

MIT OPENCOURSEWARE

20

YEAR ANNIVERSARY

— BOOK OF IMPACT —



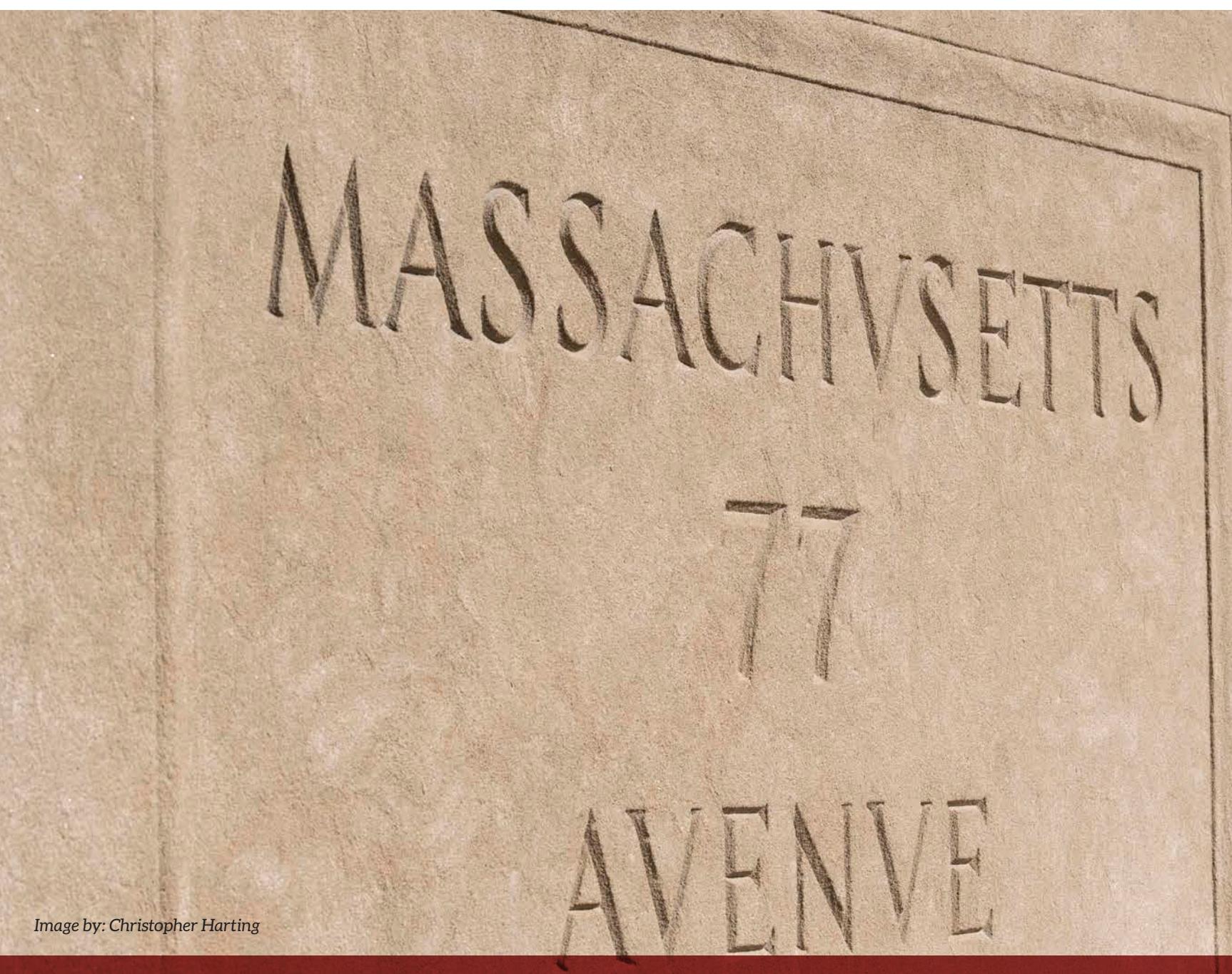
"There's something very deep in MIT's soul about liberating knowledge, liberating achievement, and liberating content. For us to be able to put that content out into the world, that privilege is a gift in and of itself."

Sanjay Sarma, Vice President for Open Learning



Image by: Christopher Harting

OPENING MIT TO THE WORLD



THANK YOU

Sharing the best educational resources from MIT freely and openly is at the heart of the OCW mission. And helping to create remarkable new opportunities for millions of learners and educators around the world is an incredible honor.

Because of you—your visits to the OCW website, your use of our materials, your sharing our site with your family and friends — OCW continues to grow our following and serve tens of thousands of people every day. Because of MIT faculty, instructors, students, staff, and supporters, OCW is able to flourish and expand the open educational resources so many enjoy, adopt, mix, reuse, and distribute.

Thank you. We are grateful to you for the ways you support OCW.

And though our first two decades are behind us, we know there is much more work to do. Our plans are already underway to elevate and make OCW even more accessible to anyone with the will to learn and the drive to achieve their goals.

Thank you for believing in OCW and in the power of open education to enlighten and broaden people's perspectives, inspire innovative solutions to real problems, and change the world for the better.

Sincerely,
The MIT OpenCourseWare Team



Image by: Yvonne Ng

A Message from

PRESIDENT L. RAFAEL REIF

In 2001, the age of digital sharing was just getting started. Google was still in its infancy. January of that year saw the launch of a little project called Wikipedia. And then, in the springtime, MIT presented OpenCourseWare.

The idea for OCW came from MIT faculty: to give away MIT's course materials to the world online. The decision to move forward with this bold idea belonged to MIT's 15th president, Chuck Vest. Institute leaders could not have known it at the time, but in creating OCW, MIT launched a quiet but profound educational revolution. It unleashed the global open sharing movement, helping to pave the way for the worldwide phenomenon of open digital learning.

In its first 20 years, OCW has offered hundreds of millions of individuals a new pathway to their future—a true gift to humanity. But in those same 20 years, OCW has helped society prepare for the challenges of its future, too.

Consider the vaccines for Covid-19. They may appear to be an overnight success, but the truth is, this “medical miracle” sprang from careful, deliberate scientific research—over decades. In the same way, society responded to the pandemic emergency with a rapid and radical shift to remote learning. That shift occurred in a matter of weeks, but what made it possible was two decades of transformative work in digital learning. From the beginning of that long, transformative journey, OCW has been a guiding light.

If you ask MIT people to name those moments when they felt most proud of the Institute, the birth of OCW is right at the top of the list. That is a wonderful legacy and an inspiring challenge, for the next twenty years and beyond.

MIT President L. Rafael Reif



"It's great having online courses available to every person from one of the best universities in the world. MIT has always been very focused towards its goal of providing education to all sections of the society and I hope this reaches bigger heights. I am currently going through Quantum Physics I (8.04) and Introduction to Computer Science (6.00SC).

My school doesn't provide any such courses or classes on these topics. I always wanted to be a physicist and computer scientist. And MIT OCW is helping me greatly achieve my goals in life.

Again, from my deepest sense of gratitude, I thank all of MIT for their years of teaching excellence."

Satya, Student, India

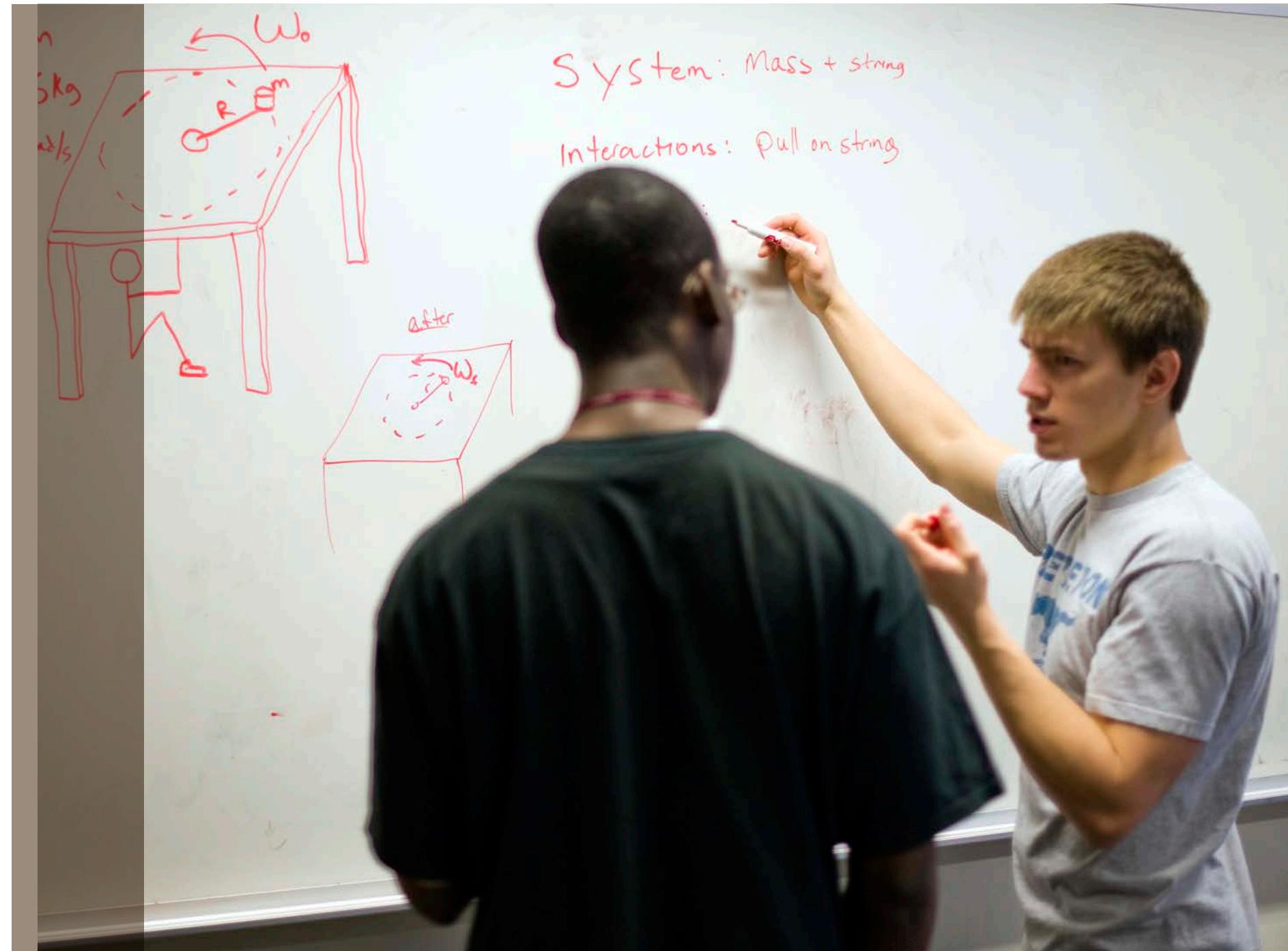


Image by: Christopher Harting

“The internet has allowed unprecedented levels of access to knowledge from all around the world. But that doesn’t mean that knowledge is either correct or well-organized. With OCW I know I don’t have to worry about either of those issues.”

