries and modular course design have streamlined content creation and maintenance, reduced costs and improved efficiency.
- **Advancing the Future of CBE:** WGU's leadership and contributions to the Open edX community have the potential to play a crucial role in driving the adoption and advancement of CBE across higher education.

Key Success Factors

- **A Shared Vision:** WGU's unwavering commitment to students, the CBE model, and its proactive approach to leveraging technology.
- **Active Community Engagement:** Fostering collaboration and knowledge sharing within the Open edX community.
- **Data-driven Decision Making:** Utilizing data analytics to personalize learning and improve student outcomes.
- **A Culture of Innovation:** Embracing new technologies and continuously enhancing the learning experience.
- **Strategic Open-Source Collaboration:** Leveraging the open-source model to accelerate development and reduce costs.



Future Directions

WGU remains committed to pushing the boundaries of CBE and enhancing the capabilities of the Open edX platform to improve student success and outcomes. Future initiatives include:

- **Expanding AI Integration:** Implementing advanced AI-driven tools to provide personalized feedback and enhance learning outcomes.
- **Developing Robust and Relevant Content Libraries:** Creating comprehensive and timely content libraries to further streamline content creation and maintenance.
- **Streamlining Authoring Processes:** Enhancing tools and functionalities to simplify the authoring process.
- **Addressing CBE Adoption Barriers:** Sharing best practices and providing support to institutions seeking to implement CBE.

Advice for Other Institutions

- **Embrace Open Source:** Recognize the transformative potential of open-source platforms like Open edX.
- **Prioritize Data Analytics:** Invest in robust data tracking and analytics to personalize learning.
- **Focus on Learner-centric Design:** Design learning experiences that meet the unique needs of diverse learners.
- **Foster Collaborative Partnerships:** Engage with the open-source community to drive innovation.
- **Address Procedural Hurdles:** Proactively address the procedural challenges associated with CBE implementation.

Conclusion

WGU's strategic partnership with Open edX exemplifies the power of open-source platforms to scale and advance innovative educational models, such as CBE. This partnership is not just about technology; it's about transforming lives through accessible, high-quality, results-oriented education.



**Transforming Lives Through Scalable,
Competency-based Education**

IBM Skills Network – Scaling Global Upskilling Through the Open edX Platform



Leon Katsnelson
CTO and Director IBM Developer Skills Network

Background

To meet the growing global demand for hands-on training in emerging technologies, IBM launched the Skills Network—an initiative aimed at upskilling millions of learners worldwide. With a focus on practical, high-impact learning experiences, IBM needed a flexible, scalable platform that could support both internal and external audiences. The Open edX platform became the foundation for this vision, enabling IBM to build a global learning ecosystem tailored to the needs of modern learners.

The Challenge

IBM aimed to help its global network of clients, partners, and employees build hands-on expertise in emerging technologies, especially AI, through accessible, scalable, and flexible learning. They needed a robust platform that could:

- Support **millions of learners** worldwide.
- Deliver **hands-on training** via labs and project-based content.
- Be **easily extended** and integrated with internal tools.
- **Provide infrastructure** for learning experiences like competitions and guided projects.
- Empower small teams to manage **large-scale deployments**.

The Solution

IBM adopted the Open edX platform as the foundation of the IBM Skills Network, a large-scale learning initiative now reaching over 9 million learners across 150+ customized portals deployed in six data centers on four continents.

Key reasons for choosing the Open edX platform included:

- **Scalability and maturity** – proven support for millions of learners.
- **Open-source flexibility** – enabled IBM to tailor features and integrate with lab environments, authentication systems, and internal infrastructure.
- **Strong community and modular architecture** – accelerated development of new features and streamlined upgrades.



Implementation and Impact

IBM developed a range of enhancements and services on top of the Open edX software, including:

- **Competition and Event Management System:** Powers global hackathons like IBM's "watsonx Challenge" with 176,000 participants, 34,000 teams formed and 12,000 project submissions.
- **Custom Authoring Tools:** Enable content creation, syndication, and project collaboration across portals.
- **AI Grader (Mark):** Assists with auto-grading of open-ended assignments and presentations at scale.
- **Multi-Tenant Offering (Skills Network for Teams):** Allows smaller organizations to launch private learning spaces without full instance deployment.

IBM uses Kubernetes and follows best practices (like Tutor) for deployment, ensuring streamlined scaling and maintenance.

Social and Business Impact

- **Corporate Learning & Internal Upskilling:** IBM employees globally use the platform for cutting-edge training, particularly in generative AI.
- **CSR & Global Reach:** IBM contributes to training 2 million learners in AI through social impact initiatives, collaborating with governments and NGOs in underserved regions like Indonesia and India.
- **High Learner Engagement:** With a completion rate of ~33–34%, IBM emphasizes feedback loops, AI-driven assistance, and learner experience optimization.

Future Plans

- Expand course formats with **guided projects**, **tutorials**, and **soft skills training**.
- Launch **Sumac-based upgrades** for improved features and compatibility.
- Continue evolving **AI tools** to meet growing demand and rapidly changing tech landscapes.



Key Takeaways

1. The Open edX platform's modularity and community support are critical for innovation and scale.
2. Investing in internal capabilities (like competition platforms, AI grading, and custom authoring tools) transforms the Open edX platform into a comprehensive skills ecosystem.
3. Open source provides the agility needed to stay ahead of fast-moving tech trends, especially AI.

IBM's Skills Network exemplifies how the Open edX platform can power high-impact, global learning initiatives that scale from a few users to millions, all while staying flexible, cost-effective, and learner-centered. By leveraging the platform's open architecture and robust feature set, IBM has been able to deliver dynamic, real-world learning experiences that support diverse audiences across industries and geographies. This case highlights the transformative potential of open-source education technology in fostering continuous, accessible, and scalable workforce development worldwide.



UTEC - Democratizing Technical Education in Uruguay with the Open edX Platform



Bruno Gabetti and Martin Zanoniani
Universidad Tecnológica del Uruguay (UTEC)



Introduction

Universidad Tecnológica del Uruguay (UTEC), a young and dynamic public university established in 2009, is playing a pivotal role in democratizing technical education in Uruguay, empowering individuals with the digital skills needed to thrive in the 21st century.

By leveraging the Open edX platform, UTEC provides free, accessible, high-quality massive open online courses (MOOCs) to a diverse audience, both within Uruguay and globally. As it explores new ways to leverage technology, UTEC stands as a beacon of open education in Latin America and beyond.

Bruno Gabetti and Martin Zanoniani, of UTEC's digital information center, are at the forefront of this revolution. They understand the transformative power of technology and its potential to bridge educational gaps.



"UTEC was born to bring the technical university to all corners of the country."

Bruno Gabetti | Universidad Tecnológica del Uruguay (UTEC)

But UTEC isn't just about access; it's about creating an effective and engaging learning experience. Martin emphasizes, "The feedback from students is always good. It's very intuitive, and they use it very well." Ease of use is critical for UTEC, as their small team supports a large and diverse learner base, including not only degree-seeking students but the local and global public.

The Open edX platform's open-source nature has also been a key factor in UTEC's success. "We love that spirit, and we want to be part of that," Bruno shares. This has led them to actively contribute to the Open edX community, even helping other Uruguayan institutions adopt the platform.

**The Organizations That
Made This Possible:**



UTEC's Data-Driven Innovation

UTEC's commitment to the Open edX Project goes beyond simply hosting courses. They've leveraged the platform's flexibility to create a customized ecosystem. Martin details their efforts, "We have a marketing site that works with the Open edX platform... We also have an integration with a data warehouse." This lets UTEC gather and analyze data from across their systems, painting a comprehensive picture of student engagement and progress.

One of the most innovative applications of this data-driven approach is UTEC's AI-powered dropout prediction model. By combining data from the Open edX LMS and other university systems, they are developing a tool to identify students at risk of dropping out, enabling for timely intervention and support. "We're trying to identify and take action before they drop courses," Bruno explains.

UTEC's journey with the Open edX LMS is a testament to the platform's versatility and its ability to support institutions in achieving ambitious goals. Their story is one of innovation, collaboration, and a deep commitment to democratizing education as they continue to expand their offerings.



**"We have a marketing site that works with the Open edX platform...
We also have an integration with a data warehouse."**

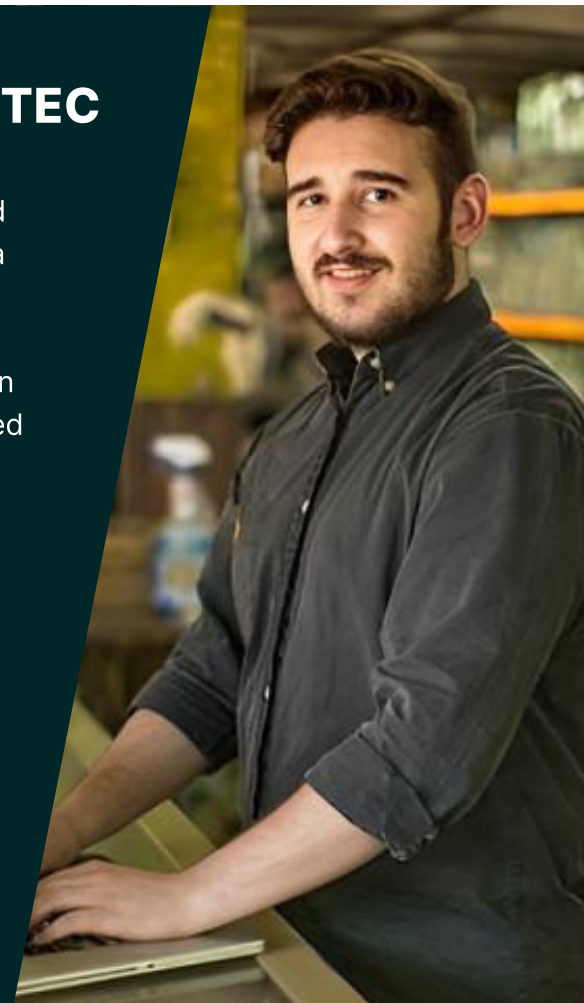
Martin Zanoniani | Universidad Tecnológica del Uruguay (UTEC)

Background

- **UTEC's Mission:** To expand technical education access across Uruguay, fostering digital skills and contributing to national development.
- **Open Access Model:** UTEC is a public university, meaning all courses and careers are offered free of charge to the public. This commitment extends to their Open edX platform.
- **Target Audience:** UTEC serves a wide range of learners:
 - Students enrolled in UTEC's technology-focused degree programs.
 - Citizens seeking to upskill or reskill for employment opportunities.
 - Individuals worldwide interested in diverse MOOCs.

