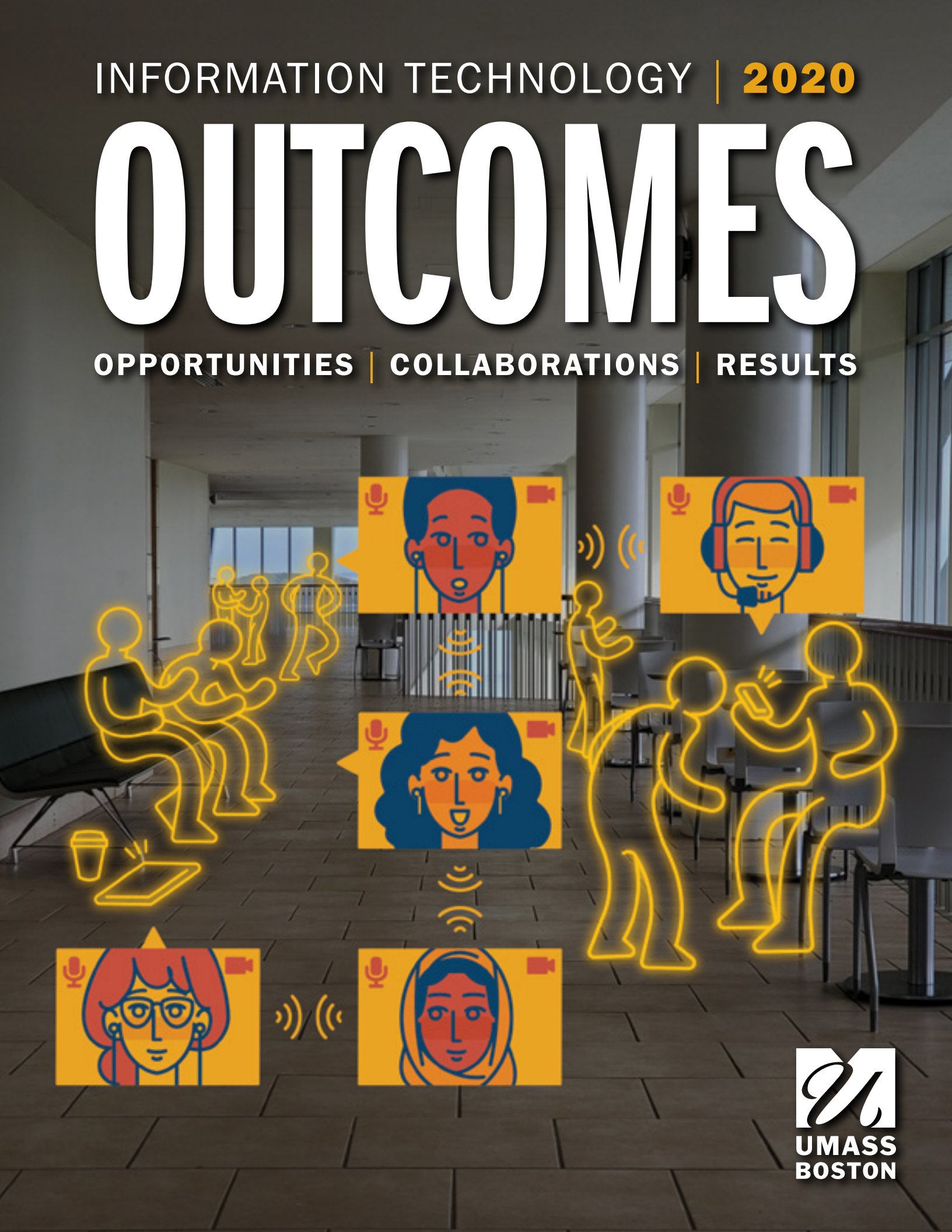
INFORMATION TECHNOLOGY | 2020

OUTCOMES

OPPORTUNITIES | COLLABORATIONS | RESULTS



UMASS BOSTON

INFORMATION TECHNOLOGY | **2020**

OUTCOMES

OPPORTUNITIES | COLLABORATIONS | RESULTS

IN THIS ISSUE

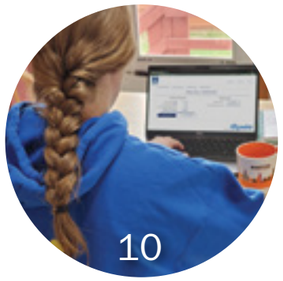
2-3 **ENRICHING STUDENT LEARNING**
Center for Clinical Research

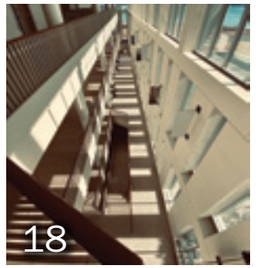
4-5 **ENHANCING COMMUNICATION**
EMMA Email Marketing
Project Management Office
UMass Boston Online

6-7 **STAR PERFORMERS**
PACE
Student Recognition
Guneeti Sharma

8-13 **INCREASING EFFICIENCIES**
CloudPC
Flywire
WEPA
IHub Data Center

14-29 **OPERATION DIVIDE AND CONQUER**
Our Lockdown Story Begins
LiveChat
Instructional Continuity
Honorlock
Echo360
eSignature
Get IT Loaner Program
Loaner Laptops and Chromebooks
Getting Together
Zoom and Teams
Immersive Reality
Online Orientation
IT CARES
Procuring Technology
IT Communications
Our Story Continues





INFORMATION TECHNOLOGY OUTCOMES | 2020

Information Technology Outcomes (IT Outcomes) is a magazine highlighting the many collaborations between IT and members of the UMass Boston community.

