OPEN edX

Annual Report 2022

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Dear Community,

The Open edX® Project Technical Oversight Committee (TOC) is very excited to share our first Open edX annual report with the larger community. We hope you will find the information in this report useful and a signal of the TOC's commitment to transparency and continuous improvement.

When we reflect on our impact, we must start from the mission of the Open edX project, which is focused on building an open technology platform that enables educators to provide quality education for everyone, everywhere.

Our mission is very closely aligned with the challenge laid out in the United Nations' Sustainable Development Goal 4 (SDG 4), to "ensure inclusive and equitable quality education and promote lifelong learning opportunities for all." Our project's particular focus is on creating open technology that is robust, pedagogically sound, and scalable. However, we recognize that technology alone will not be enough. We aim to work with teachers, researchers, learning designers, and experts in pedagogy to improve the available tools for delivering high quality education.

> Openness and open-source are fundamental to achieving the Open edX mission and the goals outlined in SDG 4. Governments, NGOs, universities, school districts, and more must have access to technology that is free to inspect, unencumbered by licensing costs, and free to alter and extend.

These groups should not need to opt for vendor lock in. They should not need to ask their learners to trade their personal data for access to proprietary tools. Nor should they need to give up control of their content or lock it away in proprietary systems or formats.

Knowing our mission, we must measure our progress. The purpose of this report is to provide an annual checkpoint and hold ourselves accountable. However, we intend for these critical measures to be available continuously rather than reviewed only once a year.

This report will evaluate—at least—two different critical areas. Firstly, the impact we have had in helping to extend the reach of high quality education. We will measure our progress based upon evidence, both quantitative and qualitative forms, and strive to be transparent about both failures and successes. We'll embrace failures as opportunities to learn. Secondly, we will measure the health and growth of the Open edX community. This community is the engine that advances the platform. We need the proper instrumentation to ensure that our community is healthy, productive, and sustainable.

Finally, as you read this report, we expect you will have valuable feedback. Please share your feedback with the TOC in the forums—https://discuss.openedx.org/tag/toc—or by sending an email to ask-the-toc@openedx.org. Your feedback will help improve future versions of the report.

Thanks for your contributions to the Open edX project,

Ed Zarecor, Technical Oversight Committee Chair

Axim and the Open edX Project

Governance Structure

The Open edX Project at Axim Collaborative

The nonprofit originally known as edX Inc. created the Open edX platform. When the nonprofit completed the sale of the edX business (including the edX name) to 2U Inc. in November of 2021, stewardship of the Open edX project remained with the nonprofit. The nonprofit adopted a new name and is currently known as Axim Collaborative (Axim). Axim is led by MIT and Harvard University, as edX Inc. was.

Axim will invest in a portfolio of projects in the areas of digital technology, innovation, and research; and expanding access to high-quality learning experiences, especially for under-resourced and historically disadvantaged populations. The Open edX platform is an important area of investment for the organization.

As a nonprofit, Axim must ensure that the project's activities are aligned with the nonprofit's charitable purpose and mission. For ongoing stewardship and governance of the project, Axim created the Open edX Technical Oversight Committee (TOC).

The Open edX Technical Oversight Committee

The TOC is responsible for governing the overall technical direction and the stewardship of the project, consistent with the nonprofit mission of Axim Collaborative, Inc. (Axim).

Structurally, the TOC is a group of nine representatives, three from each of three constituencies: Axim, 2U, and the wider Open edX community. Both Axim and 2U appoint their members, while members from the Open edX community are elected annually. The first community TOC elections were held in the Fall of 2022. You can read more about the election process in the Community section of this report. Additionally, the TOC has a chair that is appointed by the Axim Board of Trustees.

All actions of the TOC are governed by the TOC charter and all TOC decisions must ultimately be consistent with Axim's mission.

The TOC is focused on vision and strategy of the project; project-wide matters; and helping to resolve conflicts if and when they arise. The TOC is not directly involved in the day-to-day running of the project. Rather, the day-to-day activities are managed by Working Groups, Maintainers, and Core Contributors who are experts in their particular domains and doing the work (which is also supported and guided by the Axim product and engineering staff). The TOC plays an important role in supporting the Open edX Working Groups and ensuring that the project, as a whole, remains focused on Axim's mission. More details about the current Open edX Working Groups can be found in the Community-focused section of this report.

TOC Members

Anant Agarwal
Chief Platform Officer; 2U, Inc.

George Babey
Senior Director of Engineering; 2U, Inc.

Ashley Bradford
Senior Vice President of Learning Technology; 2U, Inc.

Ferdi Alimadhi
Senior Director of Engineering and Products; MIT Open Learning

Dustin Tingley
Deputy Vice Provost for Advances in Learning; Harvard University

Ed Zarecor
Vice President of Engineering; Axim Collaborative

Catherine Mongenet
CEO; France Université Numérique

Ignacio Despujol Zabala
MOOC Initiative Coordinator; Universitat Politècnica de València

Xavier Antoviaque
Founder and CEO; OpenCraft

Impact of the Open edX Project

The mission of the Project is to enable educators to provide quality education for everyone, everywhere, via open technology (namely, the Open edX platform) that is robust, pedagogically sound, and scalable. The mission sets the framework through which we reflect on impact. One aspect of the mission is scale, in enabling education access as widely as possible. For this, we consider metrics to quantify platform reach. Another aspect of the mission is quality, ensuring the educational experience is delivered on a platform that is as pedagogically-sound as possible. For this, we consider metrics to quantify learning outcomes. As we set a baseline for capturing and measuring these key areas, we can build an understanding of where the platform currently performs well against them, where we might invest for future improvements, and how we might innovate beyond them.

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 corporate or government training program, each of which has its own framework for defining success, or impact. The globally dispersed and diverse nature of instances are two powerful results of the Open edX project, and also the most challenging to track using standardized metrics. As such, the focus of the inaugural annual report is incremental. We aim to set a baseline for foundational metrics that can be applied across the Open edX ecosystem writ large, to set an expectation for what trends we expect to report on year over year, and to set the stage for deeper dives into specific verticals.

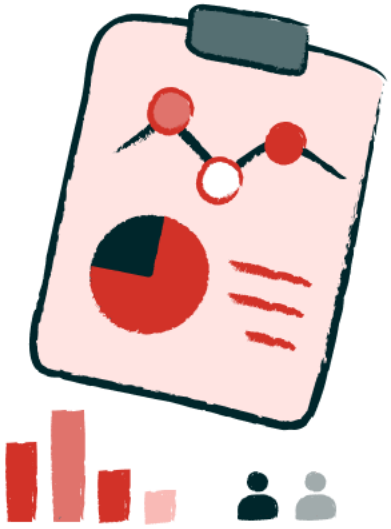
The Metrics We Are Measuring

Given the globally dispersed and diverse nature of Open edX instances, no single metric or method is adequate to capture a full picture of project scope and influence. As such, we have chosen three methods by which to analyze Open edX impact:

- Quantitative, with a focus on metrics that capture reach and learner outcomes;
- Platform use by vertical, with a focus on building a more nuanced understanding of how the platform is used, and by whom;
- Qualitative, with a focus on capturing impact stories that might be overlooked in the first two methods.

With these methods taken as a whole, we aim to tell the story of Open edX impact as completely as possible.

The Data Pool



Gathering data on Open edX instances has been a challenge since project inception, due to the voluntary nature of reporting and the sheer size of the Open edX ecosystem. With Axim stewardship comes the opportunity to develop, centralize, and standardize a process for impact reporting on a regular cadence. We seek to do this collaboratively by creating infrastructure and tools that enable a community-driven approach to data gathering. We are funding the creation of an automated app, targeted for beta release in the Palm Community Release in June 2023, which we expect to enable easier data gathering at scale. In the interim, we drew on two sources:

01 Survey with 86 providers

Between February 2022 and June 2022, we collected impact data via a survey. It was sent to 86 Open edX providers, who represent the vast majority of Open edX instances globally, and circulated through various PR channels. The survey captured data on reach and learner outcome. We received results representing about 10% of the Open edX ecosystem.

02 The Powered by Open edX logo

Additionally, we have built a list of URLs that use the Powered by Open edX logo—effectively a citation indicating that the site is running on Open edX software. From this data we are able to estimate instance and course counts. We can also ascertain general estimates on learner reach based on reporting published publicly by individual sites[1]. We added additional metadata to capture sector, language, and geography, which we referenced to analyze use across verticals. Use of the logo is expected, and the default, but is not systematically compelled. We do not have a current estimate of the noncompliance rate. We also exclude from analysis any sites that are no longer live, and sites that have fewer than 20 courses.

Setting a Baseline

Combining these two sources sets a baseline that can be updated year over year. We recognize that the numbers reported as follows are conservative. This is both expected and intentional, as we set up reliable data-gathering channels that we hope will prove robust, sustainable, collaborative, and scalable over time. Our goal is to build the most accurate insights possible into Open edX impact on learners and educators around the world.

[1] We recognize that this segment of the data pool is self-reported and not subject to external or peer review. As such, we have limited inclusion of these sources to large national platforms and nonprofit platforms. We aim to phase out inclusion of self-reported data in future years as we scale infrastructure to enable automated reporting. For the moment, we see this source as one window, among many, to illuminate the size and scope of the Open edX landscape.

Quantitative Impact: Reach

As noted above, one aspect of the Open edX mission is scale, in enabling education access as widely as possible. To quantify reach of Open edX instances, we chose four metrics. With these metrics, we can set a baseline for measuring trends in Open edX reach and scale, year over year[2]:

- **Number of unique instances**: Open edX instantiations or independent sites that display the Powered By Open edX logo
- **Number of unique courses** currently offered (per instance)
- **All Time Registrations** (per instance): Users who sign up for a new account on an instance
- **All Time Enrollments** (per instance): Users who sign up for a specific course

Current Measurement

4,500+

Number of Instances That Display the Powered By Open edX Logo

Number of instances was one data point captured community-wide in years prior, via the Powered by Open edX logo listing. This year's data combines the "Powered by" data with incoming data from the survey, and data gathered by BuiltWith and manually reviewed. Given the limitations on the Powered by data referenced above, we knew that the list of instances has historically been incomplete. With the addition of the survey, and BuiltWith data we have a much improved data set. With the forthcoming survey app, we hope to further improve our visibility into the reach and impact of the platform. So far, the survey results are covering only about 10% of the ecosystem.

Current Measurement

70,000+

Number of Unique Courses Offered

Number of unique courses was one data point captured community-wide in years prior, via the Powered by Open edX logo listing. This year's data combines the "Powered by" data with incoming data from the survey. Over 2022, there has been an increase in the number of courses, which has risen by more than 30%. At this time, it's not possible to untangle what portion of this growth is due to increased platform uptake and what portion is due to incremental improvements in data-gathering methods, via the survey. A trend of growth in the number of unique courses can be seen when we couple this data with other pieces of observational and anecdotal evidence, including increased reliance on multi-tenancy offerings across the provider network, and increased usage of Open edX instances to deliver online courses during the pandemic.

[2] As noted in "The Data Pool" section, much of the survey data we relied on to build this baseline report is incomplete, due to the lower-than-anticipated survey response rates. We anticipate that the numbers for Number of Unique Courses, All Time Registrations and All Time Enrollments to be higher in reality, and we will adjust the numbers in future reports as we fine-tune our data-gathering mechanisms.

Current Measurement

77,000,000+

All Time Registrations

There are various ways to define learner touchpoints with an instance. A sample of statements published publicly by eight national platforms run on Open edX software reveal this variety, ranging from "registered," "applied," and "enrolled," to "site visitors."

In an effort to standardize a baseline metric going forward, we have opted to capture the ***all time registrations***. This metric has a common definition across the ecosystem, implying a threshold of user engagement by signing up for a site account. Based on survey respondents and publicly published data[3], our baseline data is over 77 million learners registered across the ecosystem. This number likely represents less than 50% of the ecosystem, thus we anticipate that we will have higher and more accurate counts in next year's report.

> Delivering courses in the Open edX platform allows our learners to focus on the content because the platform is so intuitive. We've also been able to add integrated tools easily, which allows us to offer innovative learning experiences without tech friction. With detailed custom branding and styling, the Open edX platform has helped us create an immersive experience that's easy to navigate and sophisticated.
>
> **Julia Henderson** | *VP of Product Management* | *Esme Learning*

Current Measurement

184,000,000+

Number of Enrollments Ever Converted

Enrollments represent the number of courses that registered learners have joined. There are two motivations for measuring the ***all time enrollments***. First, as a window into learner touchpoints with courses to complement learner touchpoints with the site, described in the number of learners reached metric above. Second, as a benchmark against which to analyze completion rates, described as follows. Similar to *all time registrations*, this is the first time that data for all time enrollments has been collected in any community-wide, standardized way. We plan to use these metrics as a baseline for measuring growth in next year's report, and expect this number to rise significantly as we gather more comprehensive coverage of the Open edX ecosystem.

[3] The current measurements for registered learners and enrolled learners is derived from a combination of survey data and publicly published data. Survey included enrollment data from over 60 instances. Publicly published data included enrollment data published in public impact reports and on the websites of the largest Open edX instances, including edX.org, K-MOOC, FUN MOOC, Edraak, MéxicoX, and XuetangX.

