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**Annual
Report**
Creating
BU's Future
Today

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BU Digital Learning & Innovation

2020

2020: DL&I leads COVID-19 response and produces Questrom's Online MBA.

2019: Digital Initiatives unit created to assist with the production of residential and distance digital learning initiatives.

2018: Supported the rollout of Adobe Creative Cloud licenses to all undergraduate students, select graduate students, and faculty.

2017: Managed the production and successful launch of BU's first two MicroMasters Programs.

2016: The Office of Digital Learning & Innovation was established. Hosted First Annual Teaching with Technology Festival.

Digital Learning & Innovation and its affiliated units—the Center for Teaching & Learning (CTL), Educational Technology (EdTech), and Digital Initiatives—help Boston University leadership, faculty, and graduate students implement innovative ideas in education and offer consultation and training in the areas of teaching, technology, and online education.

2020 has been an extraordinary year. In March, due to COVID-19, more than 4,000 Boston University faculty and almost 35,000 Boston University students transitioned to remote teaching and learning with less than one week's notice and without missing one day. In August, BU's Questrom School of Business' fully online, low-cost MBA program launched to an inaugural cohort of nearly 400, twice as large as that originally planned. And in September, BU's campus reopened to students, offering simultaneous in-person and remote instruction (Learn *from* Anywhere, or L*f*A).

Digital Learning & Innovation (DL&I) has played a central role in those extraordinary efforts. We coordinated the March 2020 pivot. We produced the Questrom Online MBA. And we led the implementation of BU's Learn *from* Anywhere instructional model.

As I look back at one of the most tumultuous years in BU's history, my feelings can be summarized in two words.

Gratitude

2020 came as a perfect storm. It also brought out the best in us. Tasked with mission-critical projects, every single member of the DL&I team had to work harder than ever before, and they all delivered in spades. The same is true of our colleagues at Information Services & Technology (IS&T), the other units of the Office of the Provost and the dozens of faculty and administrators at our Schools and Colleges who worked together to keep the education of our students uninterrupted. In the midst of a uniquely challenging situation, BU has shown an immensely rewarding strength of collaboration.

Anticipation

Despite the anxiety and challenges of the COVID experience, as 2020 comes to a close, every single BU instructor and student has experienced teaching with technology. I am a solid believer that this exercise is going to catalyze lasting innovation in our teaching and learning. Our faculty overcame many hurdles and false starts, discovering creative ways that using technology and blending in-person and remote learning can benefit our students, even after the COVID crisis is over. Through our communities and events, DL&I is actively working to identify and disseminate the best new ideas and insights to all BU faculty.

As an exceptionally challenging year comes to a close, I celebrate our accomplishments and look with optimism into the future of teaching and learning at Boston University.

Chris Dellarocas, *Boston University's Associate Provost for Digital Learning & Innovation and Richard C. Shipley Professor of Management at the Questrom School of Business.*

COVID-19 RESPONSE

Remote Teaching & Learning

SPRING 2020

In early March 2020, as nearly 40,000 BU students and faculty prepared for spring break, there was looming uncertainty around COVID-19 and its potential effects on the U.S. and global communities. New coronavirus cases were on the rise, and local and national news media covered the outbreak with intensity. Tensions were escalating as the world watched the pandemic unfold.

In preparation for a possible campus closure, Provost and Chief Academic Officer Jean Morrison called on Digital Learning & Innovation's Associate Provost Chris Dellarocas to create a remote readiness plan. Dellarocas, who has led BU's digital learning strategy since 2013, responded to the call and created an action plan—one focusing on two powerful technology platforms, Zoom and Blackboard.

On March 11, Dellarocas' Remote Teaching Readiness Plan was communicated to faculty, students, and staff, and five days later, without missing a single day of class, BU shifted course and went to a Zoom-based, online teaching format.

"I was very confident that the faculty could do this, and I knew the technology was capable of supporting it," Dellarocas says. "I thought the learning curve was not as steep as people feared."

In this BU Today video, Binyomin Abrams, master lecturer of chemistry at the Boston University College of Arts & Sciences, teaches his first class remotely and talks about the challenges and rewards of remote teaching and learning during the COVID-19 pandemic.