Vice Chancellor and CIO
Raymond Lefebvre

Art Director
Rose Coveney

Managing Editor
Karen Booth

Production Manager
John Mazzarella

Layout Designer
Allison Gross

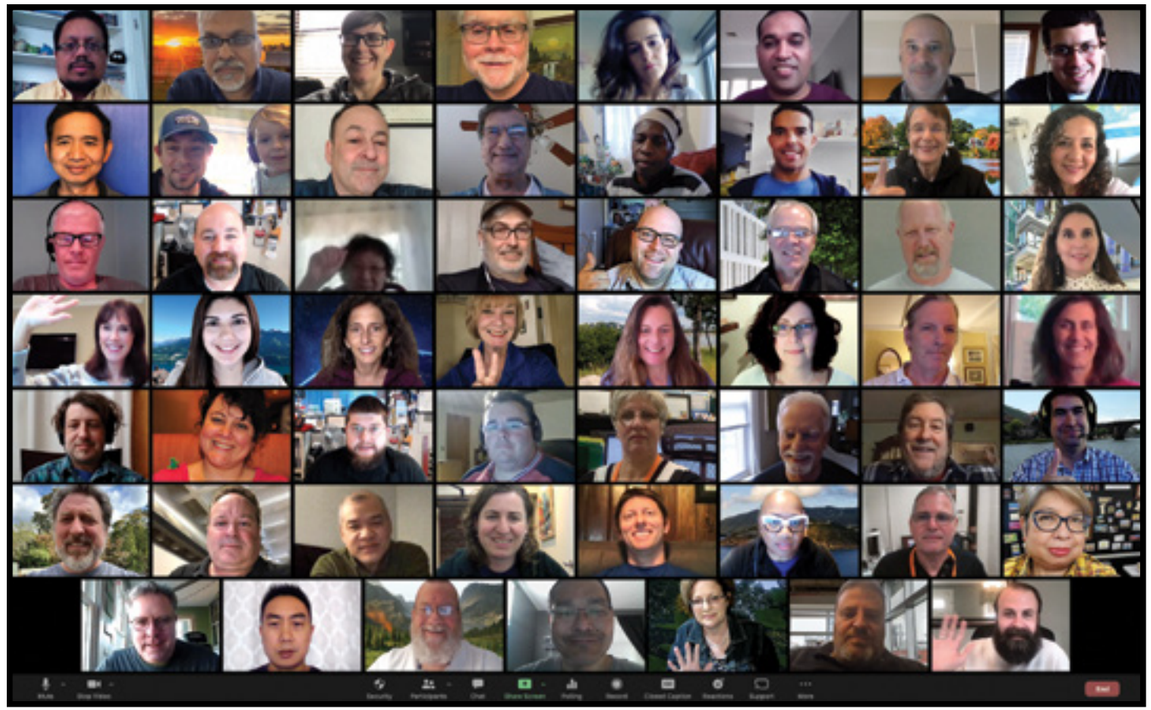
Copy Editor
Peter Grennen

Illustration Credits
Allison Gross (Cover)
Isa Almeida (p. 4, 6, 7)

Photo Credits
John Mazzarella (p. 1, 10, 11, 14, 17, 21, 22)
Lisa Link (p. 1)
Colleen Locke (p. 3)
Jamie Soule (p. 13, 15, 16, 17)
Ellen Foust (p. 18, 27)
Ssam Samidinov (p. 19)
Joy Yu (p. 23)
Marc Occil (p. 25)
Maggie Mazzarella (p. 27)
Jouliana Bosneva (p. 27)
Michael Panchu (p. 27)
Rose Coveney (p. 28)

We welcome your inquiries and comments. Please direct them to:

Information Technology Services
ITServiceDesk@umb.edu
617.287.5220



Welcome!

Remember when we could walk down the hall and ask a colleague a question? Hand over a critical document? Brainstorm ideas? Remember when we actually connected with each other on campus? Held our meetings in person? Met colleagues in the Campus Center for lunch?

Then along came the big disrupter—COVID-19. With no time to prepare, we all had to pull together not only to survive but also to thrive in our new normal. Hello virtual meetings, Zoom conference calls, electronic signatures. Welcome avatar stand-ins as we explored the wider use of Immersive Reality.

IT Outcomes has always been about successful collaborations, but IT Outcomes 2020 takes successful collaborations to a whole new level. Honestly, what UMass Boston's IT staff has accomplished within a compressed timeline is nothing short of amazing.

As time has gone by, I have become more and more impressed with the maturity of our IT organization, but no more so than now. The inherent capabilities and capacities of each member of IT are immense. Despite the need to work remotely, they have met UMass Boston's demand for business and instructional continuity with creativity and confidence.

Throughout this publication we share stories about opportunities, collaborations, and results—where people + technology = success; and within the section titled "Operation Divide & Conquer," we share more successful collaborations with more than a nod to the reality that though the IT staff members have been physically divided location-wise, they have conquered each challenge, demonstrating their deep commitment to the success of our students, faculty, and staff.

Prior to COVID, we, as a team, had begun working together to talk about our collective desired future state. Who do we, as a team, want to be? As an IT organization? How do we go about pursuing opportunities to bring about positive progress?