Quantitative Impact: Learning Outcomes

To quantify learning outcomes of Open edX instances, we chose one metric: *all time completions.* Similar to the reach metrics, we can set a baseline for measuring improvements on outcome by looking at changes in completion rates, year over year.

Current Measurement

5,700,000+

All Time Completions

We felt it was important to choose at least one metric to function as a basic proxy for measuring success in meeting learner needs across the Open edX ecosystem. While imperfect, we chose ***all time completions***, a standardized metric used uniformly across the Open edX ecosystem. There has been a great deal of research on completion rates and the causes of low rates of completion in MOOCs. Course completions, at least, represent meeting the needs of that segment of learners who want full length courses online.

Similar to *all time registrations* and *all time enrollments*, this is also the first year that *all time completions* has been captured in any standardized way across the community. Like the data for registrations and enrollments, it originates from our survey data, which is incomplete. However, we will adjust in future reports as we tweak our data-gathering methods, and the current numbers will serve as a baseline going forward. In future reports, we can also dig into the factors that may be driving completion rates. Building an understanding across the community of the factors that influence successful course completions will benefit learners, educators, providers and the ecosystem as a whole.

Platform Use by Vertical

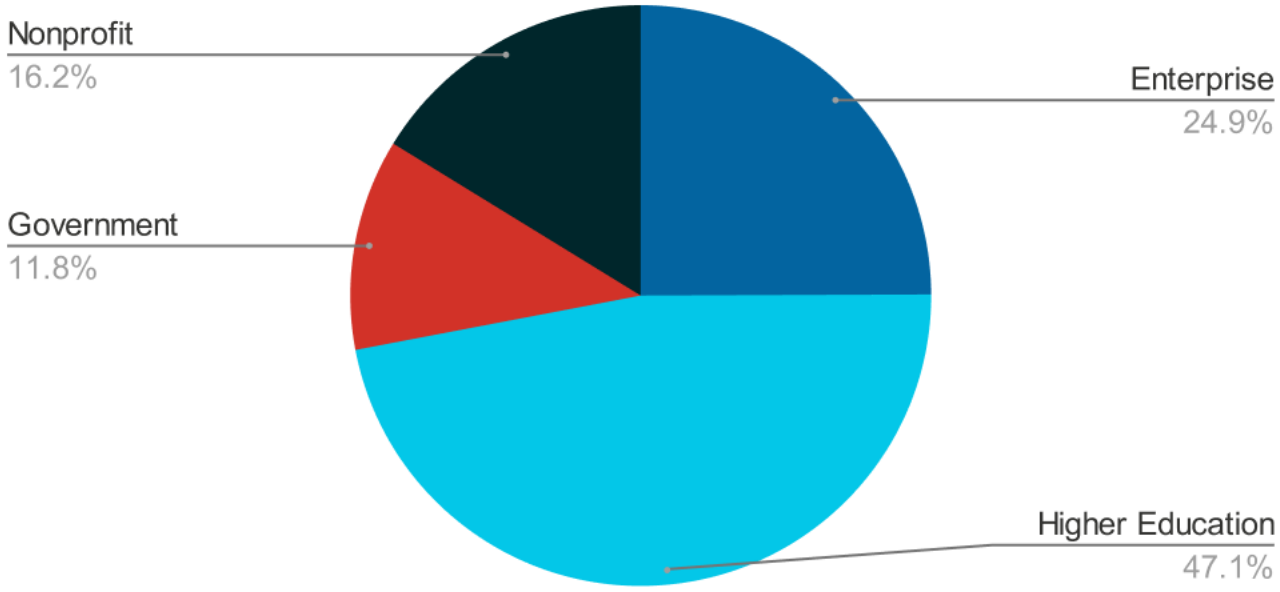
While quantitative metrics paint broad, aggregate strokes, use case analyses offer deep dives into how the Open edX platform is used. They answer more nuanced questions, such as "What demographic of learners does Open edX best serve in the higher education sector?" and "How do instances supporting the intergovernmental sector differ from national platforms?"

We collected a sample of over 1000 instances, chosen at random from the "Powered by Open edX logo" list of instances, to better quantify the range and balance of verticals. We then completed an analysis of about half the instances, adding metadata where we were able to discern it, in order to identify which sectors they served, geography, and language. Then, we did deeper dives into each of the four primary sectors that emerged—higher education, government, enterprise, and nonprofit—and analyzed each with an eye toward understanding how the platform was being utilized, for whom, and to what end, and where there might be opportunities for growth[4].

[4] All samples exclude courses offered on the edx.org instance.

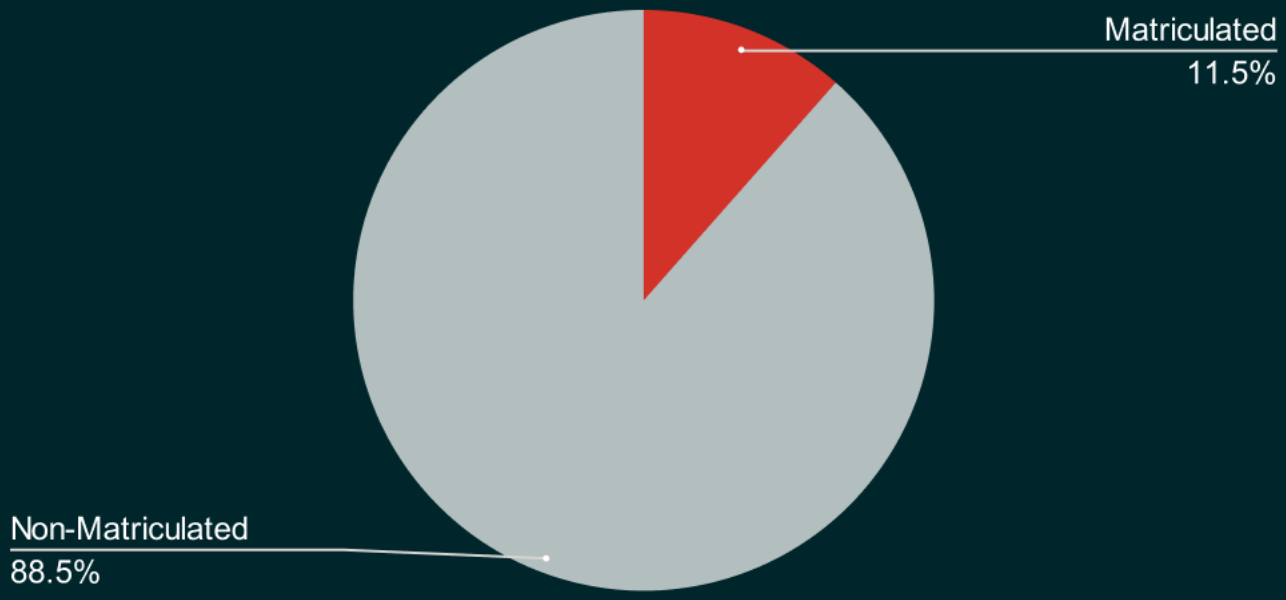
Current Measurements and Analyses

Sample of 500 Instances: Sectors Served



Breakdowns by Sector

Higher Education Sector: Use Cases



Higher Education Sector: Non-Matriculated Use

88.5%

The vast majority of instances within the higher education sample deliver courses asynchronously. Over 90% of learners interacting with an Open edX instance are non-matriculated, and many on a credential pathway rather than a degree pathway.

While MOOC and public education initiatives comprise a large portion of non-matriculated use, these are not exclusive. Nearly 40% of instances sampled are owned by continuing adult education (CAE) and lifelong learning programs, whereby university departments offer paid, non–credit-bearing credentials. In most cases, the needs of CAE learners range from upskilling and reskilling to professional licensure.

The Open edX platform appeals to CAE departments as a course authoring and delivery platform because it meets needs specific to serving non-matriculated students, the target demographic for CAE departments. It is also optimized for learning asynchronously and at scale, which aligns with the needs and goals of CAE programs.

CAE is an area with significant need for support in the higher education sector, as universities actively seek growth strategies and revenue streams to complement traditional channels and adult learners seek viable and credible pathways to learn and update skill sets outside of full degree programs. Open edX is well-poised to meet both institutional and learner needs in CAE contexts, and addressing this use case should be one focus of platform development.

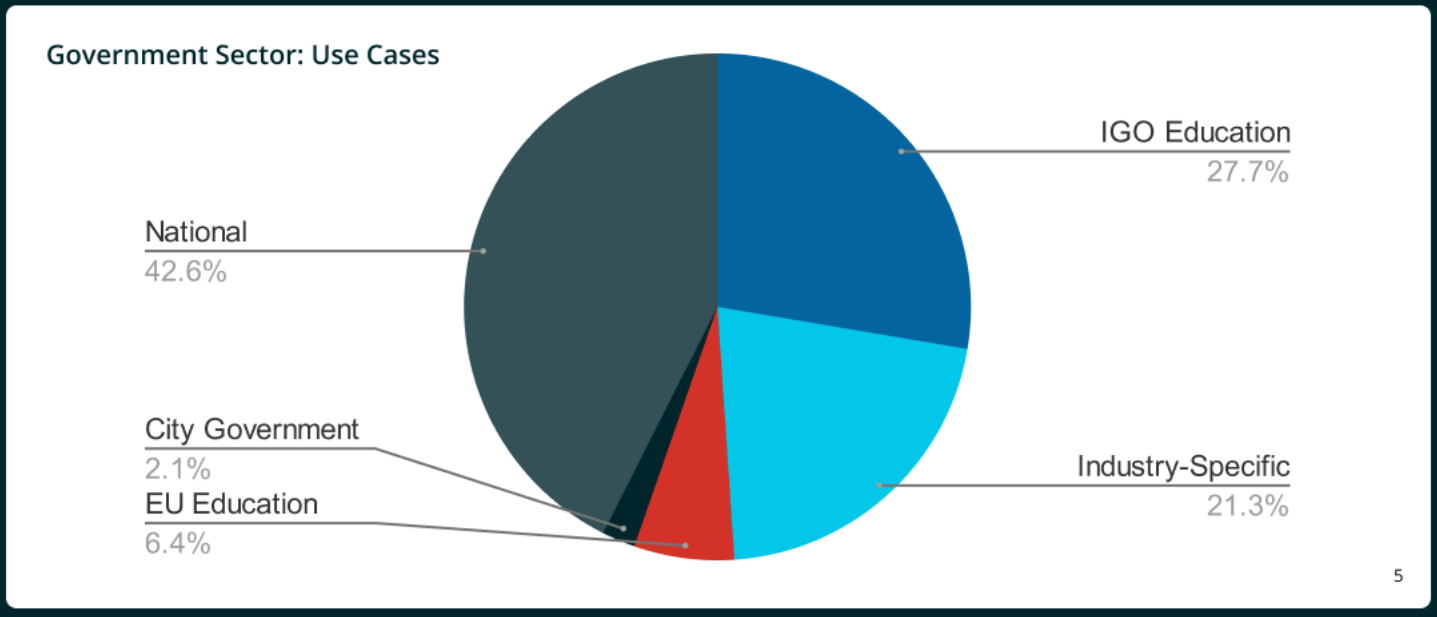
11.5%

Higher Education Sector: Matriculated Use

Ten percent of instances in the higher education sample represent on-campus use, and in virtually all cases, the platform is a tool to support content creation for in-person or hybrid learning courses. The most common example is the platform being used to create complex problems for homework assignments, assessments, or in-class activities. While currently a small slice of usage relative to the whole, this use case leverages great strengths of the Open edX platform, such as advanced problem types. As such, it is a gateway to explore how we might evolve the Open edX platform as a tool used to achieve on-campus learning outcomes, particularly in the STEM disciplines.

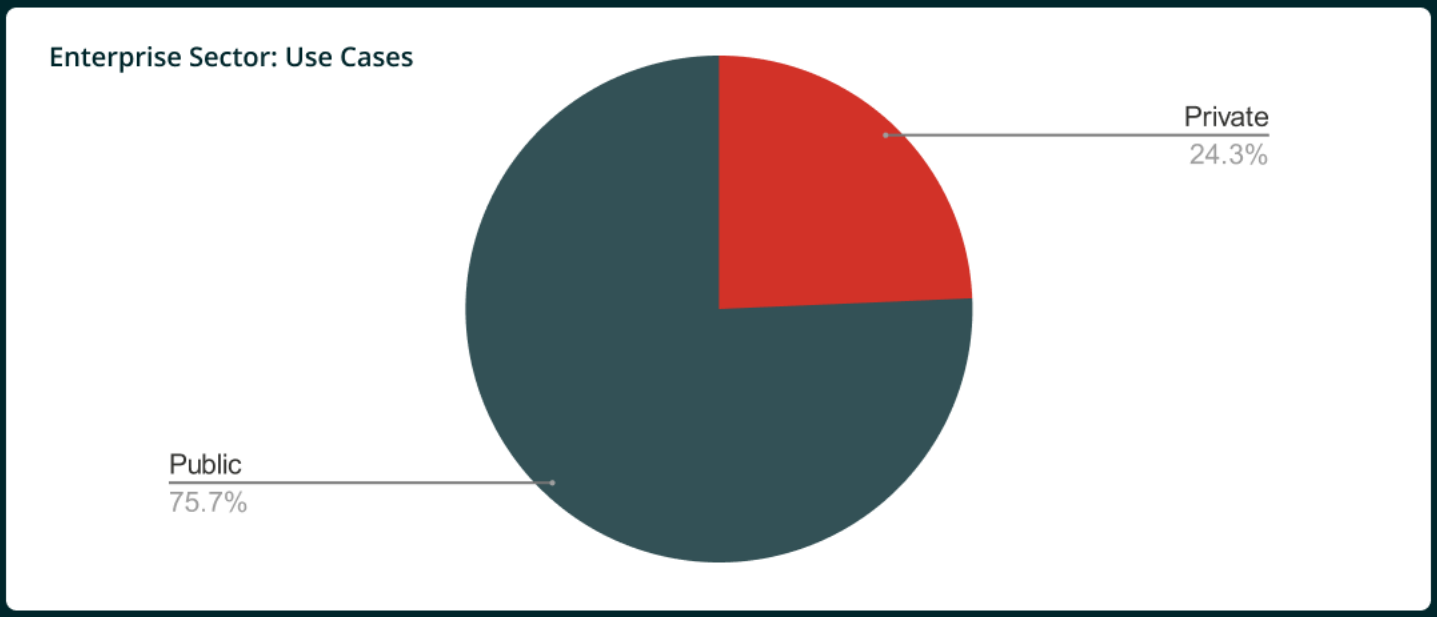
There are a small but growing number of organizations expressing interest in using the Open edX platform as an on-campus LMS, specifically serving matriculated learners. An open-source LMS with features to support on-campus needs would benefit demographics and geographies in which subscription costs or paywalls might be a barrier to entry, and any institutions seeking lower-cost options. As such, we should explore the gaps that would enable the Open edX platform to better serve this market segment, as well as identify ways we can innovate in spaces where other providers will not venture or invest.