David, Learner, Australia



Image by: Yumi Kim

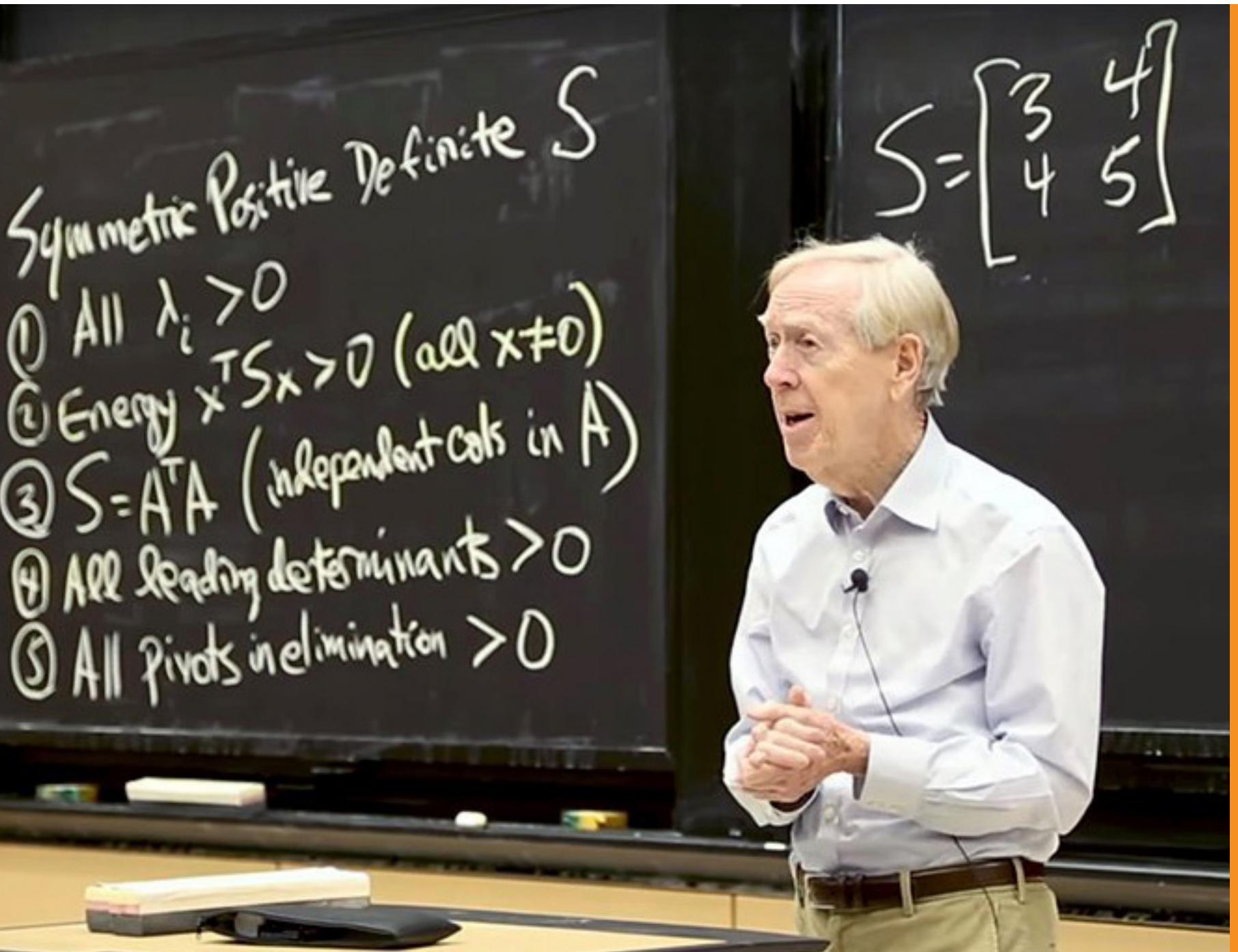


Image by: Gil Strang

"Thank you so much for making this available! I am a public school teacher in California, who used to teach sixth-grade math, but due to No Child Left Behind, I now must pass a test in linear algebra to update my credential. However, all the linear algebra courses at local colleges are during school hours. Now I can learn the material at my own pace so my teaching won't suffer, I can do it for free, and I can get the information from one of the best possible sources. Thank you again, for my personal benefit, as well as for the countless people who now will have access to the education they need."

Christine, Educator, United States

An Excerpt From

ON THE 20TH ANNIVERSARY OF OPENCOURSEWARE: HOW IT BEGAN

Hal Abelson, Shigeru Miyagawa, Dick K. P. Yue

OCW was transformed from an informed leap of faith to a functional enterprise that serves learners all over the world and returns benefits to MIT. It is a “bold creation” (Bowen, foreword to Walsh, 2011) that changed the equation for e-learning from the obsession with commercialism of the dot-com era to a demonstration of the enormous value in freely sharing knowledge produced by an academic institution. The one million people who access OCW every month illustrate the demand for high-quality teaching materials among students, self-learners, and educators. As we live through the pandemic, resources such as OCW have become even more valuable, leading to a 60 percent increase in website visits from all over the world during the peak quarantine period of April-May 2020.

OCW moves into its next 20 years with a renewed commitment to share the MIT curriculum with vibrancy and currency as it evolves, highlighting materials on big themes like the future of computing, sustainability, and social justice. A new platform currently in development will better support learners on mobile devices and those with sporadic Internet access, substantially

enhance the search tools millions of learners use to find learning opportunities, and foster greater adoption and adaptation of OCW materials by educators in their teaching. And, OCW looks forward to prioritizing collaborations with others in the broad OER ecosystem (that OCW itself played a role in seeding) to build greater educational equity, through adapting and customizing content to meet the needs of specific learning communities. In all these ways and more, MIT is building upon OCW’s 20-year foundation of unlocking access to knowledge.



20 YEARS OF OPEN SHARING A BRIEF HISTORY OF OCW

2001	2006	2011	2016	2021
OCW announced in <i>The New York Times</i>	OCW Highlights for High School launches	OCW exceeds 100M lifetime visits	1M+ YouTube subscribers	OCW celebrates TWO DECADES of open sharing and prepares to launch NextGen OCW
50 courses published	Over 2M monthly website visits	2,000 courses published	Interactive searchable transcripts added to videos	
First language translations by affiliates, in Spanish and Portuguese	OCW achieves original goal of representing MIT's complete curriculum	225 OCW mirror sites worldwide	100+ courses with Instructor Insights	
OCW officially launches with 500 courses	Audio/video content added to YouTube and iTunesU	OCW celebrates a decade of open sharing	200 Instructor Insights	
1st OCW mirror site established in Africa	1M lifetime visits to Highlights for High School	MIT's new Office of Digital Learning [now MIT Open Learning] brings together OCW, MITx, and other resources	2,500+ courses and resources available	
OCW adopts Creative Commons license	1M lifetime visits from the MIT community	OCW Educator launches	MIT Open Learning launches	
OpenCourseWare Consortium formed [now OE Global Consortium]	1 billion page views	200M lifetime visits	With 2M+ subscribers, OCW is the largest .edu channel on YouTube	
	2,300 courses published, including 100 with full video lectures and 50 with open online textbooks	432K like or follow OCW's social media channels	Chalk Radio podcast debuts	
			Traffic to OCW nearly doubles in April 2020 during COVID-19 pandemic	



Image by: MIT OpenCourseWare

"Thank you for making this course material available for people like us. I wanted to work towards a doctorate in computer science, philosophy, and mathematics on my own, but lacked the access to resources. You have provided the material through MIT OpenCourseWare.

As someone who originally comes from the developing world, where access to library materials at the graduate level is difficult, even for seasoned academics, I am just so appreciative. I am eternally grateful for this decision that you made for the benefit of the global world. I hope you will accept my gratitude in terms of me paying it forward, as I don't have much else to offer.

MIT has been on the leading edge of science and technology in terms of research papers and the fact that you have motivated other universities to follow your path is such an inspiration.

I normally don't get too emotional about topics, but your ability to strike an emotional cord, in my deeply held faith in the innate cooperative nature of humans, had left me teary eyed for 20 minutes. Thank you."

Pranay, Learner, Canada



Image by: Christopher Harting

A SPECIAL THANK YOU...

...to all of the MIT faculty members, teaching staff, students, thousands of community members and supporters who have contributed to the robust educational resource OCW is today.

We are especially grateful for the foundational supporters who helped establish OCW:

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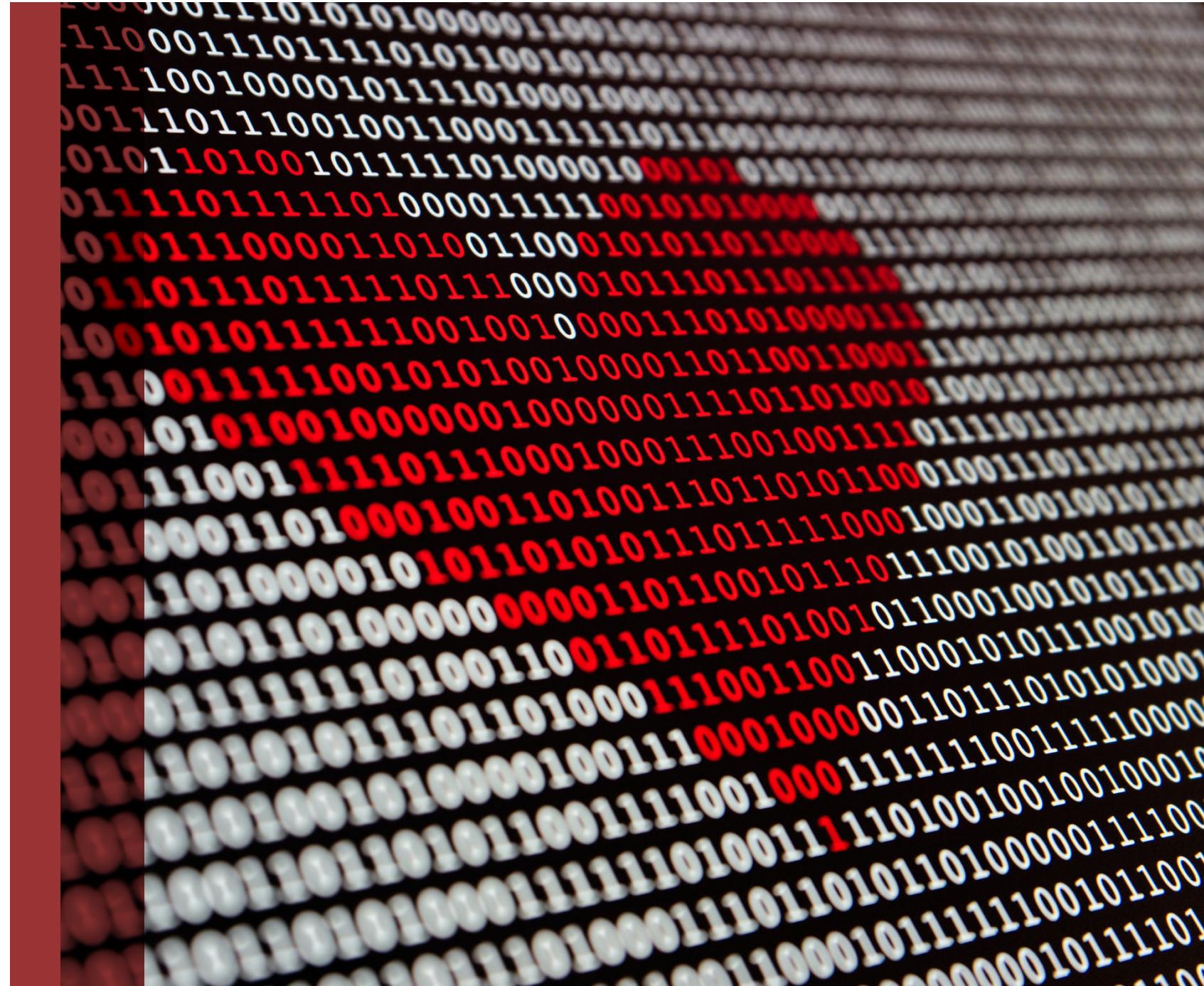


Image by: Alexander Sinn

“OpenCourseWare is such a great endeavor, and I’m proud to be an alumna of an Institute that supports and encourages education in this way. I’ve been using it to review courses I took 10 years ago to prepare for an interview, and it’s been a huge help, especially the videos and detailed lecture notes. But mostly I appreciate the service MIT is doing for the world and the example it’s setting by providing such valuable and empowering information free to the entire world.”

Lila, MIT Alumna, United States



Image by: Jake Belcher

"This is to express my appreciation for making your courseware available. I have been a professor of applied mathematics for nearly thirty years and am still looking for ways to improve and compare my teaching with others. It is nice to know that we share the universal language of science and it will be a privilege to share yours with my students."

