

# Annual Report 2021



**HARVARD**

Office of the Vice Provost for Advances in Learning

“This course had an amazing instructor, amazing examples, and an amazing user interface that made it easy for me to grasp the material and learn simultaneously with others around the world.”

SHAWN CARRINGTON, JR.

Senior Executive Officer, Perspecta, Inc.,  
Data Science for Business learner



The 2020–21 academic year was extraordinarily challenging for teaching and learning, across Harvard and across the world. Harvard’s Office of the Vice Provost for Advances in Learning (VPAL) helped shape the University’s response to those challenges. I am deeply proud of how our team’s experience – in online content creation, world-class pedagogy, and connecting faculty and staff – anchored Harvard’s transition and expansion in remote teaching.

As challenges emerged over the past year, the VPAL team rose to meet them. We built publicly available sites with timely, effective materials to guide teaching and learning online. We supported residential teaching by providing filming, advice, and planning to faculty across Harvard. We convened academic leaders from every School to share ideas, identify opportunities, and build resources. VPAL leadership helped trigger online innovations throughout the University; our technology experts created tools to support and analyze remote learning; our convening and collaboration team launched online events to bring together the entire Harvard community – students, staff, faculty, and alumni. And VPAL continued to be on the vanguard of distance education for the University, quickly pivoting to meet the exponential surge in demand for online content, extending Harvard’s impact by engaging learners worldwide.

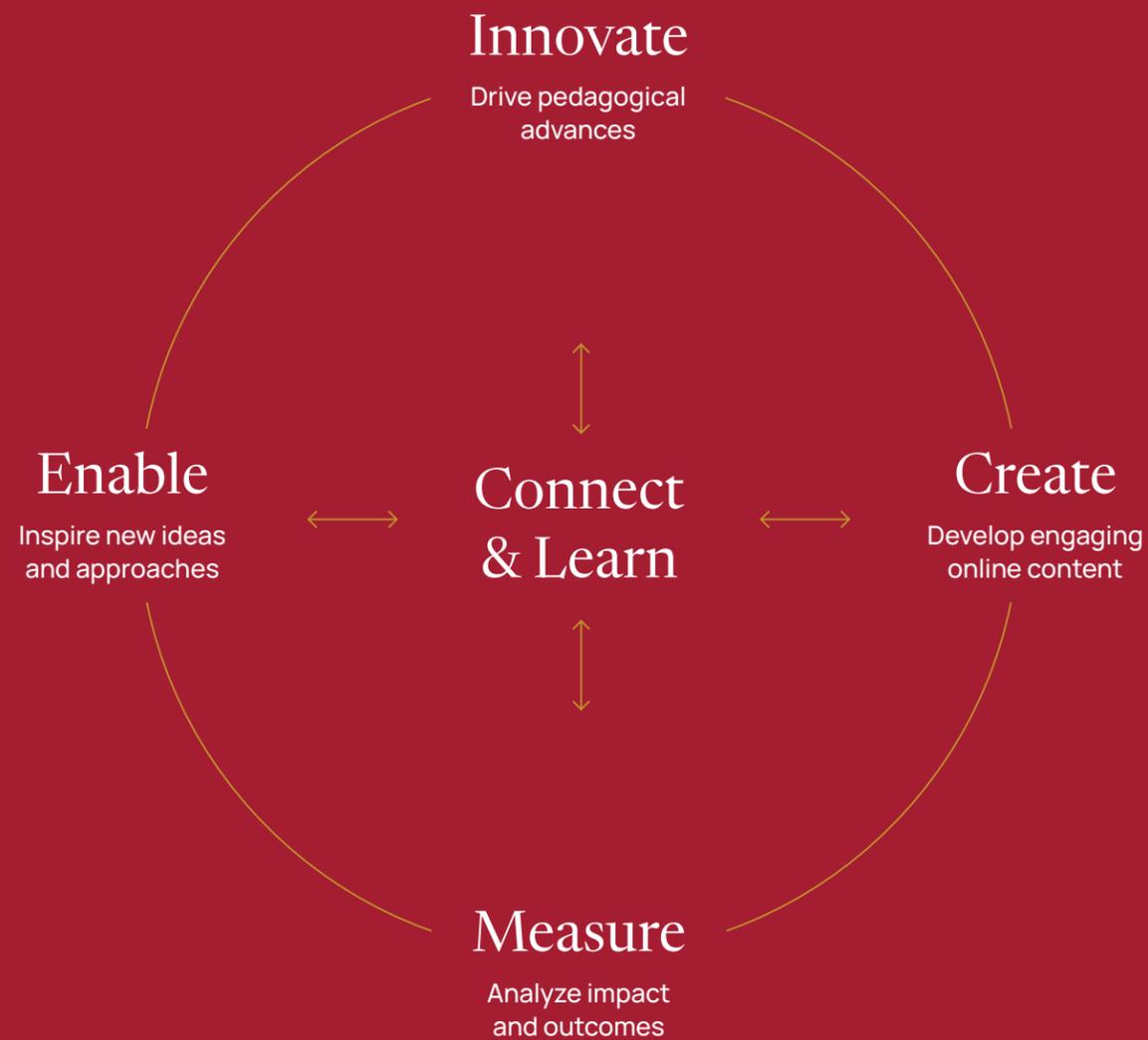
Teaching and learning were already undergoing powerful changes before this year. The pandemic accelerated them. In response, in early 2021 we convened a faculty task force to formulate a strategy for the future of teaching and learning across Harvard. In 2021–22, we are eager to continue collaborations across the University, sustaining and transforming Harvard’s deep dedication to teaching and learning on campus and beyond. In this report, I am delighted to share with you all the ways that VPAL helps the Harvard community to connect, learn, and inspire, as we continue to learn from all of you.