In 2019, we embarked on a 10-step visioning process with each member of IT contributing to the dialogue. The goal: articulate our mission, vision, and values (see back cover for details). And now, it is our solemn intent to fulfill our mission, achieve our vision, and live our values.

I believe, in part, that the strength of the UMass Boston IT team's response to the challenges presented by the COVID-19 pandemic is rooted in the knowledge that each of us plays an equally critical role in ensuring success as we move forward.

IT staff members have been carrying the success of business and instructional continuity on their shoulders since January 30, 2020, and should feel pride in what they have, individually and collectively, accomplished. I feel immense pride in IT's accomplishments and present IT Outcomes 2020 as tangible evidence of these successes.

—Raymond Lefebvre, Vice Chancellor and CIO

Out with the Old, In with the Leading-Edge

Center for Clinical Education and Research (CCER)

Today, perhaps more than ever in recent memory, skilled nurses are critical, literally, to the health and well-being of our citizenry. UMass Boston's (UMB's) recent dismantling and subsequent relocating and building of a state-of-the-art nursing simulation lab gives UMB's nursing students the confidence and competencies they need to excel.

The task for everyone involved was staggering. An archaic 3,000-square-foot lab built in 2008 morphed into a 21st-century, 10,000-square-foot, state-of-the art facility relocated from the old Science Building to the Quinn Administration Building.

"Morphed" is a bit of a misnomer, as the move required months of planning, all well worth the effort. Gone the crowded space, outdated mannequins, and antiquated technologies. Here to stay, a teaching and learning center fit for the 21st century.

Rosemary Samia, director of the College of Nursing and Health Sciences' Center for Clinical Education and Research, called the remake a "game changer" with its four-room simulation suite, six out-patient exam rooms, a 40-seat classroom, 18 station computer labs, and two skills labs each with 10 patient bays.

"When students come into the lab, they are immersed into the sights and sounds of a hospital environment," said Samia. "We have multiple simulation opportunities for students to practice skills, make decisions, and implement nursing interventions in a safe environment. Dedicated simulation educators monitor students from a control room and program high-fidelity mannequins to provide real-time feedback."

"The mannequins hook up to a system called SimCapture, allowing a student to control them while sending valuable feedback to the instructors in the control room."

—Zack Ronald, Systems Analyst

But this game changer did not happen overnight. The successful project was the result of hard work and close collaborations between Samia and UMB's IT and facilities teams.

Zack Ronald, systems analyst; John Jessoe, manager of Classroom Technology and AV Services; Jeff Wade, chief audio-visual engineer; and Jamie Soule, director of Network Services, among many others, were all instrumental in transitioning the old lab to its new technologically advanced home. "The collaboration worked well," said Samia. "I knew what the lab needed to function, but I didn't know what needed to happen behind the scenes."

This was a huge effort from multiple IT teams, and from start to finish, it took well over a year.

Soule was critical to the planning phase. "In my role, I am liaison with the facilities department," he said. "When we design spaces on campus, I sit with the design team to ensure we have the right kind of network, fiber optics, and so forth. I helped Rosemary navigate through a lot of the technology needed to make things work. The Sim lab was a huge collaboration with UMB's facilities team. We're all very proud of the outcome."

This project was chockful of nitty-gritty details. Take the high-fidelity mannequins as an example. "The mannequins hook up to a system called SimCapture, allowing a student to control them while sending valuable feedback to the instructors in the control room," said Ronald.

The complexities and expense of the install and technologies compelled the teams not only to think current use, but also look to the future, something Ronald called "future proofing."

"In every scenario that we run, there is an acute issue that must be addressed immediately by the student," said Samia. "Depending on a student's intervention and response time, the 'patient' will respond accordingly. In simulation, one of the biggest elements is the debriefing phase that happens afterwards. It's crucial to explore the questions: 'What happened during the simulation, why it happened, and what led to the student's decisions?'"

Ronald said that this project started prior to the formation of the Project Management Office (PMO) and that a PMO would certainly aid in a project of this magnitude. However, he said, "From the very beginning, when you put the right people in place and everyone asks the right questions in the beginning, things go well. In my opinion, the IT aspect of this project went very smoothly."

CCER During the COVID-19 Lockdown

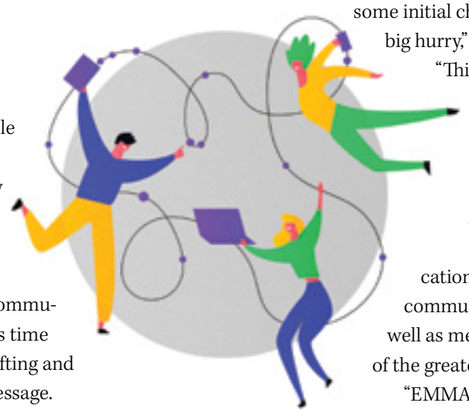
Prior to UMB's lockdown in March, students logged in over 36,000 hours in the new lab. But thanks to the creativity of Samia and her team, simulations continue even while students learn from home.

With minimal equipment from the lab and working with Ronald, Samia delivers simulations to students remotely via the university's Zoom equipment. "We use a shared screen with between 20 and 25 students each session. Students see on the patient monitor the vital signs change in real time based on the decisions they make."

Then simulation educators—also working remotely—zoom in and present a patient case. "We put an educator in scrubs and use a virtual background to increase fidelity."

Communicating Quickly and Efficiently

EMMA



Imagine having the wherewithal to send an email message to 15,000 people with one simple mouse click. Now imagine being able to track how many people received your message and how many opened it. And that's just for starters.