VIDEO LINK

Building the Foundation

The Remote Teaching Readiness Plan rested on two key pillars: 1) provide technological and pedagogical guidance and 2) create a community of peer-to-peer faculty support across all our Schools and Colleges. Information Services & Technology (IS&T), led by Tracy Schroeder, and DL&I's EdTech team, led by Ernie Perez, quickly mobilized, scheduled technology trainings, and developed a series of "how-to" guides. Dr. Deborah Breen, director of the CTL, spearheaded the development of pedagogical guides to help faculty navigate the remote teaching environment.

Working on the frontlines, over two dozen faculty and staff were called upon to join the newly created Remote Teaching Coordinators (RTCs) community. RTCs leaned on EdTech and the CTL for resources and guidance, and the community passed along its expertise to faculty. From the beginning, the RTCs were "highly capable and very positive," Dellarocas says, calling RTCs the "unsung heroes of the spring semester's move to remote."

To further support faculty during the transition, DL&I created a Remote Teaching at BU Faculty Resource hub, which housed dozens of newly created CTL, EdTech, and University-wide guides for teaching in a remote environment.

Learn *from* Anywhere

SPRING, FALL 2020

As the spring semester unfolded on campus, coronavirus cases continued to surge, and the global death toll was on the rise. On March 17, 2020, in an unprecedented move reflective of uncertain times, Boston University leadership announced the extension of remote teaching and learning through the end of the spring semester.

BU needed a long-term plan.

On June 1, the University announced the L*f*A blended modality. "The L*f*A format lets students decide how to take classes, based on their needs and their comfort level," said BU President Robert A. Brown in a BU Today interview. "BU students have the option to either be in the classroom in person or to participate remotely from their dorm room or off-campus home, and they can exercise that remote option at any time during the semester. L*f*A also enables the University to provide the necessary social distancing in classrooms, studios, and laboratory spaces."

Dellarocas was appointed chair of a newly formed Remote and Online Working Group. The group—comprised of Sue Kennedy, senior assistant provost for academic affairs and associate provost ad interim for Undergraduate Affairs; David Cotter, assistant provost for Graduate Enrollment; Tanya Zlateva, dean of Metropolitan College; Perez, DL&I EdTech director; and Linda Jerrett, director of Learning & Event Technology Services (LETS)—was charged with implementing the Learn *from* Anywhere (L*f*A) modality. The group was one of five working groups established by the University's COVID-19 Recovery Plan.

"Our working group's task was to make L*f*A real. Ensure that, by the end of the summer, our classrooms and faculty were ready to serve our students in this new way of teaching and learning," Dellarocas says.

DL&I Contributions to COVID-19 Response

→ Developed spring Remote Teaching Readiness Plan

→ Created and coordinated Remote Teaching Coordinators community

→ Developed training materials and faculty resources

→ Led Learn *from* Anywhere implementation

→ Trained and coordinated Faculty Coach community

→ Collaborated in classroom technology and Classroom Moderator implementation

→ Led development of 2020 Online Orientation

By the Numbers

137	Faculty Coaches
100+	EdTech and CTL trainings
30+	CTL and EdTech guides created
50+	Remote and hybrid training videos
440	Classroom Moderators hired

Digital Learning & Innovation Is Called to Action

The University-wide endeavor to move to the L*f*A hybrid format called upon an army of staff and resources from DL&I, IS&T, BU leadership, faculty and deans, and student workers. DL&I contributed to this unprecedented effort by:

→ building a faculty mentoring program,

→ expanding the use of Blackboard and creating and managing the Pedagogical Partnerships Blackboard faculty resource site,

→ hosting 100+ EdTech and CTL workshops and trainings,

→ developing an L*f*A Classroom Moderators initiative, and

→ launching BU's L*f*A Faculty Resource hub.

CTL Pedagogical Partnerships Blackboard Site

Pedagogical Partnerships, a Blackboard site created by the CTL, is dedicated to teaching and learning resources to support faculty. The site opened in summer 2020 as part of the training effort for Faculty Coaches but is also open to all full-time and part-time faculty. An earlier version of the site, Resources for Remote Teaching, was directed toward supporting instructors teaching in the summer term, while a modified version of Pedagogical Partnerships was also made available for graduate teaching fellows. While the CTL staff created or curated many of the resources on these sites, faculty have also contributed by submitting ideas for teaching strategies to discussion forums and examples of resources and assignments. Pedagogical Partnerships is a dynamic site that will continue to grow and highlight "best practice" within teaching and learning while also showcasing the pedagogical work of faculty across BU's campuses.