A handwritten signature in red ink that reads "Bharat Anand". The signature is written in a cursive, flowing style.

Bharat Anand

Vice Provost for Advances in Learning  
Harvard University

Harvard's Office of the Vice Provost for Advances in Learning (VPAL) seeks to shape the future of education by discovering new ways to build the competence, curiosity, and confidence of learners on our campuses and around the world. We create engaging and scalable learning experiences, cultivate inspiring ideas, and connect a global community of learners while developing tools, technologies, platforms, and policies to reduce friction throughout the learning lifecycle.



VPAL was a driving force in the University-wide transition to remote teaching, learning, and work, and will continue to be a leader in Harvard's continued operation and evolution.

Throughout our work, VPAL is committed to convening and nurturing a diverse community dedicated to promoting inclusive excellence and leadership in teaching and learning. We celebrate, welcome, and honor all backgrounds, cultures, races, identities, life experiences, perspectives, beliefs, and values.

We strive to ensure that all feel included in our mission, our work, and our learning inside and outside our organization.



**VPAL'S AREAS OF FOCUS**

**Harvard Online** courses bring an extensive catalog of expertise and research to learners around the globe as well as well as curated series that combine faculty and disciplines from across the university.

**Data Science & Technology** combines expertise in data science, data engineering, software development, and education research to produce analytics and tools that help to transform the entire teaching and learning life cycle.

**The Harvard Initiative for Learning and Teaching (HILT)** forges University-wide collaborations to surface teaching and learning innovations that require the combined efforts of individual students, faculty, and staff, and the coordination of programs, centers, departments, and Schools.