Government Sector



Government use cases are examples of public education initiatives at scale. Nearly 20 countries use the Open edX platform as a national learning platform, virtually all delivering courses aimed at workforce training and reskilling, as well as general lifelong learning. Similarly, intergovernmental organizations deliver large-scale public education initiatives, including over a dozen United Nations agencies and programmes. In these cases, the subject matter tends toward sustainable development initiatives and international development projects. It's worth noting the relatively high completion rates in this sector. For example, CapNet, a UN training program, carries a 53% completion rate, and Plataforma NAU, the national Portuguese platform, carries a 46% completion rate[6].

Enterprise Sector

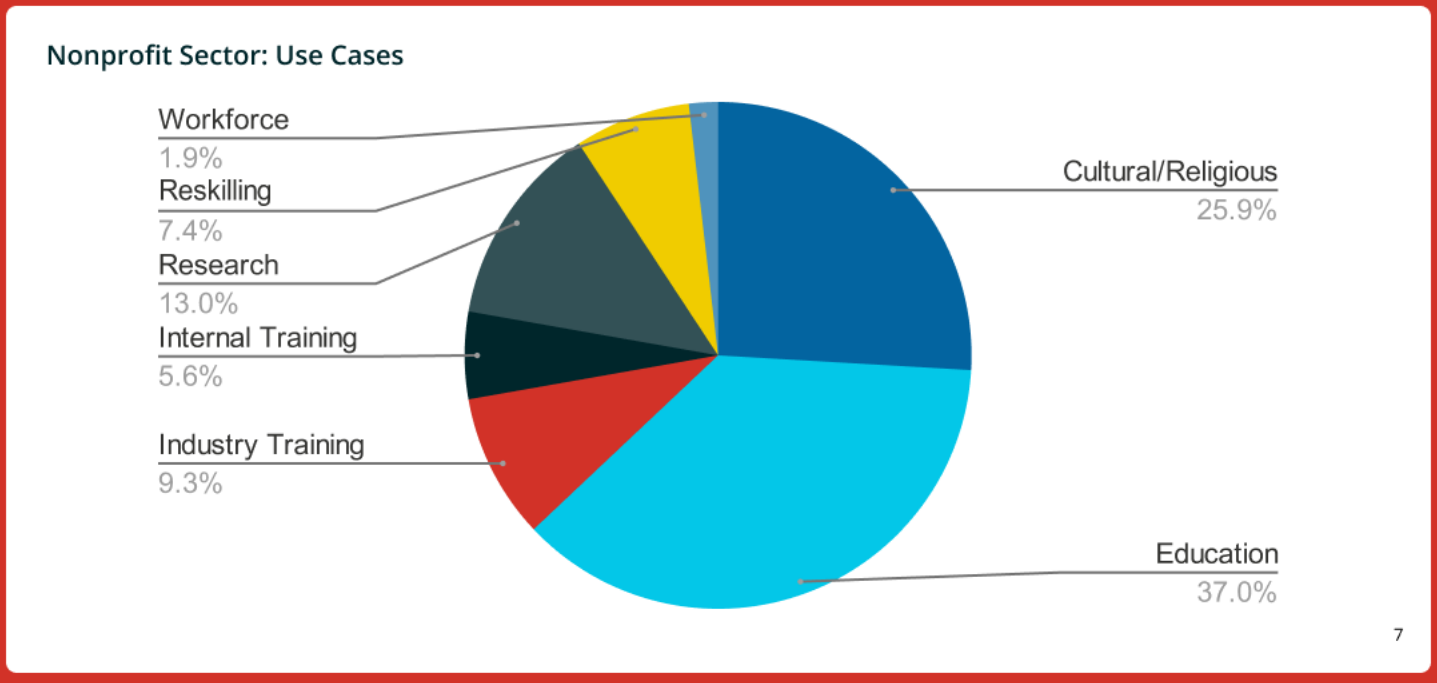


[5] Note that some charts total more than 100% because of the lack of support for more than a single decimal place of precision in Google Sheets' chart labels.

[6] In future reports, we can dig further into the factors driving high completion rates, which may range from catering to the right target audience, meeting specific needs with credentialing requirements, and generating pedagogically-sound content.

Of the 75% of public enterprise instances, a large majority are run by companies offering paid workforce development credentials, which are largely technical training programs adept at asynchronous delivery. Additionally, there are industry-specific cases where the platform delivers training programs, particularly in the public utility, transportation, and medical industries. The remaining 25% of enterprise instances are used to deliver private, in-house training. The latter is an area for potential growth, particularly with the increased availability of multi-tenancy offerings, investments in micro-frontend applications (MFEs), and micro-site branding.

Nonprofit Sector



[7]

Nonprofit instances deliver a mix of public education initiatives and sector-specific training. The wide array and variety of causes is inspiring, including international development projects, crisis training, cultural heritage preservation initiatives, political organizing and advocacy, and vocational training and education[8]. The platform use case of the nonprofit sector mirrors many of the same needs enterprise sites face, particularly in delivering small-scale training programs. This is also an area for potential growth, particularly with the increased availability of multi-tenancy offerings, investments in MFEs, and micro-site branding that favors development of smaller-scale instances.

[7] Note that some charts total more than 100% because of the lack of support for more than a single decimal place of precision in Google Sheets' chart labels.

[8] The nonprofit sample includes only education initiatives that are not related to secondary schools or higher education institutions. For example, international development education initiatives and teacher training initiatives.

Qualitative Impact

Interviews and anecdotes provide a rich counterpoint to the Open edX impact narrative, capturing more granular and inspiring perspectives that are often overlooked in quantitative analyses. For example, the quantitative data indicates relatively few instances currently serving the K-12 sector, especially when compared to the number of instances serving the higher education sector. Yet when we dig into the details behind these instances, the stories they tell reveal incalculable value, as illustrated in the case studies below. The following user stories from Open edX instance operators speak for themselves in demonstrating impact, and open a window into the rich diversity of needs that the platform meets.

Live Project

Story 1: **Ukrainian K-12 Project**

In Ukraine, the Ministry of Education and the Ministry of Culture and Information Policy partnered with one of our Open edX Partners, Raccoon Gang, to deploy the Open edX platform to support K-12 education. Launched in December 2021—and originally developed for rapid COVID-19 response—the ВШО - All-Ukrainian Online School platform has evolved into a crucial distance learning platform for displaced students and refugees after the Russian invasion of Ukraine.

The site has over 3.5 million registered users with a unique monthly peak of 300,000 users. In July and early August 2022, the platform was used to deliver summative—baccalaureate—exams (required for university entrance in Ukraine) to displaced students. The exam was delivered twice daily for two weeks supporting up to 20,000 concurrent test sessions! Question randomization was utilized to prevent cheating.

Raccoon Gang noted two big characteristics of the Open edX platform that made this unconventional use possible. First, that the Open edX platform—out of the box—enabled them to do difficult things quickly. Second, because the platform is open source, they could extend and customize it easily to meet their specific needs.

We were lucky to have Raccoon Gang CEO, Sergiy Movchan, join us at our 2022 Open edX Conference in Lisbon, Portugal. During the opening plenary session, Sergiy provided an inspiring in-depth look at their work to the Open edX community.

For more details about this project, please check out our interview with Sergiy at the 2022 Open edX Conference, as well as the Open edX virtual community meetup Sergiy led earlier in the year.

Raccoon Gang is also using Open edX for additional Ministry-level projects, including:

- **ЗНО**: External independent online testing (similar to the GMAT) which is required for university admissions.
- **Іспит**: Ukrainian language proficiency testing platform which holds the government exam required for all Ukrainian officials and those who are looking to get Ukrainian citizenship.

In Development

Story 2: **Proyecto Open edX Unidigital**

A consortium of Spanish Universities led by Universitat Politècnica de València, UC3M (University Carlos III of Madrid), and Universidad Autónoma de Madrid, are investing EU funds to improve the Open edX platform for use as an on-campus LMS. UC3M is already using Open edX as their on-campus LMS, and in tandem with the other partners, have identified a list of gaps that hinder further adoption. The group anticipates an injection of around 400K euros from the EU, part of which will be used for funding improvements to the platform.

The planned areas of investment are improvements to the Open Response Assessment (ORA) tool, improvements to instructor analytics to facilitate instructor interventions, integration with an automatic personalized feedback system, and better integrations with campus SIS platforms. Members of the implementation team are working with a subcommittee of the Product Working Group focused on on-campus use cases to align this work with the project Roadmap.

In Discovery

Story 3: **e-SHE (E-learning for Strengthening Higher Education)**

The Mastercard Foundation is partnering with the Ministry of Education of the Federal Democratic Republic of Ethiopia, Arizona State University, and Shayashone (SYS) to build a countrywide platform to enhance the quality, accessibility, and resilience of higher education by adopting a digital learning system. The ultimate goal of the project is to equip young graduates of higher education with the skills needed for employment and entrepreneurship. The platform will provide infrastructure to 50 institutions, targeting 800K learners. Currently in the discovery and design phase, the project will extend through 2023. The Open edX platform will be used to deliver educational content. This comprehensive program will also deploy a shared Student Information System, infrastructure as a service for Ethiopian universities, training for faculty and staff, and student support.

The Mastercard Foundation works with visionary organizations to enable young people in Africa and in Indigenous communities in Canada to access dignified and fulfilling work. This project is being delivered by another Open edX ecosystem firm, OpenCraft.

Project Interest

Increasing the mission impact and sustainability of the Open edX project will require growing our community and increasing the rate of participation. Increasing adoption and participation relies on "being part of the conversation." We can monitor interest on the part of potential platform adopters via tools like Google Analytics, and GitHub interest metrics like forks and stars. We have influence over interest via community marketing activities, events, partnerships, and earned media.

Platform Translation

In order to reach the widest possible audience, the platform is translated into other languages by a team of volunteers from the community. The Translation Working Group has created teams of translators and reviewers around languages for which we have a strong cadre of volunteers. The goal is that 100% of strings for official languages are translated for each named release. The following data is for the Nutmeg release, which became available in June 2022.

Current Measurements

Language	Percent Translated	Percent Reviewed
Spanish	100%	100%
French	100%	99%
Italian	100%	99%
Arabic	100%	98%
German	100%	98%
Russian	100%	98%
Ukrainian	100%	97%
Mandarin	100%	98%
Portuguese	99%	98%
Hindi	100%	5%

The Translation Working Group is always in search of new volunteers with translation expertise. Help is sought urgently for Arabic, Russian, Ukrainian, and Hindi translations.

In addition to the supported languages, the following languages have a "translated string count percentage" of 80% or greater measured via the Transifex platform. "Strings" represent text in the platform with which users interact. Some examples would be button labels, help text, error messages, and so on. The content changes over time and continuous effort is required to keep translations current.