Pieter, Educator, South Africa

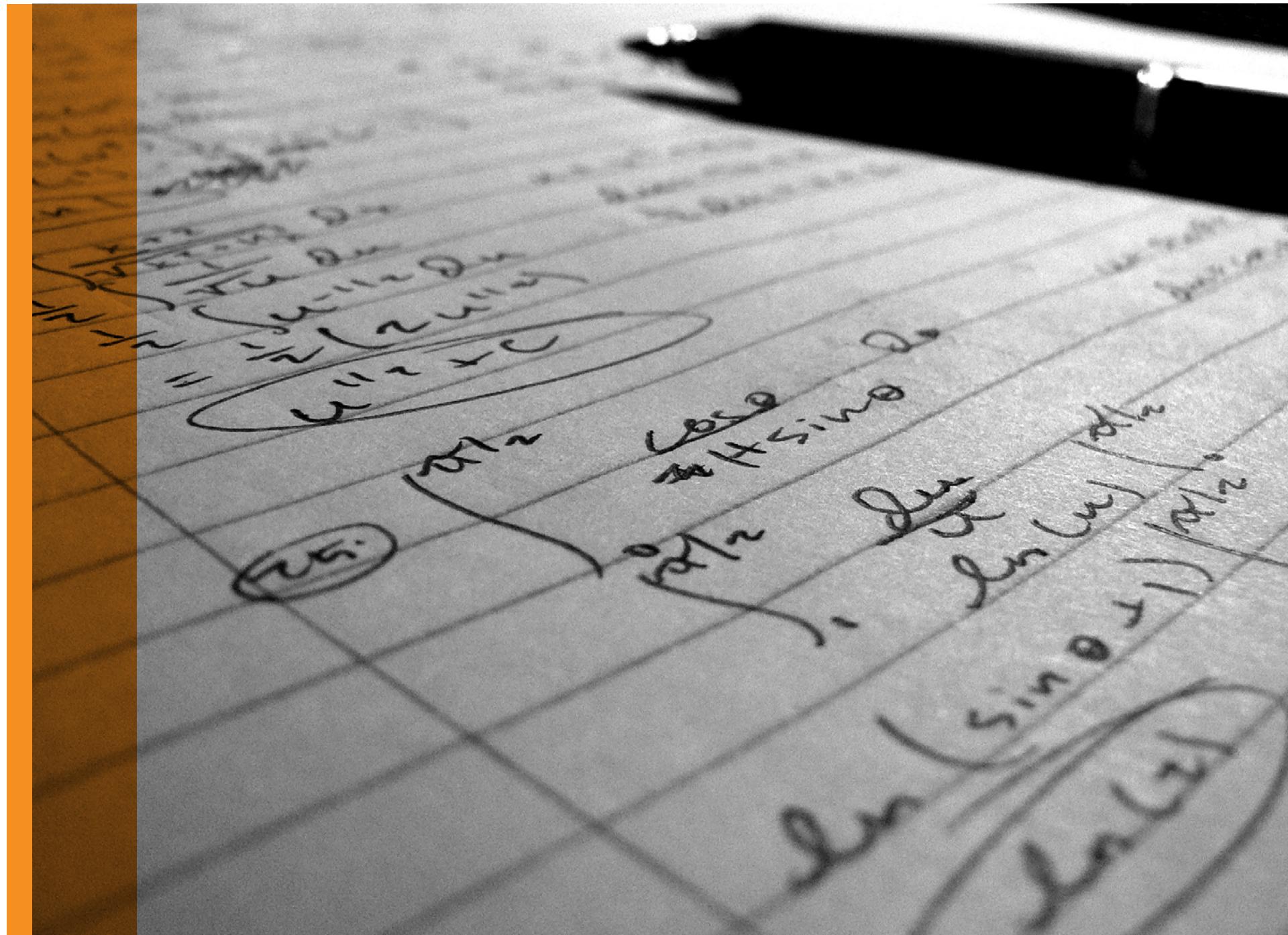


Image by: Akash Kataruka

In the Words of

MIT PRESIDENT CHARLES VEST

"...One day Bob came into my office and he said, 'Chuck the committee is ready to report out their recommendation and I told them I'd come and find out whether you were ready to hear it or not. Are you sitting down?' I said, 'Sure.' He said, 'Well their conclusion is we should give away all of the course materials at MIT on all 2,000 of our subjects on the web for free for anybody that wants it.'

Now those of you who have worked with me closely, like Bob and Larry, know I tend to mull. I've got to hear all sides, sit, sleep, roll around in bed, worrying about it at night, but somehow, this instantly connected in my mind with this experience of what MIT had done for engineering education in the late 50s and through the 60s.

I just instantly knew this was a wonderful, elegant idea. I was so grateful. It's nothing I would have ever thought of, I'm quite sure, in fact as others will tell you, we were really going in expecting what we probably would do would be produced cutting-edge modules that would work with our industry partners we work with and with very high-end students and we'd try to make money or at least cover costs. But I, just for once in my life, recognized what a beautiful idea it was and decided I was going to roll up my sleeves and try to help my colleagues realize this wonderful vision."

Excerpted from Charles M. Vest's reflections on MIT's decision to launch OpenCourseWare.

Throughout his tenure, President Vest was a tireless advocate for OCW and the open sharing of academic content. He remained a member of MIT OpenCourseWare's External Advisory board after he stepped down as MIT's president until his passing in December 2013.

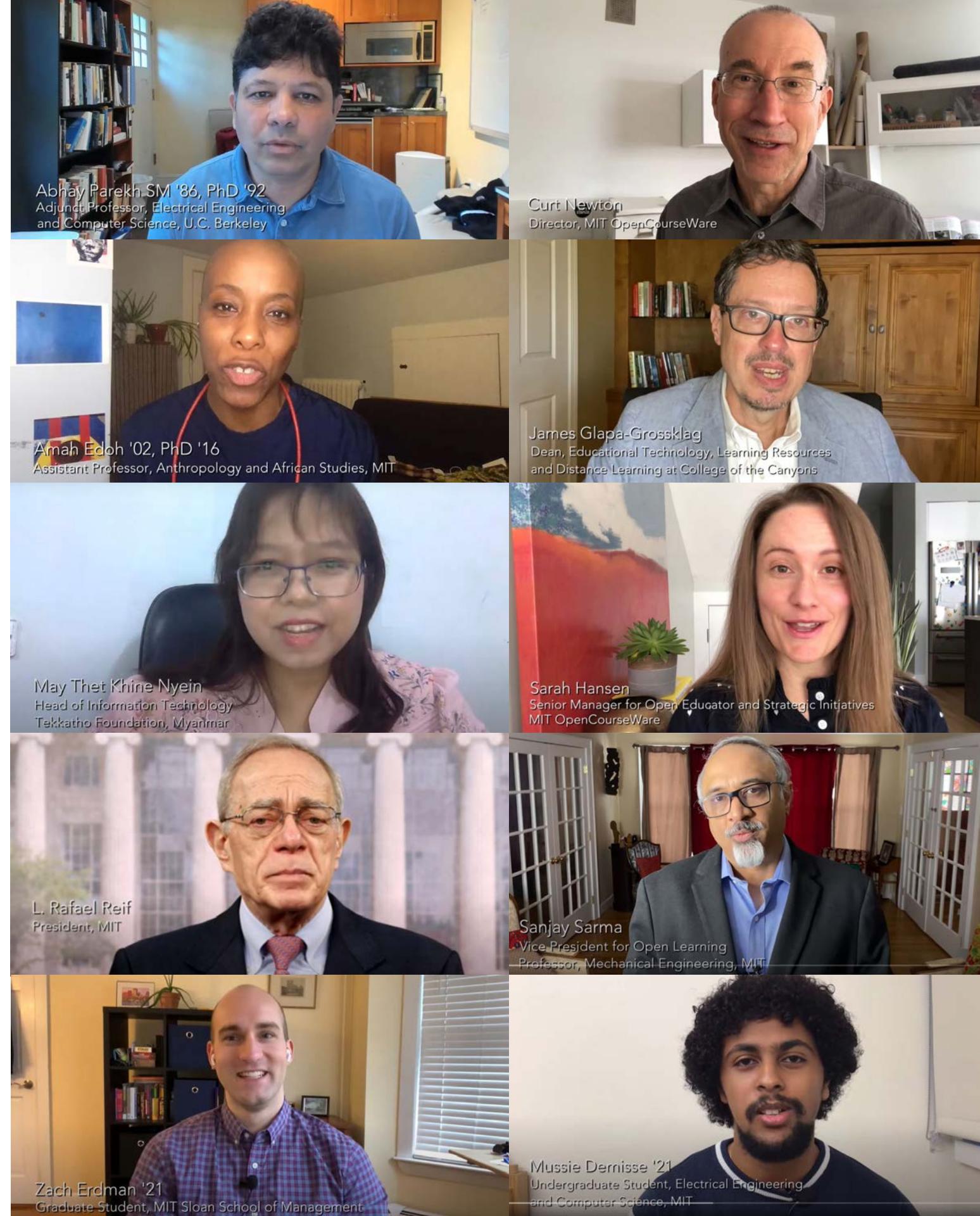


Image by: Donna Coveney

CELEBRATING TWO DECADES OF OPEN SHARING

For two decades, OpenCourseWare has been sharing MIT teaching materials with the world. In that time, OCW has become a robust, free educational resource thousands of people rely on every day to improve their knowledge, circumstances, and communities.

As we mark 20 years of OCW, we celebrate the community of learners, MIT faculty, and collaborators who have made OCW a change agent for education at MIT and around the world, and helped launch the modern open education movement.



HOW ASPIRATIONS BECOME ACTIONS

By Duyen Nguyen

Minutes before finding out he'd been accepted to MIT, Mussie Demisse '21 was shaking Governor Charlie Baker's hand. Demisse was at the Massachusetts State House, being honored as one of the 2018 "29 Who Shine," a select group of graduates from the Commonwealth's higher education system who'd made an impact at their institution and in the community. For Demisse, Bunker Hill Community College, where he'd spent two years studying computer science, represented both. "I really matured there," he says, explaining that, at one point, he'd held three jobs at the college while also serving on student government and participating in various academic clubs.

Bunker Hill was also where Demisse got his first peek at the rigorous yet vibrant nature of an MIT classroom and began picturing himself there. In a linear algebra course, Demisse's professor, Jie Frye, would regularly give out challenging quizzes. "As kind of a motivator she would tell us this is the same quiz that MIT students take," he recalls. Demisse asked where his professor had gotten the quizzes.

The answer wasn't a secret connection, it turned out, but something called MIT OpenCourseWare (OCW). "She was one of my favorite professors at Bunker Hill," Demisse says. "She emphasized that it's possible for us to pursue our dreams – which isn't as much of a thing, I think, in community college. There's a lot of stigma, and I feel like that sometimes keeps people from applying to things. She was very intentional about making sure that we knew we could, and we should try."

Demisse says OCW wasn't the first time his interests had led him to MIT. But it was the final push he needed to apply to the school. Demisse grew up in Ethiopia, where he'd been involved in the Ethiopian Space Science Society, and when he arrived in Boston after high school, that childhood passion brought him to the MIT Astrophysics Colloquia, a lecture series open to the public. Though he admits that he could understand only the first 10 minutes or so of

every talk, he says, "I saw a part of MIT that was very much about advancing knowledge – done in such a supportive and cooperative way that I thought to myself, 'Wow, it would be really cool if I could be a part of this community.'"

After OCW showed him he had not only the drive but the aptitude to turn this dream into a reality, Demisse began researching initiatives like MIT D-Lab, the lab dedicated to designing solutions for tackling poverty, and the Undergraduate Research Opportunities Program. "That's when I said, it must be MIT," he recalls.

Demisse graduated from MIT this spring with a bachelor's degree in electrical engineering and computer science. But before coming to Bunker Hill and embarking on the path that would lead him to MIT, Demisse longed for opportunities to turn his aspirations into actions.

Growing up, Demisse had witnessed the devastating effects of global inequalities like poverty. But he explains, Ethiopia was also where he'd learned that, when you recognize a problem, it falls upon you to do something about it. When it came time to choose his major at Bunker Hill, Demisse knew it'd have to be something that would allow him to serve not only the Ethiopian community but underprivileged communities around the world that share similar challenges. Computer science struck Demisse as the perfect intersection of his goals, interests, and abilities.



Photo courtesy of Mussie Demisse



Image by: Gift Habeshaw

Through OCW, Demisse found another outlet to channel this desire to help others. “I became somewhat of an evangelist for OCW,” he says, remembering reaching out to friends in Ethiopia who were also looking for resources to make a difference in their communities.

“I especially targeted the ones that felt like they wanted more, but couldn’t get it,” Demisse says. “And it really made me happy to do that because this is the same complaint I had when I was back home —you acknowledge the problems you want to invest yourself in, but sometimes you feel like there’s nowhere to exert that motivation. And I think OCW and similar platforms really allow you to build your capabilities to do what you can to solve the problem that you think is most important.”