Educational Technology Trainings, Guides, & Tutorials

DL&I's EdTech team continued its mission to support the technological needs of faculty and hosted dozens of trainings on topics that include Zoom, Blackboard, ePortfolio, Pronto, Google Jamboard, MyMedia, and more. For the summer 2020 semester and throughout the fall, DL&I's EdTech team partnered with MET College Educational Technology & Innovation and continued a strong and steady pace of weekly workshops. A training video library was also created to support remote and hybrid teaching faculty.

To further prepare faculty for the fall semester, the EdTech team developed a variety of guides—Blackboard Ultra, Advanced Zoom Tips & Tricks, Five Reasons to Use Google Jamboard, Whiteboard Alternatives Using Zoom, technology checklists, and more. EdTech Director Perez developed an L*f*A classroom technology video series with companion audio video adapter guides.

Faculty Coaches: "We're all Learning from Anywhere"

It is well documented that peer-to-peer learning promotes community engagement and collaborative thinking.

This is the foundation for the L*f*A Faculty Coaches model.

To provide support to more than 4,000 BU faculty, a decentralized model of training and support needed to be developed.

The CTL worked with deans and associate deans across all BU campuses to recruit 137 Faculty Coaches. According to Breen, who was charged with training the Faculty Coaches, the peer mentors were instrumental to the remote readiness process.

"The coaches are doing an incredible job in extending teaching and learning support throughout BU," Breen says. "We couldn't have implemented LfA without them."

DL&I Launches LfA Faculty Resource Hub

As the development of LfA resources multiplied, the need for a centralized faculty resource hub quickly became a necessity. The DL&I Communications team, led by Maureen McCarthy, collaborated with University-wide partners— BU and DL&I Leadership, the CTL, EdTech, DL&I design, IS&T, LETS, Disability & Access Services, BU Libraries, and others—to create an LfA faculty resource website. To further support the dissemination of information, DL&I email and social media efforts delivered LfA technology news, pedagogical information, and thought leadership content to BU faculty and staff.

Leading the Charge: The $7 Million Story of BU's Hybrid Teaching Transition

In this story, BU Today chronicles Boston University's most profound instructional change in memory. Read about the project involving dozens of DL&I staff members, dozens more from IS&T, 200 faculty, deans and leadership, and 500 undergraduate and graduate student workers.

Video courtesy of BU Today

VIDEO LINK

The Power of Classroom Collaboration

Hundreds of LfA Classroom Moderators were hired and trained by IS&T. According to Perez, who manages the initiative's operational budget, the role of a Classroom Moderator is twofold: to handle technical difficulties with Zoom instruction and to facilitate interaction and active learning by monitoring questions from remote students.

"The response was overwhelmingly positive on all fronts," Perez says. "We received 1600 moderator requests, 900 student applications, and hired 440 student workers, across 450 classrooms. To say 'it takes a village' is an understatement."

Assessing LfA and the "New Normal"

The CTL and EdTech are partnering with the College of Arts & Sciences in a research project that will document and analyze the varieties of hybrid and remote teaching and learning experiences of LfA. The project runs from October 2020 to May 2021 and will encompass surveys, focus groups, and interviews with Faculty Coaches, faculty, Classroom Moderators, and graduate and undergraduate students. Parallel to this research project, the CTL will also document the experiences of Faculty Coaches and faculty in other Schools across BU's campuses.

Building Community:
Lightning Talks Summer/Fall 2020

In response to the growing need for faculty experience sharing, Digital Learning & Innovation and the Center for Teaching & Learning launched the Remote Teaching & Learning Lightning Talks speaker series.

The ongoing series serves as a reflection and learning forum where Boston University faculty, students, and invited guests identify areas of challenge and opportunity and share strategies for engaging educational experiences in the remote and hybrid learning environment. The peer-driven series focuses on a variety of topics, including fostering classroom community, building the inclusive classroom, hands-on teaching, student experiences, and more.