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**SCHOOLS AT HARVARD OFFERING COURSES ON HARVARD ONLINE**

CONNECT & LEARN

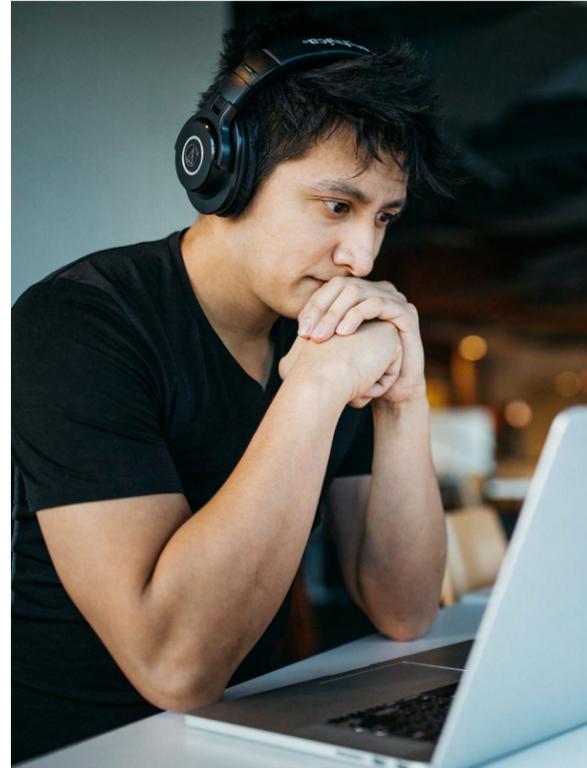
7.6M+

UNIQUE LEARNERS

11M+

TOTAL ENROLLMENTS

VPAL aims to connect a global community of learners by enabling active and social learning through which we continually spark and exchange ideas.



From the start of the pandemic in March 2020 through June 2021, our HarvardX courses had more enrollments than all previous enrollments combined.



Anirudh Konduru  
@anirudhkonduru

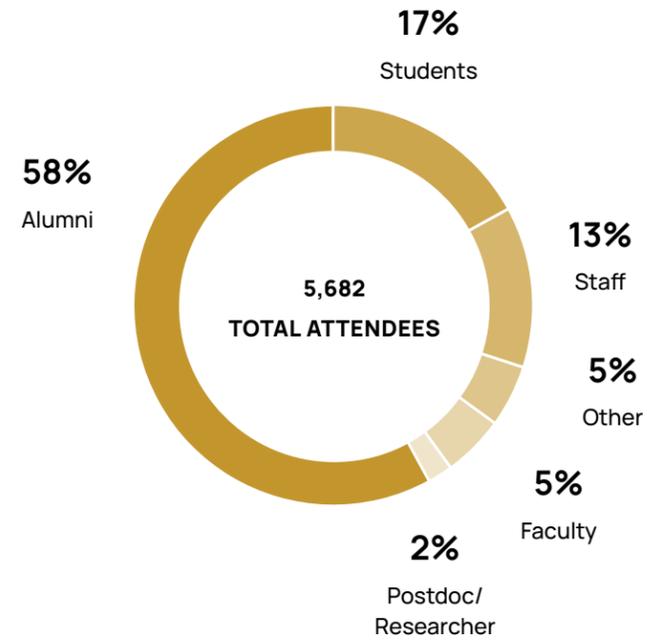
"Hey David! Noticed you got your vaccine at Walmart. Thought you'd be interested to know that the guy who wrote a significant part of the backend code that handles Walmart's online vaccine bookings, yours truly, first learnt how to code years ago from you, from CS50x. Thank you."

Tweet from HarvardX learner Anirudh Konduru to faculty member David Malan  
January 2021

235+

COUNTRIES REPRESENTED

SIGNATURE EVENT ATTENDANCE



We created Signature Events for the University to socialize remotely, for alumni to connect with Harvard faculty, and for our community to engage in ongoing discussions around topics and ideas shaping our future.



Founding members of Harvard's Next Gen Initiative discuss inclusive practices for supporting first generation and lower income students in and beyond the classroom.

132+

ACTIVE COURSE OFFERINGS



955 learners are enrolled on the HBS platform. Photo: Jeannette Vinogradova, Data Science for Business learner

We launched a new curated series of courses called Harvard on Contemporary Themes that combine faculty and disciplines from across the university, including Faculty of Arts and Sciences (FAS), Harvard Medical School (HMS), Harvard Law School (HLS), and Harvard Business School (HBS).

**PANDEMIC TIMELINE**

For many, the perception of time shifted during the pandemic. For our team, it accelerated. We worked double-time across the University to keep up with a dynamic environment. Below is a short timeline highlighting some key events.

On March 10, 2020, Harvard University announced a shift to all remote instruction and work. In response, VPAL set into motion a wide range of projects and activities to support this transition.