Demisse also credits OCW with preparing him for life as an MIT student. “I think professors at MIT have this way of highlighting how hundreds of years of knowledge was built out — this focus on intuition—in order for students to project into the future, for students to be the next discoverers,” he observes. “And in OCW I saw this. I began to grasp the importance of knowing more than just the facts.”

As an undergraduate representative, Demisse joined the MIT OpenCourseWare Faculty Advisory Committee. Bringing insights from his own experiences to the committee, Demisse advocates for more student involvement in the future of OCW. If the goal is to capture and share with the world as much of MIT as possible, he explains, then engaging the student community is paramount. Demisse also emphasizes the need for OCW, and MIT more broadly, to continue pioneering the open education resources movement. Now that he’s graduated he plans to continue working with OCW, focusing on increasing collaboration with community colleges and increasing access to universities in Africa.

Ultimately, Demisse sees open education resources as a way to bring people hope — the same hope he felt when he opened the email from MIT Admissions offstage at the State House and saw the word “congratulations.”

OPEN KNOWLEDGE PROVIDES CLARITY OF PURPOSE FOR EDUCATION IN CRISIS

By Curt Newton

In the many challenges we currently face, there are also unprecedented opportunities for transformative progress. In our responses to the Covid-19 public health crisis, in our reckoning with the inequalities and injustices so deeply embedded within our systems, in our solutions to the daunting reality of our changing climate, so much is at stake. We have a once in many-generations chance to build back better and enable everyone to thrive.

Open knowledge, especially in the form of open educational resources (OER), freely shared and readily adapted through digital technologies, are already an indispensable tool in this progress. I'd like to share my vision for the future of OER and its exponentially growing impact.

Free access to knowledge, and the freedom to apply and extend that knowledge, is essential in order to understand, connect with each other, and act upon deeply important, complex and rapidly evolving issues.

A FRAMEWORK FOR PROGRESS

Learners and educators keep telling us at OCW how knowledge shared through OER sustains learning in spite of personal illness or civil wars; how knowledge shared through OER empowers them to learn new skills and launch new careers; how knowledge shared through OER builds their community's capacity to solve pressing problems.

In this decade, I see four qualities that will ensure open knowledge, and especially OER, propels progress on the UN Sustainable Development Goals and transforms billions of lives: Creating and adapting with radical inclusion; Sharing through a network of unshakeable resilience; Rapidly iterating to include the latest knowledge and experience; Experimenting and refining with adaptive scale.

INCLUSIVE, RESILIENT, ITERATIVE, SCALABLE (IRIS)

Inclusive. MIT openly sharing its teaching with the world through MIT OpenCourseWare was a profoundly inclusive act when it launched in 2001, and remains so today. That said, many communities and learners remain marginalized by long histories of systemic oppression and inequity.

So we join with all OER practitioners working to lift up all types of knowledge. Inclusive OER reflects the full range of perspectives and voices, dismantling the dominance of only some traditions and certain voices being valued.

Resilient. Open knowledge is not bound to a particular platform or system, but is easily accessed, downloaded, transferred and carried along, even in times of great disruption and displacement. Resilient OER is there when you need it, anytime and anywhere.

Iterative. In this time of transformation, everything is a work in progress. Iterative OER fosters experimentation, novel applications and creative mashups, a virtuous cycle of learning and refinement that continually moves us ahead.

Scalable. Solving big challenges needs knowledge infrastructure and systems that are adaptively 'glocal' with the capacity to share content, connections, and resources equitably around the globe, while at the same time enabling the local customization that's necessary for inclusive engagement with individuals and communities. And between these poles are myriad opportunities for intermediate-scale collaborations, such as regional hubs, with a just right mix of ambition, resources, and attention to detail. Scalable OER enables knowledge to spread globally and act locally.

THE FUTURE OF OCW

At MIT OpenCourseWare, we are using the IRIS qualities to inspire and guide our work. This year we will launch a new platform and new programs for even greater openness, reach and impact, while sustaining our core commitment to freely share MIT materials with the world. A seamless experience for mobile device and bandwidth-limited users, more intuitive and powerful content discovery, and a suite of new features to support educators as they adopt and adapt OER for their teaching, are just a few of the starting points for the next generation of MIT OCW.

We embrace the lifelong need to listen, learn, and adapt for everyone. We were all born curious, imaginative, insightful, and deeply connected. Oppressive forces and crises may seem to drive out these qualities, but they can never be destroyed. And given the opportunity, people will reclaim, recover, and rebuild. In spite of efforts to divide us, we are interconnected as global citizens, and ready to learn from each other. Knowledge shared openly is one of the best ways to build and sustain these bonds.

We look forward to working together with everyone, empowering learners and educators around the world to create a truly sustainable and equitable future.

Curt Newton is Director of MIT OpenCourseWare. He works to put the transformative power of open education in the service of a more equitable and sustainable world, and has a particularly personal commitment to the cause of climate justice.

The screenshot shows the MIT OpenCourseWare homepage. At the top, there's a banner with the text "Welcome to NextGen OCW! Help us improve this beta site. Learn more." Below the banner is the MIT OpenCourseWare logo and navigation links for "GIVE NOW", "ABOUT OCW", "HELP & FAQS", and "CONTACT US". A search bar with "Search OR Explore" options is present. A large central call-to-action box features the text "UNLOCKING KNOWLEDGE, EMPOWERING MINDS." and "Free lecture notes, exams, and videos from MIT. No registration required." with a link to "LEARN MORE ABOUT THE OCW MISSION". Below this, a featured course is highlighted: "Disease, Climate Shocks, and Wellbeing: a Long History of Social Response to Crisis" (A 4-Week self-paced MITx on edX course). To the left of the course image is a small thumbnail of a painting. Below the course listing, there's a section for "NEW COURSES" featuring four course cards:

- 17.263 | UNDERGRADUATE American Elections**
Instructors(s):
Topic(s): Political Science, Public Administration
- 24.949 | GRADUATE Language Acquisition I**
Instructors(s):
Topic(s): Linguistics
- RES.21G-506 | UNDERGRADUATE Kanji Learning Any Time, Any Place for Japanese VI**
Instructors(s):
Topic(s): Language
- RES.TLL-007 | NON CREDIT Case Studies in Social and Ethical Responsibilities of Computing**
Instructors(s):
Topic(s): Computer Science, Philosophy, Curriculum and Teaching

2,570+

COURSES AND
SUPPLEMENTAL
RESOURCES

210M

UNIQUE LEARNERS

179

COURSES WITH
FULL VIDEO
LECTURES

1.7B

PAGE VIEWS

"First, I would like to thank you for your epic effort to keep OCW alive and freely accessible by the rest of the world. I am an electronics engineer and I am Turkish. For many years, I always followed the courses on OCW to keep me up-to-date. I also tried to support it with donations. In every donation you have sent a letter to Turkey, saying that if I have the opportunity to come to Cambridge please visit us.

Right now, I am sitting in the Hayden Library and writing this email. OCW and its impact of reflecting MIT's wisdom was so profound that I decided to be an MIT student. I moved from Turkey to Boston and started my program in January 2011. Right now, I am sitting in the Hayden Library and thinking about the effect of OCW on my big decision.

I can easily say that OCW was one of the most influential factors in my decision. So, I believe that my story is just an instance of many examples showing the wide reach of OCW. Sometimes not only it spreads knowledge, but also it spreads the desire to be a part of MIT, which was the case for me. Thank you."

Ziya, MIT Alumnus, Turkey

REACHING OUT BEYOND OCW

"This, the whole idea of open sharing is infectious in the best possible way. And once you get hooked, it's hard to stop...How do you convince faculty to participate? I think by participating. It's the single biggest factor to me, as somebody who has both benefited from and contributed to OCW, it's altruism. It's the desire for what you learned and what you can teach to impact humanity for the better. That's, to me, the whole reason I get up in the morning, and I think that's the case for most people in the world, they want to do good. They want to see themselves do good. And OpenCourseWare provides this enormous attractive force for everyone to see a part of themselves in this rapidly evolving and improving open educational space."

Professor Mike Short on the power of the OER movement.

OCW is at its best when our materials are used, shared, remixed, reused and distributed. We're meeting learners and teachers wherever they are: learning and working from home, at school, on the road, downloading and sharing materials with each other, discovering OCW on social media sites like Facebook, Twitter, YouTube, LinkedIn and Instagram or on their favorite podcast platform. These are some of the ways we show that OCW is here for everyone.

- | | |
|--------------|---|
| 472K+ | FACEBOOK LIKES |
| 209K+ | TWITTER FOLLOWERS |
| 100K+ | PODCAST LISTENS |
| 3.2M+ | YOUTUBE SUBSCRIBERS |
| 438 | MIRRORED COPIES OF OCW
AT INSTITUTIONS WORLDWIDE |



“OCW is one of the jewels of MIT, fully embodying its spirit of openness and its mission to unlock knowledge and empower minds.”

*Krishna Rajagopal, Dean for Digital Learning,
William A. M. Burden Professor of Physics, MIT*

"I have for years been in a Biology program and refused to challenge myself any further because I wasn't sure when I would have the opportunity to attend college. However one day in the midst of personal research that I have been doing, I realized the only way to figure out the answer that I had been looking for had to be intricately embedded in the movement or the rate at which certain ions and particles move in and out of the cells in our body. Ironically, it came to me right after my brain surgery! I clicked on OpenCourseWare and suddenly I was hooked.

I am a stay at home Mom who had brain surgery, hydrocephalus, seizures and convulsions. My journey back has been nothing short of miraculous. I have been a self learner for years because a four year degree has always seemed to have been one dream away. Physics has now become an intriguing topic of mine and I will change my major to Bioengineering and Physics. Maybe these little things like video lectures may not mean a lot to some who can afford college and have no family obligations, but for me with no transportation and 4 year universities over an hour away, it means a lot.

The MIT OpenCourseWare is definitely something I would financially support in the future. I thank you from the bottom of my heart for these lectures; you have given me confidence to do my very best."

Byrd, Learner, United States



Image by: Steve Johnson

"This is a pioneering job for the rest of the world. It is unquestionable that these online course materials are of paramount support to anyone, anywhere and particularly for guys from Africa where there is still a significant lack of higher education materials."

Birhanu, Student, Ethiopia

90
SUPPLEMENTAL
RESOURCES

100+
ONLINE
TEXTBOOKS

2M AVERAGE VISITS PER MONTH
TO OCW

OCW's impact by the numbers

50K+
AVERAGE VISITS
PER DAY

50%
LEARNERS ARE
STUDENTS



Image by: Dominick Reuter

EMPOWERING RESILIENT MINDS





Image by: Gretchen Ertl

"OpenCourseWare is very much a mission that MIT has as an institution. If you look at the MIT mission, not the OCW mission, MIT mission on the web, it says that MIT is committed to generating, disseminating, and preserving knowledge. And to bring this knowledge to bear on all of the great challenges of the world. MIT has traditionally fulfilled that requirement, that mission, with basic research. But now with OpenCourseWare, we can also fulfill that mission with our teaching, by disseminating and preserving our teaching materials."

Shigeru Miyagawa, Senior Associate Dean, MIT

"I am a Clinical Psychologist who works with Army personnel who have been traumatized in combat and are transitioning out of service due to psychiatric impairments related to their combat experiences.

One young sergeant plans to attend university to study business and recently told me about how he has been listening to your on-lines courses on economics. Your courses are giving this very traumatized young man a sense of hope and direction he has otherwise lost.

Thank you for what you are giving people like him. You have my fullest gratitude. You are making a difference, you really are."

George, Parent, USA



Image by: Steve Johnson

"I was ASTONISHED today, when I found that you have branched out into High School curricula.... This is FABULOUS!

What a great way to connect / hook with those considering a university education. Not only is it giving them a view into the university / college experience, it is showing them the value of education for all.

Way to go! I'll be telling everyone what a wonder resource your site is."

Tricia, Educator, Canada



Image by: SDI Productions



Let's make a post-it!

- Grab a post-it.
- Write, draw or doodle your story.
- Just make sure it fits on one side.
- Leave your name and number at the back.

- Ms. Awesome Priya.

"Because we publish online there isn't a direct in-person connection with most users, so receiving feedback and donations from OCW learners is a happy reminder of why we do what we do each day, and inspires me to continue working to provide MIT course materials to the world."