Name	Code	Translated Stringcount (%)
Polish	pl	99.81%
French	fr	99.63%
Italian (Italy)	it_IT	99.34%
Korean (Korea)	ko_KR	97.72%
Slovenian	sl	92.78%
French (France)	fr_FR	91.65%
Turkish (Turkey)	tr_TR	86.45%
Vietnamese	vi	83.40%

Analysis

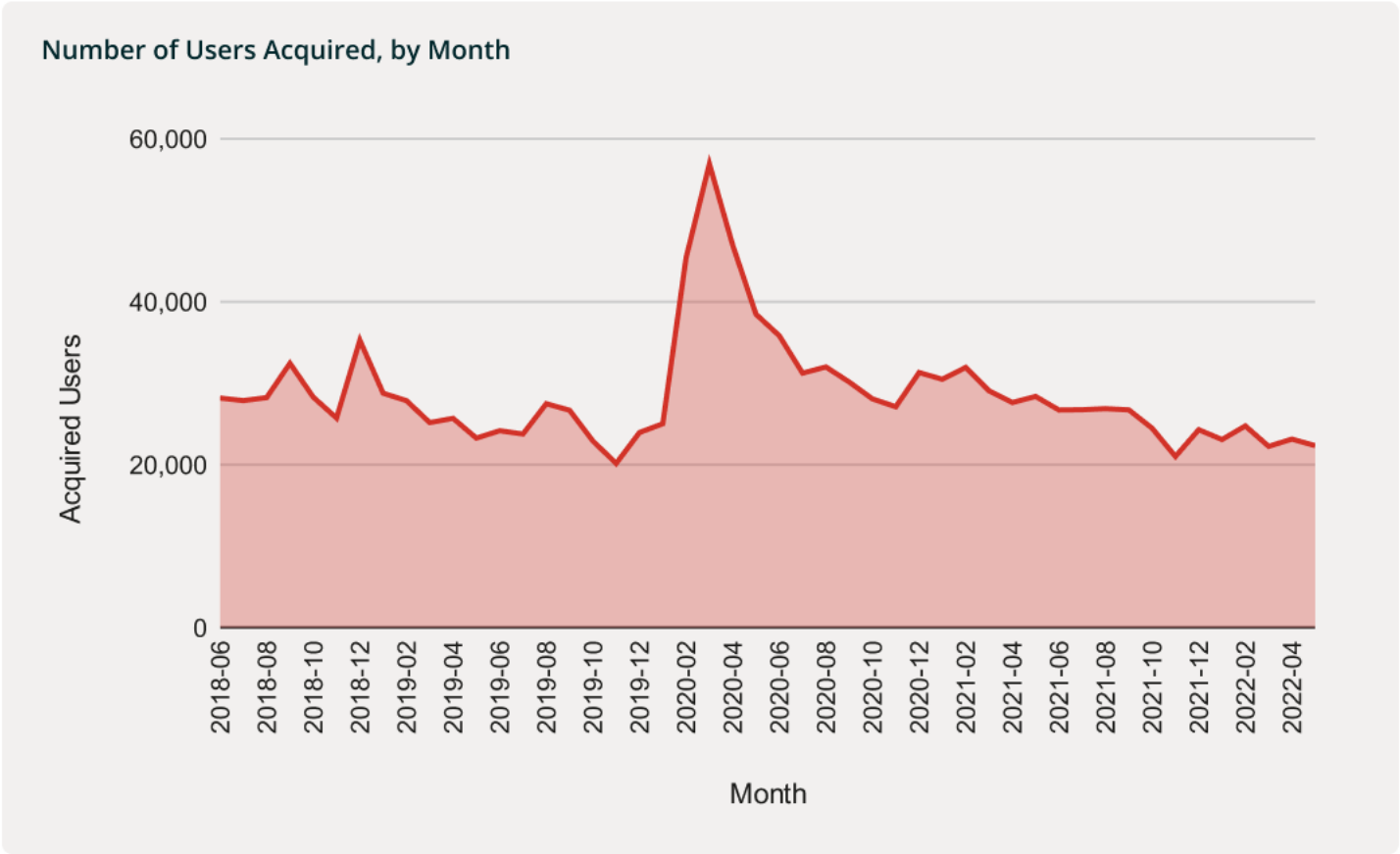
We are aware that the platform has been deployed in over 50 languages and that some translation has been completed in 132 languages. However, for the purposes of this report we focus on languages that have sustainable support and for which translation is substantially complete.

> The MITx Program has been using the Open edX platform since its inception. It supports complex problem types that are absolutely required for most MIT faculty to make online courses as robust and rigorous as they are on campus. The open-source nature of the platform also allows our faculty to experiment with new assessment types, then share what they've developed for others to explore. MIT also has an on-campus instance and we have developed a robust process for constant improvement between our global and residential audiences. Not only have we taught a lot with the Open edX platform, we have learned a lot.
>
> **Dana Doyle** | *Director Online Worldwide Learning Services (OWLS)* | *MITx Program*

Marketing Site User Acquisition

Google analytics provides data about the rate at which the marketing site, https://openedx.org, acquires unique new users. In addition, Google Analytics tracks acquisition from channels beyond search traffic, including direct and referral link traffic. The following data is for the period July 1, 2018 to mid-June 2022.[9]

Current Measurements



Analysis

As mentioned above, the pandemic boost in traffic to the project marketing site is clearly visible in the rate of user acquisition. Since the pandemic, traffic has normalized equal to or above pre-pandemic levels. The largest traffic sources during this period were direct traffic (53%), organic search (28%), and referrals (16%).

[9] Collected data ends in mid-June because of the retirement of Google's legacy analytics platform. In future years, we will report from GA4.

GitHub Forks and Followers

Interest in open-source projects can be measured in a number of ways on the GitHub social coding platform. Serious users of a project leverage a number of mechanisms to contribute and follow project progress. Soft forks[10] are often created to simplify contribution workflows or simplify operating a customized Open edX site. Projects can also be bookmarked, or "starred." Finally, users can subscribe to projects to get notifications of releases and other project events. The Open edX platform is a service-oriented platform made up of numerous discrete repositories. These measurements are across all repositories that make up the Open edX platform.

Current Measurements

Open edX Repository Forks

8,807

Open edX Repository Subscribers

11,246

Open edX Starred Repositories

10,438

Analysis

As mentioned above, the pandemic boost in traffic to the project marketing site is clearly visible in the rate of user acquisition. Since the pandemic, traffic has normalized equal to or above pre-pandemic levels. The largest traffic sources during this period were direct traffic (53%), organic search (28%), and referrals (16%).

[10] Soft forks are a mechanism for creating a copy of a source code repository with the intention of keeping synchronized with the "upstream" repository. This differentiates them from hard forks, which represent a project effectively splitting into two separate projects. An example of a hard fork is Amazon's creation of OpenSearch from the Elasticsearch project.

The Open edX Community & Community Health

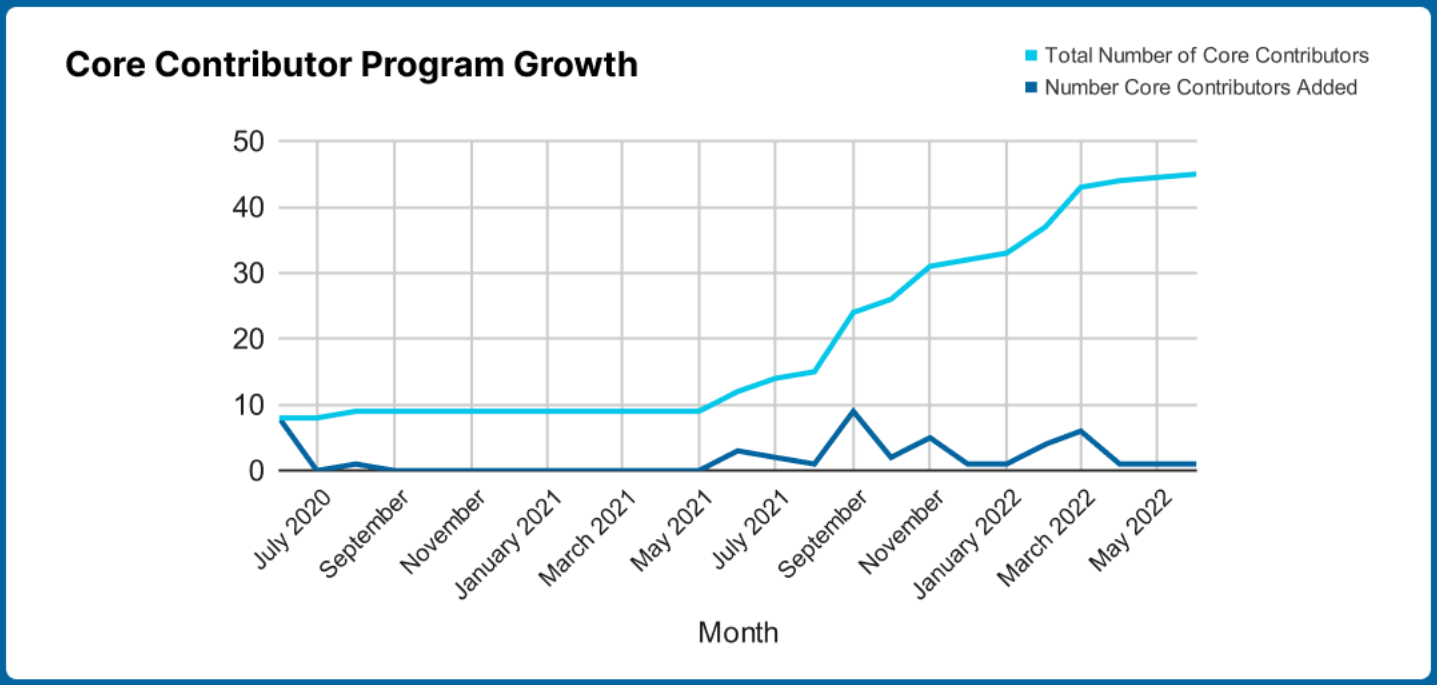
Core Contributors

One indicator of a healthy open source community is a robust and growing number of people who have the trust of the community to drive the direction of the project. The privilege of having this type of input arises from sustained, high quality contributions to the project. At the Open edX project, these people are known as "Core Contributors," and they include not only coders but also translators, product managers, documentation authors, QA staff, and more. This term is inclusive of every type of contribution someone in our community could make, and celebrates our most active and dedicated community members.

A Core Contributor on the Open edX project is someone who has consistently made quality "upstream" contributions—that is, contributions that benefit the whole project and community, not just a single group's instance. Additionally, they must demonstrate they have the time to continue contributing to the project.

We defined the Core Contributor (CC) program in an OEP (Open edX Proposal, a community governance document) in February 2022. OEP-54 defines the eligibility requirements for the CC program, a public nomination process in which other Core Contributors participate, and the expectations for a sustained contribution level required to maintain CC status. Specific roles and responsibilities are further defined in a Confluence wiki page, a living document that we can update or change more readily than the OEP.

Prior to the publication of OEP-54, we piloted a coder-only version of the Core Contributor program to help nail down the specifics of how the program would work. Non-coding contributors were introduced in a second pilot phase. The following graph shows the number of Core Contributors added each month since the pilot's inception, as well as the cumulative number of Core Contributors.



Maria Grimaldi

Position: Software Engineer, back-end development @ eduNEXT
Areas of Interest: Extensions & integrations, software design, and architecture

I've worked on the Open edX project for about two years, mainly on its extensibility strategies. I started at eduNEXT at the end of April 2020, and one of my first tasks was to open a pull request in the Open edX platform (upstream). I opened a few of them, making byte-sized changes — pretty small, but huge for me at the time. After my first week, I started working on eduNEXT's Open edX forks and plugins.

Earlier in 2020, an open proposal for the Open edX community was published by our team, led by Felipe Montoya (Co-Founder and CTO, eduNEXT).

The proposal was heavily inspired by patterns for handling customer requirements for core modifications. A couple of months later, what started as a solution for our clients soon became the Hooks Extension Framework, a blended development project funded by edX. Given the framework's impact on the Open edX platform, it became an official Open edX Proposal (OEP-50) shortly thereafter.

> I strongly believe in the mission of the community and the project, so each contribution fills me with purpose and excitement of improving — a bit at a time — the Open edX initiative.

In OEP-50, we settled for implementing two libraries that will hold the framework tooling: openedx-events and openedx-filters. Open edX Events and Filters are concepts that differ on many levels but have one objective in common: extending the platform in a maintainable way.

In mid-2021, I found myself in charge of the framework implementation due to some team changes. Throughout the project, Felipe encouraged me to get much more involved in the community and the framework design discussions happening in the community channels. Finally, after lots of discussions and feedback, in mid-2022, we completed all the implementations for the Open edX Nutmeg release.

All those experiences got me closer to the Open edX project and its community, allowing me to work shoulder to shoulder to complete our objective of building a simple, usable, and maintainable design accepted and supported by the Open edX extension developers. I strongly believe in the mission of the community and the project, so each contribution fills me with purpose and excitement of improving—a bit at a time—the Open edX initiative. Contributing and interacting with the project also reminds me of how good it feels to be part of such a diverse and talented community that supports each other to achieve the same purposes.

Dean Jay Mathew

Position: Director, ABC Online Courses
Areas of Interest: Product management, product testing

I've been working exclusively with my own branches of the Open edX platform since 2015, and I joined the Core Contributors program in 2022 to start supporting the master branch.

I have particularly enjoyed the Open edX working groups where you get the chance to collaborate on projects of mutual interest with a diverse group of people from around the world.

We mostly collaborate asynchronously, but also have regular bi-weekly video calls to connect, discuss, and make decisions together (usually by majority vote). It's definitely this social aspect of the community that has been my favorite so far, and since the conferences only happen once per year, the working groups provide a wonderful opportunity to stay connected.

> Joining the Open edX community has been a truly rewarding experience from both a professional and personal perspective.

I participate in a number of the working groups, including but not limited to: Product, Marketing, Build Test Release (BTR), and Architecture. My contributions have been pretty diverse and include writing a blog, organizing events, reviewing documentation, manually testing new features, and more. My most memorable contribution is definitely the community test plan we launched as a project owned by the BTR working group. The community test plan is a list of more than 200 manual tests we perform to get a new Open edX version ready for release. As testing coordinator, I recruited a group of 22 volunteers from the community to perform each and every one of the manual tests so we could get Nutmeg ready for launch in June of 2022. This community test plan will serve us for many versions to come, and I'm proud that I've made such a helpful contribution to the project.

