High-quality education for everyone, everywhere.

2020 Impact Report

Welcome friends,

In 2012, Harvard and MIT came together with the groundbreaking idea to create edX, a nonprofit online learning platform that would convene a group of institutions to reimagine education as we knew it. At the time, society was facing many of the education challenges that we are familiar with today: limited access to high quality learning experiences; skills gaps caused by rapid technological change; and prohibitive cost and time commitment required to gain advanced knowledge and credentials.

edX was created to discover solutions to these challenges, with a mission focused on three central pillars:

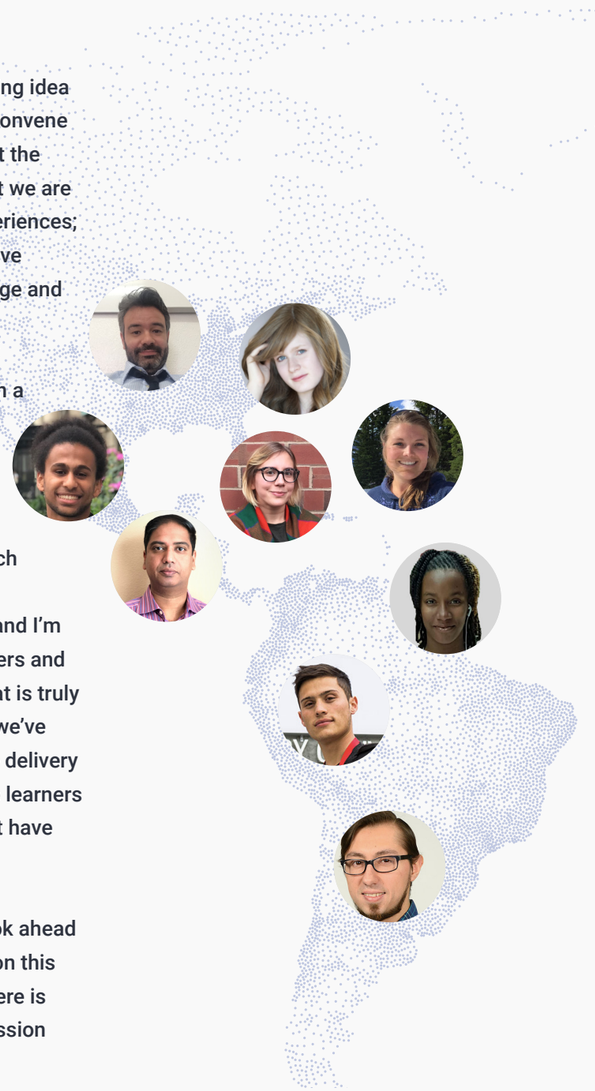
1. Expanding access to high quality education to everyone, everywhere
2. Reimagining education both on-campus and online
3. Improving teaching and learning outcomes through research

We set out to transform education through digital technology, and I'm pleased to report that with the close collaboration of our partners and the hard work of our learners, we have created a movement that is truly delivering on that promise. Join me as we explore the journey we've embarked on and reflect on how we have directly impacted the delivery of education and learning worldwide. Twenty-four million more learners now have high quality education opportunities that they did not have access to in 2012!

We'll close with our vision for the future of education, and a look ahead at what we plan to accomplish next. Thank you for joining me on this reflection of where edX has come, and where we are going. There is so much more to do, as we continue to live and breathe our mission everyday. I sincerely hope that you join our movement.