Unique Attributes of the Open edX platform for UTEC

- **Intuitive User Experience:** UTEC chose the Open edX LMS for its simplicity and user-friendliness. As highlighted in the transcript, both students and instructors find the platform intuitive, minimizing the need for extensive support. This is crucial for a university serving a broad audience.
- **Open Source and Community-Driven:** The open-source nature of the Open edX platform aligns with UTEC's philosophical approach and allows them to participate in a vibrant community. This fosters collaboration and knowledge sharing, as evidenced by UTEC's efforts to assist other Uruguayan institutions in adopting the platform.
- **Scalability and Accessibility:** The Open edX LMS enables UTEC to reach a large number of learners efficiently. With over 19,000 users since its inception, the platform demonstrates its scalability.
- **Customization and Integration:** UTEC has successfully customized the platform, particularly the marketing site, using the Open edX API. They have also integrated the platform with their university's data warehouse. This flexibility is essential for tailoring the platform to UTEC's specific needs.
- **MOOC Functionality:** The Open edX platform is built for MOOCs, allowing UTEC to deliver high quality open courses to a global audience.



Impact and Outcomes

- **Democratization of Education:** By providing free MOOCs, UTEC is breaking down barriers to technical education and empowering individuals to enhance their skills.
- **Community Building:** UTEC is actively building an Open edX community in Uruguay, fostering collaboration and knowledge sharing among institutions.
- **Skills Development:** UTEC's courses, particularly in technology-related fields, are contributing to the development of critical digital skills.
- **Accessibility:** The platform allows people from all over the world to access education.
- **Low Support Needs:** Due to the platform's intuitive nature, UTEC has a very low support ticket volume, allowing their small team to focus on other projects.



Challenges and Solutions

- **Instructor Authoring:** Some instructors find the Open edX Studio interface challenging, requiring technical assistance. UTEC is addressing this by providing training and support.
- **Student-Centric Data:** Accessing detailed student activity data for individual learners can be difficult. UTEC acknowledges that newer versions of the Open edX software offer improved analytics tools.
- **Developing New Functions:** UTEC is working on developing new functions, such as chatbots, for the platform, but is moving slowly and surely due to a small team.
- **Content Creation:** UTEC is solving for this problem by opening calls to the community to create content.

Future Plans

- **Expanding Course Offerings:** UTEC plans to increase the number of MOOCs available on the platform, particularly by encouraging community contributions.
- **Community Development:** UTEC will continue to foster the Open edX community in Uruguay, providing support and resources to other institutions.
- **Platform Enhancements:** UTEC aims to contribute to the Open edX platform by developing new features and functionalities.

Key Takeaways

- UTEC's successful implementation of the Open edX platform demonstrates the platform's potential to democratize education and empower communities.
- The open-source nature of the Open edX LMS fosters collaboration and innovation.
- A focus on user experience and accessibility is crucial for reaching a diverse audience.
- Working with a provider, like edunext, has been very helpful to UTEC.

Conclusion

UTEC's commitment to open access and their strategic use of the Open edX platform are making a significant impact on technical education in Uruguay. By providing free, high-quality online courses, UTEC is empowering individuals, fostering community development, and contributing to national growth.



Breaking down barriers to technical education and empowering individuals to enhance their skills.
Allowing people from all over the world to access education.



e-SHE: A Digital Transformation of Ethiopian Higher Education

Introduction

The Federal Democratic Republic of Ethiopia (FDRE) Ministry of Education has embarked on a transformative journey to digitalize its higher education system. The e-Learning for Strengthening Higher Education (e-SHE) program, a significant component of this initiative, is a five-year multi-stakeholder initiative implemented by the FDRE Ministry of Education in partnership with Mastercard Foundation, Shayashone (SYS), Arizona State University, and the 50 Ethiopian public universities. The initiative leverages the expertise of EdPlus at ASU and the Open edX platform to deliver high-quality, accessible, and scalable online learning experiences and seeks to train 800,000 students, alongside training instructors, instructional designers, and IT support staff.

It intends to strengthen the capacities of public universities to deliver online education. Conceived to boost the relevance, quality, access, and resilience of higher education in Ethiopia, the e-SHE initiative will develop and support the establishment of state-of-the-art facilities and systems for reliable online education in higher education in Ethiopia.

The Need for Digital Innovation

Ethiopia's higher education sector has faced persistent challenges related to quality, access, and resilience.

- **Quality Learning:** Better content, diversity and number of learning materials (digital content), capacity of trainers to prepare and deliver content
- **Access and Equity:** Improved opportunities for open, distance, non-formal, informal education and enhancing the delivery mechanisms
- **Resilience and Responsiveness:** Heavy dependence on face-to-face learning exposed vulnerabilities during crises like COVID-19; Limited local capacity for rapid digital content development; Need for systems that adapt quickly to disruptions and evolving workforce demands

The Goals

- **Enhance digital skills:** Improve the digital skills of instructors, students, and staff.
- **Improve access to quality learning:** Expand access to quality education through digitization.
- **Produce a skilled workforce:** Develop a competent and entrepreneurial workforce.
- **Enhance education system resilience:** Make the education system more resilient to disruptions.

In partnership with



The Solution:

The Open edX Project and e-SHE

To address these challenges, the Ethiopian Ministry of Education selected the Open edX platform as the foundation for its e-SHE project. Key features of the solution include:

- **Centralized Learning Platform:** The Open edX implementation serves as the core platform for delivering online courses to learners across Ethiopia's 50 public universities.
- **Customizable Learning Experience:** The platform is customized to meet the specific needs of each university, allowing for tailored learning experiences.
- **Scalability:** The Open edX platform enables e-SHE to scale its operations, accommodating a growing number of learners and courses.
- **Data Management and Tracking:** The platform integrates with Salesforce to track learner progress, manage grades, and ensure data security and compliance.
- **Teacher Training:** The Open edX platform is used to deliver online training courses to teachers, equipping them with the skills needed to effectively teach online.
- **Accessibility and Flexibility:** The platform provides accessible and flexible learning opportunities for learners, enabling them to learn at their own pace and from any location.



Key Benefits of e-SHE

- **Increased Access:** Breaking down geographical barriers and providing flexible learning opportunities.
- **Enhanced Learning Experiences:** Engaging learners with interactive content and personalized learning paths.
- **Improved Teacher Capacity:** Empowering faculty with the tools and training to deliver effective online courses.
- **Data-Driven Decision Making:** Leveraging analytics to optimize the learning experience.
- **Scalability:** Accommodating a growing number of learners and courses.
- **Digital Literacy of Students:** Building foundational digital skills and confidence to thrive in an online learning environment.

Outcomes

e-SHE's user base is continually growing as universities begin e-learning efforts. The target population is 800k across the 50 universities, and already e-SHE has seen over 250k learners active on the platform in just the first year since students were added. EdPlus at ASU, known for its expertise in educational technology, through the e-SHE program has provided 13 courses to increase online learning readiness and digital literacy. e-SHE has seen over 23k trainees complete a workshop on how to teach online, with a project goal to grow that number to 35k.

To support multimedia content development for the platform's online courses, the e-SHE program has also launched seven multimedia centers at cluster universities to support robust e-learning content creation and support their regional cluster universities.



Milestones

The project has achieved significant milestones, including:

- **Large-scale adoption:** Over 250,000 learners have actively used the platform in its first year.
- **Customizable solution:** The platform has been tailored to meet Ethiopia's specific educational needs, integrating with Salesforce for data management and featuring custom roles and front-end portals.
- **Scalability:** The platform has demonstrated its ability to handle a large number of users and courses.
- **Positive impact:** The project is expected to contribute to improved student outcomes, increased access to education, and enhanced teacher capacity.

While the program is still in its early stages, it has already shown promising results and has the potential to revolutionize higher education in Ethiopia.



"The primary reason we chose the Open edX platform over other platforms is its open-source nature, along with its robust and highly customizable features that meet the unique requirements of both the ministry and the universities."

Basiliyos Tilahun

Future Directions

The e-SHE program is poised to further enhance the Ethiopian higher education landscape. Future plans include:

- **Expanding Course Offerings:** Developing a wider range of courses to meet diverse learner needs.
- **Strengthening Partnerships:** Collaborating with international institutions and organizations.
- **Investing in Infrastructure:** Improving internet connectivity and digital literacy.
- **Enhancing Data Analytics:** Utilizing advanced analytics to gain deeper insights into learner behavior.



You can find out more about the e-Learning for Strengthening Higher Education (e-SHE) program via our [website](#), or on our [LinkedIn page](#).