Having already made several contributions across the working groups, in 2022 I was honored to be nominated as a Core Contributor. This means my community roles and contributions are publicly recognized and my name is listed on the official list of Core Contributors.Joining the Open edX community has been a truly rewarding experience from both a professional and personal perspective. I have been able to learn so much more about the Open edX platform and how other people are using it to create great online learning experiences around the world. I feel personally enriched by the experience, and our clients are happy we're keeping such a close eye on developments.

Working Groups

Open edX Working Groups are dedicated teams that collaborate on projects around specific areas of the Open edX project including marketing, platform architecture, project management, data and analytics, platform translations, and more. Working groups are a fantastic way for community members to work together to continuously grow and support the Open edX platform, as well as to facilitate community projects by providing guidance, decision-making, and insight.

Marketing Working Group

The Marketing Working Group is composed of community members who collaborate on increasing the global visibility and adoption of the Open edX platform by generating blog content, optimizing SEO, organizing virtual and in-person events, and providing informational content such as the Extensions Directory, the List of Features, video content as well as video campaigns, and much more.

What are we up to?

We're working to make it easier than ever to get started and oriented with the Open edX platform!

01 **For customers**

We're creating an Open edX sandbox that will enable potential users to walk through the LMS and test the features and functions of the built-in authoring tool, Studio.

02 **For course authors and instance operators**

We're working to provide certified training on using both Studio and the LMS within the Open edX environment. Those who complete training will be issued certificates.

03 **Coming soon!**

We will be releasing How-To videos to be coupled with Open edX documentation on the newly created Open edX documentation site, as well as videos highlighting the global impact of the Open edX platform—and the value of open source applications—featured on https://openedx.org.

Click here to learn more about the Marketing Working Group.

Translation Working Group

The Translation Working Group consists of community members who submit, coordinate, and review translations. Our translation service, Transifex, provides the ability to leverage crowdsourced, machine, and expert translations. This Working Group provides a centralized collaboration approach for ensuring that translations from all sources are high quality. The group covers ten target languages and ensures 100% translation completion of all Open edX software releases and translation of user documentation.

What are we up to?

01 We were able to achieve 100% translation completion for Open edX strings within the group's 10 target languages for the Lilac, Maple, and Nutmeg software releases!

02 We're in the process of identifying optimal solutions for translating learner, instructor, and course author documentation.

03 We have enabled a multi-language feature on both the new Open edX documentation site and the Open edX website.

04 We plan to expand our current list of languages to target and optimize.

Click here to learn more about the Translation Working Group.

Frontend Working Group

The "frontend" of the Open edX platform encompasses everything learners, instructors, authors, and others interact with directly when they visit an Open edX instance through a browser. The Frontend Working Group focuses on curating a roadmap of ideas, challenges, and opportunities that may eventually become part of the user interface. In practice, this means participating community members get together to create, prioritize, and coordinate the implementation of these initiatives. The actual work is then undertaken by individual members according to their availability and capacity, at their own discretion and pace. The group strives to optimize the community's resources so that any work is done in alignment with commonly agreed upon goals and standards.

What are we up to?

Our significant undertaking will be in the scoping and refinement of a short- and long-term Frontend Roadmap, which includes not only clearing the hurdles to platform adoption that the transition to micro-frontends introduced, but the completion of said transition itself. This work—done in close cooperation with the rest of the community (in particular the Product and Build-Test-Release Working Groups)—will be instrumental in creating Open edX releases with lower barriers-to-entry going forward. Check out these examples of Roadmap-initiated efforts currently happening under the coordination of the Working Group, each tackled independently by an organization in the community!

Click here to learn more about the Frontend Working Group.

Product Working Group

The Product Working Group (new as of June 2022!) is composed of product leaders across the Open edX ecosystem, representing a variety of roles including product managers, product owners, product leads, and UX designers. The group's primary function is to drive and coordinate centralized product leadership and decision-making for the Open edX project. Collectively, the group represents direct channels into the diverse Open edX user base around the world, which ultimately informs and shapes key product decisions.

What are we up to?

01 Our first project is to define a clear Product Narrative, or high-level vision statement, for the Open edX project that resonates across the ecosystem.

02 Our second project is to define a Core Product Offering, or a clear articulation of the base, fully supported, Open edX Install.

03 Both projects aim to simplify and streamline the Open edX experience for custom developers, instance administrators, educators, and learners, and will also lay the groundwork for identifying opportunities for future growth and innovation.

How do we function?

We are building infrastructure to support a fully functional product organization within the Open edX ecosystem. We're defining key product workflows, artifacts, and deliverables to support the end-to-end product process, from conception and market feedback to design and execution.

Click here to learn more about the Product Working Group.

Build-Test-Release (BTR) Working Group

The BTR Working Group is chartered with the direction and ownership of the Open edX community releases. Its goal is to create and maintain Open edX releases for use by the global community.

Prior to the group's creation, releases were entirely under the stewardship of edX. This group came about as a vehicle for the Open edX community to take the lead on supporting the Open edX platform releases.

To date, the group has been able to deliver releases at a predictable cadence, every six months, with the necessary documentation, and has developed the capability to involve the community in the testing process.

What are we up to?

The last four releases (Koa, Lilac, Maple, and Nutmeg) were released following the six-months cadence.

01 The Lilac release (June 2021) was delivered along with release notes.

02 The Maple release (December 2021) was the first release delivered by a group entirely made up of members of the community.

03 The Nutmeg release (June 2022) saw the first iteration of a formal test plan. It enabled non-BTR members of the community to participate in testing efforts.

The group is looking to increase the number of community members who contribute to the release process. To do so, the group needs to reduce the barriers to contribution. Namely:

- Better document the release process
- Automate parts of the release process

Click to learn more about the BTR Working Group.

Data Working Group

The Data Working Group was founded in June of 2022 and is focused on ensuring the Open edX platform has a "batteries included" analytics solution that is easy to use, powerful, and compatible with industry standards. We believe that data and analytics are so fundamental to effective pedagogy, evidence-based innovation, and research that the platform must have modern data capabilities to meet the challenges of quality online education at scale.

What are we up to?

01 Working to improve the adoption of industry standards like xAPI, and xAPI profiles to improve data interoperability between the Open edX platform and external systems like Learning Record Stores.

02 Planning for the replacement of the legacy data stack—Elastic MapReduce, AnalyticsAPI, and Insights—with something much simpler and less expensive to run.

How Do We Function?

The Data Working Group meets every two weeks, and has been focused on building out a roadmap. Focus to date has been on understanding current data use cases and community-developed solutions for getting insight from Open edX data. Over the course of the fourth quarter, we've developed a shared data roadmap for the Open edX project, so community resources can be focused on advancing the shared Open edX data infrastructure.

Click here to learn more about the Data Working Group.

For information on additional working groups, please check them out on their respective Confluence wiki pages: Deprecation Working Group and Architecture Coordination Working Group. You can also see high-level working group info on our website.

You can join working group meetings by accessing our public Open edX Working Group calendar, which contains the schedule of our recurring meetings (calendar ID to open in a specific app). We look forward to seeing you!

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 see the following 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

Open edX Partners

OpenCraft

edunext

aulasneo

edly by arbisoft

EMET TECHNOLOGIES

RACCOON GANG

Open edX Verified Providers

ABC Online Courses

Zaat.dev

graspway

abstract

Community Elections

In the first year of the Technical Oversight Committee's existence, community members were chosen from long-standing participants in our community. This was important so that the community would be directly involved in designing the process for electing community members to the TOC in future years. The TOC Charter specifies that community elections are required, and their timeframe, but not their format. The design process for community elections occurred in July and August of 2022 and included a period for public comment on the proposal. The process resulted in the creation of the Community Elections Charter that will govern community elections. The first Open edX community elections were held in October 2022 and the newly elected TOC members were announced on November 1, 2022. As this process is new, we expect to adjust and improve upon it in future years.

The community will elect three members of the TOC who will represent the co mmunity as a whole, but who are asked to represent specific constituencies: operators and core community members, instructors using the Open edX platform, and learners who have taken a course on any instance of the Open edX platform.
Registered voters will choose from candidates who are designated Open edX Core Contributors or Open edX Maintainers. The roles are specific project designations, each with specific rights and responsibilities. Potential candidates, who are not currently Core Contributors, can pursue this position in order to be an eligible candidate, following the process outlined in OEP-54.

Maintainership Program

As part of the transition of stewardship of the Open edX project from edX Inc. to Axim Collaborative, it was important to create standards for maintaining the software that were documented, well understood, and inclusive of the entire community. In May 2022, OEP-55 was provisionally accepted, specifying what it means to be a maintainer in the Open edX project. Open-source Maintainers are the contributors responsible for ensuring that all the critical work of the project is done, done well, and continues to be done over time. That work includes applying security patches, building features, fixing bugs, onboarding new contributors, writing documentation, and more.

All software requires ongoing maintenance, not just open-source software, and that maintenance represents a significant amount of effort in any software project. Given the importance of the work, it is essential to put in place mechanisms for measuring progress and ensuring accountability. As a provisionally-accepted OEP, OEP-55 is currently in a pilot phase. Five contributing organizations—2U, Arbisoft, Axim, OpenCraft, and eduNEXT—will participate in a pilot introducing formal maintenance recommendations across 14 repositories. Feedback from the pilot will inform improvements to the recommendations, and formal maintainership will be rolled out across the entire Open edX project over time. As a project, we will look for ways to make maintenance less burdensome over time. Tooling and automation can help reduce the amount of effort required for maintenance and increase the capacity available to improve and extend the platform. We'll be actively seeking feedback about ways to improve from the Maintainers, both during the pilot and after the full rollout.

The Open edX Project and Community Health

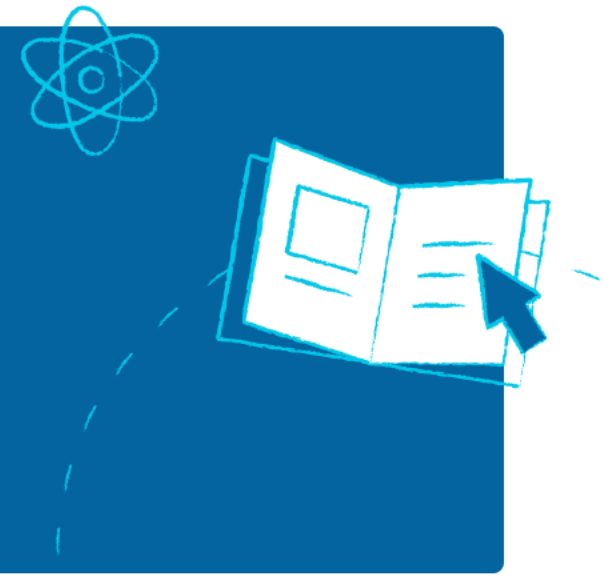
For an open-source project, the community is the engine that drives all progress. The community designs, builds, maintains, documents, and uses the software. Successful projects have vibrant and healthy communities around them. Growing communities create more and more capacity for all work that the project requires. If the Open edX project is to remain vibrant and sustainable, the community must be healthy. We should seek opportunities to increase inclusiveness and participation and, thereby, grow both the size of our community and rate of participation. When we see opportunities to improve, align, and grow our community, we should prioritize that work.

The Open edX Project 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 measures are the values for the period between July 1, 2021 and June 30, 2022.

Current Measurements

Active Source Code Repositories	163
Source Code Commits across all Repositories	11,722
Files Changed	99,494
Lines of Code Added	7,445,321[11]
Lines of Code Removed	5,696,364
Actively Participating Organizations	20
Unique Code Authors	309
Unique Project Contributors[12]	2,381



Analysis

These measures represent a point in time snapshot of the project. Taken alone, they are useful to get one's bearings, but they don't provide insight into either change over time or how Open edX compares to other projects. We will examine participation trends, as follows.