EMMA, a state-of-the-art email communications/marketing technology, saves time and can take the guesswork out of crafting and distributing an effective marketing message.

"EMMA provides a full suite of outputs and statistics," said Linda Modiste, assistant vice chancellor for Application Services. "For example, if only 10 percent of recipients look at your message, something is amiss. Maybe you're sending too much information. Maybe the title is wrong. With EMMA, you can track the effectiveness of your communication and adjust accordingly."

Launched with the communications office, graduate research, and IT just prior to the COVID-19 lockdown, there were some initial challenges. "We had to roll out EMMA in a big hurry," said Jim Wyse, director of Web Services. "This meant transferring users and getting everyone up to speed quickly. It was new to all of us. We had to train ourselves and then train the users." Wyse is happy to report that EMMA has been 100 percent reliable during lockdown.

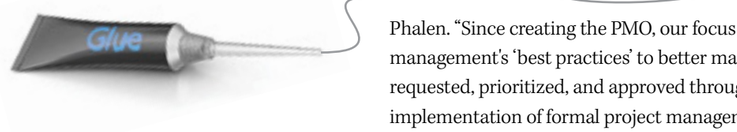
DeWayne Lehman, director of communications, is responsible for disseminating priority communications from the Chancellor's Office as well as media and website messaging. He said one of the greatest benefits for him is EMMA's speed.

"EMMA makes sending out an email blast to 15,000 people quick and easy," he said. "With the old system, it could take several hours for an email to be delivered, and when we needed to send out more than one message with thousands of recipients, it was a problem. Now, messages are sent instantaneously and received in real time."

As to his collaboration with IT, he said, "The Communications Office has had a long and healthy relationship with IT, so it's very natural for us to work together."

The Glue That Binds

PMO



It's simple. Project management is the glue that binds an organization together. Fosters teamwork. Builds relationships and realizes cost savings. And, importantly, a PMO ensures that each project aligns with an institution's mission, vision, and strategy.

For UMass Boston's new vice chancellor and CIO, Raymond Lefebvre, creating a formal Project Management Office (PMO) was a top priority when he started at UMass Boston in June 2019. Today, Terence Phalen, appointed director of the PMO, embraces all the challenges that come with the job.

"Before creating the PMO, project requests came from an email, a casual conversation, a walk down the hallway," said Phalen. "Since creating the PMO, our focus is to introduce project management's 'best practices' to better manage how projects are requested, prioritized, and approved through the development and implementation of formal project management business processes and documentation."

Managing work better means "full transparency—prioritizing requests, tracking each phase of the project, outlining project scope and deliverables, and producing weekly status reports for project executives and stakeholders." said Phalen. "If managed successfully, each project is implemented in the most efficient and effective manner, ensuring the overall project is delivered on schedule and meeting the expectations of the sponsor."

This process—and its transparency—goes a long way to building and nurturing relationships and, in the end, is crucial to producing results, driving innovation, and supporting business strategy.

Marketing in the Digital Age

UMass Boston Online

One of the many challenges a university faces is recruiting students to its fully online programs. When you're targeting a population that doesn't require a physical campus, there's a lot more competition. You have to meet prospective students where they are, which is to say, online.

A newly created microsite—UMass Boston Online—addresses this challenge. It's a story about process that speaks to the power of collaboration and communication.

In her new role as executive director and associate vice provost for Strategic Initiatives, Mya Mangawang approached IT to brainstorm a marketing solution that would feature all of UMass Boston's online and hybrid programs in one digital space. Mangawang invited Jonathan Lee, director of digital marketing for Graduate Admissions, to join the conversation.

"Before creating the site, we considered whether this was too big a job for us to pull off internally," said Lee. "We met with Ray Lefebvre [Vice Chancellor and CIO] and asked if we needed outside consultants. He said no; he'd assemble the right team and process.

"And he did. We proceeded with a project management approach, spearheaded by Project Manager Terry Phalen. We identified key stakeholders, communicated frequently, and moved forward as a cohesive team."

From a marketing perspective, the functionality of the site hosted at online.umb.edu couldn't be simpler: filter a list of online programs, click to a page of information about your chosen program, and fill out a brief form to express interest. UMass Boston registers a new prospect in their system, and the prospect gets personalized outreach from the program staff.

"What this does is consolidate all our online programs in one big bucket," said Linda Modiste, assistant vice chancellor for Application Services. "Before now, you couldn't approach UMass Boston from the sole vantage point of online learner."

The hard work is reflected under the hood. Marketing staff can add new programs, plug in new forms, and spin up specialized campaign pages without additional web developer help.

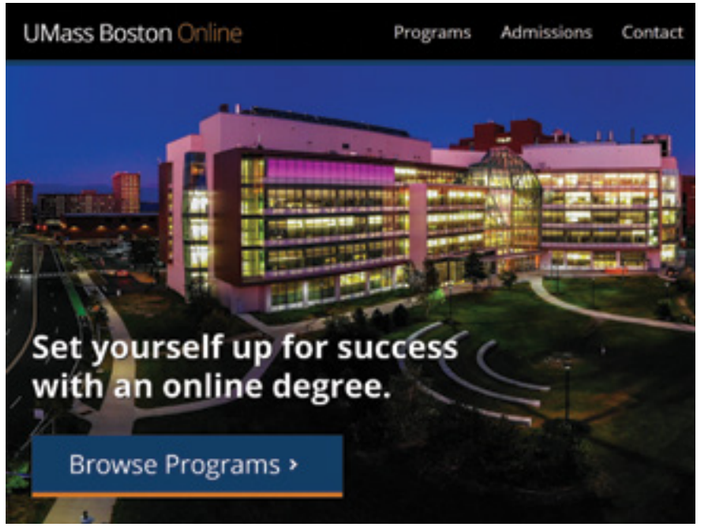
"IT has some great shop designers and developers who came up with really slick capabilities and a great look and feel for UMass Boston Online," said Jim Wyse, director of IT Web Services.