Conclusion

As Ethiopia continues its ambitious digital transformation in higher education, the e-SHE program stands as a pioneering model of innovation, inclusion, and scalability. By harnessing the power of the Open edX platform and the collective expertise of its partners, including the Ministry of Education, Mastercard Foundation, Shayashone, and Arizona State University, e-SHE is not only expanding access to quality education but also laying the foundation for a future-ready, digitally literate workforce.



Meet the Open edX Community

Core Contributor Spotlight

Sam Daitzman

Senior Product Designer at Schema Education

Areas of interest: Open-source, collaborative design

Schema



Meet Sam

For the past two years, I've been working on the Open edX software, on both mobile and content library product design. I also co-lead the UX/UI Working Group with Asma Ahmed. I've found the Open edX community to be incredibly welcoming. I value the ability to talk about my work publicly, so I love that community work is done in the open—it aligns with values and goals I have: open access to education and sharing knowledge more broadly. Open edX product design is unique. In the software industry, projects are often very secretive, you can't talk about ongoing projects and there are a lot of closed doors. Across organizations in multiple regions with different use cases, people are willing to guide the platform together. I love the spirit of democracy within the Open edX community.



"I love that community work is done in the open—it aligns with values and goals I have: open access to education and sharing knowledge more broadly."

A lot of open source software is hard to use, but this community has pathways to guide platform development, enabling us to create something unique to the open source world. For learning software with many diverse stakeholders it's important to have product and design considerations followed through during development.

As a designer on the mobile team, I think a lot about the challenges that mobile users face. Justin Paluku Mbunzule's talk at the 2024 Open edX Conference on the needs of learners in refugee camps really resonated with me. He discussed the need for offline learning capabilities, a feature I was actively developing at the time. I was able to connect with Justin after the conference and continue to get his input on his needs for offline learning capabilities.

I've found that the community in general is very excited about connecting new members with the right person to answer questions. When I first started, I was hesitant to reach out, but it's become clear that everyone is willing to give time. Everyone wants new community members to succeed.

Emad Ehsanrad

Software engineering lead at edSPIRIT

Areas of interest: Web development, Cloud computing, AI, and contributing to open-source

EDSPIRIT



Meet Emad

I started working with the Open edX platform back when the Koa version came out (2021), as we were looking for an open-source LMS to add to our learning services. Throughout my journey, I have worked on and contributed to the Open edX ecosystem, including writing code for XBlocks, micro-frontends, Tutor, and several plugins, as well as Python and JavaScript packages. I also contribute heavily to documentation. But I've had the most fun working directly with the platform itself.

I actively participate in several working groups, including the Tutor, Build-Test-Release, and the Large Instance groups. My contributions include triaging issues before each release, enhancing the development experience with Tutor, and performing maintainership duties for the Open Response Assessment (ORA) Grading Frontend. One of the initial projects I tackled was a ChatGPT XBlock, which turned out to be both enjoyable and educational. More recently, I developed a Tutor plugin that lets users manage a WordPress instance from anywhere. It's been deeply rewarding to collaborate with others, enhancing the platform and boosting its usability.



"If you're passionate about innovation, collaboration, and making education more accessible, the Open edX community is the perfect place to put your talents to work and help shape the future of learning."

Joining the Core Contributor program has been an incredible opportunity to make an impact in open-source education. Being nominated as a Core Contributor and Maintainer is an honor that reflects how hard work and contributions are celebrated, giving us the chance to drive meaningful improvements and take on the responsibility to improve the learning experience for everyone. If you're passionate about innovation, collaboration, and making education more accessible, the Open edX community is the perfect place to put your talents to work and help shape the future of learning.

I'm really excited about the potential for integrating AI within the Open edX platform. There are great opportunities to enhance personalized learning experiences and automate certain aspects of course management. I'm also looking forward to helping make the platform more accessible to a wider range of global educational institutions. Knowledge and access to learning should be available to everyone. Imagine a future where \$10 laptops make education accessible to all, allowing everyone to benefit from this incredible resource. Until we reach that point, I'll try to make a difference, one commit at a time.

Ghassan Maslamani

Full stack backend developer

Areas of interest: Open access to education, Arabic language support, open-source



Meet Ghassan

I began working as a developer on the Open edX software in 2021, when I was introduced to the platform through a friend, and then slowly I discovered the Open edX ecosystem and the community. My first encounters were with Ned during the 2021 “Love for Docs” hackathon, and Régis while interacting with Tutor, and both were very welcoming.

I wanted to work on open source software to gain experience in engineering and spend time working on rewarding projects. As a member of the Open edX community, I’ve worked on many projects and with several working groups. Currently, I’m a Translations Core Contributor, where I work on Arabic translations with the Translations Working Group. Recently, I helped pilot the use of the Transifex AI tool to help automate and accelerate translations.



“Contributing to the Open edX ecosystem is very rewarding and I really enjoy being a part of the community because I see real progress being made in the platform. I get real-world engineering experience and the opportunity to learn from and help others at the same time.”

I also contribute code as a part of the Build-Test-Release, Frontend, and Developer Experience working groups. I’ve spent time fixing bugs and working on Tutor (the Open edX development and deployment tool), and am a maintainer for the Tutor forums plugin. I’m proud of my contributions to Tutor that made it faster for site operators to run first-time setup for new Open edX instances—it made things quicker and easier for developers, which I hope improved adoption of the platform.

Contributing to the Open edX ecosystem is very rewarding and I really enjoy being a part of the community because I see real progress being made in the platform. I get real-world engineering experience and the opportunity to learn from and help others at the same time.

Working Group Highlights

The Open edX community thrives through the dedicated efforts of its Working Groups, each advancing key aspects of the platform's development and global reach. Each group's contributions this year have significantly enhanced the Open edX platform, promoting an open, collaborative environment that advances learning worldwide.

Marketing Working Group

Focused on raising global awareness and adoption, this group collaborates on content strategy, SEO optimization, and event organization, driving new engagement. Notable efforts included expanding the Open edX website content, hosting quarterly events, and publishing blog content to connect with diverse audiences.

Deprecation Working Group

Focusing on codebase maintenance, the Deprecation Working Group removes outdated components to improve code efficiency and readability. In 2024, their initiatives enhanced platform stability and extensibility, aligning with long-term development goals for the Open edX platform.

Build-Test-Release Working Group

The BTR team manages Open edX community releases, ensuring reliability and accessibility for users worldwide. Through testing, troubleshooting, and close collaboration with developers, they've supported steady improvements and streamlined release processes.

Educators Working Group

As a community of practice, this group connects educators to share best practices, course-building techniques, and case studies, enriching the educational ecosystem on the Open edX platform. Monthly meetings foster collaboration and highlight innovations in course design and implementation.

Translation Working Group

Dedicated to platform translation and localization, this group coordinates translations across target languages. This year, they achieved 100% translation in 32 of 33 key languages, and ensured multilingual support across new releases, expanding the Open edX platform's accessibility globally.

Product Working Group

The Product Working Group is responsible for evaluating and prioritizing updates to and new features for the platform. In 2024 the working group kicked off a new way of proposing changes to the platform known as Product Proposals. Since January there have been 57 new proposals coming in from 26 community members. So far, 22 proposals have been implemented or are under active development.

Data Working Group

This group enhances analytical capabilities of the Open edX platform, focusing on community-supported data interfaces. 2024 initiatives included supporting Aspects, an Open edX data and analytics product, in production, making performance improvements, and bug fixes.

UX/UI Working Group

Dedicated to UX/UI updates to the platform, the UX/UI Working Group contributes to and reviews the design work in progress design for new features and improvements to the platform.

Frontend Working Group

Responsible for the Open edX frontend, this group curates the strategic roadmap for user interface improvements. They worked on new design elements, usability upgrades, and empowering the community to contribute to the evolving frontend architecture.



Want to get involved? See the [Open edX Working Group calendar](#) which contains the schedule of our recurring Working Group meetings.

Deep Dive: Platform Translation

The **Open edX Translation Working Group**, established in August 2021, centralizes community-driven translation and localization efforts to enhance platform accessibility across diverse languages. Here are the primary focus areas and resources:

Translation Goals and Scope

- The Working Group aims for 100% completion of translated content across all Open edX software releases, with localized strings covering platform features, website elements, and user documentation.
- Current target languages include a diverse list from French (Canada) to Tibetan, with specific completion rates for translation and review per language. Access the detailed Translation Progress Table for the latest data on supported languages and reviewer assignments [here](#).

Community Involvement

- Open edX invites community members to join as translators or reviewers in their areas of expertise. Through this model, the community actively contributes to high-quality translations, adapting content to regional contexts and linguistic norms. Interested participants can review the onboarding instructions [here](#).

Translation Working Group Meetings

- Meetings typically occur every third Wednesday to discuss translation progress, quality enhancements, and upcoming initiatives. For meeting dates and details, please refer to the [Open edX Working Group calendar](#), [Open edX Translations GitHub Board](#) or join the #transifex-wg channel on [Open edX Slack](#).

Engineering Initiatives and Feedback

- The Working Group collaborates with Axim and community engineers to address specific translation issues, streamline project setups, and ensure brand consistency across languages. Feedback on contextual issues or Open edX-specific terminology is provided to facilitate accurate and user-friendly translations.

These initiatives support Open edX's commitment to global educational accessibility by making learning content available across multiple languages.

To the right is a summary of the translation and review rates across all languages, grouped into categories based on the Redwood release as of the publishing date.

Fully Completed

100% Translation, 100% Reviewed

- **Languages:** French (Canada), Uzbek, Latvian, Vietnamese, Spanish (Latin America), Chinese (Hong Kong), Persian, Tibetan
- **Summary:** These languages are fully translated and reviewed, ensuring content quality is ready for use.