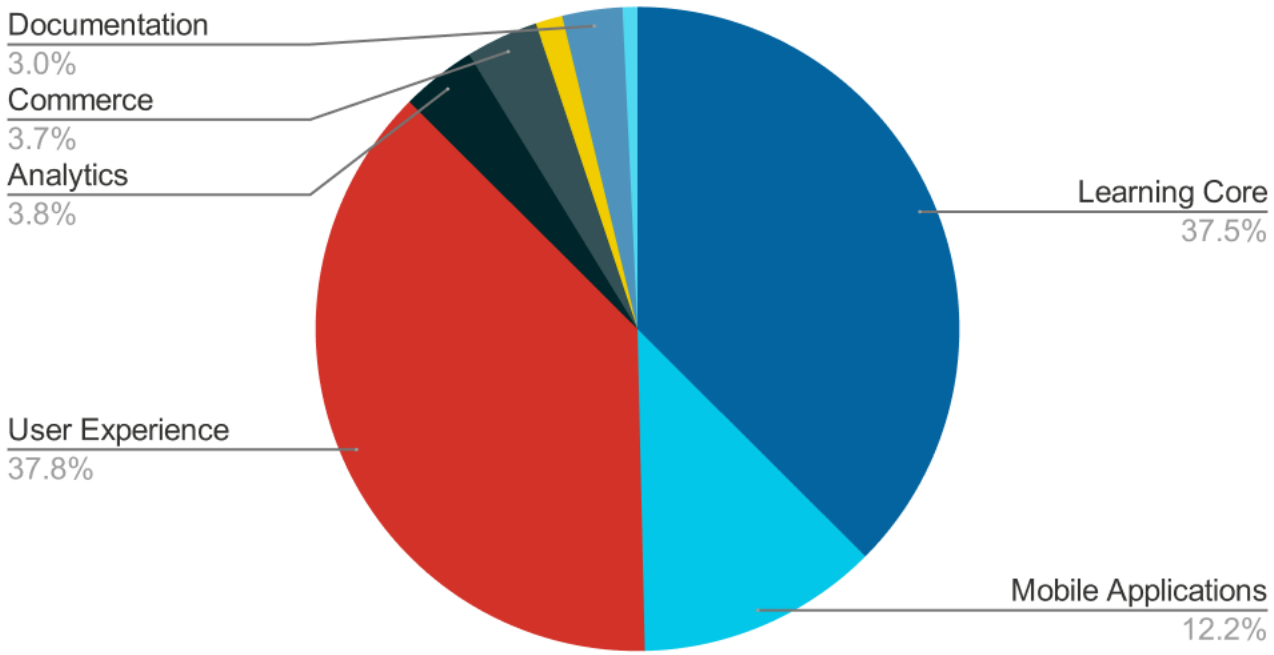
[11] This measurement includes boilerplate code generated by framework tools; not every added line was crafted by an engineer.

[12] Contributors are unique users who have contributed some value to the project over the last fiscal year, through any channel. Contributions are inclusive of source code, questions and answers in Discourse or Slack, platform translations, documentation, testing, and submitting issues.

Where Was Effort Focused?

This analysis attempts to answer the question: Where was the majority of effort applied across the platform in the last year? To answer this, the 50 busiest repositories in the Open edX project were categorized by their primary functional area. Percentages of effort per area were calculated as a share of the total effort invested across the 50 repositories. Effort is computed based on the change magnitude for each repository—the sum of lines added. The percentages represent effort over the period of July 1, 2021 to June 30, 2022.

Effort across Repositories



Analysis

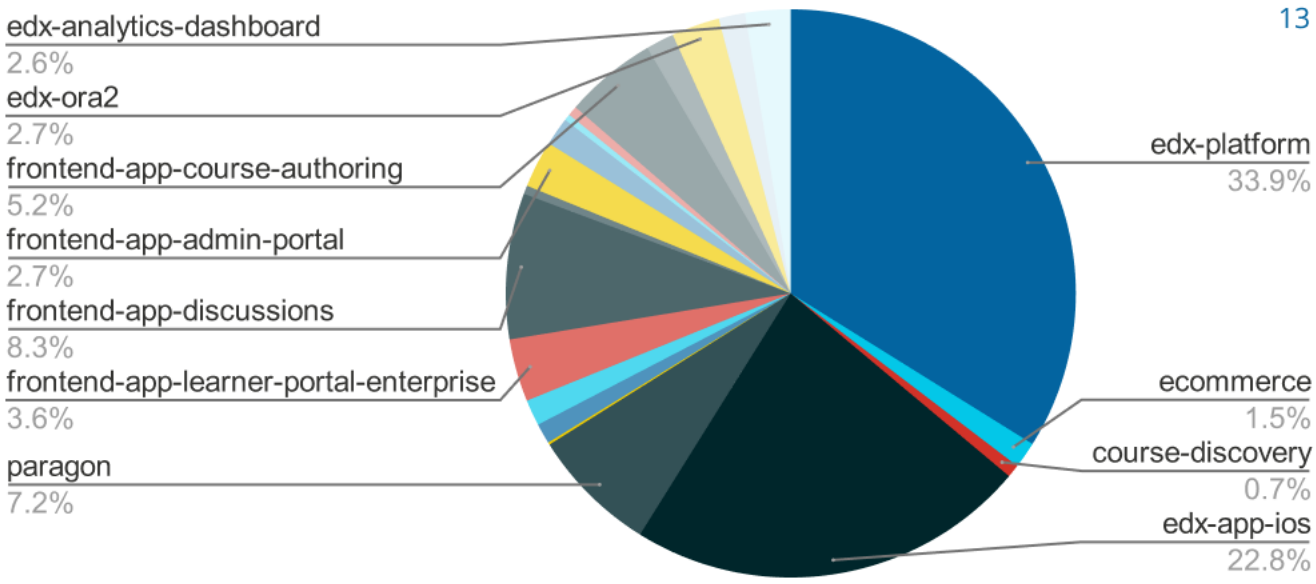
Over the last year, the majority of effort was invested in updates to the user experience and the learning core. These improvements are not completely distinct as the majority of user experience improvements are to learner facing areas of the platform. The majority of the user experience improvements were made in micro-frontends (MFEs), client-side micro-applications written in Javascript and utilizing the ReactJS framework. The default learner experience in the LMS and the forums experience were both converted to MFEs. At a high level, it is fair to say that greater than 80% of effort was focused on the learner experience, including investment in mobile applications.

Most Active Repositories

Drilling into the areas of focus, we can analyze effort in specific repositories. As above, effort is measured by counting the number of lines of code added to the codebase over the course of the last year. The top 20 areas of contribution are presented. The metric helps understand where community energy is focused across the codebase.

Current Measurements

Most Active Code Areas, by Lines of Code Added



Analysis

The busiest repository was the core of the learning platform, edx-platform. However, seven of the top 20 repositories were micro-frontend applications (MFEs). The architectural change in focus toward micro-frontends aimed to move activity away from the platform monolith and improve the comprehensiveness and consistency of platform APIs. The strong representation of MFEs signals success in that regard and will ultimately deliver more flexibility of learner experience at a higher velocity.

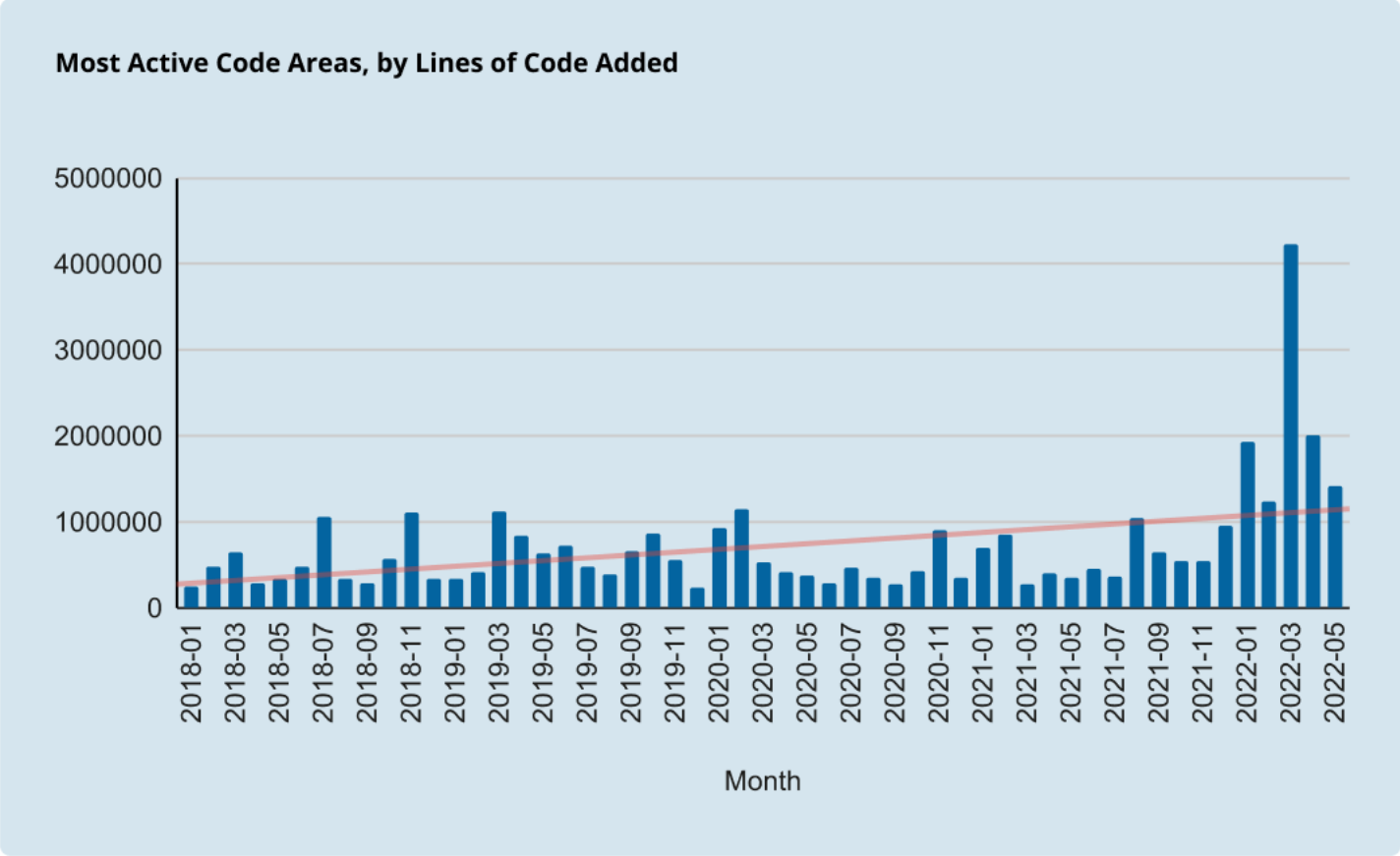
Notably, there was significant investment in the iOS application over the last year.

[13] Note that some charts total more than 100% because of the lack of support for more than a single decimal place of precision in Google Sheets' chart labels.

Community-Wide Contribution Rate

In order to monitor the trends in contribution, we measure the rate of contribution to the Open edX project. The measure of contribution is focused on code contributions. Contribution rate is measured as the sum of lines of code added across all Open edX project repositories. Data is for the period between January 2018 and June 2022.

Current Measurements



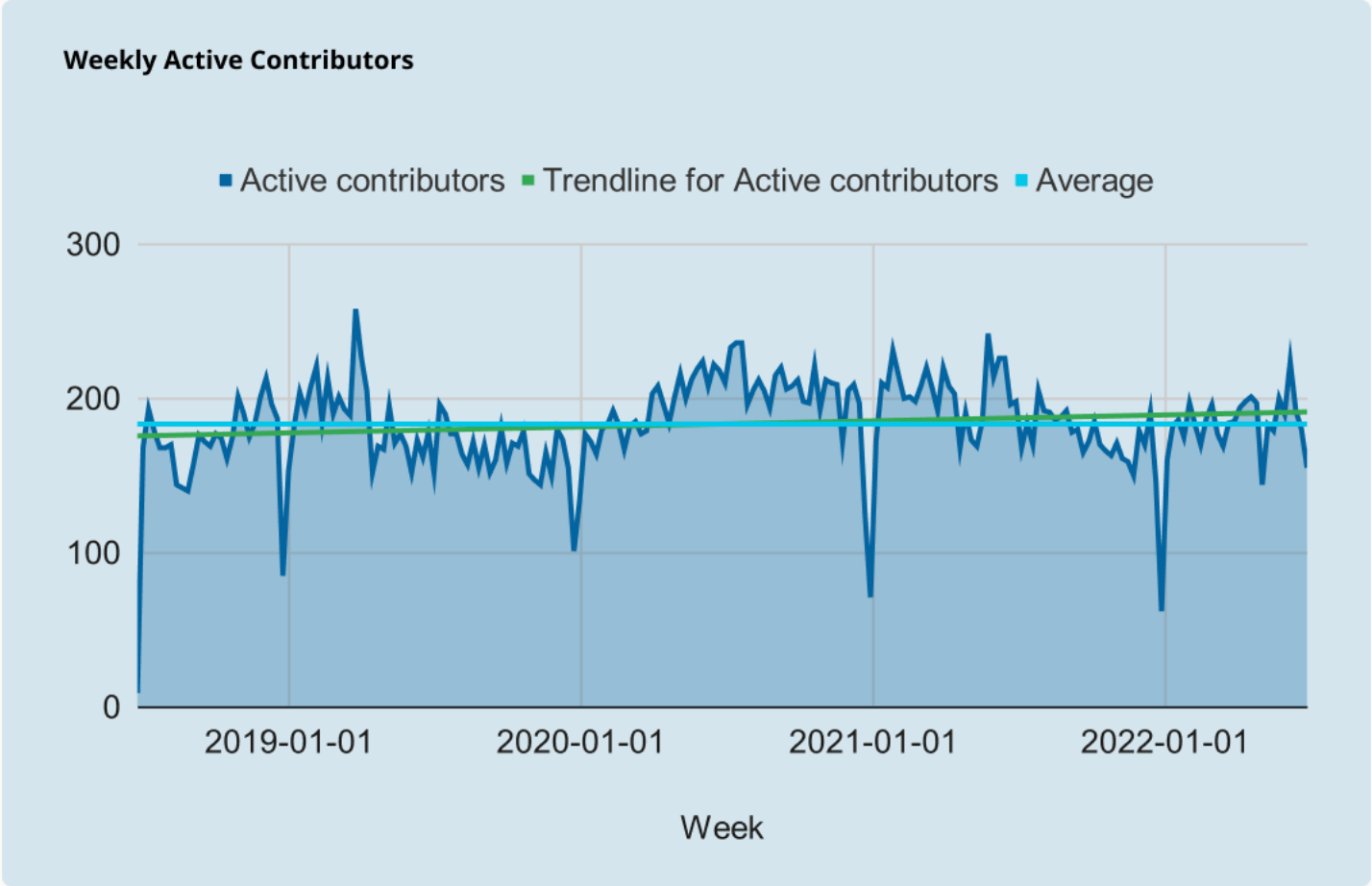
Analysis

Over the last few years, the rate of contribution has been trending steadily upward. In 2022, contribution rates were bolstered by a number of large projects nearing completion between January and June. Those projects included significant updates to the Open edX forums capabilities, updates to the Open edX iOS application, updates to the Open Response Assessment tool, the integration of the Blockstore storage backend into the Open edX platform, and the contribution of the Open edX events and filters project.