Since its launch in November 2019, the site has generated an average of 600 organic (read: free) leads per month and hosted several successful paid campaigns.

Phase Two of UMass Boston Online will take things a step farther, helping prospective non-degree students find and register for individual courses. That's no small feat—UMass Boston offers more than 1,000 courses a semester.

"The ultimate goal is to provide students with a shopping cart experience," said Modiste. "To execute that requires a lot of coordination between our team and the leadership team. We have that collaboration."

Mangawang is pleased with the results of Phase One. "This was a great opportunity to really explore and celebrate the creative talents of our own design and development team. I hope this effort will serve as a model for the future development of marketing-forward web design."



PACE Offers Undergrads Real-World Professional Experience

If you're looking for a win-win program, look no farther than the Professional Apprenticeship and Career Enhancement program at UMass Boston—PACE to those in the know. The brainchild of former interim chancellor Katherine Newman, the program is a way for freshman and sophomore students to gain real-world, professional experience early in their college careers.

That's one win. John Mazzarella, manager of training, communications, and marketing in IT Ed Tech and Learning Commons, identified the second win. "One of the things I like about the program is the idea that any full-time employee can become a student supervisor," said Mazzarella. "This is a great opportunity for a non-manager who wants managerial experience."

PACE apprentices can apply for positions on campus in a field that interests them or explore other options. The idea is, wherever they serve, these students will be challenged in ways similar to challenges they will face in their professional lives.

Isa Almeida is a graphic designer pursuing a second bachelor's degree in biology at UMass Boston, having earned her first in graphic design in Brazil. She worked with Mazzarella to support various marketing and communications projects related to IT services and is grateful for her PACE experience.

"My tasks involved learning the visual requirements of the IT office, designing various projects, and illustrating IT subproducts," she said. "John always had some very insightful suggestions for my work and helped me grow as a student and graphic designer."

Apprentice Prabin Tamang is equally grateful for the PACE program and the guidance of his supervisor, Alison Murray, senior information security specialist. Charged with helping to analyze threats, discover vulnerabilities, and track remediation, Prabin said, "I'm learning a lot about security in an organizational setting. Alison met with me via Zoom every week to assign tasks or answer questions."

Sayed Chowdhury is supervised by Scott Gilbert, senior network engineer. Chowdhury is tasked with assisting campus network engineer staff with the design, maintenance, documentation, and troubleshooting enterprise ethernet networks. An IT major, Sayed said, "I'm learning a lot about the necessity of having a well-planned enterprise network, its design, and its operations. Participation in the PACE program is helping me to understand my academic and course materials better."

So successful has PACE been that UMB is not only continuing the program this fall, but also expanding it. Mazzarella said that IT is "taking advantage of this expansion by retaining our existing positions and adding two more."

Supervised by Marla Filoso, system administrator, Tung Duong will work as Office365 system administrative assistant, working with account lifecycle, active directory, and data reconciliation.

Mentored by Apurva Mehta, associate chief information officer, Sam Hartman will act as UMass Boston's online program coordinator working with the Instructional Design eLearning team to help faculty teach online effectively and easily.

Judging from the comments of the current apprentices, the PACE program is meeting its objective to give students the opportunity to augment what they learn in the classroom with a real-world professional experience.

Congratulations Guneeti Sharma!

IT is proud to congratulate grad student Guneeti Sharma, who recently received the prestigious Master of Science in Business Analytics Prize for Academic Distinction, presented to her during the 2020 Virtual Honors Convocation Ceremony.

Marla Filoso, systems administrator and Sharma's supervisor, appreciated her enthusiasm. "Guneeti often came into the office excited with a new idea, a new twist because of something discussed in her classes, knowing it could help us too," she said.

"Working in a role within the Systems group as a data analyst, Guneeti was an integral component in assisting with the automation of much of the daily tasks, helping to streamline operations... Her attention to detail and technical acumen serves her well and will make her an ideal candidate for employment opportunities in the future," said Brian Forbes, director of Systems.

Student Leadership Awards

Necessity, they say, is the mother of invention. And certainly, during the unanticipated COVID-19 lockdown, plenty of folk have found lots of creative ways to rethink the old ways of doing things. Gone in-person celebrations of yesteryear; here, for a while, virtual affairs. And that's where creativity reigns supreme.

Salina Allen-Sharpp, executive assistant to Vice Chancellor and CIO Raymond Lefebvre, is one of those creative folks, and IT's Student Leadership Awards is one of these virtual affairs that recognized and thanked IT's student workers "for all they help us to accomplish," said Allen-Sharpp.

"Our in-person celebration attracts around 60 staff members, and I'm thrilled to report a virtual audience of between 55 and 64 staffers," she said. "Everyone was excited to see each other, and the students were so appreciative, all expressing how they love working for IT."