my best,
anant

Anant Agarwal, edX Founder and CEO

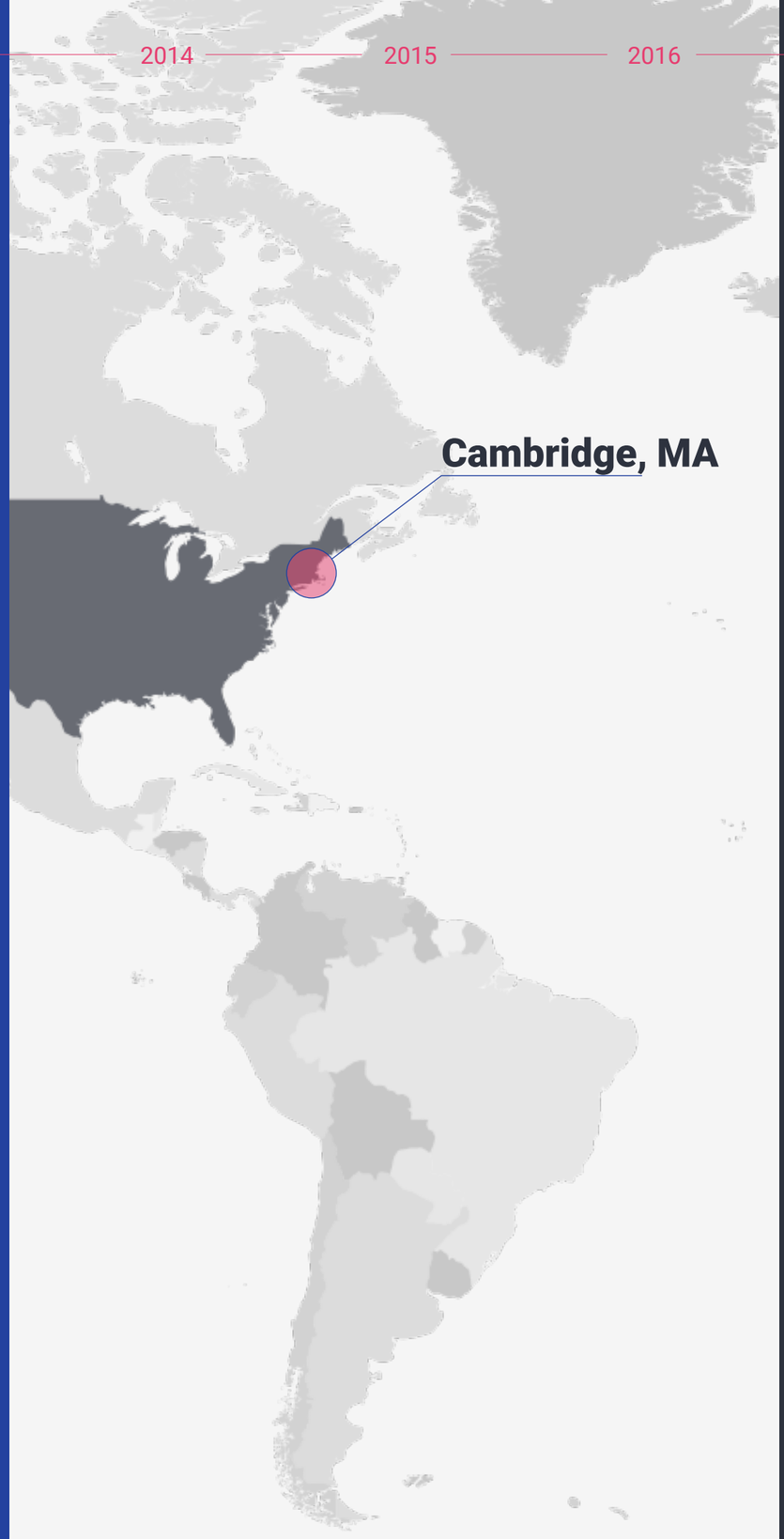


Massachusetts Institute of Technology

In the spring of 2012, MIT offered its first massive open online course (MOOC), Circuits and Electronics. This course was historically offered two times per year, each time to about **100 students** studying on campus. The first time this course was offered on edX, it was available to learners anywhere in the world for free, and more than **155,000 learners** from **162 countries** enrolled in the course, and 7,200+ passed this rigorous MIT course. It would take an MIT professor over 35 years to teach this many students in person. As of September 2019, this course has reached nearly **500,000 learners**.

HARVARD UNIVERSITY

The appeal of CS50, Harvard's introductory computer science course, is universal—it's the **most popular course both on campus, and on edX**. It is even being used in classrooms as far reaching as Burkina Faso, as part of the curriculum at the Burkina Faso Institute of Technology. These students join the **4 million edX learners taking HarvardX courses**.