Mechanical Ventilation for COVID-19 course launches on the edX platform.



**Spring 2020**

- Teach Remotely and Socialize Remotely websites connect our community with best practices and social events.
- Harvard-wide Teaching & Learning Consortium and Academic Planning Group connect academic leadership across all Harvard schools and divisions.
- Remote Teaching Principles and Vision document helps guide Fall 2020 planning for University leadership and School deans.

**285K**

**SPIKE IN HARVARDX COURSE REGISTRATIONS**

**68% ARE NEW LEARNERS**

**Summer 2020**

- New remote and in-person filming with social distancing configurations in the studio and with remote filming kits sustain high levels of content creation.
- Teach Remotely gains best practices for audio and visual considerations, dozens of faculty stories, and learner-centered practices for remote instruction.
- Zero-L, an intro course created by Harvard Law School and VPAL, is offered for free through 120 law schools.



Two new HarvardX courses launch on edX.



Four new HarvardX courses launch on edX.



**Fall 2020**

- Three University-wide Courses, supported by VPAL, launch through FAS General Education.
- HILT conference hosts nearly 400 participants as a virtual event for the first time.



**Winter & Spring 2021**

- Harvard's first combined asynchronous/synchronous course, AfricaLIVE! Entrepreneurship in Emerging Economies, launches on edX.
- Harvard Online's Data Science Ready course launches on HBS Online's platform.
- Three-day showcase features remote teaching lessons learned from Fall 2020.
- Harvard Task Force on the Future of Teaching and Learning kicks off to set a vision for University strategy.



Eight new HarvardX courses launch on edX.

## CREATE

Although faced with new technical challenges, VPAL's content creation did not slow down during the pandemic. Our video production team used creativity and innovation to continue filming and producing courses throughout the past year. These shoots combined a mix of in-person and online, remote, and onsite production elements and showcased the full breadth of our production team's expertise. While working remotely, the VPAL team was able to maintain our current schedule for new HarvardX courses as well as launch a new brand of courses under Harvard Online on the HBS Online platform.

We also enhanced applications that support faculty in research, teaching, and learning. Syllabus Explorer 2.0 was redesigned and relaunched in Fall 2020, and aggregation channels and limited public access became available in Link.

“We were able to take the core curriculum during a pandemic from impossible to doable.”