Nearly Complete

100% Translation, 90–99% Reviewed

- **Languages:** Mandarin (zh_CN), Arabic, Portuguese (Portugal), Hindi, Turkish
- **Summary:** These languages are near completion with only minor reviews remaining to reach 100%, ensuring they are close to deployment-ready.

High Translation, Moderate Review

100% Translation, 40–89% Reviewed

- **Languages:** Spanish (Spain), Italian, German, Romanian, Greek, Hebrew
- **Summary:** Translations are complete, but additional review work is required for quality assurance, with rates above 40%.

High Translation, Low Review

100% Translation, 1–39% Reviewed

- **Languages:** Russian, Indonesian, Danish, Dutch, Ukrainian, Portuguese (Brazil), Afrikaans, Polish, Swahili, Telugu
- **Summary:** These languages have completed translation but require more extensive review efforts to meet quality standards, with reviews under 40%.

Minimal Review Started

100% Translation, 0–1% Reviewed

- **Languages:** French (Standard), Thai
- **Summary:** Translations are completed, but reviews are only just beginning, with efforts needed to meet quality and accuracy benchmarks.

Areas of Investment

Open edX Product Roadmap

The [Open edX Product Roadmap](#) is a place to capture all of the work across the community that is advancing the Open edX platform. The roadmap aims to provide visibility into the work and a place for community members to propose and discuss changes to improve the shared platform. Since its initial launch, two major process milestones have been completed:

- **Milestone One:** Capture and document all current and upcoming contributions across the ecosystem
- **Milestone Two:** Build and prioritize a backlog of initiatives, in alignment with a strategic direction for the Open edX project.

Since 2022, the Core Product Working Group has spearheaded the development of a [product proposal process](#), capturing upcoming and in-flight projects in a way that ensures transparency and encourages broad community input and context to a wide variety of ideas for platform improvements. Since January 2024, 57 new proposals have come in from 26 community members. So far, 22 proposals have been implemented or are under active development. Additionally, there exists a backlog of vetted product proposals ready for any interested development team to pick up and begin work on. Moving forward, the group seeks to bring more Open edX development teams into the product proposal and development process, so the Roadmap reflects all effort being undertaken across the community.

Since the Redwood release, the community has come together to pre-plan major product deliverables well in advance of the release's code cut off date. This planning process is an open, synchronous meeting that anyone can join, whether to discuss projects they're contributing or to get a front row seat to the next release's deliverables. Coordination across community projects in this way allows us to have more predictable feature sets available in each release, facilitates assistance across the community for projects that might be falling behind, and prevents duplicative work—which streamlines efforts and reduces unnecessary redundancy.



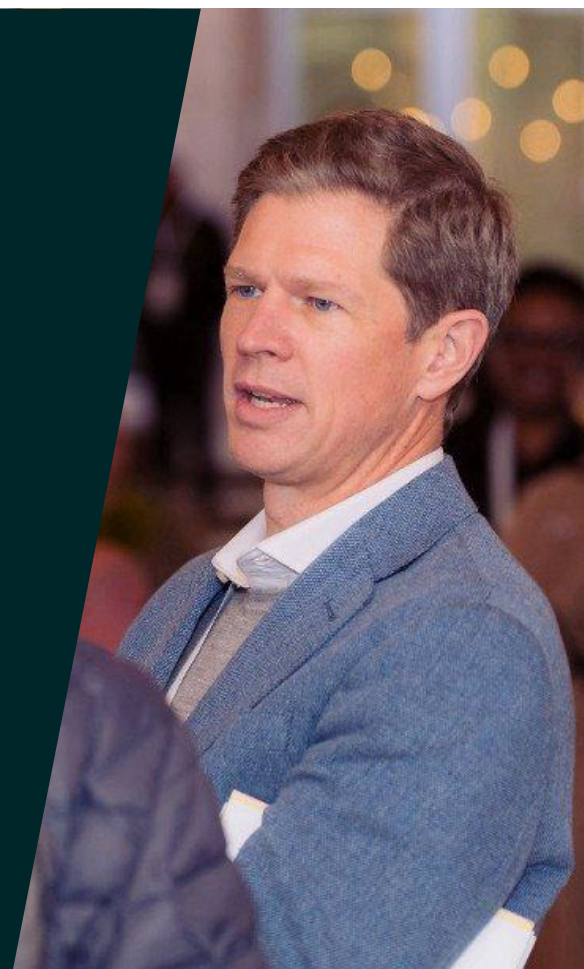
Get involved and help guide the direction of the Open edX Product Roadmap

The Named Release Planning meeting occurs biweekly and can be found on the [Open edX Meeting Calendar](#). Join asynchronously in the #release-planning room in the Open edX Slack.

Investments in an Improved Platform Architecture

Over the past year, the Open edX platform has undergone substantial architectural evolution. These efforts are driven by a core objective: to make the platform slimmer, more flexible, and easier to extend – while also reducing operational complexity and long-term maintenance costs. Our strategy emphasizes steady, evolutionary change aimed at creating a platform that is easier to operate, easier to understand, easier to contribute to, and more sustainable for the future. From 2024 through 2025, we focused on six major initiatives:

- **Deprecating and Removing Legacy Software:** We accelerated efforts to phase out outdated components, reducing the shared maintenance burden and simplifying the platform's core architecture.





- **Adopting Event-Driven Backend Plugins:** We expanded support for backend plugins that respond to system events (such as user enrollment) without requiring changes to the platform’s core software. This allows greater flexibility for implementers while reducing the need to customize core services.
- **Introducing Frontend Plugin Slots:** We created new “plugin slots” across user-facing pages, enabling organizations to customize the frontend in a consistent, sustainable manner.
- **Extracting Core XBlocks into a Library:** By packaging key XBlocks (modular course components) into a standalone library, we have solidified the extensibility contract for content development and opened the door to more reliable customization.
- **Migrating and Consolidating the Forums Service**
We replaced the legacy Ruby-based discussion forum with a new Python plugin. This change simplifies hosting, lowers costs, and removes the need to support a separate technology stack.
- **Redesigning the Theming System**
We began building a new theming system based on design tokens – an industry-standard approach that will allow universal customization of the platform’s look and feel.

Looking ahead, our key focus areas include:

1

Continued investment in our plugin strategy

2

Full removal of MongoDB from the platform’s software stack

3

Ongoing simplification through deprecation of outdated features

4

Implementation of a platform-wide, role-based access control (RBAC) system

Plugin Enablement

Plugins allow organizations to tailor the platform to their needs without modifying its core, which makes upgrades easier and long-term maintenance more manageable. This architectural pattern is common among successful platforms such as WordPress and Salesforce.

As early as 2023, Open edX included an event-driven plugin framework. However, adoption was initially limited. In 2024 and 2025, we invested in improved documentation and onboarding tools. As a result, the number of backend plugins using our framework has grown to over 80, with a goal of reaching at least 200 by mid-2026.

The event-driven model enables plugins to react to platform events – such as user enrollment or course completion – by subscribing to those events and executing organization-specific logic. These plugins can be developed and deployed independently of the platform’s core code, promoting both customization and modularity. Some extensions will be open and reusable across organizations, while others will remain proprietary.

We also introduced frontend plugin slots – a new plugin type that simplifies UI customization. This feature has been described by one community member as a “step function improvement in Open edX extensibility.” It has allowed us to remove platform-specific features such as upsell messages and paves the way for easier customization in areas like the authoring interface.

MongoDB Deprecation

We are in the final phase of removing MongoDB from the Open edX software stack. Approximately 50% of the work has been completed. MongoDB currently introduces complexity and cost in production environments – requiring multiple servers for high availability – without delivering proportional value. By eliminating this dependency, we will reduce infrastructure requirements while maintaining all current functionality.

Simplification Through Deprecation

To enhance long-term sustainability, we continue to reduce the platform’s overall software footprint and distribute maintenance responsibility more evenly across the community.

This work, detailed further in the Platform Health section, includes archiving unused repositories and removing organization-specific customizations. By the end of the year, we plan to archive at least 10 additional repositories and complete the removal of all bespoke code tied to individual institutions.

Role-Based Access Control (RBAC)

A robust role-based access control system is foundational to a scalable, extensible platform. While Open edX currently supports basic role management, we’ve identified key limitations based on extensive community feedback.

Over the past year, we conducted user interviews and design workshops to better understand the diversity of access control needs. This year, we will begin implementing a more flexible and consistent RBAC system that will:

- Centralize role creation, configuration, and management
- Standardize how roles are mapped across platform services
- Streamline role administration tasks
- Introduce a coherent hierarchy of roles across organizational levels (platform-wide, course, cohort, etc.)
- Simplify the process of defining custom roles
- Support integration with external identity and access management systems

This upgrade will significantly improve both security and usability, enabling organizations to configure access in ways that align with their internal structures and policies.



Current Areas of Roadmap Investment

In addition to the architectural improvements described above, we are focused on themes of flexible learner pathways and micro-credentials. Looking forward, the Open edX platform will support a wide variety of credential aligned learning sequences, with integrated capacity to award credentials to learners who complete such sequences. Prioritization of content modularity and verifiable digital credentials reinforce these themes.

Content modularity is a primary focus. Flexible content authoring tools and alternative authoring pathways for sequencing content into learning segments support creation of standalone units, subsections, and sections. This is key to empowering Open edX instances to invest in nontraditional credential pathways. A platform that enables an implementation of a wide variety of nontraditional credentialing pathways, such as upskilling and reskilling, is well positioned to succeed in the evolving landscape of credential-based education.