Shiba Nemat-Nasser, OCW Digital Publication Specialist

"I love bringing what happens under this dome to people all over the world."

Sarah Hansen, Senior Manager for Open Educator and Strategic Initiatives

1,735

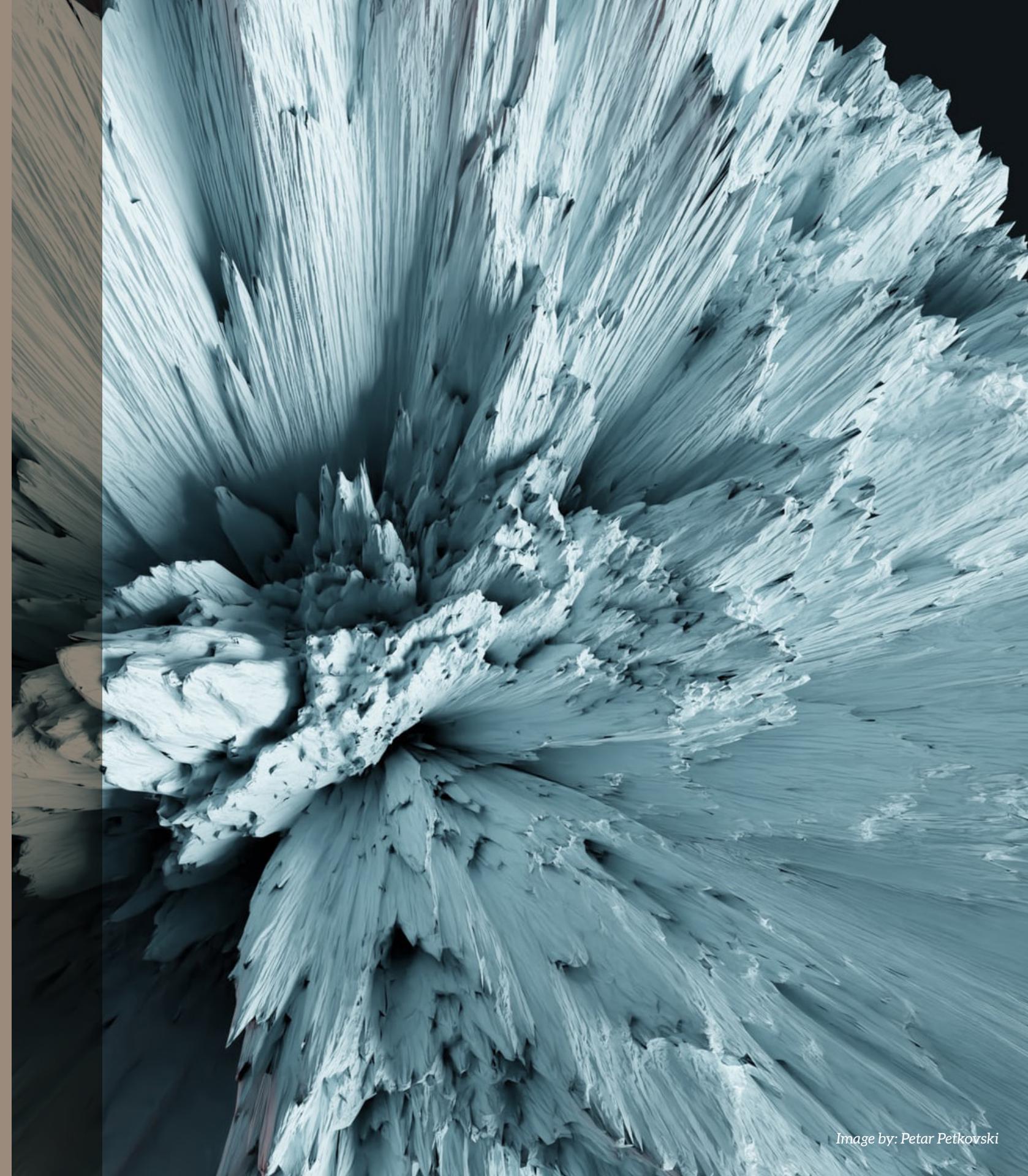
COURSE INSTRUCTORS (FACULTY,
LECTURERS, GUESTS)

9,300+

INTELLECTUAL PROPERTY OWNERS
WHO HAVE CONTRIBUTED OR
GRANTED PERMISSION FOR FILES,
IMAGES, OR RESOURCES, BOTH FROM
WITHIN AND OUTSIDE OF THE MIT
COMMUNITY

70+

OCW TEAM MEMBERS HAVE
HELPED BUILD AND MANAGE OCW
THROUGHOUT THE YEARS



AN IMMEDIATE LOVE AFFAIR WITH OPENCOURSEWARE

By Megan Maffucci

MIT alumnus Eugene “Gene” Stark was an early supporter of OpenCourseWare. As OCW approaches its twentieth anniversary this year, Stark reflects on OCW’s early days, how it’s shaped his relationship with MIT, and why it’s still important for him to support today.

When Gene Stark ‘68, SM ‘69, ScD ‘72 first heard about OpenCourseWare over fifteen years ago, he was instantly drawn to his alma mater’s bold new undertaking. “Not knowing more than the two sentence summary,” Gene said, he was in.

It was 2004. The official OCW site was just a year old, and home to about 500 courses. That same year OCW adopted the game-changing Creative Commons license that allows users to freely and openly share, remix, and build upon course materials. “I immediately said that really sounded like an MIT thing, not only doing it but making it available free,” Gene says, “That’s something I can really support.”

It was the start of what Gene called an immediate love affair with OCW that has lasted through the years. Gene became one of the program’s early and most loyal supporters.

A NEW ERA FOR MIT

What Gene saw in those early days was the potential for public service at a scale that was unique for the Institute. Indeed, OCW’s very existence reflected a change in how MIT related to the world since his days as an undergraduate studying electrical engineering in the 1960s.

“Over the last five decades MIT has become far more engaged with the rest of the world. The entire Institute has become such an important part of the world’s economic and technological process. This just fit in with it beautifully,” he says. OCW “goes along with humanization of MIT in my view.” More than anything,

he says, seeing how MIT faculty have bought in and sustained their commitment to OCW over the years speaks volumes of the community OCW has created.

This effort has also made his own relationship with the Institute much more personal, allowing him to share MIT with young learners in his life. From attempting to tackle Intro to Biology with his thirteen-year-old grandson, to sharing OCW with his grandchildren’s teachers and classmates, it’s given him the chance to connect others with the type of thoughtful intellectual stimulation he remembers from his own time at MIT. The variety of readings, videos, and problem sets available on OCW give you what you need to master a subject—without ever making it boring, Gene says.

Looking to the future, Gene sees OCW’s capacity to usher in further change. It’s already paved the way for other investments in the future of open and online learning, from MITx, which launched in 2011, to MIT Open Learning, a hub of teaching and learning innovations across MIT, and home to both OCW and MITx.

OCW itself continues to embrace change. Understanding the importance of multimedia content to learners, for example, OCW has grown its library of video and audio lectures in recent years. Other new resources, like the podcast Chalk Radio, take visitors behind the scenes of their favorite courses, increasing access to instructors and their insights.

“All good deeds seem to percolate around the world in ways that none of us could have imagined,” says Gene. “Open learning is really important, and there’s still a lot to be done.”



Eugene “Gene” Stark ‘68, SM ‘69, ScD ‘72 has been an OCW supporter for over fifteen years.



Image by: Zhang Kaiyy

"I just wanted to thank you guys from the bottom of my heart for setting up this OpenCourseWare website. It's been a real godsend for me considering that I never had the GPA or the money to attend a university. The material here has really broadened my horizons and given me much joy. Currently, I decided to take a semester off at community college to escape to Beijing and learn the language and to "find myself" in a manner of speaking. But my time here in Beijing has given me much to think about and much more time on my hands to really focus on whatever subjects that I wanted such as your computer science and engineering courses. So I've discovered a new found faith and passion for education that I never had and finally have the courage now to try and start over again to reapply myself so that I may get into a better university. Your open courses on this website really helped get my confidence levels up and gave me the ability to study subjects that I wish I could afford. Really, I thank you and the professors at MIT once again."

Michael, Student, China



"Fabulous. Very many thanks to all at MIT. Your generosity has helped to inspire my physics (GCE A Level and IB Diploma) students. They have all returned a 100% positive feedback (even those who don't usually do very much!). "It made me want to go to university", "This is great, it feels like I'm at Uni". "Much better than your lessons ;)" Just a few of the worryingly honest comments received. An unexpected consequence. The course standards have made me up my game in terms of presentation technique! Thanks for inspiring the most curious minds."

Nick, High School Educator, Germany

FAIR USE

By Duyen Nguyen

MIT OpenCourseWare was founded on a simple idea: to publish all of MIT's course materials online and to make them freely and openly available to everyone, everywhere.

Not so simple, however, was how to address the copyright concerns that would arise. Who owned the materials that would be published on the OCW website? What about intellectual property? Or third-party content that didn't belong to MIT faculty, like research journal images or film clips? Could anyone use these materials however they saw fit?

These were just a few of the questions MIT faculty and OCW staff set out to answer twenty years ago.

After reviewing licensing options, the team agreed that OCW would publish faculty materials under a non-exclusive license that enables free use and remixing, and also allows the professor to retain their copyright for other uses.

Today, most resources on the OCW website fall under this Creative Commons license, and users can share and adapt content for any non-commercial purpose, as long as they attribute the materials to MIT OCW.

But content owned by someone else proved more challenging to share. As Lindsey Weeramuni, Manager of Intellectual Property for OCW, explained in a 2019 journal article, no policies existed at the time of OCW's birth for assessing fair use in open education. Under U.S. copyright law, fair use allows the free use of copyrighted material for certain transformative purposes such as criticism,

commentary, or parody without requiring the permission of the copyright holder.

With no precedent for making fair use claims for open educational resources, OCW staff decided to take a conservative approach: third-party materials for which OCW could not obtain permission were removed, cited with a link, or recreated graphically.

The turning point came in 2008, with the publication of the "Documentary Filmmakers' Statement of Best Practices in Fair Use," which outlined how documentary filmmakers, video creators, and others could apply fair use in the service of their productions.

The OCW team immediately saw an opportunity to establish a similar set of best practices for the open education community. The following year, led by MIT, a group of OpenCourseWare practitioners from different universities authored the "Code of Best Practices in Fair Use for OpenCourseWare."

Developed under the guidance of Pat Aufderheide and Peter Jaszi of American University, two experts in copyright law and the application of fair use, the OpenCourseWare Code, put into use, empowers universities and institutions to offer richer and more effective content to their learners.

Now, when some third-party content in a course simply cannot be cleared for open use, OCW can often still share it with learners under fair use. To date, OCW has shared over 8,000 individual images, excerpts and clips under fair use in our ceaseless quest to give learners the most complete information possible.

“Whether it was a topic or the whole subject, OCW was the first bookmark which I opened. My curiosity for the truth of things generally ended with the wide range of courses that I could tap into at my convenience. I can strongly say that OCW has not only helped me improve my grades in the courses I took in class but has also been helpful to push myself an extra mile and break the boundaries for interdisciplinary education.”

Kshitij, Student, India



Image by: Avi Richard

"I had a brain aneurysm and am needing to take a significant break from school where I am earning a degree in Mechanical Engineering.

I want to keep my skills sharp and I love that I can revisit differential equations, as it was difficult for me the first time around. Thanks for letting me continue to learn while I heal."