### SENIOR LECTURER,

Harvard John F. Kennedy School of Government

### LAUNCHED 15 NEW MASSIVE OPEN ONLINE COURSES (MOOCS)

Japanese Books: From Manuscript to Print

Mechanical Ventilation for COVID-19

The Path to Happiness: What Chinese Philosophy Teaches us about the Good Life

Exercising Leadership: Foundational Principles

Justice Today: Money, Markets, and Morals

University Chemistry: Molecular Foundations and Global Frontiers Part 1

Fundamentals of TinyML

Ventilación mecánica para pacientes con COVID-19

Applications of TinyML

AfricaLive! – Entrepreneurship in Emerging Economies

Food Fermentation: The Science of Cooking with Microbes

Early Childhood Development: Global Strategies for Implementation

Deploying TinyML

We The People: Civic Engagement in a Constitutional Democracy

Remote Work Revolution for Everyone

### LAUNCHED 4 NEW HARVARD ONLINE COURSES

Data Science Principles

Data Science for Business

Health Care Economics

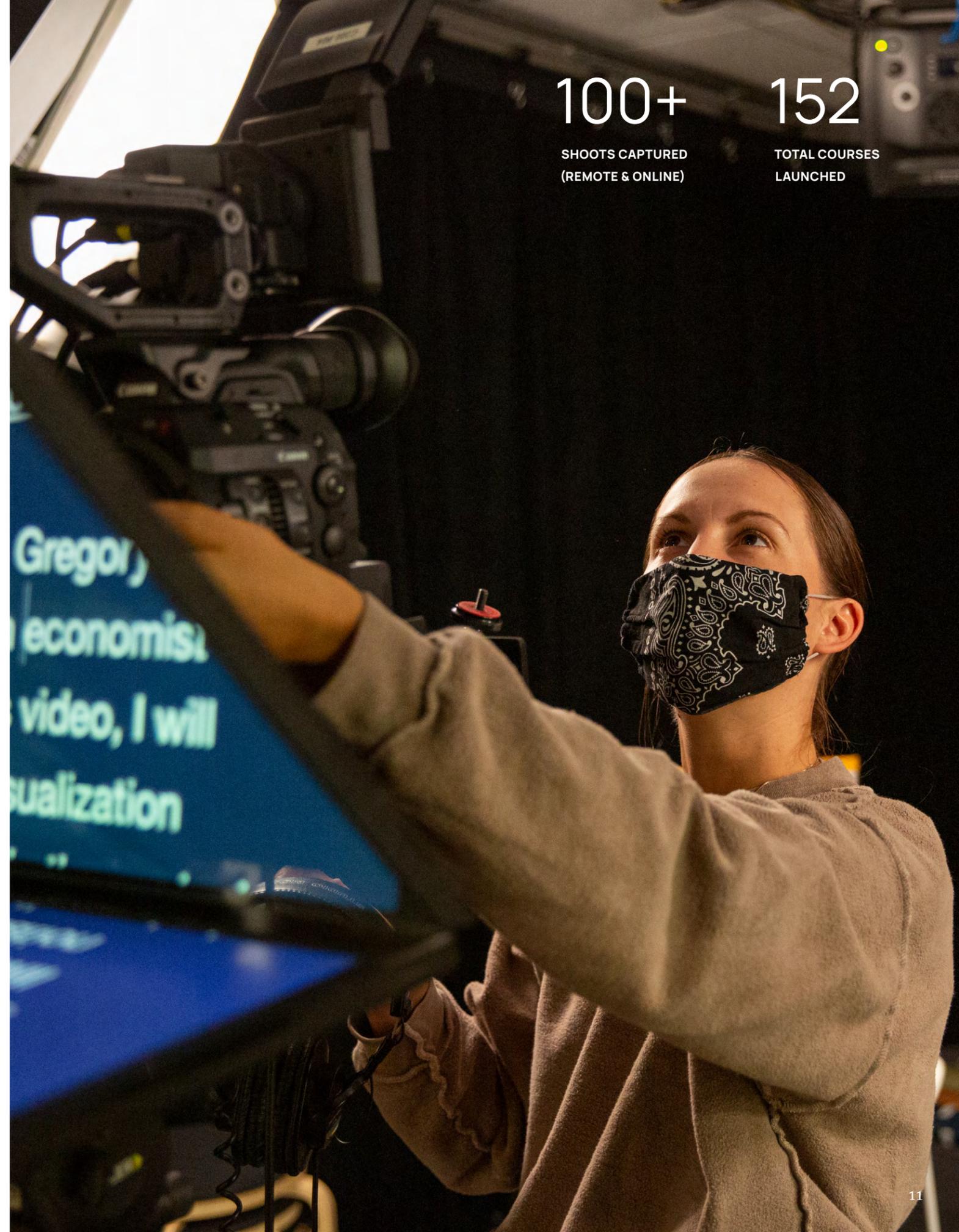
Financial Analysis and Valuation for Lawyers

100+

SHOOTS CAPTURED  
(REMOTE & ONLINE)

152

TOTAL COURSES  
LAUNCHED



**OUR GLOBAL COMMUNITY**

Throughout 2020, learners from around the world enrolled in our courses. 80% of our learners came from outside of the United States.

“I work in M&A, venture capital, capital markets and special situations. All of these areas cover numbers at some point, so I strongly recommend my colleagues to take this course to understand the client’s rationale and the numbers implicated.”

**CELIA VEGA-PENICHER GARCÍA-OBREGÓN**

Associate in the M&A and Venture Capital,  
Latham & Watkins  
*Financial Analysis and Valuation for Lawyers learner*

**MADRID, SPAIN**

“The Data Science R program was a great way to fill the gap between my professional and academic experience and gave me the confidence to tackle new challenges.”