Integration of verifiable digital credentials in the platform further aids integration of credential-based education. Verifiable credentials enable learners to control and share records of their accomplishments in a way that preserves privacy, is independently verifiable, and tamper-evident. Learners can present proof of their accomplishments instantly to potential employers, admissions offices, government agencies, or whatever recipient they choose. The receiver of the credential can verify its validity, and be confident that it hasn't been tampered with, ensuring it belongs to the person presenting it.



Content Libraries

Centralized hubs for authoring and content management



Aspects

Analytics tool for drawing actionable insights from platform data



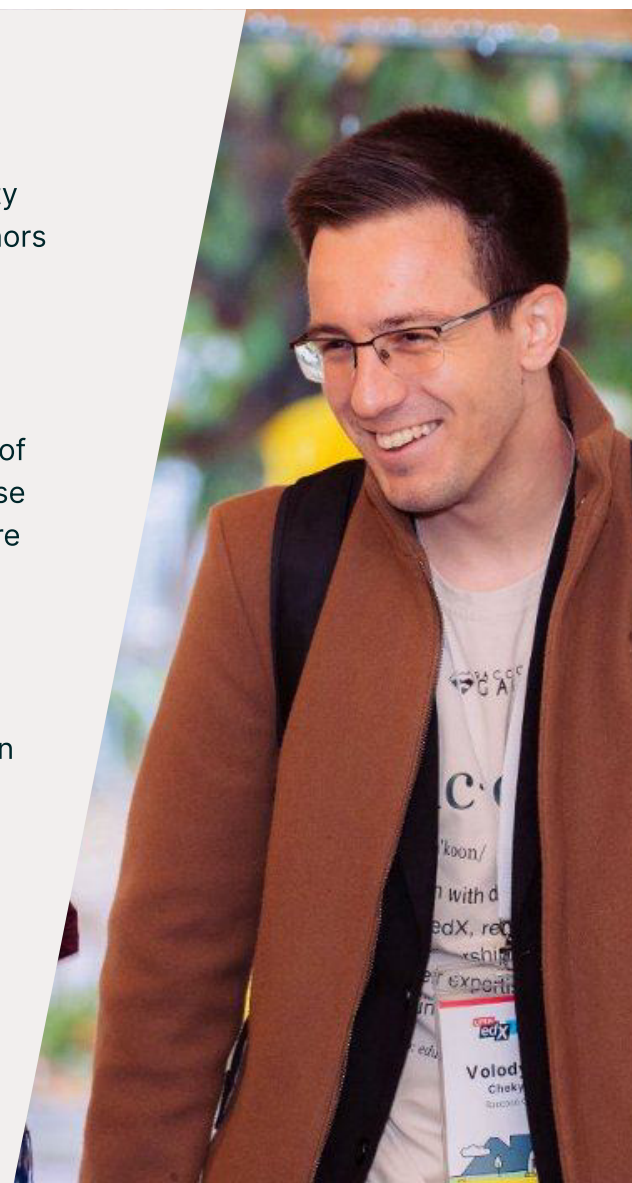
Credentials

Verifiable certificates and badges, and skills-based credentials

Content Libraries

The relaunch of Content Libraries includes a suite of new features and functionality that make Libraries centralized hubs for authoring and content management. Authors can create content independent of the course outline, and reuse it in as many courses as they'd like, with synced updates. Authors can choose to reuse single pieces of content independently, or to create pools of content that can be randomized. Libraries can flexibly hold as much content as needed, with tools for searching, filtering and adding tags. Users can also create subsets, or collections of content, within Libraries. The Sumac release features the ability to create and reuse components, add tags, search, and create content collections. Content libraries are key to creating custom learning pathways by remixing sections from different courses, and to enabling a competency-focused program, wherein competencies can be managed independently from courses.

Moving forward, additional capabilities will be added to further support flexibility in content authoring and content reuse. The ability to create and reuse units, subsections, and sections will enable use cases such as having a library of course sections that can be reused in other courses, offered as stand-alone credits, and creating modularized content at scale. Importing content and even full courses into Libraries facilitates portability and sharing of content across instances.



Aspects

Aspects is a data and analytics tool that empowers users to draw actionable insights from their platform data. As of the Sumac release, Aspects provides analytics at the single-course, multi-course, and instance levels and allows users to view data for all learners, at-risk learners, and individual learners. Beyond what is available out of the box, Aspects offers instances increased flexibility to customize their own dashboards for their use case.

For Teak and the upcoming Ulmo release, we plan to invest in a few areas to support content modularity, flexible learner credentialing, and non-degree credential pathways. We'll expand Individual Learner Dashboards to show learner progress through content tagged with a particular competency. We'll make data available in-platform to show how library content is performing across an instance. We'll give users the ability to define groups of learners, so they can view what and how these learners are doing.



Credentials

Verifiable digital credentials debuted in the Open edX Quince release in 2023. Initially, this release allowed learners to share program credentials to wallets that support two data models, Verifiable Credentials Data Model v1.1 and the Open Badges Specification v3.0 (targeting sharing credential via the Learner Credentials Wallet, an application for iOS and Android phones, created by the Digital Credentials Consortium). Currently, these credentials exist at a program level, and ongoing work aims to bring them down to the level of learning sequences.

We expect to invest in implementing additional data models, expanding to support course certificates and badges, and mapping credentials to content taxonomies to communicate clearly what skills learners have acquired.

Platform Health

In order for software, open-source or not, to be considered healthy, it requires ongoing maintenance. That maintenance represents a significant amount of effort in any software project. Open-source maintainers are the contributors responsible for ensuring that all the critical work of the project is done, done well, and continues over time. That work includes applying security patches, building features, fixing bugs, onboarding new contributors, writing documentation, and more. Given the importance of the work, it is essential to put in place mechanisms for measuring progress and ensuring accountability.

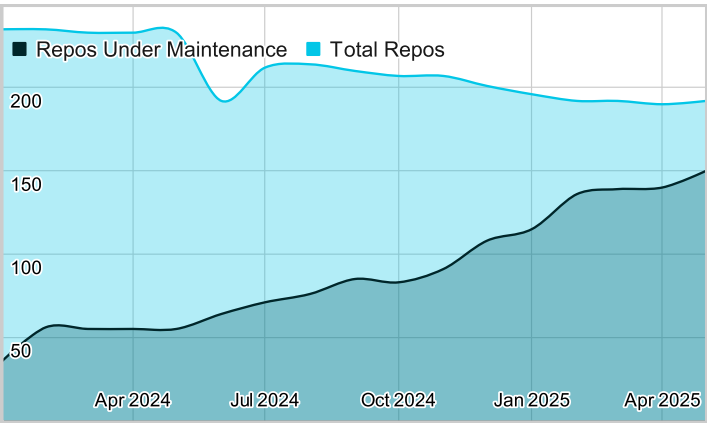
In the Open edX project, the term “maintainer” refers to an individual or group of people who serve as leaders for a given component (a service or library composed of code and hosted on GitHub) of the Open edX platform. Maintainers provide both technical and community management. In order to have a healthy and well maintained project, the Open edX community works hard to take on maintenance responsibilities. Companies and individuals around the globe step forward to ensure a robust, strong Open edX project.

The Maintenance Working Group

This working group was formed in **January of 2024** with numerous goals: to secure and support maintainers for the Open edX core product offering, coordinate major dependency upgrades, and serve as a center of expertise for maintenance practices and tooling. Over the past year, coordination and support was provided for urgent upgrades, required for the Sumac release, that are critical to the long-term health and security of the platform, including:

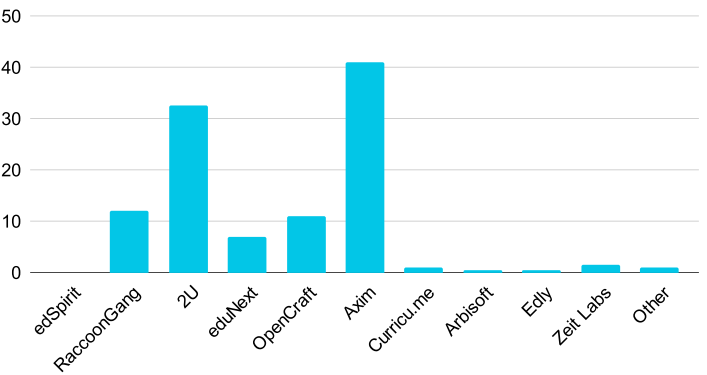
- **Upgrading Python to version 3.11/3.12 and Node to version 20.** Upgrades to the underlying tools that help us build the Open edX platform ensure that we’re always using the latest, most secure versions and give us the opportunity to let developers use the latest capabilities of these tools to build the next generation of platform features.
- **Upgrading Ubuntu to version 22.04/24.04.** Similarly, upgrading our underlying operating system dependencies ensures we’re operating on a secure, reliable platform.
- **Jest and Enzyme upgrades.** These smaller upgrades ensure a consistent and secure testing environment.

Repos Under Maintenance



Throughout 2024, organizations and individuals in our community have taken on maintainership of more than 80 key repositories, and the proportion of maintained repositories has risen as we work to remove unused code repositories.

Repos Being Maintained by Org



Maintainership is distributed across many organizations. Currently, Axim shoulders a disproportionate amount of maintainership responsibilities as the community is ramping up on maintenance duties. We don’t expect this to be the steady state, rather, more organizations will need to volunteer to take on increased responsibilities.

The work of the maintenance group to get in so many required upgrades for Sumac resulted in no upgrades being required for Teak —a major success. The maintainers can thus work on required upgrades for the Ulmo release with a more measured cadence.