Anita, Student, United States

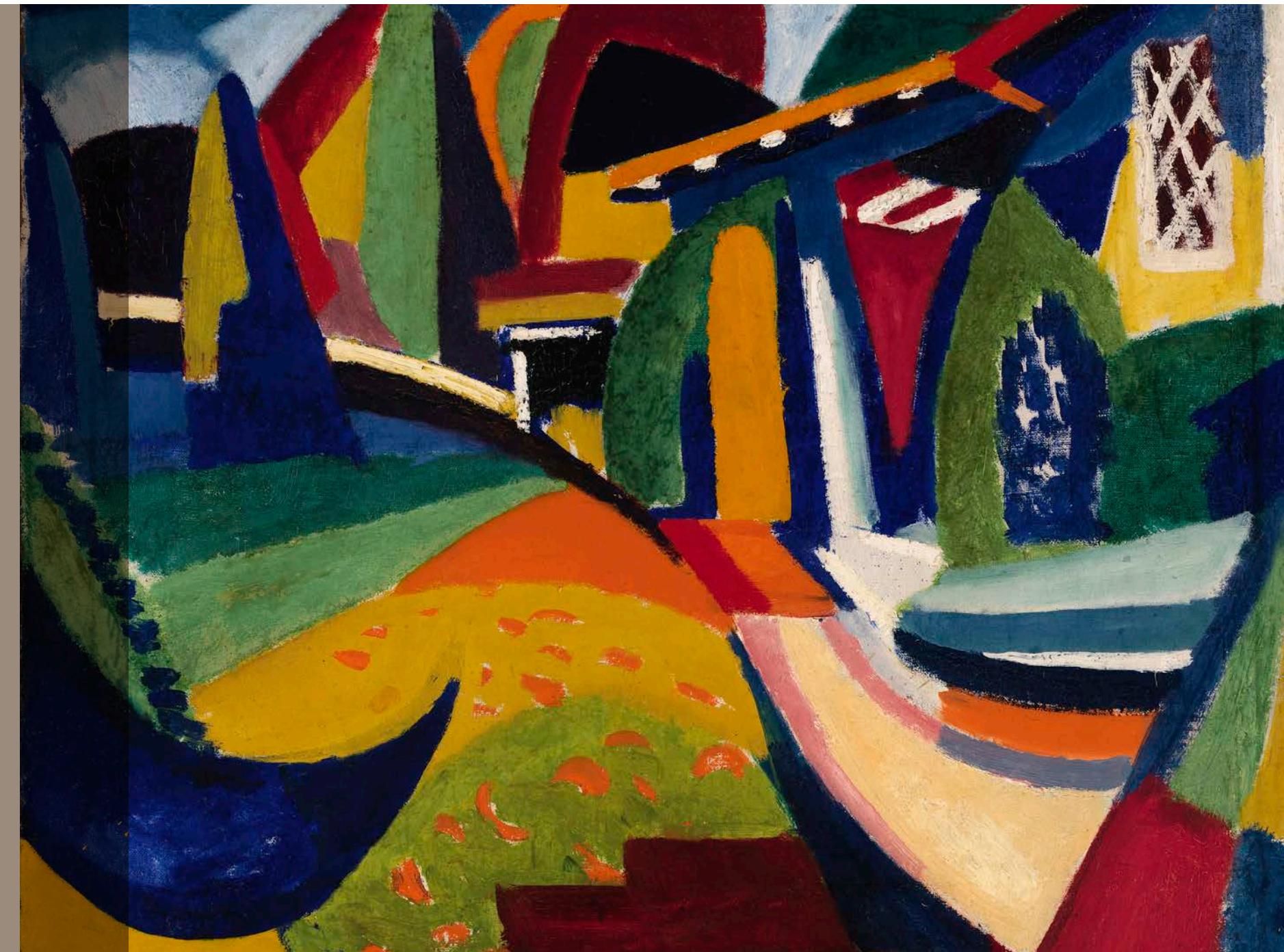
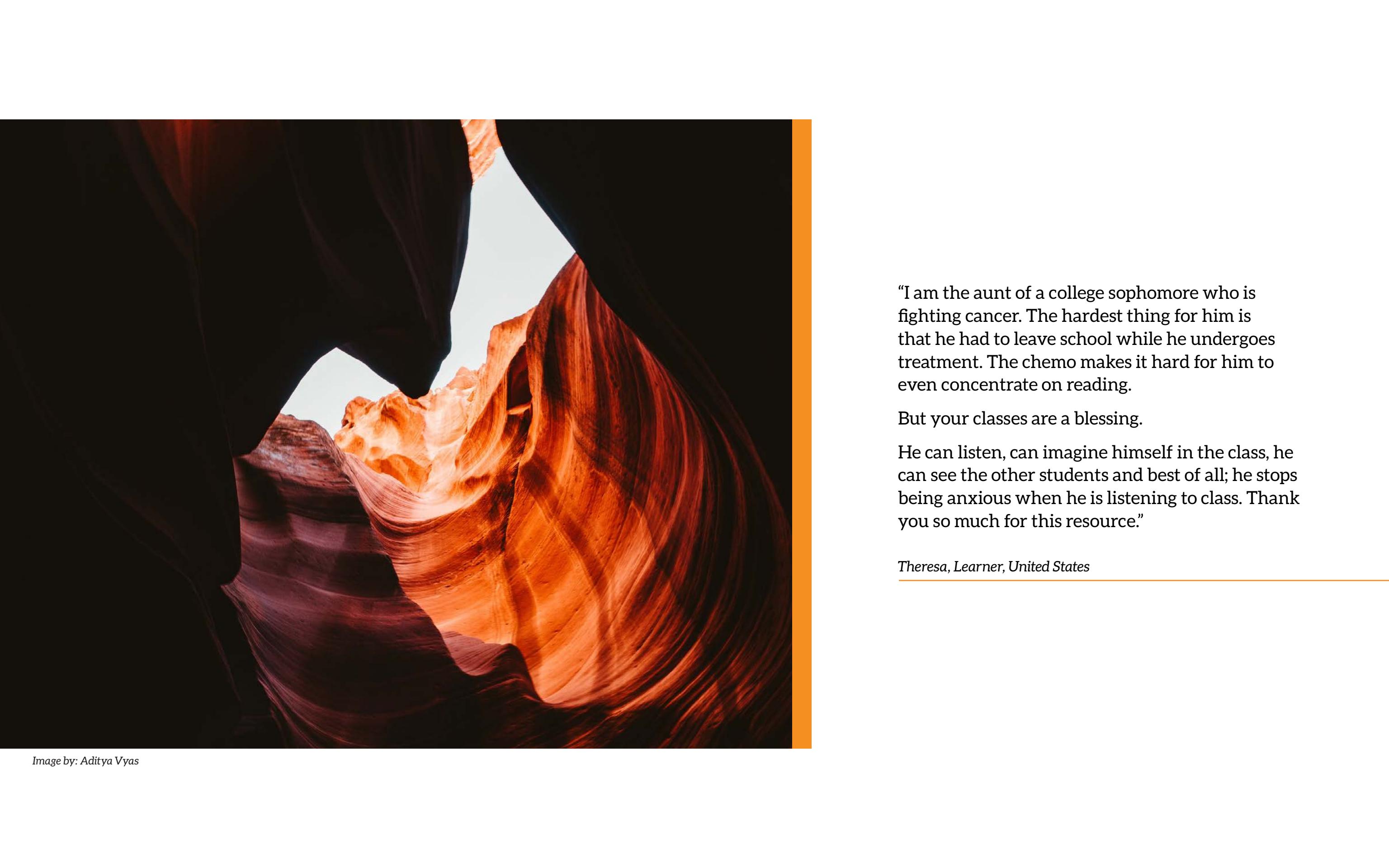


Image by: H. Lyman Sayen



"I am the aunt of a college sophomore who is fighting cancer. The hardest thing for him is that he had to leave school while he undergoes treatment. The chemo makes it hard for him to even concentrate on reading.

But your classes are a blessing.

He can listen, can imagine himself in the class, he can see the other students and best of all; he stops being anxious when he is listening to class. Thank you so much for this resource."

Theresa, Learner, United States

"What a gift that the OCW courses are available. As a homeschool parent this has been very helpful for our family. My son was able to use OCW as a resource and he took the graduate level origami class. He loved Origami and the math involved with this. His brother was in cancer treatment and he could not have left our home to take a course elsewhere.

My son was able to access these courses to complete his high school classes. We live in an area where our school choices are limited. This gave my son world-class instruction and made him more competent.

My son then was admitted to and is now attending MIT. OCW made that possible for him. I am forever grateful for the resources of OCW at MIT. Thank you."

Rebecca, Parent, United States

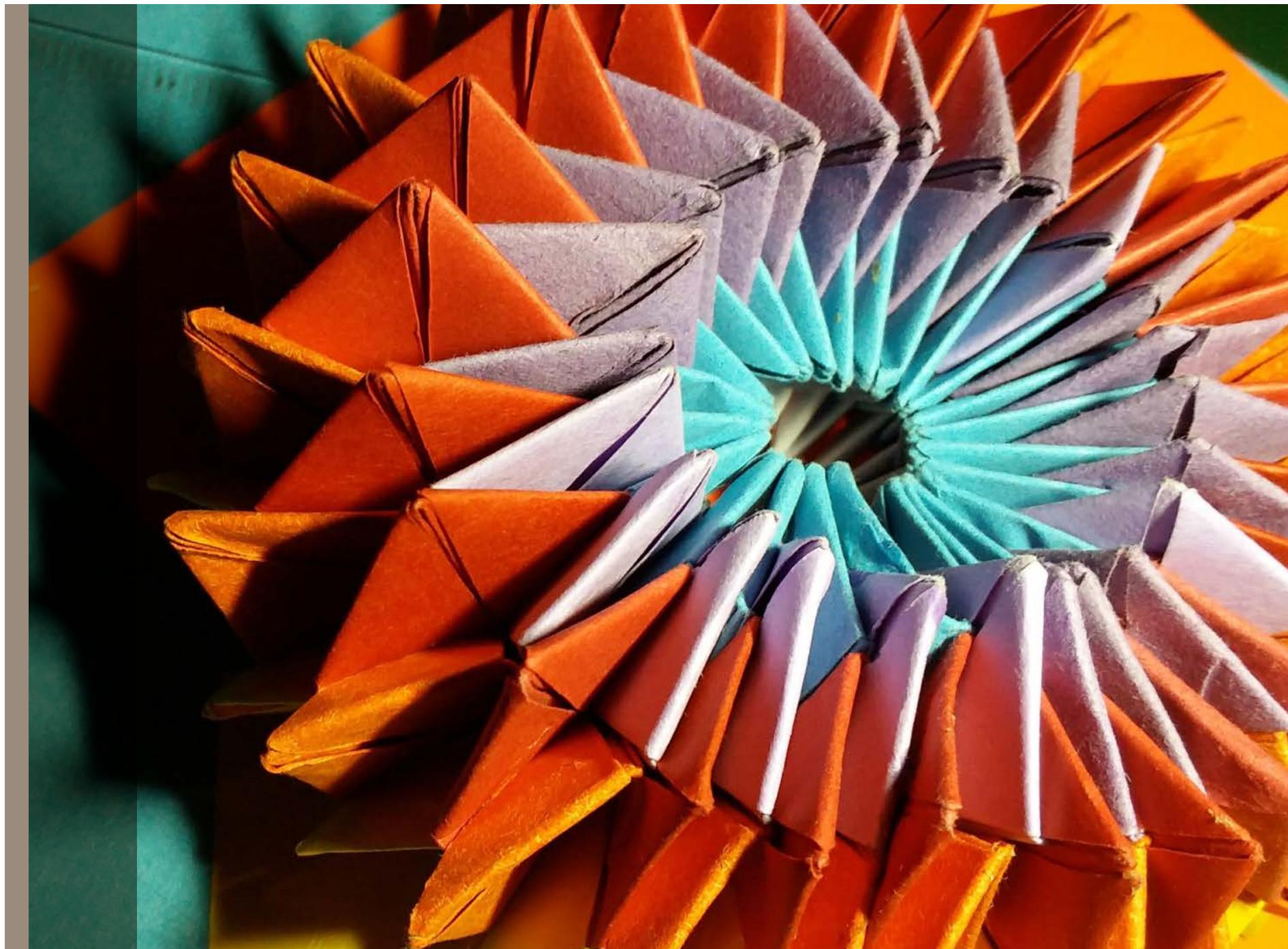


Image by: Di Sahu

SUPPORTING LEARNERS IN THEIR CAREERS

By Sara Sezun

"I used OCW to boost my knowledge of scientific concepts that I encounter daily at my job." With these words, Valja Collingwood describes how using MIT's OCW materials was helpful for his career. A civilian Equipment Specialist for the U.S. Navy, Collingwood is stationed at the Naval Surface Warfare Center in Indian Head, Maryland. One of the Center's purposes is to conduct research on energetics, which include propellants and explosives. The Center also develops methods for military personnel to detect explosives in the field, render them safe, and dispose of them properly. Collingwood works in Explosive Ordnance Disposal (EOD). "My job entails testing EOD energetic tools (explosive and electronic), handling explosives, test report development, and more."