Day One: students received a personalized video from their supervisors, thanking and congratulating them for their accomplishments. Day Two followed with the presentation of a badge recognizing their achievements. Digital badges are awarded in educational and professional industries to mark an accomplishment or newly learned skill and can be displayed on a LinkedIn profile, social media, or resume.

Day Three: all of IT's student employees received a certificate of appreciation. Additionally, each of the nine departments within IT presented a Student Leadership Award acknowledging efforts and accomplishments above and beyond the norm. In addition to a certificate of appreciation, the nine student employees selected to receive the IT Student Leadership Award also received a letter of reference along with a special "IT Student Leadership Badge."

"Events like the student leadership awards celebration speak to us as a family," said Allen-Sharpp. "In this case, we let the students know they are valued, and they appreciated it."

Student Leadership Award Recipients

Kidist Girmay
Jenish Nitinbhai Gandhi
Shawn Reardon
Jared Shah
Joshua Tendo
Guneeti Sharma
Lara Kheireddine
Olabode George Igandan
Birva Sevek

Stills from the 2020 IT Student Recognition Tribute Video

Welcome to CloudPC

New to campus, CloudPC is like a streaming computer. Users can operate a powerful Windows PC with a suite of useful software as if they had a brand-new computer at home, but can use any device available—Mac, Windows, Linux, Chromebook, Android, iOS. The choice is theirs to make.

So, when you think CloudPC and its many benefits to students, faculty, staff, administrators, and leadership teams, think "Cloud 9," a euphemism for things that are even better than excellent. Not to be overly dramatic, but CloudPC on the Microsoft Azure platform pretty much takes you to that happy place.

In the planning stage prior to COVID-19, CloudPC's launch moved into emergency mode with the announcement of the university lockdown. It was all-hands-on-deck; less immediate projects were put on temporary hold to ensure that UMass Boston's students, faculty, staff, and administrators were well equipped to learn, teach, and work effectively and efficiently without missing a beat. The result: CloudPC is a fully functioning Microsoft windows desktop accessible to all members of the UMass Boston community 24/7 from literally any device, anywhere, anytime.

"The fact that these apps operate virtually is a huge cost savings for students, who no longer have to purchase their own license."

—Rocky Haggard, Software Support Specialist

"The advantage to our students was immediate," said Terence Phalen, director of the Project Management Office. "Anyone with an outdated or poor-performing laptop, or a Chromebook with limited operating capabilities, gained the ability to access a powerful Windows PC in the cloud with preinstalled software applications like those in the teaching labs."

Brian Forbes, director of Systems, added that although IT had engaged with Microsoft to build an environment in the Cloud prior to the COVID-19 lockdown, the transition would have happened much more gradually, but given the necessity of preserving business and instructional continuity, time was of the essence.

"Continued productivity was absolutely critical. We needed to get things up and running right away," said Forbes. "With the transition to 100 percent Cloud-based services, we were able to give students, faculty, and staff instant access to all the tools they needed to keep the university running smoothly."

A second component of CloudPC gives administrators the ability to publish applications independent of the actual virtual desktop. "Sometimes, a person doesn't need the whole desktop and just needs a specific app," said Phalen. As it stands now, many of those discipline-specific apps can only be downloaded to a university computer, and that is clearly not an option in today's remote environment. SPSS, a statistical software package used by graduate students and faculty when conducting research, is one example.

"Any request for a specific app comes to me," said Rocky Haggard, software support specialist. "And every app has a different set of rules for use. The fact that these apps operate virtually is a huge cost savings for students, who no longer have to purchase their own license."

In addition to processing requests for specific apps, it is Haggard's job to be sure all the licensing agreements are met. Once the student or faculty member's identity is validated, authorization for use is granted.

Professor Holly Jacobs, director of program evaluation for the Center for Social Development & Education, utilizes SPSS and is a fan. "I ran some functions in SPSS on CloudPC and love it. It's so fast. I opened the largest data set we have—over 4,600 variables and over 7,800 cases—and it handled it like a champ, running things within seconds. I was able to open files from OneDrive and save them as new versions. They appeared back in my OneDrive and synced up in maybe five seconds."

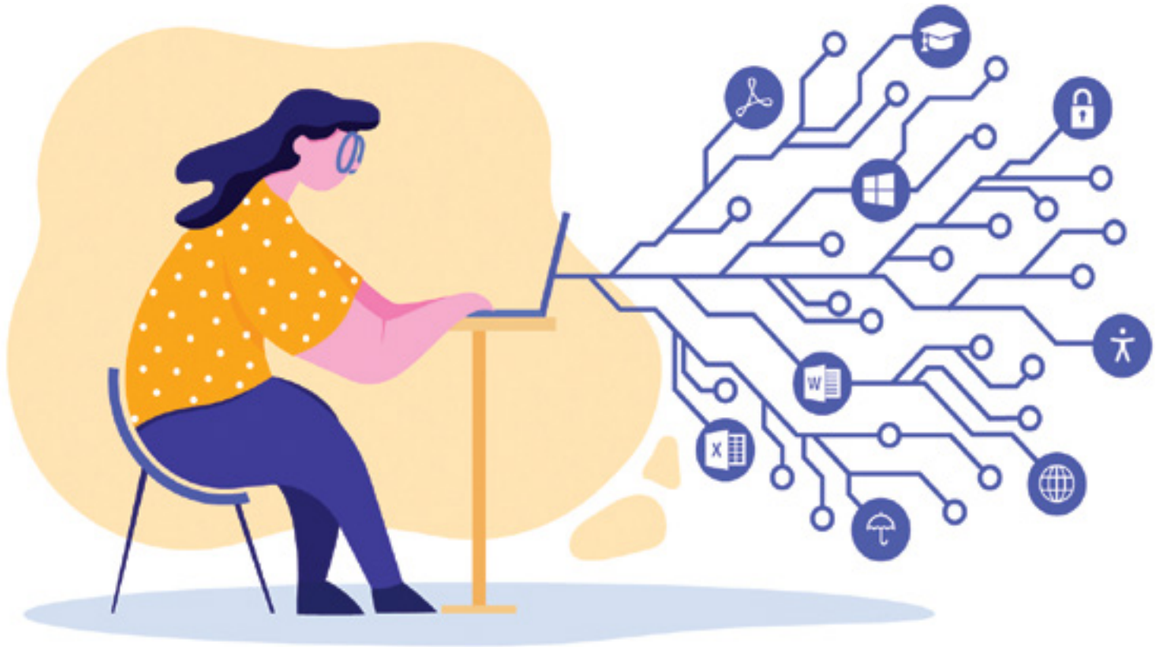
CloudPC also has the potential to provide administrative staff members with a virtual environment to support their work, which means UMass Boston could eliminate expensive PCs and replace them with similar but less expensive devices. The savings are immediate and substantial, not only in terms of the cost of the hardware, but also in maintaining, upgrading, and supporting the hundreds of desktops on campus.