Maintenance Strategy & Priorities

The main priority of the Maintenance Working Group is to find maintainers for all repositories. If you are interested in helping maintain repos or want to learn more about which repos need maintenance, **please join us in the #wg-maintenance Slack channel in the [Open edX Slack](#).**

There will always be ongoing maintenance projects, but we hope to find a sustainable rhythm for upgrades whereby progress is steady rather than urgently cramming in effort just before a named release boundary. Some of our areas of focus in the upcoming year include upgrading to the next major version of Django (5.2), updates to modernize our Python libraries to meet modern standards, and ongoing upgrades for all third-party packages on which the Open edX ecosystem relies. Additionally, we will focus on deprecating and removing legacy frontend code that has been replaced by micro-frontends (MFEs). Removing this legacy code will further ease the maintenance burden. When unused, older code paths linger in a codebase, they can cause confusion and breakage when developers unfamiliar with the code (or how to test it) have to keep it up-to-date with latest package versions and needlessly fix its broken tests.

The Open edX Project & Community Health

Every open-source project relies on the community to drive progress. The community designs, builds, maintains, documents, and uses the software. Successful projects require vibrant and healthy communities, and growing communities create greater project capacity. For the Open edX project to remain vibrant and sustainable, we must increase both the size of our community and the rate of participation. We should continue to prioritize every opportunity to improve, align, and grow our community.



The Open edX Community in Numbers

To provide context into the scope and scale of the Open edX project, it is useful to review some measures of the overall project. The following are values for the period between December 1, 2023 and November 30, 2024. In the following sections we'll examine participation trends in greater depth.



15 organizations

Actively participating



100 translators

Unique Transifex translators



335 code authors¹

Unique code authors



1334 contributors²

Unique project contributors

Community-Wide Contribution Rate

In order to monitor the trends in contribution, we look to three areas for qualitative and quantitative analysis: Transifex activity, Product Proposals, and code contribution rates.

Current Measurements

The Translations Working Group targets 30+ languages for translations, such as Arabic, Spanish, Portuguese, and Ukrainian; as of Dec 2024, 32 languages have achieved 100% translated strings. On Transifex, there were 100 active translators in the past year.

In 2024 the Product working group kicked off a new way of proposing changes to the platform, known as Product Proposals. Since January there have been 57 new proposals from 26 community members. So far, 22 proposals have been implemented or are under active development.

Examples of proposals from and implemented by the community include the left sidebar navigation and the Common Cartridge conversion projects. The left sidebar navigation project saw user research and design completed by Western Governors University and implementation by Raccoon Gang; the Common Cartridge conversion, proposed by Raccoon Gang and currently being implemented by them, has benefited from public input from OpenCraft, who had previously done an investigation into such a project. Both projects highlight the benefits of open collaboration, with interested groups coming together to enhance critical areas of the platform.

Code contribution rate is measured as the sum of lines of code added and removed across all Open edX project repositories. Data is for the period between December 2023 and November 2024.



100 translators

Active Transifex translators



32 languages

With 100% translated strings



57 proposals

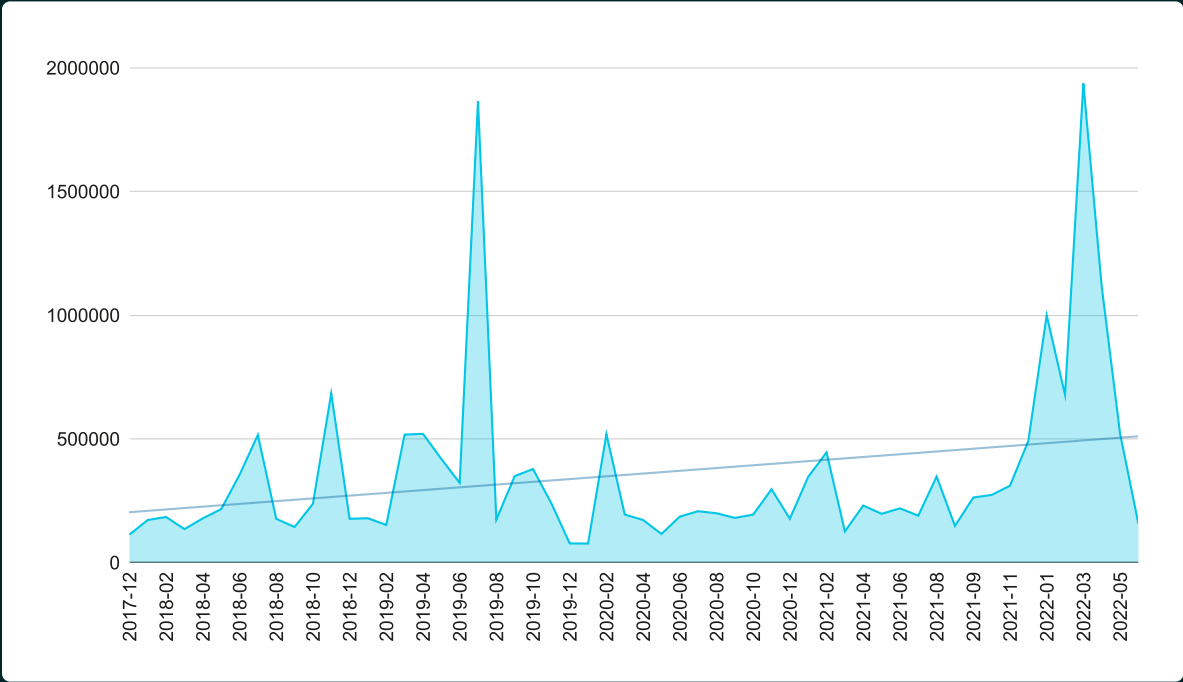
New community proposals



~16 million lines of code

Added & removed in 2024

Lines of Code Added by Month



Analysis

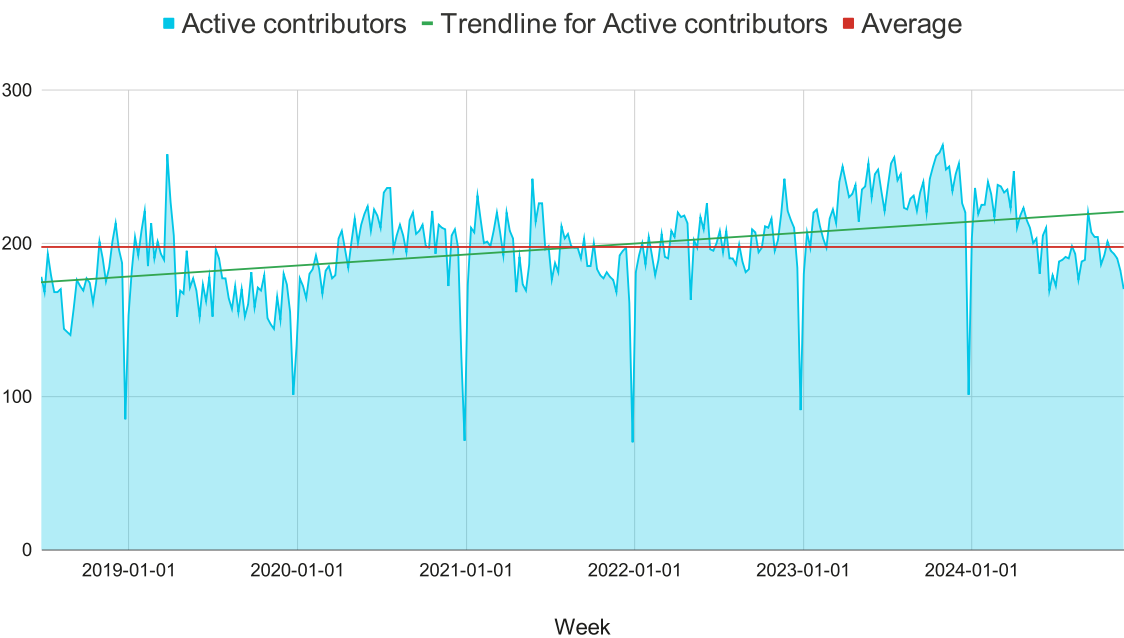
Over the last few years, the rate of contribution has been trending steadily upward. In 2023 and 2024, contribution rates were bolstered by a number of large projects, including the replatforming of the forums application from Ruby to Python, the creation of the Course Authoring MFE, the creation of the Aspects analytics system, and the MFE composability project (due in Ulmo). A large spike in August 2023 corresponds to both the archiving of the old mobile applications and the release of Paragon 21.0.

Active Code Contributors

This analysis looks at the stability of our contributor base. In order to visualize longer term trends, this data set includes weekly active contributors since July 1, 2018, the average during that period, and the trendline.

Current Measurements

Weekly Active Contributors



Analysis

Since 2018, the trend of weekly active contributors has steadily increased over time, with clear seasonality patterns around the end of the calendar year.

Elephant Factor

The elephant factor is a measure developed by the [Community Health Analytics Open Source Software](#) project at the Linux Foundation. Broadly, the metric indicates a project's dependence on a single—the elephant—or small number of firms. Projects with higher elephant factors tend to be more sustainable because they can afford to lose a contributing firm without endangering the project. Projects with a high elephant factor are also less likely to focus on the interests of a single or small number of participating firms exclusively, and are thus more inclusive of community needs.

Elephant factor is calculated by counting the number of firms, starting with the most frequent contributors, until 50% of the contributions—measured as lines of code added to Open edX-related repositories³—to the project are accounted for.

Current Measurements

Elephant factor = 2



Current measure

Elephant factor = 2



Last quarter measure

Elephant factor = 3

Analysis

Over the past year, the contributions of the two highest contributing firms, Arbisoft and Axim, accounted for 55% of the total lines of code added. Over the last quarter in 2024, the elephant factor rose to 3. While the elephant factor is currently at 2, this latest data speaks to an ever-increasing number of ecosystem firms actively participating in the project. We are making progress, but should continue to focus on this to ensure long-term sustainability.