Active Code Contributors

This analysis seeks to answer the question: How stable is our contributor base, and is it growing or shrinking? In order to visualize longer term trends, this data set includes the weekly active contributors since July 1, 2018, as well as the average during that period, and the trendline.

Current Measurements



Analysis

The count of weekly active contributors is trending slightly upward over time, with clear seasonality patterns around the end of the calendar year. Overall, the number of weekly active contributors is stable.

Community Structure

An important measure of health of 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 contributors, as follows:

01 **Core:** Those contributing 80% of the activity. These are the most committed developers, and those on which the project relies most.

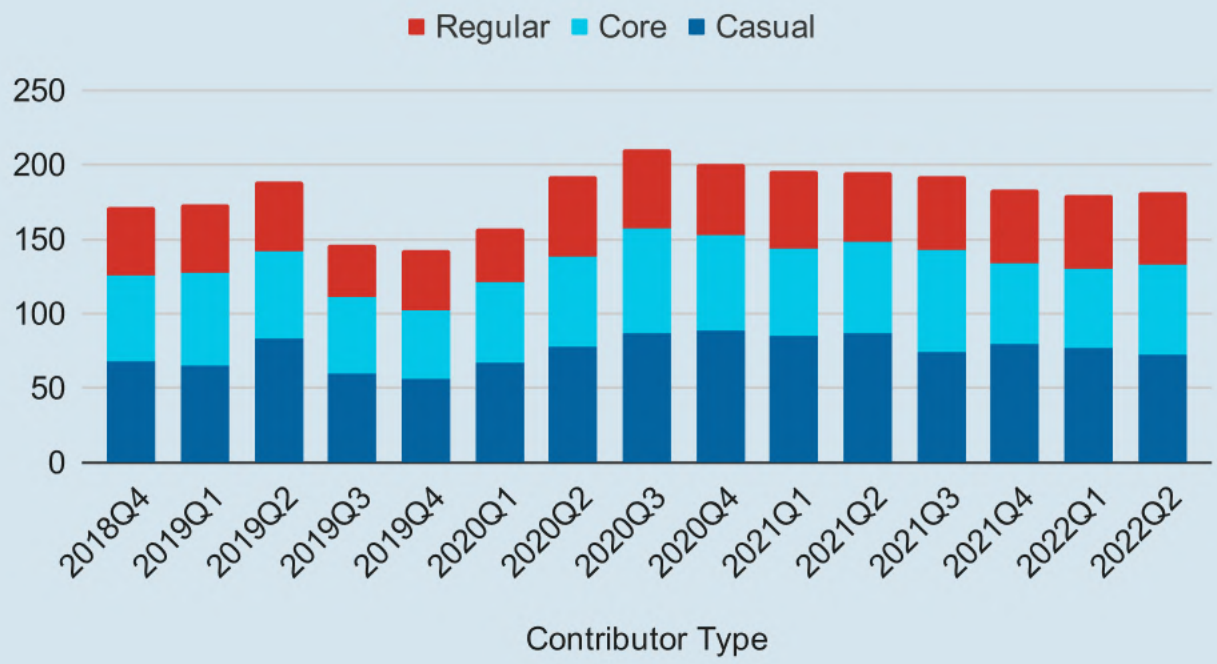
02 **Regular:** Those contributing the next 15% of the activity. These are people committed to the project, and are most likely to become part of the core group, or maybe were already in it. The core and regular teams together account for 95% of the activity.

03 **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.

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

Current Measurements

Community Structure



Analysis

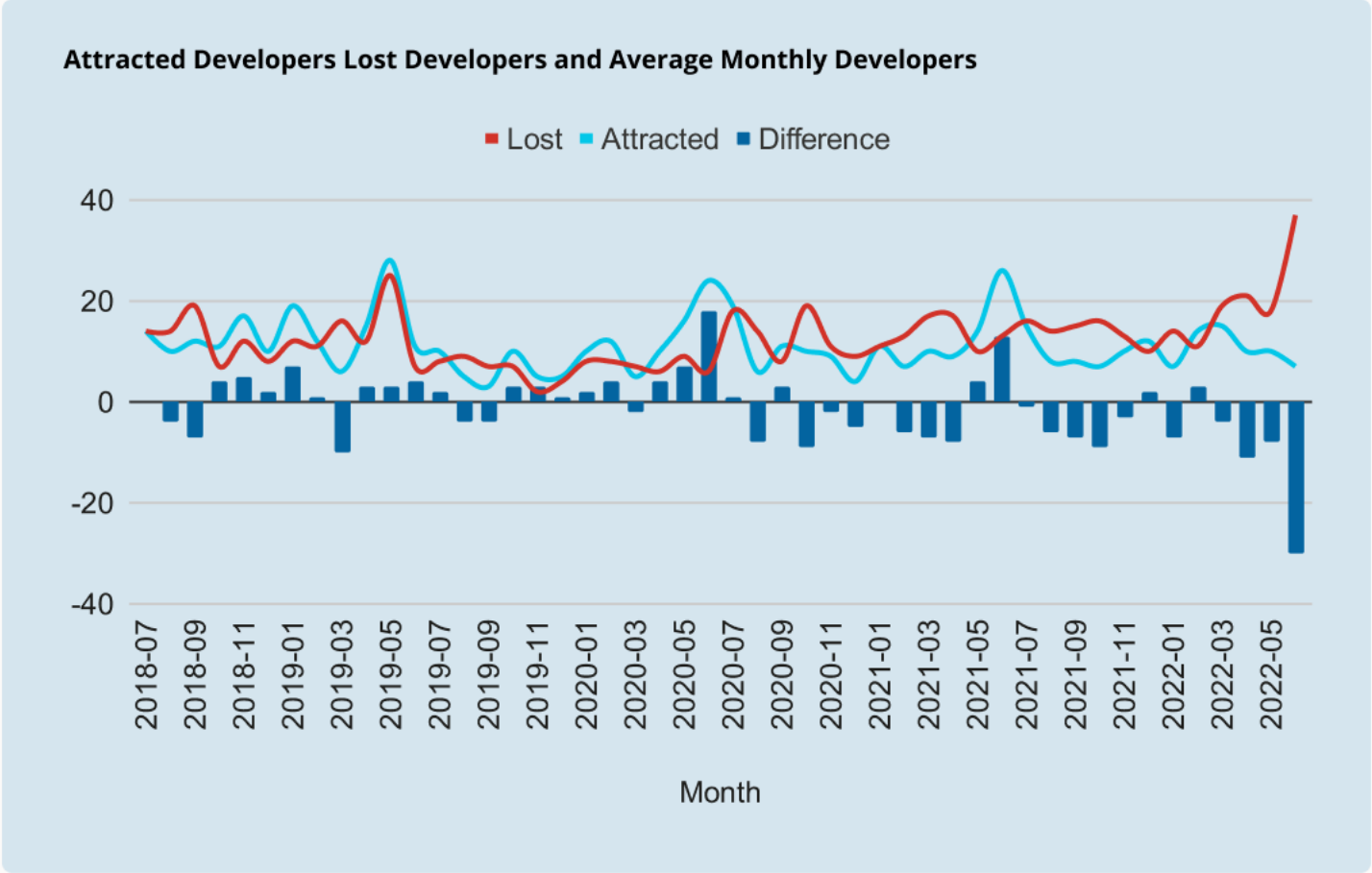
Since 2018, the community structure has been quite consistent. A dip in participation in 2019 was likely offset by renewed investment in community engagement at edX. The trendline for Core Contributors[14] indicates growth in that segment. A useful next step in this analysis would be to develop a funnel view of participation to help us understand how successful we are at converting new participants into regular and, eventually, Core Contributors.

[14] 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.

Developer Growth and Attrition

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 the period of January 1, 2019 through June 31, 2022.

Current Measurements



Analysis

In order 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. It is perfectly normal for developers to leave an open-source project. Reasons for contributing vary dramatically from contributor to contributor. The length of a developer's engagement with a project typically depends on their purposes for joining in the first place.

However, there are places to invest to reduce attrition and increase engagement. For example, removing friction to participation, responding to questions in a timely manner, and offering leadership opportunities to community members all create a more “sticky” project. What we monitor is the relationship between newly acquired contributors and people leaving to ensure that the steady state is stable or growing.Note that the spike in people leaving most recently is more a factor of the periodicity of contribution. Most developers to the project merge a contribution less than monthly. This doesn’t mean that work is not happening, but that batch sizes are large.

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 commits to Open edX-related repositories[15]—to the project are accounted for.

Current Measurements

Elephant Factor

2

Analysis

Currently, the contributions of the two highest contributing firms, 2U and Arbisoft, account for 80% of the total. This is further complicated by the fact that a large volume of Arbisoft's contributions are funded by 2U.

It is important that the Open edX project continues to focus on increasing the number of firms actively participating in the project. Increasing participation and contribution was a priority before the transition of stewardship from 2U to Axim Collaborative. Progress is being made, but this should be a continued focus to ensure the long term sustainability of the open-source project.

[15] Commits are an imperfect measure because they vary in effort and value. However, they are, at least, directionally sound, and it is unlikely that a different way of measuring contribution would currently change the project's elephant factor.

Events and Connections

2022 Open edX Conference Recap

The annual Open edX Conference is always a highlight for our community as it's a chance to connect not only with many fellow community members, but also to engage with leading EdTech experts to learn and share different approaches, best practices, and ideas for integrating new technology into the (virtual) classroom. Speakers and sponsors represent expertise in a variety of sectors, including higher ed, corporate, nonprofit, government, and more. It's a must-do for those passionate about the future of learning, and to find out what's new with the Open edX project.

From April 26–29, 2022, we were fortunate to be able to return to an in-person Open edX Conference in Lisbon, Portugal, hosted by Nova School of Business & Economics and FCT! Alongside the in-person attendees, we offered a virtual track for those who were not able to make it to Lisbon. Whether you were in Lisbon or online, it was exciting to see so many familiar—and new—faces! There were 206 attendees, down a bit from the 389 attendees from our last in-person event in San Diego in 2019, though a great starting point for our first time back in a few years! We had an amazing time exchanging ideas and learning with our community, and felt invigorated by the energy generated.

"The State of Open edX": a talk by Ed Zarecor and Jenna Makowski

Shaping the Future Together

This year's conference theme was "Shaping the Future Together," as we focused on the growing importance of collaborative learning and how educators, students, and technologists are coming together to build the next generation of educational technology. We also shared innovative ways to extend and enhance the Open edX platform.

The conference kicked off with a day of interactive tutorials and technical deep-dives, followed by two days of sessions and keynotes, and concluded with our community working groups collaborating on ideas brainstormed throughout the week. The week's events were separated into three main tracks:

01 Pedagogy & Instructional Design

Course authoring, production and promotion techniques, and best practices for innovative courses.

02 Platform & Product

Trends and possibilities in online learning and training, such as collaborative learning, online credentials, professional development, and lifelong learning.

03 Extensions & Integrations

Analytics, research, and technical deep dives on extending and integrating the Open edX platform.