Phalen cites a huge advantage to students as well. "Operationally, if we can take CloudPC to where we want to go," he said, "we'll be able to provide students with access to technologies that eliminate any need to buy expensive PCs."

All of which translates into a win-win-win—for students, faculty, and staff.

"I ran some functions in SPSS on CloudPC and love it. It's so fast. I opened the largest data set we have—over 4,600 variables and over 7,800 cases—and it handled it like a champ, running things within seconds."

—Holly Jacobs, Director of Program Evaluation for the Center for Social Development & Education



Flywire

Student Billing and Payment

Back in the day—read a few months ago—student billing and payment was, in a word or two, an arduous experience for students and their families. How much is owed? How to pay? Where to pay? When to pay—for tuition, room and board, various fees, etc. This whole process required time-consuming toggling between different systems and numerous departments. And in the end, satisfaction was not guaranteed.

Enter Flywire—the simple, easy, efficient bill-paying system that took the arduousness out of the equation. "We were looking for a holistic way for students to look at their entire financial package when making a payment," said Terence Phalen, director of the Project Management Office.

"Flywire is real-time. This is important," he said, "because when students have financial challenges, their decision as to how and when to make a payment must be supported with the most up-to-date information—real-time processing provides that insight.

"When students have financial holds on their class registration, advisors can now see that payment real-time and release the hold immediately, allowing students to proceed with their registration without having to wait for the payment to post."

Jimmy Sam, bursar, is pleased with the real-time functionality of the system, which, as Phalen indicated, records a payment within minutes. The advantages, he said, are many. "Students can easily see how much they owe," said Sam. "They have options—full payment, partial payment. They can set up a monthly payment plan with no interest. Flywire is convenient and easy to use."

UMass Lowell spearheaded the introduction of Flywire on their campus and, supported by the UMass President's Office, they deployed the new platform to great success. The contract was written in a way that left the door open for both UMass Boston and UMass Dartmouth to join the initiative, which Boston has done and has experienced the same positive outcomes as its sister institution.

"On June 1, while in the process of validating the production data," said Phalen, "we were amazed to see the number of transactions coming through, all successful. It was exciting. By the end of day one, students had posted $821,000 in payments. As of August 31, 2020, students have performed 8,560 transactions totaling $19.5 million in payments. In addition, we have approximately 1,200 students who have taken advantage of the UMass Boston payment plans now available through Flywire."

We Print Anywhere

WEPA Integration

Remember when laptops liberated us from the confines of our desks and gave us the flexibility to work anywhere, anytime? Well, WEPA print kiosks are right up there when it comes to printing anywhere, anytime. Now add "from any device," and you have the full picture.

Launched at the end of January, We Print Anywhere (WEPA) kiosks "appeared" on campus just prior to the COVID lockdown. "Appeared" is a bit misleading. "In order to make them 'appear,' IT first had to replace all the old Conway printers from all locations across campus, a time-consuming task," said Max Razdow, manager of IT Lab Operations. But, in the end, he said it was well worth the effort.

Razdow credits Lisa Moriarty, project manager, for her involvement in the rollout from start to finish. "Lisa was a great help in getting this project off the ground," he said.

Prior to the rollout, Razdow and team did a lot of user interface customization with the vendor, testing for compatibility with UMass Boston lab systems and integration with BeaconCard. Also, a pilot program was launched to solicit feedback from students, while Matt McCubbin, IT accessibility coordinator, worked with the vendor to explore accessibility options.

"Student feedback was extremely helpful, not only for us but also for the vendor," said McCubbin. "The adjustable brackets to raise and lower the touchscreen monitor was a plus for someone who uses a wheelchair. The size of the letters did not receive high marks, and the vendor indicated they would take this feedback into consideration."

"There is no screen-reading capability built into WEPA screens," said McCubbin. "WEPA was aware of this challenge." What they did is create a temporary work-around program called 'WEPA Remote Relief,' available as of this writing only on a Windows computer in the Adaptive Computer Lab. Touchless printing using a personal iPhone or Android device is in active development.