Opening the Classroom to the World 2012

Millions of people around the world want—and need—a quality education. The traditional classroom is limited in how many students it can serve. By opening the classroom through MOOCs, edX brings the best courses from the best schools to millions of learners around the world.

5,743
instructors

24 Million
unique users

80 Million
unique enrollments

145+
partners

196
countries reached

3,000+
courses

1.6 Million
certificates issued

443 Million+
problem sets tackled, working together through forums, social groups, and across time zones

121.5 Million+
videos watched, sharing content from faculty across the globe that sparks innovative ideas and stimulating discussions

Quality at Scale

The edX platform is built so that teachers can deliver education at scale that is the same or better quality as on-campus learning. We released it as open source software, Open edX, so that we can continuously improve the platform through collaboration with educators and technologists worldwide, and so even more people can have access to it.

Learning on edX

Active learning

Video and text materials interspersed with activities to assess knowledge and practice skills.

Peer learning

Guided interaction among peers to share knowledge and experience, and learn by explaining concepts to others.

Instant feedback

Auto-graded problems, multiple attempts, and answer hints to check and reinforce learning.

Discussion forums

Inline discussion prompts and threaded conversations for peer, moderator, and community TA interaction.

Video

Short, replayable videos and demonstrations with downloadable transcripts in multiple languages.

The Power of Blended Learning

edX and our partners have unlocked the power of blended learning — when on-campus learning happens both online and in-person. **For example, 99% of residential undergraduate MIT students learn on the edX platform as part of their course of study.** The edX platform features instructor dashboards and course administrator tools to support not only online learning but also on-campus teaching and learning. Blended learning has been widely shown to improve learning outcomes. In one case **pass rates in a blended learning course delivered on the edX platform jumped to 91%, compared to a 59% pass rate in the traditional face-to face class. ***

Open edX Impact

2013

The world's largest MOOC platform

National learning platform
for France, Israel, Jordan, China, Saudi Arabia, Russia, Portugal, Korea, Thailand, Indonesia, and Switzerland