2022 Conference links

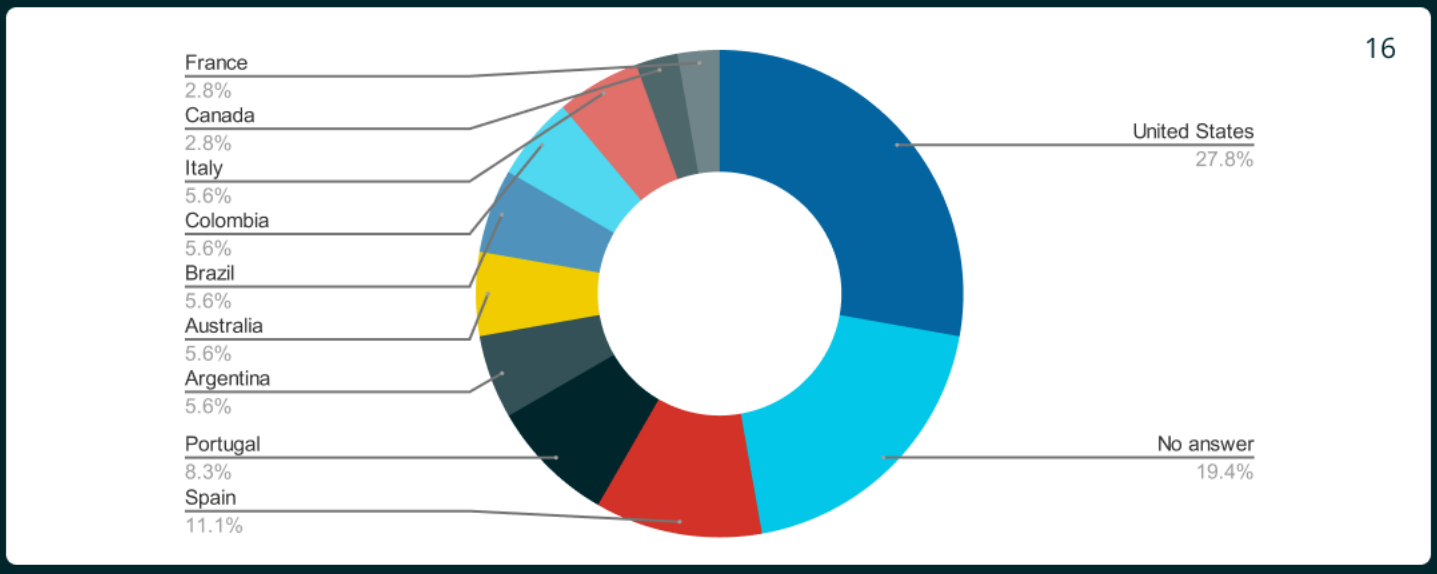
To learn more details about the topics and sessions from our 2022 conference, please check out the following:

- Open edX 2022 Conference schedule of events
- Highlighted sessions and speakers
- Session recordings
- A special presentation from our Ukrainian friends and Open edX Partner, Raccoon Gang, detailing their partnership with the Ukrainian government to create a K–12 national learning platform powered by Open edX.

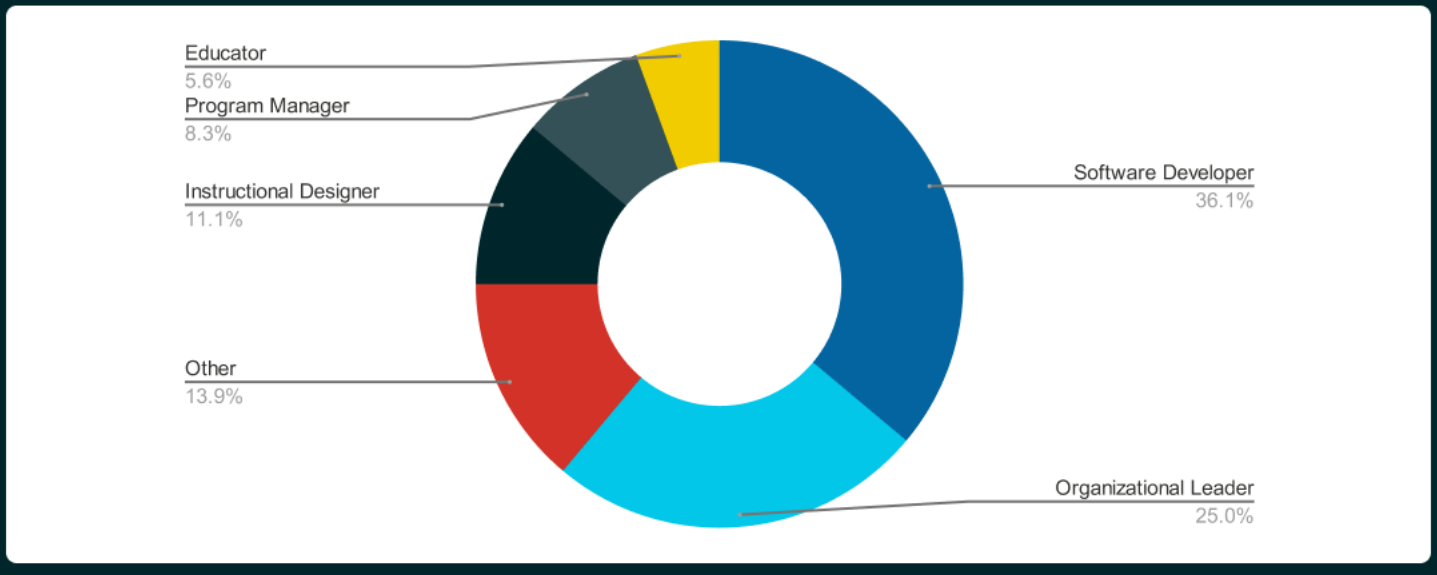
Attendee Information

Two hundred and six members of the Open edX community attended the 2022 Open edX Conference. The post-conference survey had a 16% response rate. Overall sentiment of attendees was very positive with 97% of attendees likely, or very likely, to attend the 2023 conference (11.4% and 85.7%, respectively).

Which countries did the audience travel from to attend the 2022 Open edX Conference?
The audience was international, but US attendees represented the single largest audience segment.



What was the audience's professional makeup?
While the audience was dominated by Software Developers, representation of educators, instructional designers and learning professionals has increased over prior years. This has been a focus. Initiatives have included publicizing the event on general educational technology websites, and focusing on building a robust pedagogy track at the conference.



[16] Note that some charts total more than 100% because of the lack of support for more than a single decimal place of precision in Google Sheets' chart labels.

Thank You to Our Keynote Speakers

We were thrilled to have some fantastic industry leaders join us as keynote speakers to share their experiences and insight! Check out the following links to get their perspectives on topics including the future of learning, and the benefits and opportunities of open-source.

- **Anant Agarwal**, Chief Platform Officer, 2U, "The Future University: Pivot to Learner-Centricity"
- **Tobie Langel**, Principal & Founder of UnlockOpen, "From Open Governance to Collective Ownership"
- **Paula Marques**, Executive Director for Business Transformation, Executive Education at NOVA School of Business and Economics and the Head of Innovation at MERCER, "Changing the Game's Rules: From Scalable Efficiency to Scalable Learning"

In addition, Axim's own Ed Zarecor (VP of Engineering) and Jenna Makowski (Senior Product Manager), kicked-off the conference with a comprehensive look into the "State of Open edX."

Special Thank You to Our Hosts and Sponsors

Thank you to Nova School of Business & Economics and FCT for all your assistance in accommodating the conference, and for helping us make it one for the books! Thank you also to our event sponsors for their support and passion for our mission!

- OpenCraft - Reception Sponsor
- Construct Education - Cornerstone Sponsor
- Edly - Premier Sponsor

Additional Sponsors

eduNEXT, Graspway, IBL Education, Annoto, Aulasneo, and our media sponsor Class Central.

2023 Open edX Conference

Our 2023 conference was held March 28–31, 2023, in Cambridge, Massachusetts, hosted by the Massachusetts Institute of Technology (MIT). You can check out the conference site and schedule here. Stay tuned for recaps on our blog, and in our next report!

Connecting with the Open edX Community Year-Round

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

Monthly Meetups:
We hold free monthly virtual meetups on Gather as a forum for community members to share ways on successfully integrating and leveraging the Open edX platform, as well as to collaborate and network on a recurring basis. There's a vast amount of expertise in our community, so meetups provide an opportunity to see how others are involved in the Open edX project, and to learn new ways of optimizing your learner outcomes.

All are welcome to join! You can find upcoming meetups on our public calendar. Prior to each event, a link to register on Eventbrite will be sent out on all our community channels including email, forums, social media, and Slack.

Discussion Forums & Slack
Have questions about the Open edX project? Looking to connect on a particular topic? Whether you're an educator, developer, or just interested in community updates, our discussion forums can keep you informed and connected. Join the conversation!

If you prefer to reach out to the community via Slack, request an invitation to be added to our community Slack workspace.

We look forward to chatting with you!

Areas of Investment for the Next Fiscal Year

Open edX Product Roadmap

We are currently building out the Open edX Roadmap, which will serve as the source of truth for the strategic direction of the Open edX project. Our intent is for the community of contributors and users to drive the Open edX Roadmap, with Axim and the Product Working Group channeling stakeholder input in systematic and timely ways. We are already working to standardize mechanisms to gather and synthesize input on project direction, including focus groups, user interviews, and feedback loops on user stories and product documentation.

This Roadmap is an iterative work-in-progress with two major milestones:

MILESTONE
01

Capture and document all current and upcoming contributions across the ecosystem

Milestone One marks the first time a comprehensive view of work across the Open edX landscape exists in one place. It enables the community to gather insight into which projects can be expected in upcoming releases and where others are investing. The landscape-level view also enables Axim and the community working groups to provide recommendations and guidance regarding scope and approach, to ensure contributions are aligned with, and optimized for, the core product offering.

Milestone One is nearing completion, though the Roadmap will receive continuous updates as its default state will be a work in progress.

MILESTONE
02

Build and prioritize a backlog of initiatives, in alignment with a strategic direction for the Open edX project

The Product Working Group will oversee and manage the backlog and prioritization workflows to ensure those workflows become community-driven processes. Prioritization will also be informed by the two core strategic initiatives being undertaken by the Product Working Group: 1) Defining a core product narrative—the high-level vision statement for the Open edX project; and 2) Defining a core product offering—a clear articulation of which features and experiences come fully supported with a basic Open edX Install/experience, for a clearly defined user base.

Milestone Two is ongoing through 2023.

Current Areas of Investment

With Axim stewardship of the Open edX project comes the opportunity to build a more resilient and diversified ecosystem to drive platform contributions, maintenance, and growth. In order to increase community ownership of the project, the Open edX team at Axim has been focused on three major themes:

- Establishing sustainable, open project governance
- Establishing a Axim-led, community-driven product management approach and infrastructure
- Deploying engineering resources to simplify the platform, reduce costs of ownership and develop key innovations to unlock platform-wide value

As such, we have identified the following five areas of investment over the next 12 months.

01 Improvements to developer tools and platform documentation

In order to make it easier to adopt and contribute to the Open edX platform, we are investing in improvements to the Tutor Open edX distribution to create a unified development experience for contributors. Tutor has already been selected as the official Open edX release distribution for community releases.We are also investing in a comprehensive review and update of the Open edX platform documentation for all types of users, including educators, course operators, developers, and more. Currently, there are many divergent sources of documentation and documents are often out-of-date.

02 Reducing technical debt

In any large software platform, technical debt slows progress by making changes, sometimes even small changes, difficult to make. We are focusing resources on deprecating and removing legacy parts of the platform. Deprecating unmaintained code reduces maintenance costs and burden, and makes the platform easier to understand and update. We have a formal process for approving deprecation recommendations, detailed in OEP-21. Our focus will be on implementing high-priority, accepted deprecation proposals.

03 Platform core improvements

- Customer interviews conducted over the course of the first quarter of 2022, highlighted a need for more flexible, modular content—atomic learning units—to better support content sharing and reuse. There is a desire to use content outside of a traditional course as short sequences and, eventually, to have atomic learning units that can be leveraged by personalization and adaptive learning technologies. We are currently focused on the design for robust content modularity on the Open edX platform.

- A second finding of customer interviews was that the platform's data and analytics tools are significantly behind the competition, and are becoming a blocker to adoption. Instructors want tools that enable them to understand learner performance and help them intervene when learners need support. Such tools were impractical at MOOC scale, but are essential for smaller classes.

04 Building product management software

The Open edX team at Axim is developing Product Management practices that use evidence from market research and customer feedback to make investment and prioritization decisions. Working with the community via the Open edX Product Working Group, we are developing a process for coordinating and visualizing Open edX development across the entire community. Currently, the Open edX Product Roadmap catalogs all existing known work—both in progress and proposed. In the future, the Product Working Group will play the critical role in prioritizing and specifying features via an inclusive, community-focused process.

05 Driving community growth

The Open edX team at Axim will continue to work to maintain the health and grow the Open edX community. Over the last year, programs like the Core Contributor Program and Maintainership Program have increased opportunities for community leaders in the project. The addition of community members to the Technical Oversight Committee affords opportunities to influential members of the broader community to steer the overall direction of the project. We will continue to focus on these efforts, and a growing and robust community is the engine that drives the Open edX project forward.

Project Highlights

Tutor Adoption

Tutor is the official Docker-based distribution, aimed at making it easier to deploy, customize and upgrade. The goal of the Tutor adoption initiative is to make Tutor the default install and replace the current Devstack.

Documentation Redesign

The primary goal of the Open edX Documentation Redesign is to create a central index and organization infrastructure for documents, and to streamline access by aligning documentation with key user needs and workflows. This redesign project addresses the challenge of centrally organizing Open edX documentation, ensuring materials are regularly updated and designed with the end-user in mind.

Modular Learning and Learning Core

The product objective of the Modular Learning initiative is to enable delivery of diverse types of learning products, such as mini-courses, learning sequences, and customizable learning pathways. This will position the Open edX platform to become an innovator and leader in modular learning delivery beyond the traditional “course” structure. Redesigning the platform to focus on modular “atomic learning units” rather than full courses unlocks value across the platform—including more seamless course reuse workflows, improvements to extensibility frameworks and LTI integrations, and more flexible content authoring—and lays the foundation for content reuse and sharing across Open edX instances.

Lots of exciting things are in the works for Axim Collaborative and the Open edX Project!

Be sure to visit the following sites to stay in the loop on current projects, updates, events, and how to get involved.

axim.org · openedx.org · Open edX Blog

The Open edX Community on Confluence