The Lightning Talk series has, so far, welcomed 50 faculty and student presenters from across all BU campuses, ten moderators from BU leadership and staff, and nearly 2000 attendees.

"These talks would not be possible without the willingness of BU faculty and student presenters to take the time to share their remote teaching and learning ideas and strategies," says CTL Director Breen. "Our BU faculty community is immeasurably strengthened by the contributions of these presenters and the contributions of all in attendance." View recordings here.

Reimagining Student Orientation

Photo: Daily Free Press

BU's COVID-19 response also called for reimagining the Summer 2020 Student Orientation experience. For the first time in 132 years and as a result of the pandemic, the University forewent the traditional in-person, multi-day event and was tasked with creating a virtual student experience via Zoom and Blackboard and developing an interactive BU Orientation website.

In less than two months, an energized and innovative team of approximately 20 from BU's Dean of Students Office, Enrollment & Student Administration, Digital Learning & Innovation, and external partner Jackrabbit LX did just that.

"Aside from developing the typical Orientation components—academics, exposure to the Howard Thurman philosophies, safety compliance, etc.—[the planning team] envisioned an environment that would allow students to develop meaningful and lasting connections with their peers and with the University beyond the Orientation experience," says Diana Marian, DL&I project lead.

DL&I support included providing video/media production expertise, serving as project lead specific to the self-paced Blackboard course offered to students, and providing instruction around the community-building platform Yellowdig.

BU's Summer 2020 Student Orientation successfully launched on June 4—morphing from the traditional 29-hour, on-campus program to a series of summer virtual engagement experiences serving nearly 4,500 incoming first-year and transfer students and College of General Studies January 2020 students.

"It is amazing what can be accomplished by the determined [BU team] who had a goal of creating strong transitions for new members of our community, says BU's Student Orientation Director Shiney James (CAS'99). "The commitment of time, energy and resources was extremely evident in the creation of our remote Orientation."

Boston University and its Questrom School of Business had a new and progressive vision for 2020: to launch the University's first Online MBA (OMBA), with a disruptive price tag of $24,000.

With support from DL&I's Digital Initiatives and Educational Technology teams, the Online MBA project launched in fall 2020 with a global cohort of nearly 400—twice the size of the original forecast.

"With Questrom's Online MBA, Boston University has dynamically entered the promising, yet largely unexplored, space of 'affordable degrees at scale,'" says Dellarocas. "DL&I's mission is not only to help Questrom successfully offer an ambitious new degree but also to develop institutional capacity that will enable BU to offer scalable quality education to a global audience at a more affordable price point in the near future."

DL&I Contributions

A key challenge of large-scale online programs is offering students an engaging, personalized experience with sustainable resource requirements. Throughout the 15-month project development process, learning designers and media producers from the Digital Initiatives team worked with program faculty, learning facilitators, and relevant staff on the multimedia production, course design, and building of the OMBA.

"We are thrilled to be working with a cutting-edge, integrated MBA curriculum—one that leverages the expertise of Questrom faculty and offers the design opportunities of an at-scale, rigorous experience for the contemporary global learner," says Digital Initiatives Director and DL&I OMBA Project Lead Romy Ruukel. "The collaboration between our Instructional Production Services group and Questrom faculty and staff is resulting in a program that challenges the status quo of MBA offerings, leveraging peer interaction and online communities to offer a highly engaging student experience at scale."

Building Questrom's Online MBA

Building Questrom's Online MBA (continued)

DL&I's EdTech team supported the project by investigating and implementing a technology infrastructure that supports the program's unique needs. These technologies include Blackboard as the Learning Management System (LMS), the primary delivery method for the online courses; Yellowdig, a tool used for discussions and community building; and FeedbackFruits to enable rich peer feedback, a cornerstone of the at-scale-program. The latter two are built into Blackboard as Learning Tools Interoperability (LTI) tools, which allow for seamless interfacing between Blackboard and the other selected tools.

Responding to COVID-19

In March 2020, as a result of the global COVID-19 pandemic, BU abruptly transitioned to a remote teaching and learning environment. This massive campus-wide undertaking also impacted the production of Questrom's Online MBA.

"COVID-19 added an extra challenge to all of our production schedules, recording space allocations, and, of course, precautionary procedures and processes," adds Ruukel.