Events and Connections



Open edX Conference 2024

The Open edX Conference 2024, themed "Breaking Boundaries, Building Bridges: Accessible, Effective, and Relevant Online Learning," was an annual gathering of educators, developers, and thought leaders dedicated to the future of online education. Held in the stunning **Western Cape of South Africa**, this year's conference focused on innovative approaches to making online learning more inclusive, impactful, and aligned with current EdTech trends.

Major Highlights: Keynote Speeches

Hatim Eltayeb, the CEO of the African Leadership Academy (ALA), delivered a powerful and inspiring keynote. His address focused on the critical role of education in shaping the future of Africa and how innovative platforms like the Open edX LMS are essential tools in democratizing access to quality learning across the continent.



Professor Jonathan Jansen's address was both poignant and thought-provoking. His speech, "Hype or Hope: Data, Devices, and the Promise of Digital Education in Africa," explored the persistent educational inequities across the continent, and the potential of digital technology to bridge these gaps. He emphasized that while technology holds promise, it is not a panacea for deep-rooted issues such as unequal access to resources and quality education. Jansen's address served as a critical reminder of the importance of educational leadership and the need to focus on inclusive, learner-centric approaches in the deployment of educational technologies. This keynote resonated strongly with the audience, aligning with the conference's broader theme of bridging the digital divide and fostering global collaboration in educational innovation.



VIP Contributions

Geordin Hill-Lewis, the Mayor of Cape Town, was a distinguished speaker at the conference. As a leader committed to innovation and progress, his participation highlighted Cape Town's role as a growing hub for education and technology. Hill-Lewis's presence at the conference added significant value, showcasing Cape Town's dedication to becoming a leader in the global education technology space. His insights into the city's strategic direction were particularly relevant for attendees interested in the intersection of government support, education, and technology.

Founders Lounge

The Founders Lounge at the Open edX Conference 2024 offered a space for veteran and aspiring EdTech founders to connect, share knowledge, and explore opportunities. Attendees ranged from mission-driven non-profits to emerging startups, all focused on advancing innovation in education.

The session opened with a roundtable discussion where experienced founders shared their journeys—from initial idea to sustainable business. They highlighted key phases like business planning, early scaling challenges, and the importance of adaptability, mission alignment, and perseverance.

An interactive Q&A followed, allowing new founders to ask practical questions on funding, regulations, and tech partnerships. The event concluded with a networking session connecting participants with incubators, investors, and tech companies, offering valuable resources and support. Overall, the Founders Lounge provided inspiration and actionable guidance for anyone ready to take the next step in their EdTech journey.

Key Points

Welcoming Address

Mayor Hill-Lewis welcomed the global audience to Cape Town, highlighting the city's commitment to educational innovation and digital transformation. He expressed pride in hosting the Open edX Conference and recognized the value of collaboration and knowledge exchange.

Innovation in Education

He emphasized the vital role of edtech in meeting the needs of diverse populations and reaffirmed Cape Town's commitment to using technology to make education more accessible and equitable.

Support for Digital Learning

The Mayor outlined local initiatives to support digital learning—such as infrastructure investments and partnerships with educational institutions—and stressed the importance of platforms like Open edX in expanding access to quality education.

Vision for the Future

He shared his vision of Cape Town as a future leader in education and technology, encouraging participants to explore partnerships in a city ready to drive educational innovation.

Plenary Roundtable

The plenary roundtable explored critical challenges and opportunities surrounding the scaling of equitable access to high-quality education at a national level. The session featured key leaders from various countries, each offering unique insights into how technology can address educational disparities and drive systemic change. The discussion—moderated by Christopher Capozzola, Senior Associate Dean for Open Learning at MIT—featured the following speakers, and highlighted case studies from Uruguay, Ethiopia, Saudi Arabia, and South Africa.

Summary

The roundtable underscored that while technology offers powerful tools to scale education, success depends on local contexts, strong governmental partnerships, and an unwavering focus on equity.



Soledad Félix

Educational Platforms Chief at Ceibal, Uruguay, shared how the country integrates digital technology into public education to foster inclusion and improve learning outcomes. She highlighted the importance of strong digital infrastructure in driving nationwide educational transformation.



Basiliyos Tilahun Betru

Ethiopia's E-learning Program Manager addressed Ethiopia's journey in deploying e-learning to overcome geographical barriers and resource limitations, emphasizing the need for context-specific digital interventions in resource-constrained environments.



Saad Qobti

Project Manager of Development at KKUx, Saudi Arabia, highlighted the importance of digital upskilling in preparing Saudi students for a competitive global marketplace. His presentation focused on the scaling of online education initiatives to meet national workforce demands.



Ian De Vega

Chief Director for Business Intelligence Management at the Western Cape Education Department, discussed South Africa's challenges in managing analytics to support decision-making in education, noting the role of technology in shaping policy and improving equity.

Attendance

The conference attracted 230 delegates from around the world, including educators, instructional designers, developers, and industry experts. About 20% of the participants were from the African continent and the remaining 80% were participants from North America, Europe, and South America. The diverse participation underscored the global relevance and appeal of the Open edX platform.

Marketing Reach

Our marketing efforts for the 2024 Open edX Conference achieved remarkable results:

- **Ad Campaigns:**
Generated 67,700 clicks, driving significant traffic to our conference site.
- **Impressions:**
Our campaigns garnered over 151 million impressions, significantly increasing visibility and engagement across various platforms.



Conference Conclusion

The Open edX Conference 2024 was a resounding success, uniting a diverse global community of educators, technologists, policymakers, and entrepreneurs to explore and shape the future of online education. The event featured high-level contributions from experts and leaders who provided invaluable insights into scaling access to education, advancing digital platforms, and addressing equity gaps through technology. The innovative presentations and in-depth roundtable discussions, such as those on scaling access to high-quality education and fostering new EdTech ventures, sparked engaging dialogue and actionable ideas for real-world implementation.

The conference's impact was further amplified by targeted marketing efforts, which attracted participants from around the world, ensuring a broad and diverse audience. Networking opportunities fostered collaboration, while sessions like the Founders Lounge and case study discussions provided practical takeaways for attendees at all stages of their educational journey.

This year's event not only highlighted the immense potential of online learning platforms like the Open edX LMS but also demonstrated the power of a global community working together to address the most pressing challenges in education. We are excited to build on the momentum generated at this year's conference and continue advancing the mission of making high-quality education accessible to all in the years to come.

Connecting with the Open edX Community Year-Round

Monthly Open edX Meetups

The monthly Open edX meetups are dynamic gatherings that bring together educators, developers, and ed-tech enthusiasts to share updates, explore platform innovations, and exchange ideas. These events feature engaging presentations, live demos, and collaborative discussions to foster community knowledge and engagement. Whether you're a long-time community member or new to Open edX, the meetups offer valuable insights into the platform's growth, best practices, and opportunities to connect with peers and industry leaders in the ed-tech space. To learn more, visit our website at <https://openedx.org/events/>

Other Ways to Connect

Looking for additional ways to connect with others in the Open edX Community? We've got you covered!

Preferred Partners

We take pride in supporting and growing our community, and the Open edX Marketplace is a central location to find experienced providers in the Open edX community who can work with you on a vast variety of items such as installation and hosting, platform customization, consulting, course development, and more.

For providers, the Marketplace enables potential customers to see the services you offer and connect with you organically. We also offer the Open edX Preferred Provider Program, which provides three tiers of benefits for providers with high participation levels in the Open edX project. Please visit the following links for more detail on the tiers, and how you can have your company listed in the Open edX Marketplace.

**Highest Tier**
[Open edX Partner](#)

**Second Tier**
[Verified Provider](#)

**Third Tier**
[Marketplace Provider](#)

Appendix

The Open edX Codebase, in Numbers

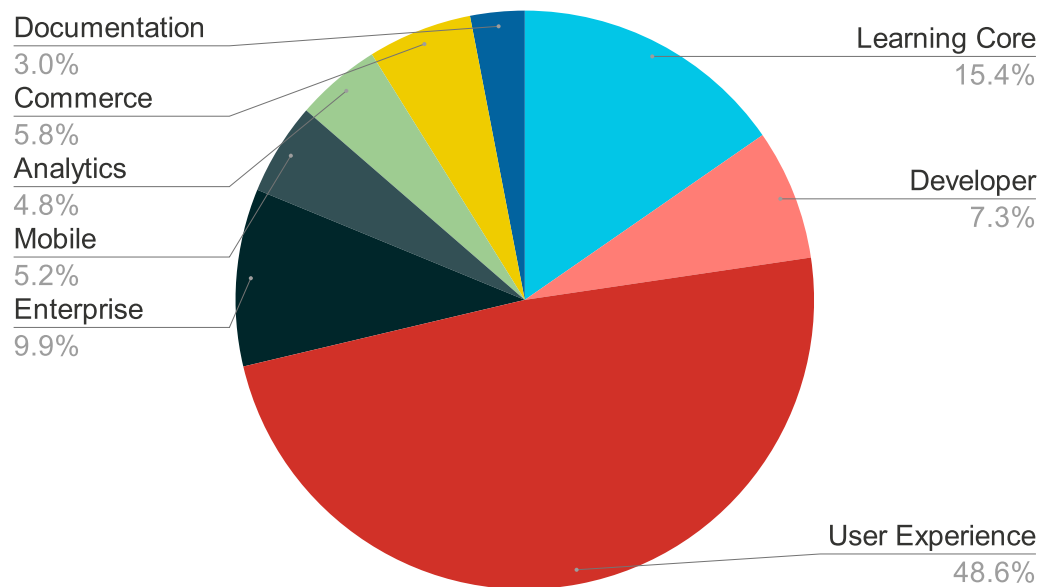
The values in the table are for the period between December 1, 2023 and November 30, 2024. These measures represent a point-in-time snapshot of the project. With 198 repositories, the Open edX project is complex and wide-ranging. It is interesting to note that a greater number of lines of code were removed than added, a change from previous years, pointing toward an effort to deprecate and remove areas of the codebase (such as the Ruby forums service and the first generation mobile applications) that are no longer in use.