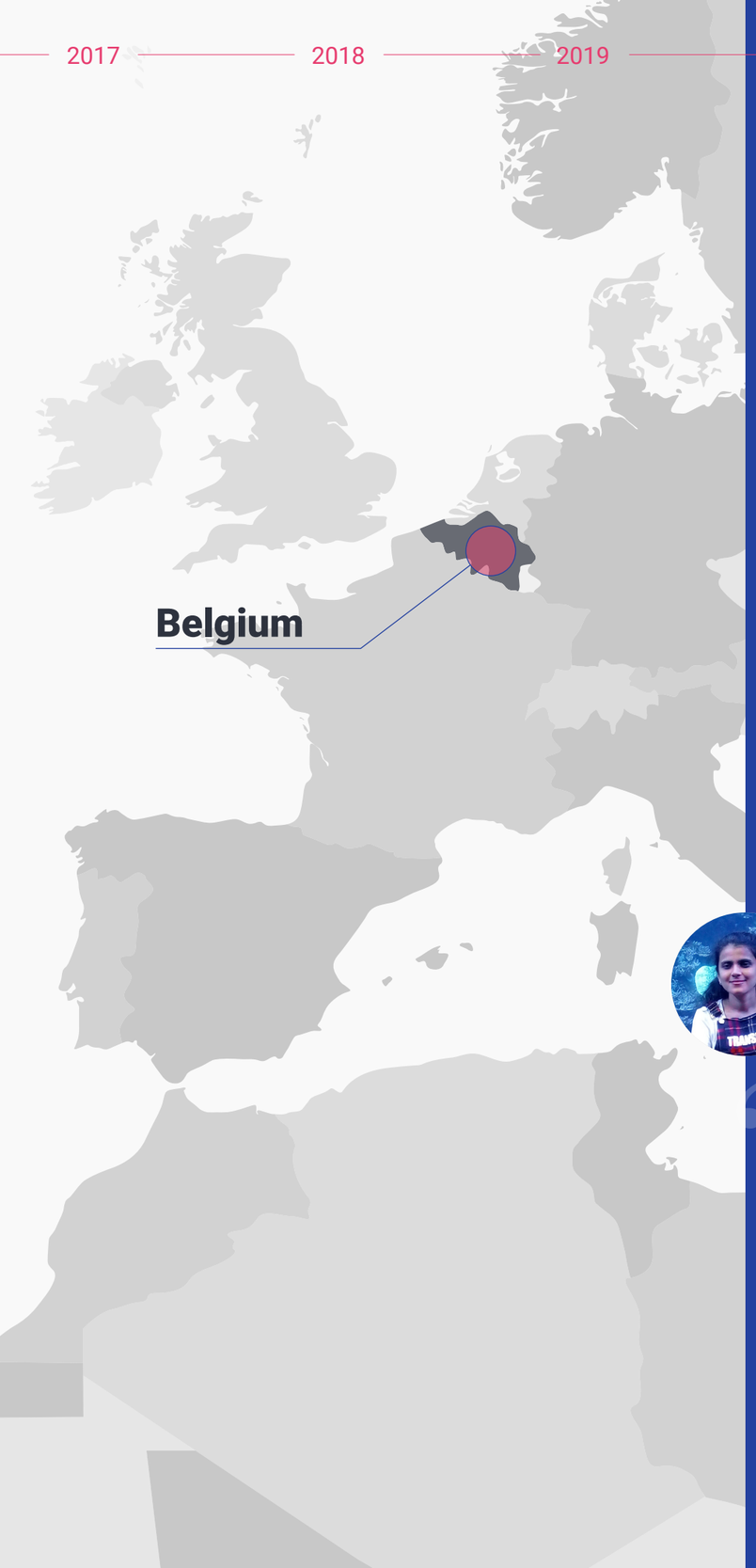
30,000+
courses

2,400
instances worldwide

50 Million
learners

46
languages

* (Ghadiri et al., 2013)



UCL Université catholique de Louvain

Founded in 1425, UCLouvain is one of Europe's oldest universities. An internationally recognized institution, UCLouvain is committed to delivering quality education and innovating teaching and learning for their students and learners around the world.
In 2019, more than 4,000 on-campus UCLouvain students took one of the university's 28 MOOCs on edX for credit.

Aditi, India

Massachusetts Institute of Technology

"This was the first completely accessible course I'd ever taken online, and perfectly coincided with my learning goals. I've never been able to study math without sighted assistance in the past, but on edX even this math-heavy course was readable to my screen reader. I finished without any significant glitches!"

Improving Education Through Research

edX supports the advancement of educational research by providing an environment where instructional designers and data scientists can explore how students learn. We use the findings of this research to improve our platform, to inform best practices for teaching, and to enhance the learning experience both on campus and online.

- edX created the **research data exchange (RDX)**, which enables collaboration between researchers.
- There are 120+ peer-reviewed research papers published that use edX data.
- The edX data science team is dedicated to investigating how to create impactful outcomes for learners.
- The edX platform supports A/B testing where teachers and researchers can explore alternate approaches to teaching and learning.

What Research Shows About the Global Impact of edX's Financial Assistance

Financial assistance improves learner outcomes globally

edX is proud to offer generous financial assistance to learners in need whose goal is to earn a Verified Certificate. We recently evaluated the impact of this program, and found that financial assistance increased completion rates for learners across the globe.

Based on these findings, we are actively investing in our financial assistance program to reach more learners and expanding the program scope to increase eligibility for financial assistance.

25%
Increased certificate rates*

17%
Increased pass rates*

* Mower, 2019

What We've Learned About Learning

2014

Researchers at **edX* and MIT**† learned that to optimize learner engagement, MOOC videos should:

- Be less than 6 minutes
- Show the professor in addition to the slides
- Feel personal and informal
- Use tablets rather than slides
- Feature an instructor who speaks quickly and with enthusiasm

Using the edX platform with standard instructor access to a course, researchers at **UC Berkeley**‡ developed and implemented a machine learning recommendation algorithm that predicted which pages the learner would next engage with and dynamically offered them the option to skip to that page. The algorithm was successfully implemented in real time, offering learners the opportunity to skip to content they were more likely to engage with.