The OMBA team of 40+, including 19 from DL&I, adhered to new health and safety requirements; addressed production changes, logistical challenges, and new technology requirements; and kept the project moving forward.

"Every aspect of this program has been new or encountered an unexpected change, from an innovative curriculum and additional staff members joining our team to technology pilots and procedures to meet necessary pandemic protocols," says Ruukel. "In light of all that, everyone has done and continues to do a fantastic job under tremendous pressure and high expectations."

Unveiling the OMBA & Looking Ahead

August 2, 2020, marked the start of Questrom's Online MBA Orientation for an inaugural cohort of nearly 400, with Module1 (Creating Value for Business & Society) launching on August 30.

Looking ahead, Susan Fournier, Allen Questrom Professor and Dean of the Questrom School of Business, predicts that Questrom will admit a similar number next spring, and, by 2023, hopes to have more than 1,000 Online MBA students—more than in the on-campus MBA programs.

For DL&I, Ruukel says Instructional Production Services will continue to collaborate on the design and production of all of the upcoming modules—the sixth of which will launch in summer 2021—and "continue to support the program through some of the necessary modifications until it reaches a steady state offering in the coming years," she says.

By the Numbers

40+ OMBA project team members

19 DL&I team members

75+ Videos produced by Instructional Production Services

850 OMBA candidates applied for its first cohort

400 Nearly 400 students participated in the inaugural fall 2020 cohort

Photo: BU Today, Chris McIntosh

Transforming Teaching and Learning at BU

Teaching With XR

In early spring 2020, DL&I's Educational Technology team, in partnership with the Digital Education Incubator and Center for Teaching & Learning, launched the Teaching with XR Faculty Demonstration & Exploration series. Hosted in two locations—Boston University Medical Campus and BU's Kilachand Center—the hands-on demonstrations welcomed dozens of BU faculty, staff, and leadership and explored the purposeful use of augmented, virtual, and extended reality (AR, VR, and XR) technologies in higher education.

The demonstrations showcased the Incubator- and EdTech-supported pilot project Using VR to Address Social Determinants of Health (SDoH)—a VR educational experience designed to teach students how to interview patients about social matters affecting health virtually. BU Today wrote about the project, led by Pablo Buitron de la Vega and developed by BU's School of Medicine and School of Social Work.

Leveraging Learning Analytics

DL&I brought learner analytics reporting to the forefront with the hiring of Qiyuan Li—BU's first data modeler to work solely on learning analytics.

Throughout the year, DL&I's EdTech team expanded its reach working with campus stakeholders—Registrar, Institutional Research, IS&T, Office of Distance Education, colleges, departments, and others around campus—to build usable analytics dashboards for students, faculty, and administrators to advance teaching and learning at our institution. The Online MBA program through BU's Questrom School of Business is the first program DL&I worked with to build and deliver these learning analytics dashboards.

Transforming Teaching and Learning at BU

(continued)

Mentoring & Lifelong Learning

Learning is a process that does not end at graduation but needs to continue throughout a person's entire career (and life). In a higher education landscape full of challenges, lifelong learning and mentoring opportunities are promising areas of future growth.

In support of these growth opportunities, the Digital Education Incubator and the Center for Teaching & Learning launched several innovative approaches to service lifelong learners at BU and beyond, engaging faculty and alumni to proactively foster long-term mentoring relationships with BU and the workforce.

INTERPROFESSIONAL LEADERSHIP IN HEALTHCARE CERTIFICATE USING AN ALUMNI MENTORING APPROACH

Utilizing alumni as mentors, this Incubator project—a collaboration between the College of Health and Rehabilitation Sciences: Sargent College and the School of Social Work — will create a non-credit online certificate in Interprofessional Leadership in Healthcare. The certificate will highlight the vast experiences of Boston University alumni by engaging them as e-mentors in five one-month online courses. The certificate is designed to increase healthcare professionals' skills and knowledge in interprofessional leadership.
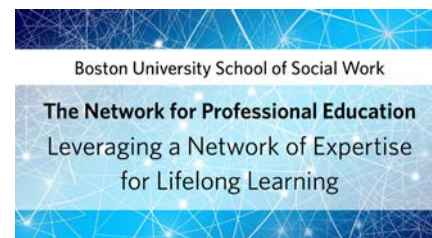
THE NETWORK FOR PROFESSIONAL EDUCATION

Boston University's School of Social Work is developing a portal designed to engage BU alumni in nationwide workforce development training. The Incubator pilot project aims to leverage qualified alumni as trainers, thus both organically engaging alumni in the life of the School and significantly expanding its capacity to serve as a nationwide workforce development training.