**RADHA**

*Data Science R learner*

**INDIA**

**29%**

**NORTH AMERICA**

**16%**

**EUROPE**

**33%**

**ASIA**

“I felt the course covered a good overall scope and understanding of healthcare economics and would be beneficial for anyone seeking or needing a greater understanding of the stakeholders and forces at work in the healthcare sector. This applies for those new to healthcare as well as those who have worked in the industry for long periods of time.”

**ANDY MILLIGAN**

RN, BSN, CHPN, President & CEO,  
Solaris Healthcare, Inc.,  
*Health Care Economics learner*

**TEXAS, UNITED STATES OF AMERICA**

**12%**

**SOUTH AMERICA**

“Finished the Masterpieces of World Literature course. Beautiful course, I found inspiring commonalities between literature, humanities, culture, and the world of Design and its dynamics in a global context.”

**JUAN G. MONTALVÁN L.**

*Masterpieces of World Literature learner*

**LIMA, PERU**

**8%**

**AFRICA**

“This may be just a certificate, but this is the most valuable achievement in my career so far for me, the one which forged my personality, and therefore the way I see the world and to solve every issue.”

**FANEVA TAFITA REZIKY STEFANA**

*AfricaLIVE! – Entrepreneurship in Emerging Economies learner*

**ANTANANARIVO, MADAGASCAR**

**2%**

**OCEANIA**

“I took this course and it was the best resource by far. Using the real life examples made it so relatable and of course the digital pictures that accompanied the content. I really liked the case studies too!!”

**MARI D TAKASHIMA**

*Causal Diagrams learner*

**BRISBANE, AUSTRALIA**



VPAL embraced the opportunity to play a leadership role on campus when the COVID-19 crisis sent the entire University community into remote education, learning, and working. By building on our expertise as creators, developers, and conveners, we launched innovative websites and events that have become touchstones and foundations throughout the university. We created the Teach Remotely site to provide pedagogical resources that supported Harvard faculty in their transition to remote teaching, then supplemented it with the Guidelines for Fall Course Design. Faculty from across the University submitted Teaching Innovations and Faculty Voices videos, offering advice to their colleagues. Meanwhile we launched the Learn Remotely site to support students worldwide.

As the year progressed, VPAL's pedagogy and production teams co-created workshop materials with the Office of Undergraduate Education for FAS faculty training workshops. We supported more than a dozen large-enrollment residential courses across the University for their Fall 2020 remote teaching. Our production team also expertly developed remote film strategies including protocols for safe onsite filming. And we coordinated scans of nearly 200 Harvard building spaces into virtual reality to aid advanced learning, planning, and social immersion.



VPAL's production team transformed the process for filming faculty to adhere to COVID-19 safety protocols in rapid time.

147K+

PAGE VIEWS FOR TEACH REMOTELY

92%

VIEWERS OUTSIDE BOSTON METROPOLITAN AREA

TEACHING INNOVATIONS GALLERY: 58 FACULTY VIDEOS  
[teachremotely.harvard.edu/teaching-innovations](https://teachremotely.harvard.edu/teaching-innovations)

**ENABLE**

VPAL distributed *Into Practice*, a biweekly e-letter for active instructors, that highlights pedagogical practices of individual faculty members from across schools and delivers timely, evidence-based teaching advice.

16K+

SUBSCRIBED TO INTO PRACTICE

99

ISSUES TO DATE

VPAL conceived three new Harvard-wide courses: “Justice: Ethics in an Age of Pandemic and Racial Reckoning” by Professor Michael Sandel, “Confronting Climate Change: A Foundation in Science, Technology, and Policy” by Professor Daniel Schrag, and “The U.S. and China” by Professor William Kirby.

433

STUDENTS ENROLLED



**Harvard GHELI**  
@HarvardGHELI

Our colleagues at @HarvardHILT have pulled together a gorgeous list of resources across Harvard that can bring these principles of equity and inclusion to life in our #HigherEd classrooms. #HILTConf

Tweet from The Global Health Education & Learning Incubator during the HILT Conference  
October 2020

Our ninth annual HILT conference focused on “Championing Equitable Instruction and Inclusive Classrooms” was held in an unprecedented virtual format and included a series of follow-on related events.