The Center for Teaching, Learning and Technology at the **University of British Columbia** created and contributed to the edX platform a Peer Instruction Tool. Designed to support peer learning instructional strategies, the interactive tool allows learners to see answers and explanations that other learners have given as they work through problems. Learners can then reflect on their own answers, revise, and resubmit their explanations, and arrive at a deeper understanding of concepts.

Researchers at the Office of the Vice Provost for Advancing in Learning at **Harvard University**§ demonstrated the feasibility of adaptive learning on the edX platform. Using an adaptive algorithm in an astronomy course, experimental group learners were presented with assessments that adjusted the level of difficulty of questions based on a learner's prior performance. The experiment demonstrated learning efficiency and performance gains among those in the adaptive group compared to control group learners.

* (edX, 2013)

† (Guo et al., 2014)

‡ (Pardos et al., 2017)

§ (Rosen et al., 2017)

MOOCs for Credit

MOOCs for credit became possible because the quality of education provided was recognized by universities as credit-grade. Since edX and our partner universities took this bold step, increasing numbers of universities around the world are recognizing learners' accomplishments in MOOCs and are creating credit pathways into degree programs. MOOCs for credit in Global Freshman Academy crossed the threshold and paved the way for other credit-bearing programs to follow.

For the first time ever, in 2015, learners earned college credit for MOOCs on edX.

Certificates in credit-eligible courses awarded:

190,000

Ani, USA

ASU Arizona State University

At 15 years of age, Ani, who was a homeschooled student, took GFA courses to help her decide on an area of focus and prepare herself for college. Ani felt that she could always reach out to her professors with questions but that overall the subject matter was explained well and the course materials complimented everything that she learned.

Ali, USA

MIT Massachusetts Institute of Technology

"Being able to take edX MOOCs for credit while I was still a student at MIT opened up so many opportunities for me. I was able to do a full year of internship - where I gained valuable work experience that led to a job offer—while still graduating on time.
I also found what I was learning in my online classes immediately applicable to my internships."

Credit-Grade Platform

edX created and enhanced several mechanisms to make the platform credit grade

- **Virtual proctoring**
- **ID verification**
- **Randomized problem banks**
- **Show/hide hints**
- **Restricted question attempts**
- **54 assessment and learning tools**

ASU | Global Freshman Academy **2015**

edX and ASU partnered on a groundbreaking collaboration offering first-year college-level courses for academic credit with the Global Freshman Academy (GFA).

- ✔ **Open admissions**
- ✔ **Credit for MOOCs**
- ✔ **Pay-if-you-pass education model**
- ✔ **Winner of the 2015 Reimagine Education Award, U.S. and Canada Regional Award**

Pioneering Credentials for Modular Education

The world of work is changing more rapidly than ever before, especially in fields most impacted by fast developing and in-demand technology, such as automation, artificial intelligence, and big data. Traditional models for delivering education are straining to respond quickly to the needs of both employers and employees. Driven by this, edX and our partners launched innovative modular credentials—MicroMasters® programs and Professional Certificate programs—to provide the flexible and affordable educational opportunities that learners need to thrive in an increasingly complex and technologically advanced world.

What we saw:

- Half of edX learners surveyed said that they want **credentials for their careers.***
- Half of the learners surveyed **prefer programs** of courses to individual courses.*
- More than **one third** of respondents have experienced a **lack of proficiency** in at least one new skill area or subject area of a current or past job.†
- Respondents reported the **same perception** of competence whether a professional, such as a job candidate, has a **full degree or credential** on their resume.†
- **Over 50%** of respondents **do not use more than half** of their college education at work.‡

* edX internal survey

† Source: edX Survey on Reskilling Trends for the Future of Work

‡ Source: edX Skills Transformation Survey

§ edX internal survey of program completers

What we delivered:

56

MicroMasters programs

87%

of learners who completed a MicroMasters program reported positive career outcomes§

109

Professional Certificate programs

81%

of learners who completed a Professional Certificate program reported positive career outcomes§

Tadro, Australia

THE UNIVERSITY of ADELAIDE

"I had been thinking of doing a full master's in data science, but this looked like it was going to be a big time commitment and a large expense. Instead, the MicroMasters Program was a great foot in the door, with the potential option of getting credit towards a full masters at the University of Adelaide, if I decided to pursue further studies in the future. After completing the Big Data MicroMasters Program, I got a new job as a Science Performance Analyst. Completing the program enabled me to acquire the tools and skills necessary to excel in this new position."