Several years ago, Collingwood enrolled in an electronics course at a community college to improve his skills. He was hoping to take a course through MITx to supplement his classwork, but could not due to time constraints. Fortunately, a colleague referred him to OCW, and Collingwood began to study the materials of an MIT Basic Electronics course. "We are not exposed to such high-quality instructional methods as I've just viewed on the Basic Electronics videos," says Collingwood. He eventually studied other Electronics courses through OCW, as well as some Chemistry courses.

The knowledge Collingwood acquired through OCW has given him the solid scientific foundation necessary for his job. "The lesson plans and instructional videos of actual class sessions served to enhance my understanding of concepts from Kirchoff's Law to Op am functionality." Collingwood credits OCW with expanding his expertise in electronics "to the point that I had enough confidence to competently apply circuit analysis techniques using diagnostic equipment as needed, to support work projects as needed."

A learner story published on OCW in 2016.

"I would like to thank you for providing the opportunity for everyone to participate in the OpenCourseWare Program sponsored by MIT. As a senior 55+ the intellectual stimulation of accessible materials from acclaimed faculty, and the excitement to learn new and thought provoking research at my own pace has been an exceptional experience. This is a learning stimulation that every retiree should take advantage of while specific course opportunities are available. The course materials have been so impressive that I became inspired to take executive courses on the university campus."

Thomas, Learner, United States



Image by: Jake Belcher

CREATING A BETTER WORLD



Image by: Gretchen Ertl

BRIDGING THE DIGITAL DIVIDE

By Duyen Nguyen

Myanmar's education landscape is changing, thanks in large part to the efforts of the Tekkatho Foundation, a not-for-profit organization that uses digital technologies to bring world-class educational resources to local institutions and communities. Supported by a grant from the Omidyar Network, Tekkatho sets up free, self-contained digital libraries—eTekkatho—and other education infrastructure across the country, making access to materials like MIT OpenCourseWare (OCW) possible even in places with little to no connectivity.

eTekkatho is able to include OCW content among its many resources through OCW's Mirror Site Program, which delivers free copies of the OCW website to over 400 non-profit educational organizations working in under-resourced parts of the world, for installation on their local networks. Currently set up in 23 universities and six community libraries across the country, eTekkatho's impact on learners in Myanmar has been remarkable.

Over 10,000 people, from students to educators, have attended an eTekkatho training course, where they learn how to access, browse, and download educational and research materials. With thousands of resources now at their fingertips, students grow confident in taking the initiative in their education, becoming proficient in self-study and independent learning. As of 2017, over 100,000 individual ebooks, video lessons, datasets, lectures, and other educational content have been downloaded from eTekkatho library.

OCW is one of the most popular resources that eTekkatho provides. At Phaung Daw Oo, a monastery school in Mandalay that offers free education to over 7,000 children, students like Kyaw Win Khant turn to the eTekkatho digital library to research their assignments, develop their IT skills, and prepare for college and work. "Of course I use eTekkatho! It's really useful for my studies," says Kyaw, who was motivated to study chemistry after finding resources on the subject through the digital library.



Image by: Yeon Woo Lee



Image by: Steve Johnson

"This is an extraordinary innovation and potentially a very powerful contribution to international development. I am working in Liberia where most of the schools were destroyed in the 15 years of brutal war. There are many bright people in the country who now want to study and learn, but their options are very limited. Yet, with rapidly expanding access to the Internet through Internet cafes and other means, students can access MIT's undergraduate coursework. I am passing this information on to the college students that I have met and will inform the Ministry of Education if they are not aware of this. It's an opportunity to bring MIT into the classroom!"

Jerome, MIT Alumnus, Liberia



Image by: JR Corpa

"I'm a 54 year old Medical Technologist and began using OCW to 'finish' the Psychology degree I abandoned in 1977 for my own sense of accomplishment. Recently, however, the coursework has had a special relevance for me. My father was diagnosed with Alzheimer's and Paranoid Schizophrenia in 2008, and my mother was diagnosed with multiple TIAs and probable DID in 2009... and I am now responsible for their care.

Because of your Brain and Cognitive Science coursework, I am able to better understand the processes occurring in their lives, and my role in what I can—and cannot—fix. Thank you, MIT. You've made a difficult road much easier to travel."

Susan, Learner, United States

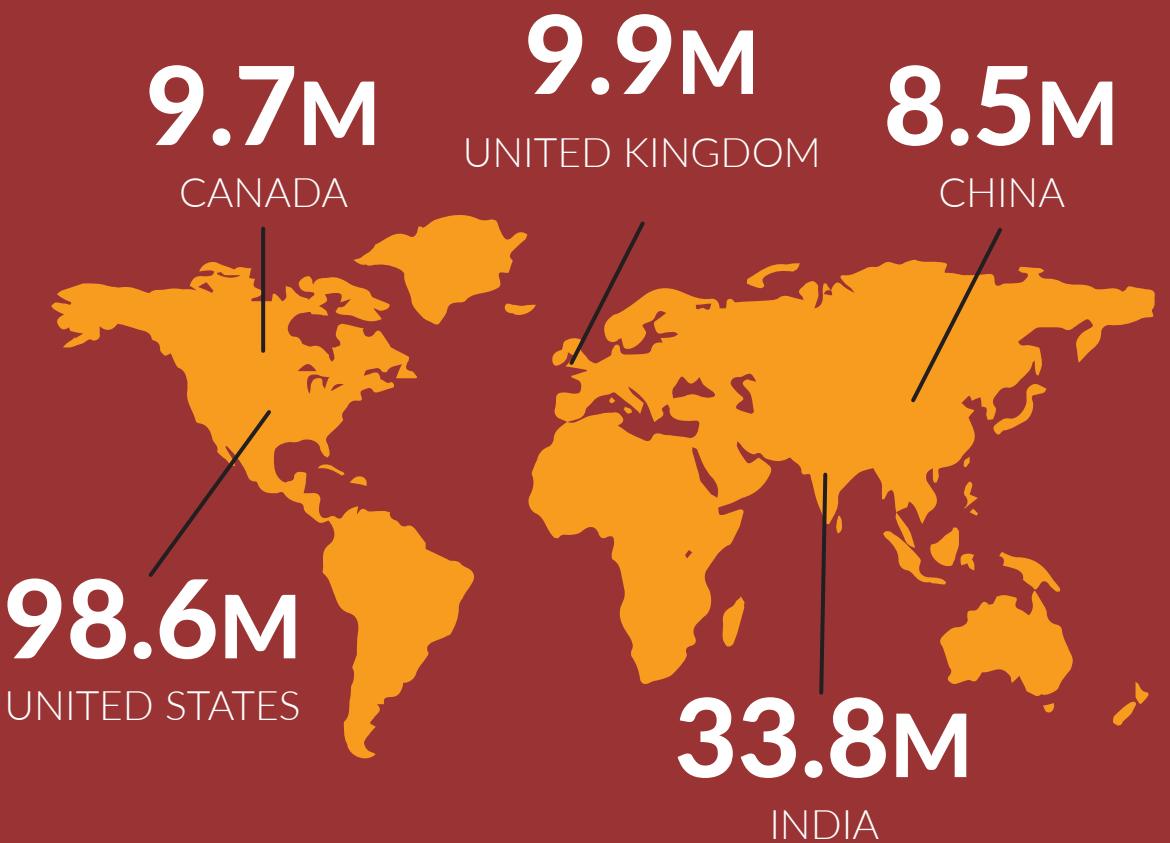
"I use the knowledge I gain from OCW lectures, particularly the Engineering courses, to tinker on solutions for problems in my society. I am addicted to OCW, as there's no better source of knowledge.

My father is diabetic, and 3/4 of his income goes to cater for his medication and consulting fees, with such a situation it remains hard for me to access high-quality education. OCW came as a blessing, and despite the fact that accessing the internet is a challenge, over the weekends I make sure I head to a cyber café and download the lectures quickly.

I am currently working on a Deep Learning project to enable contactless e-commerce in Nairobi, and surely OCW is all the knowledge I get to be able to work on the project. Personally, OCW has been important to my life and will continue being."

Celestine, High School Student, Kenya

TOP 5 COUNTRIES WITH VISITS TO OCW SINCE JANUARY 2009



BUILDING LOCAL CAPACITY

By Stephen Carson

Entrepreneurs Jean-Ronel Noel and Alex Georges are working to bring renewable energy to communities throughout Haiti. Through their company, Enersa (enersahaiti.com) they planned to create solar panels to serve the needs of their country, but in their research and development process, they required guidance in electrical engineering. Noel found the materials he needed on MIT OpenCourseWare. "I was able to use the OpenCourseWare to learn the principles of integrated circuits. I found out that I could use an existing integrated circuit to make things more efficient, and I wanted an explanation about how it worked. I was able to learn this through the MIT OpenCourseWare."

Enersa's work has been supported by the non-profit Appropriate Infrastructure Development Group (AIDG). AIDG Executive Director Peter Haas describes how Noel and Georges leveraged OCW to build a successful business. "I was immediately impressed by [Noel], an engineer who taught himself the electrical engineering he was missing by using the free online engineering resources of MIT OpenCourseWare," said Haas. "Also, after seeing the dramatic bootstrapping JR and Alex had done in starting their business, it was clear this team was different."

Jean-Ronel Noel, a mechanical engineer by training, describes why OCW was his resource of choice: "It was much better than any other information I found on the Internet, since the other sites were written by electronics experts who

assumed that it would be read by other experts. I didn't want to just copy the circuit without understanding it. MIT OpenCourseWare was different because it explained things step by step. Using the OpenCourseWare saved us a lot of time and money."

Through Enersa, OCW touches lives well beyond Noel's and Georges'. Enersa employs 18 full-time solar technicians drawn from the communities they serve, and Enersa's products affect the daily lives of thousands of Haitians. Enersa produces residential and commercial solar systems and solar chargers for smaller items such as cell phones and lamps, but their signature product is a solar street lamp. In just two and a half years, they have installed more than 500 of these in 58 cities and remote villages in Haiti. Enersa's activities were briefly interrupted by the January 12, 2010 earthquake, but with an emergency loan from AIDG, they are back to full operation.

A learner story published in 2011.

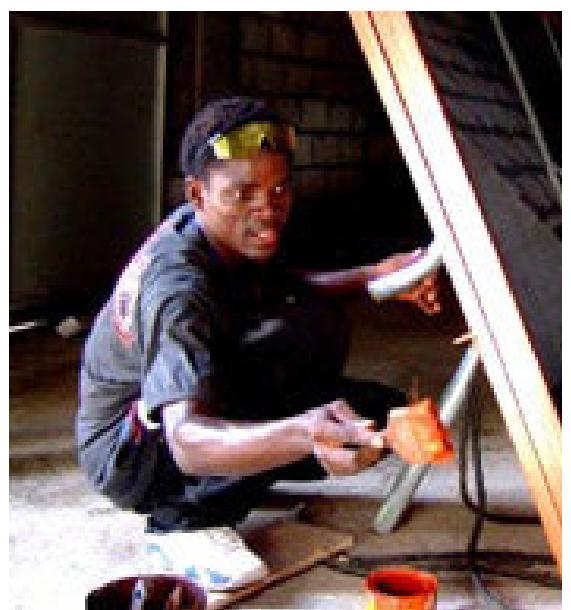




Image by: Mohit Sharma

"I wanted to take a moment to commend your institute on its decision to make course materials available through MIT OpenCourseWare.

I firmly believe that the only way for the human race to advance socially, economically, and even spiritually as a whole is to work together by helping each other. Your institution has taken an admirable first step toward eradicating homelessness, hunger, warfare, and a slew of other worldly problems by this simple, selfless act of human faith.

On a personal note, as a fully employed veteran who has not ever had the financial means to pursue a graduate level education, I look forward to learning from this course material with great zeal. Thank you."

James, Veteran, United States



Image by: Dominick Reuter

“For the past 20 years, MIT OpenCourseware has supported the formal and informal learning of thousands of people, on every continent, throughout life, in many fields. Indeed, nowadays, learning has become possible throughout life thanks to platforms such as the MIT OpenCourseWare. That is why I support this wonderful initiative to share the most precious common good: the useful knowledge to make the world a better place!”

Brahim, High School Educator, France

SUPPLEMENTING COURSE CURRICULUM

By Sara Sezun

For the past several years, Evelyn Laurito has been using OCW materials in her classes. A Professor of Chemical Engineering at the University of Santo Tomas in Manila, Philippines, Laurito has been teaching for more than thirty years.