Item	Count
Active source code repositories	198
Source code commits across all repositories	14,557
Files changed	110,387
Lines of code added	4,128,497
Lines of code removed	7,347,592

Where Was Effort Focused?

This analysis looks at effort applied across the platform in the last year. The 50 busiest repositories in the Open edX project were categorized by their primary functional area, with percentages of effort per area calculated as a share of the total effort invested across those repositories. Effort is computed based on the change magnitude for each repository—the sum of lines added. Percentages represent effort from December 1, 2023 to November 30, 2024.

Effort Across Repositories (Current Measurements)



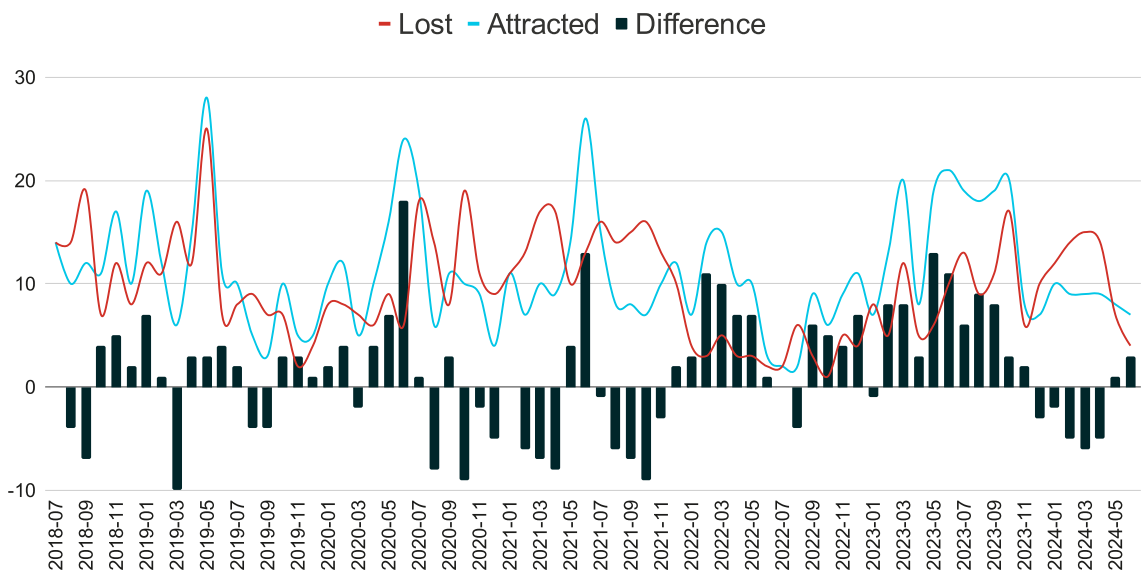
Analysis

Over the past year, the clear majority of the effort was focused on the User Experience area of the platform, reflecting a shift to micro frontends (MFEs), the Paragon design system, mobile applications, and modular code. A drop in the percentage of contributions to the Learning Core reflects a shift away from committing code to the monolithic edx-platform repository⁵, with more code—particularly the Studio experience—converted to MFEs. The Enterprise Experience area is reflective of repositories aligned with 2U’s business needs. Analytics and Developer Tooling areas both saw marked growth, both due to a focus on the new Aspects analytics system and related Tutor tooling within the past year.

Developer Growth and Attrition: Needs Further Analysis

The following chart overlays the rate of acquisition of new developers to the project and the rate of developer attrition. Both are shown in relation to average monthly participation for the entire year. Data is for July 1, 2018 through June 30, 2024⁶.

Attracted, Lost, and Average Monthly Developers (Current Measurements)

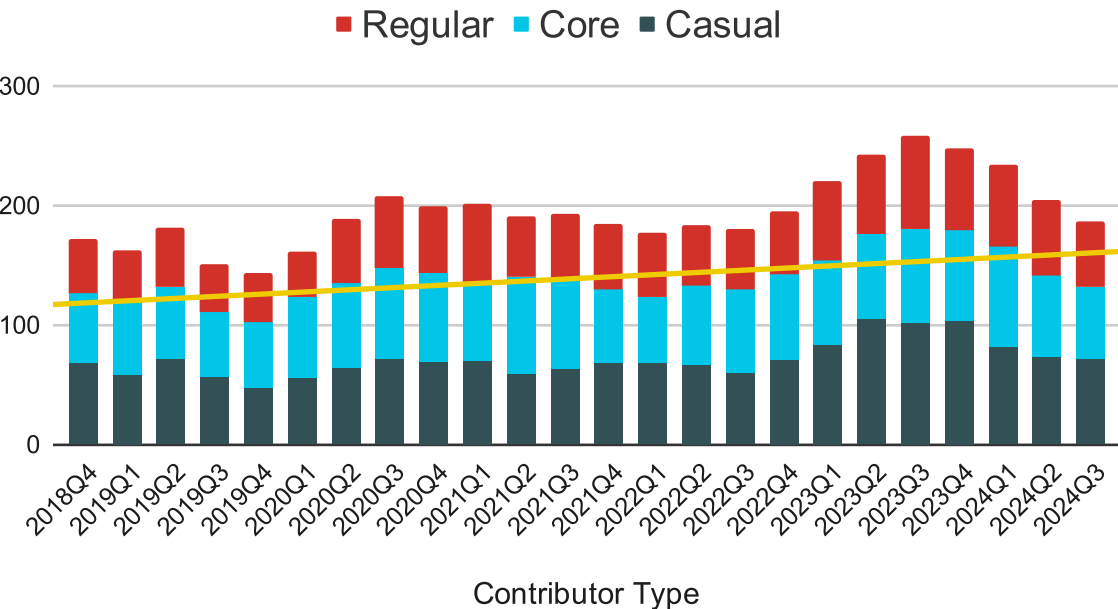


Community Structure

An important measure of health for an open-source project is the project’s ability to acquire and retain participants, transitioning them from casual or regular contributors to Core Contributors. The Onion model developed by the Linux Foundation defines three types of code contributors, as follows:

- **Core⁸**: Those contributing 80% of the activity. These are the most committed developers, and those on which the project relies most.
- **Regular**: Those contributing the next 15% of the activity. These are people committed to the project, and are most likely to become part of the core group, or maybe were already in it. The core and regular teams together account for 95% of the activity.
- **Casual**: Those contributing the last 5% of the activity. These are people on the periphery of the project. However, they are important because it is very likely that future core and regular contributors will come from this group.

Community Structure (Current Measurements)



Analysis

To scale contribution to the Open edX project, we monitor the rate at which new developers join the project. Currently, most developers join because their employer pays them to contribute to the open-source project. This is common for large open-source projects.

Equally important is measuring developers exiting the community. Over 2024 we see an increase of individuals leaving the project, which corresponds to attrition at 2U. When screening out for 2U employees, there has been a modest rise in non-2U affiliated project participants.

We can and should invest to reduce attrition and increase engagement. For example, removing friction to participation, responding to questions quickly, and offering leadership opportunities to community members all create a more “sticky” project. Over the past two years the community has become more broadly engaged in participating and leading working groups, contributing to documentation, and making platform deployment easier via work on Tutor⁷.

Analysis

The data set categorizes code contributors since July 1, 2018.

The proportion of Core, Regular, and Casual contributors has remained largely unchanged over the past six years, with trending growth over time particularly in the Core segment, as represented by the trendline. The evolving role of 2U in the community, particularly in decreased investment since 2022, is offset by an increase in activity from other ecosystem firms.

Thanks

Special thanks to edunext for gathering and analyzing significant portions of the data cited in this report.



Footnotes

- ¹ Including 120 contributors unaffiliated with a specific organization, a combination of organic project participants, freelancers, and possible classification errors.
- ² In the last annual report, this number was calculated by summing the unique Discourse users, GitHub users, Slack users, and Transifex users. In this report we were able to link identities across Discourse, GitHub, and Slack, so the number appears to have dropped; however, by applying this method to that year's data, we saw an increase of 106 unique contributors.
- ³ Lines of code added is an imperfect measure because it varies in effort and value. However, it is, at least, directionally sound, and it is unlikely that a different way of measuring contribution would currently change the project's elephant factor.
- ⁴ Arbisoft, Axim, Raccoon Gang.
- ⁵ Lines of code added to the edx-platform repository were nearly 34% of contributions in 2022, declining to 23.6% in 2024.
- ⁶ Attrition is discerned by measuring people whose last contributions were ≥ 6 months ago, so we chose an endpoint 6 months ago.
- ⁷ Tutor code, with the exception of a few Tutor plugins, is not included in the Open edX GitHub organization.
- ⁸ "Core contributor" here is differentiated from the Open edX Core Contributor program. That program confers additional rights to project participants with demonstrated expertise and commitment. In return, project Core Contributors are expected to regularly contribute 10% of their time to project priorities. Here, any contributor is considered a "core" contributor if they are part of the cohort that contributes the first 80% of effort to the project.