Mikella, St.Lucia

HARVARD UNIVERSITY

Mikella, a young student from the island of St. Lucia, dropped out of high school at 15 years of age and started learning entirely online through edX. She's taken over 16 courses to date, including the majority of Harvard's Data Science Professional Certificate program. She has already received job offers from posting her edX certificates on her LinkedIn profile.

2016

MicroMasters®

The first MicroMasters® program offered on edX was pioneered by MIT in Supply Chain Management, and demonstrates the innovative power of MicroMasters programs to expand access to career-oriented, advanced education at a massive and affordable scale. MIT was so impressed by the quality of the first cohort of MicroMasters program learners, the institution is reconsidering their traditional graduate admissions processes. Due to the hybrid structure of the program, MIT was also able to double the size of the cohort of students enrolled in the on-campus Master's program.

MITx

The Value of a MicroMasters Program Certificate

- A standalone credential recognized by employers in an in-demand field.
- An optional path to a Master's degree from a network of top universities.
- Worth 25% to 50% of a traditional Master's degree, with open admissions, offered at a fraction of the cost.

MicroMasters Program Certificate in Action

- 3 million students have pursued or are currently pursuing a MicroMasters program certificate.
- Winner of the 2019 QS Reimagine Education Award in the Nurturing Employability Category.

Stacking Modular Credentials for Full Degrees

In the same way that modular credentials provide an impactful standalone pathway to gaining in-demand knowledge, they also create a revolutionary way to earn a full degree—Bachelor's and Master's. Our vision for the future of education is built on the stacking of modular credentials, sometimes from different institutions, into new types of degrees and programs that fit the needs of learners where they are, no matter their background.

2017

Fully Online, Stacked Master's Degrees on edX

Offered at scale

Pioneered in Fall 2017, the Georgia Tech Master's in Analytics was the first ever Master's degree on edX and has grown from 260 students to over 3,000 students as of Fall 2019.

Disruptively priced

All programs are priced between $10,000 - $25,000, often at one quarter of the on-campus price.

Try before you apply

Each Master's degree has an open admissions MicroMasters program that stacks into the degree.

Georgia Tech · Indiana University · Boston University · The University of Queensland · Purdue University · Arizona State University · The University of Texas at Austin · Curtin University

MicroBachelors™ Programs on edX **2020**

A massive shift in nearly all industries toward digitalization and automation has created a skilled labor crisis, creating a market need for flexible, modular credentials in the technologies and soft skills that will allow workers to stay relevant. At the same time, research shows that a traditional Bachelor's degree is still valuable for increased earning potential and job opportunities over a lifetime.

edX's MicroBachelors programs are a series of career-relevant, credit-backed undergraduate online courses. They will be transformative for learners unable to attend or afford traditional bachelor's degree programs.

What's next?

Modular and stackable education is foundational to achieving our mission of increasing access to high-quality education for everyone, everywhere. While we've made strides through innovations in stackable credentials, the challenges outlined at the beginning of this report are still pervasive: the skills gaps caused by rapid technological change; the prohibitive cost and time commitment required to gain advanced knowledge; and limited access to high quality learning experiences.

edX remains focused on addressing these challenges, creating a future where everyone has access to the highest quality education. We envision a world where universities and corporations work together with us to reimagine education in a way that transforms the lives of global citizens and positively impacts the generations to come. We are excited for this future, and look forward to continuing our impact and reaching millions more learners.

Join our movement, further our mission.

Help broaden our impact by supporting edX through donations, corporate collaborations, and partnerships. Get in touch:

Donate

Your contribution supports quality education for everyone, everywhere and helps fund financial assistance for learners. Visit edx.org/donate.

edX for Business

Businesses interested in corporate learning opportunities should visit business.edx.org or call +1 617-440-9808.

Partnership

Universities and corporations interested in partnering with edX can reach out to partnerships.edx.org.

Foundations and CSR Initiatives

Philanthropic organizations interested in supporting edX can reach out to foundations@edx.org.

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