Approximately ten years ago, the University of Santo Tomas faculty decided to incorporate Blackboard into their classrooms. A software program designed for traditional residential classes, Blackboard allows instructors to add online content to their class materials. Laurito served as Content Development Manager for this initiative. After learning about OCW from the Internet, she recommended it to her fellow faculty members. "I gave presentations to our faculty and would always say, 'They don't have to reinvent the wheel,' because the website provides open courses where they can find very useful materials for their lectures."

Laurito teaches mostly undergraduate chemical engineering courses including Plant Design, Particulate Technology, and Environmental Science and Engineering. Over the years, she has utilized OCW materials from courses on the environment, ecology, and wastewater treatment. Laurito's first experience with OCW was through an Introduction to Chemical Engineering course. She says, "I just linked my resources in Blackboard there, and I did not have to do much preparation for materials for teaching, because it was already fairly complete." By saving time in lesson preparation and explanation of concepts, Laurito can spend more time in direct interaction with her students. "I can just assign it (OCW readings) to my students and then ask questions during class, a sort of flipped classroom."

At the moment, Laurito is utilizing OCW materials for her Industrial Waste Management and Control class, which she describes as a "web-enhanced course." In addition, Laurito finds OCW useful in keeping knowledge of her field current. She says, "I continue to check out new courses offered by MIT and download them."

An educator story published in 2012.



Image by: Christopher Harting

“Usually teaching is done behind closed doors, and what MIT faculty are doing is throwing those doors open and inviting people in.”

Sarah Hansen, OCW Senior Manager for Open Educator and Strategic Initiatives



TEACHERS SUPPORTING TEACHERS: THE OCW EDUCATOR INITIATIVE

By Megan Maffucci

When MIT faculty originally conceived of the project that would become OCW in 2001, they did so with educators in mind. As faculty across the Institute began contributing their courses to OCW in its early years, their commitment to making OCW a valuable resource for educators specifically only grew. Just as OCW marked its first decade of open sharing in 2013, OCW Educator, a faculty-initiated project to enhance educator use of OCW, was born.

A RADICAL NEW WAY TO OPEN TEACHING

The OCW Educator Team is tasked with making the vast materials on OCW useful to educators on a global scale. This means finding creative ways to directly connect educators with both the course content available on the site, as well as context and perspective from the very MIT faculty who created them.

"We work on sharing not only the 'what' of MIT teaching but the 'how,'" says Dr. Sarah Hansen, who leads the Educator program. "We interview faculty about how they teach and share that with educators around the world, so educators can build on what MIT faculty do in their own classrooms, or innovate with the materials in new ways. Usually teaching is done behind closed doors, and what MIT faculty are doing is throwing those doors open and inviting people in...They're saying we're going to be open in this radical new way, we're going to invite you into the classroom to see what's working, what's not working, what we're trying. They're not trying to say this is best practice and you should do it exactly like this...They really just want to spark a global conversation about engaging learners."

INSIGHTS INTO TEACHING AT MIT

One of the primary ways the Educator Team pulls back the curtain on teaching at MIT is through Instructor Insights, a special section of select OCW course pages where instructors share notes on course design, assessments, and other course-specific information to help educators fit the materials into their own curricula.

Insights are shared in a range of formats to reach as many educators as possible—from Educator videos on the OCW website and YouTube channel, to magazine pages on the site and Chalk Radio, a podcast hosted by Sarah and produced by OCW. In Chalk Radio's first two seasons, interviews with MIT instructors offer a more conversational peek at how they approach teaching, and invite listeners to experience some of the inspiration of talking to these faculty members on campus.

During the spring 2021 semester alone, OCW's Instructor Insights were viewed more than 140,000 times. Chalk Radio meanwhile has brought a new and broader audience to OCW Educator. Since its launch in February 2020, podcast listeners have accessed Instructor Insights through its episodes over 370,000 times. In the spirit of open, all Educator resources are CC-licensed.

OCW EDUCATOR AND THE FUTURE

Reinvesting in the OER community and strengthening the experience of educators using OCW in their teaching are two priorities of the next generation OCW platform and program—known as NextGen—which will debut in late 2021. As NextGen develops, the Educator team aims to further enrich the collection of Instructor Insights available on OCW with more from faculty on emergent topics like open pedagogy and teaching remotely.



MIT OpenCourseWare has 235+ courses and supplemental resources with Instructor Insights, including:

45+

INSIGHTS SPOTLIGHTING TEACHING
IN REAL-WORLD CONTEXTS

70+

INSIGHTS FOCUSING ON ASSESSING
LEARNING

90+

INSIGHTS ON ACTIVE LEARNING

10%

OCW VISITORS ARE EDUCATORS

"I cannot thank you enough for the invaluable and free resources you have put out for people who really want to learn things in depth. Much as I'd like, I cannot make any contribution at the moment as I am dirt poor. It takes all of my resources to be able to have an internet connection right now. But your courses, and the videos offered by your alumnus Sal Khan, have given me a ray of hope.

I am preparing for an entrance test to one of the most elite management institutions in India. I work very hard everyday. Your courses really help me understand some of the concepts I grapple with.

You have given me a lot of hope and confidence. One day I would like to make a contribution to express my gratitude to you and to your excellent star faculty members.

Alas, today I have nothing but a humble "thanks" that comes from my heart. Thanks !!!"

Neha, Learner, India



CHALK RADIO SHARES MIT'S TEACHING TECHNIQUES WITH THE WORLD

How do you make abstract concepts accessible and tangible in the classroom? What does it take to motivate students to personalize learning? How do you navigate complex conversations, facilitating productive, respectful discussions in a lecture hall, seminar, or remote classroom?

These are the questions Chalk Radio, the OCW podcast, aims to answer. The show highlights some of MIT's most engaging courses, along with the often-unconventional, always-inspired educators who create and teach them. Each episode features an interview with selected instructors, offering highlights from the subject matter as well as insights into each professor's approach to teaching—the craft of turning expertise into accessible content. Clocking in at just under 30 minutes apiece, each episode delivers a breezy yet heady experience of casual conversation with some of MIT's finest minds.



Image by: Brett Paci

“One thing I love about teaching OER is that I get to teach what I want to teach. What I think my students need to know, in the way they need to learn it. Instead of just defaulting to what the textbooks say.”

Elizabeth Siler, Worcester State University & OCW user



Image by: Headway

OPEN EDUCATION MULTIPLIERS

By Megan Maffucci

The goal of reaching more educators is bigger than OCW itself, and gets to the heart of what it means to be part of a global open educational resource (OER) community. The OCW team and MIT faculty view educators as “multipliers”—people who magnify the impact of OER like those offered by OCW—by modifying and sharing them with students around the world, who in turn share their knowledge with countless others, creating stronger learning foundations and pathways for all.

One such educator and OER champion is Elizabeth Siler of Worcester State University. In an episode of Chalk Radio, Elizabeth shared how she used the teaching notes and case studies from Professor Mary Rowe’s 15.667 Negotiation

and Conflict Management on OCW, a course designed for graduate students at MIT Sloan School of Management. By building on and adapting the case studies for her own course, she could better align them with her undergraduate student’s learning needs and experiences at WSU.

With the third season of Chalk Radio, the team plans to be more intentional about building relationships and engagement with educators to help further increase the exchange of teaching know-how between MIT and the world. “When MIT faculty participate in an interview with our team about how they teach, they will now be offered an opportunity to ask educator colleagues around the world for insights about the challenges and ideas they encounter in the classroom,” says Sarah Hansen, host of Chalk Radio and head of the OCW Educator team.

“Learning from our audience’s collective wisdom has the potential to positively influence learning in MIT classrooms, which, in turn, will continuously improve the open educational resources MIT faculty offer the world.”



Image by: Susan Yin

"Good education and broad knowledge are key factors in the evolution of the human race and making our world a better place. MIT OpenCourseWare has created a ripple that will echo through the ages."

Reynir, OCW Supporter, Iceland

The image shows a chalkboard with handwritten mathematical equations. At the top, there is a partial derivative expression involving f_x , \hat{i} , f_y , \hat{j} , and f_z , \hat{k} . Below it, there is a term involving partial derivatives with respect to x , y , and z , represented by $\hat{i} \frac{\partial}{\partial x} + \hat{j} \frac{\partial}{\partial y} + \hat{k} \frac{\partial}{\partial z}$. At the bottom, there is a scalar term $M_x + N_y + P_z$ followed by the word "scalar".

$$f_x \hat{i} + f_y \hat{j} + f_z \hat{k}$$
$$\left(\hat{i} \frac{\partial}{\partial x} + \hat{j} \frac{\partial}{\partial y} + \hat{k} \frac{\partial}{\partial z} \right) \cdot (M_x + N_y + P_z \text{ scalar})$$

"I used the material from your differential equations course in a course that I taught. The students learned phenomenally better than they had in previous courses. All the credit goes to the two MIT professors who developed the course. No aspect, from the approach, to the Mathlets, could have been any better. I now look for material that I'm personally interested in."

Mark, Educator, United States

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Thank you for being an incredible community and a strong force for learning.

Sincerely,

The MIT OpenCourseWare Team

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3.2M
OCW YOUTUBE
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YOUTUBE
VIEWING HOURS



Image by: Muhammad Affan

"Most of the time, we have to face issues like strikes and political problems due to which we are usually unable to take the classes. Thanks to OCW, we do not have to worry about the lectures missed, rather we enjoy more promising and better lectures by the instructors.

Moreover, studying from a well recognized university can sometimes only remain a dream. I never thought of experiencing the lectures from the instructors who are available here to make me clear about all the confusions regarding any course. Economics, Sociology are no longer those 'trouble making' courses anymore.

I usually keep an eye on the courses which OCW offers and then I register myself in the courses my university offers. I go through all the syllabus and I take lectures. I am proud to say that my understanding is sometimes even better than the instructor himself. Once again thanks to OCW.

Studying in a country where there are political issues going on, there are strikes, drone attacks, target killing etc., it's very difficult to study but thanks to OCW, now I do not have to worry about keeping my feet running with the competing world.

I love OCW, and hats off to the people who are making their efforts to make our lives so easy."

Tooba, Student, Pakistan

FUTURE FORWARD: NEXTGEN OCW

Since 2001, MIT OpenCourseWare (OCW) has worked to share the best educational resources from MIT freely and openly, creating remarkable new opportunities for millions of learners and educators around the world. From OCW Educator and the Chalk Radio podcast, to the OCW YouTube channel and the MIT Open Learning Library, OCW continues to grow with rich new resources for the tens of thousands of learners and educators who use OCW every day.

While OCW honors the MIT faculty, students, and contributors who have helped shape these 20 years, we are already looking to further unlock knowledge and empower minds for the next 20 years. Our aim is to better serve the needs of learners today and well into the future, and better leverage new technologies and the growing open education ecosystem.

NEXTGEN OCW

Launching later this year, NextGen OCW encompasses a vision of expanding OCW's reach, advancing global educational equity, and substantially increasing our usability and functionality for learners, wherever they are.

OCW will continue to deliver on our core mission with a new website and program that prioritizes advancing equity as well as greater access:

Enhanced support for learners and educators to deliver engaging experiences for the many millions of smartphone-based learners, especially those for whom a phone is their only digital device or who may need to work offline due to a lack of affordable, reliable internet service. And, for everyone, enhanced search and discovery to make navigating the ocean of learning that is OCW easy.

Empowering more educators to find and use OCW in their teaching, seamlessly integrating with their institutions learning management systems, and providing new content forms that can be easily remixed and adapted to diverse local contexts.

Magnify OCW's utility for educators teaching students via new programs to support OER librarians, collaborative OER creator communities, multi-source OER discovery tools and cross-institutional OER repositories.

Through these efforts among others, OCW will have the capacity to be more responsive to what is happening here at MIT so that we can always share a vibrant and current reflection of MIT knowledge, teaching and learning, as it evolves, with the world.



“Free access to knowledge is a powerful foundation for progress, but it’s not the whole picture. Open Educational Resources that lift up everyone’s right to contribute to shared knowledge, and build everyone’s capacity to extend that knowledge, is creating new paths for us to work together on the world’s most important, complex, and rapidly evolving challenges.”

Curt Newton, OCW Director