SCHOOL OF THEOLOGY'S ONLINE LIFELONG LEARNING PROJECT

With support from the Incubator, the School of Theology (STH) launched an Online Lifelong Learning pilot project in spring 2020. The program offers practical mini-courses and spiritual reflection groups on emergent topics of interest to BU alums and other people in the faith-based community. The pilot will allow STH to assess the best avenues for sustainable online lifelong learning for faith-filled and justice-driven leadership.

CTL ADOBE CATALYST PROGRAM (ACP)

ACP faculty mentoring program provides a virtual learning space for experienced BU faculty/Adobe users (catalysts) to mentor colleagues who wish to use Adobe Creative Cloud in their classes. Twelve faculty mentees—from a range of colleges, departments, and programs—share their pedagogical goals for incorporating digital design into their teaching and student projects. Four catalysts—from College of Communications, College of Fine Arts, and College of Arts & Sciences Writing Program—shared their expertise with specific Adobe applications to help their mentees reach these goals.

News Across Digital Learning & Innovation

THE CENTER FOR TEACHING & LEARNING RE-ENVISIONED

Breen, the new CTL director, joined BU on January 2 with a vision for supporting and extending peer-to-peer learning opportunities for faculty and graduate students. In 2020, and in addition to COVID-19 Response and mentoring advancements, the CTL collaborated with faculty to support the production of new resources, especially through the work of CTL Faculty Consultant Pary Fassihi. Furthermore, HUB Teaching Excellence Faculty Fellows facilitated a virtual gathering for faculty to share remote teaching experiences.

Amidst the challenges of teaching and learning in the pandemic, the CTL continues to strengthen pedagogical partnerships at BU and is dedicated to building on these partnerships to develop programs and training opportunities in 2021.

EXPANDING LEARNING COMMUNITIES

AR/VR Faculty & Staff Community: During the fall of 2020, EdTech and the CTL co-launched the faculty and staff community group designed to explore the purposeful use of augmented reality (AR), virtual reality (VR), and mixed reality (MR) in higher education.

Teaching with Technology Faculty Community: The faculty-focused group broadened its reach in 2020 and hosted a series of technology discussions, including: "Strategies of Blended Course Design and Teaching," "Engaging Student Participation Online," and more.

Teaching Fellow/Teaching Assistants Community Connection: CTL collaborations with graduate students include the Graduate Teaching Consultant (GTC) program, with GTCs supporting programming and developing teaching resources. Fall programming began with Virtual Coffee Hours for Teaching Fellows, a forum for graduate students to discuss teaching in the L*f*A classroom.

NEW TECHNOLOGIES

In 2020, the Educational Technology team launched several new BU-sponsored technologies, including **Examsoft** assessment software; Blackboard Ultra base navigation; Pronto's live continuous chat communications tool; and **Google Jamboard**, a digital whiteboard that allows for remote or in-person collaboration where users sketch out ideas, problem solve, or draw collaboratively and synchronously on a shared space.

SHARING LESSONS LEARNED WITH COMMUNITIES BEYOND BU

Campus Technology, October 2020: CTL Director Breen was a featured presenter at the Campus Technology Distance Learning Summit, Higher Education's New Normal virtual event, and hosted a Zoom presentation titled, "Building Community: Lessons Learned from Remote Teaching and Learning."

EdTech Director Perez was named a Campus Technology Advisory Board member in fall 2020. In this role, Perez will inform and advise on technology topic ideas and speakers to support the higher education IT community.

EDUCAUSE 2020: DL&I staff contributed to the 2020 EDUCAUSE Annual Conference and published the following articles:

→ Change Management Strategies in the Remote and Hybrid Teaching Environment

→ Building Community in the Remote & Hybrid Teaching Environment

→ L*f*A Classroom Moderators

→ The Promise of Anti-disruption Innovation

→ Introducing Digital Multimedia Expression into General Education at BU

→ 2020 Top 10 IT Issues