Morning plenary speakers have a conversation on inclusive excellence.

We virtually gathered groups of faculty and staff across the University to share and crowdsource approaches to remote teaching and managed multiple Slack workspaces to accommodate on-demand answers to emerging pedagogical questions.

**TEACHING AND LEARNING CONSORTIUM MEETINGS**

20

FOR

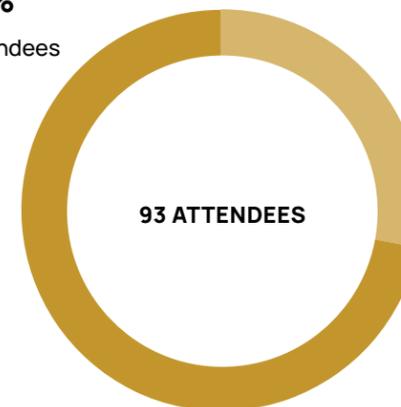
55

BI-WEEKLY MEETINGS

TLC MEMBERS

**9 FACULTY COLLEAGUE CONVERSATIONS**

72%  
New attendees



28%  
Previous attendees

**4 HILT AFFINITY GROUPS**

- Learning Data & Analytics
- Learning Design
- Learning Spaces
- Research-Informed Teaching & Learning

601 MEMBERS

25,076

DIGITAL DIPLOMAS AND CERTIFICATES ISSUED

VPAL oversaw the approval of two new degree programs at Harvard Divinity School and Harvard Medical School.

**HIGHLIGHTS**

- After convening a timely virtual workshop on blended learning in March 2020, we partnered with the Derek Bok Center for Teaching and Learning and the Office of Diversity, Inclusion and Belonging to share with faculty some best practices for charged classroom conversation during the U.S. Presidential Election week.
- Prior to the spring 2021 semester, VPAL presented the “Teaching in Unprecedented Times: A Fall 2020 Showcase” to honor the community’s efforts, surface their innovations, and inform and inspire for the future.
- We coordinated Presidential Task Forces on PK-12 Education, Skills and Employability, and the Future of Teaching and Learning at Harvard.
- We hosted the Professional and Lifelong Learning Program Committee comprising non-degree staff leaders across all Schools.
- We initiated, convened, and led the VPAL Academic Planning Group comprising academic leaders from all Harvard Schools for fall 2020 planning: regular meetings from May-December 2020 to share best practices, surface cross-School interdependencies, and identify areas for central coordination and policy planning.

## MEASURE

Analyzing and measuring impact and outcomes took on a new importance for VPAL, as we sought to evaluate our own work and improve practices for learners at Harvard and worldwide.

Across our online courses, we conducted analyses to track the surge in enrollments and understand learners' needs better. For courses and instructors at Harvard we built a suite of analytic tools to support the shift to all-remote instruction during a global pandemic. We created an analytics dashboard to track University-wide usage of Canvas and Zoom and we helped faculty select optimal times for courses across multiple time zones. We also helped faculty better understand how their students were distributed and created an interactive application so that users could see school, department, and course-level distributions of student time-zone and geographic locations.

# 9

ANALYTIC TOOLS BUILT FOR  
USE THROUGHOUT HARVARD



In January 2021, faculty leaders across Harvard focus on the lessons learned about remote teaching and look ahead to assess the longer-term implications for teaching and learning at Harvard.

Throughout the year, VPAL surveyed Harvard faculty on their remote teaching experience and presented the results to University leaders and governing boards. Similarly, student surveys helped us develop policies for accommodating Harvard students with diverse needs across different learning environments more equitably and fairly.

Our Diversity, Equity, and Inclusion-informed work included support of the University's project captioning video and audio content on Harvard websites and creating an inventory of Harvard's race-related curricula for the Office of Faculty Development and Diversity.



# 119

FREE OR FREE TO AUDIT  
COURSES

# 17M+

CUMULATIVE LEARNERS

Shaping the future of education by discovering new ways to build the competence, curiosity, and confidence of learners on our campuses and around the world.