Thomas Cappelli, '22, student consultant within the IT Ed Tech & Learning Commons, assisted with the installation. Once all the kiosks were located across campus, his responsibilities shifted to helping students learn the ins and outs of using the new printers.

"After installation, I taught students how to log in using their Beacon card; how to upload documents from the Cloud, Outlook, email, mobile devices, USB drives," he said. "Often students are printing between classes. They want to get in and get out quickly, and it was my job—and the job of several other student consultants—to help normalize the process." Bottom line, when it comes right down to it, time saved is gold to students in short supply of it. Add ease of use and efficiency, and it's a major win.

IHub

Data Center Relocation

The decommissioning of the UMass Boston Science Building posed monumental challenges for IT, among them the need to downsize and relocate the critical campus IT data center. Anyone who has ever moved from a large home to a smaller one knows the difficulties inherent in what is now respectfully known as "rightsizing."

In IT's case, the move reduced the Science Building's 3,400-square-foot data center footprint to a 1,000-square-foot space, necessitating virtualizing and moving non-IT-administrated servers to several different IT-supported critical facility locations across campus. Once these servers were successfully relocated, the team pivoted to moving the core IT servers, network, security, and all critical hardware to their new home in the new IHub (Infrastructure Hub) located in the Quinn Administration Building. In somewhat of an understatement, Terrence Phalen, director of the Project Management Office, said, "There were a lot of complexities, lots of moving parts."

Jamie Soule, director of Network Services, was fully involved in the project. "One of my roles, and I've been doing it for 25 years at UMB, is designing, maintaining, and managing the campus data center(s), which is the technology hub of the campus. It connects all the buildings, networks, phone systems, data storage, internet service provider … Everything.

"You could call it the IT engine room of the campus," he said. "Moving the data center was an extraordinarily complex process. It involved moving equipment not intended to be shut down, equipment that virtually everyone relies on, and it had to be done in a way that was organized, planned, and well thought out." And even then, he said, "You need to have contingency plans for everything, a time-consuming process in and of itself. The planning for the relocation of the Science Building data center literally began in 2019."

Critical to a reliable and well-functioning new data center location—the IHub—is reliable electrical and cooling equipment, tight security, and high-bandwidth network access, just for starters. To help guide the process, IT partnered with the UMass Boston facilities team and BVH, a design and engineering firm. Soule was instrumental in identifying a suitable space on campus and helping determine the size of the new facility. Eventually, it was decided to transform the old Quinn campus telecom phone room into the new IHub data center facility.

At the risk of oversimplifying, once these basics were solidified, the new space was readied for construction. IT collaborated closely with Shaun Curry, director of project management for facilities, to ensure successful implementation of the plans.

"We kept an open conduit of communication," said Curry. "Any questions by the contractor were reviewed by IT. We worked closely with Jamie Soule. He had a great idea of what IT wanted and what needed to happen. Jamie was incredibly diligent working with us and the designer to make sure the end product would meet the needs of the university."

Curry said that smooth collaborations with IT was key in getting the job done and getting it done right. "IT was the content expert; Facilities had knowledge of how construction contracting works for the Commonwealth," he said.

"Anytime you take down a critical data center, there are a lot of challenges," said Phalen. "For UMass Boston to go offline in the middle of a semester would have been catastrophic. So, we designed our move in such a way that services could be retained. Consequently, the move occurred with very little impact to our users."

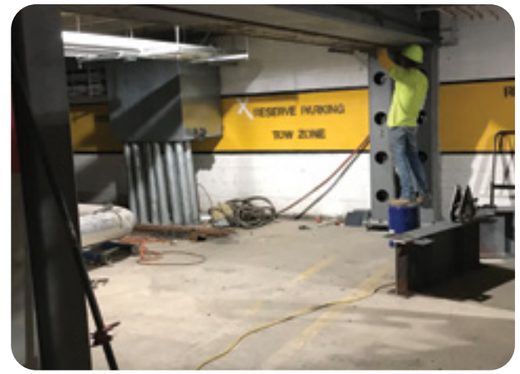
"Essentially, the actual move broke down into two groups: the systems group and a combination of the network, security, and operations teams," said Brian Forbes, director of Systems. "Jamie Soule is outstanding. He knows the physical infrastructure better than anyone. My group was responsible for moving the server operation and making sure the connectivity worked."

"The majority of work in a project like this is behind the curtain," said Phalen.

And while the new IHub is humming along, and it is business as usual for members of the university community, the teams look to future needs.

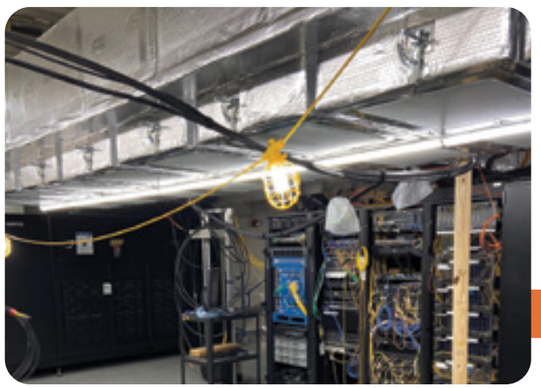
"We continue to reduce our footprint by moving physical and virtual servers offsite to DC02, which is an offsite data center environment hosted by the university medical school. Newly virtualized equipment fits into a much smaller and more effective space," said Phalen, yet another example of the speed with which technology can change the business landscape, making things ever more effi-cient for those of us who rely on efficiency.

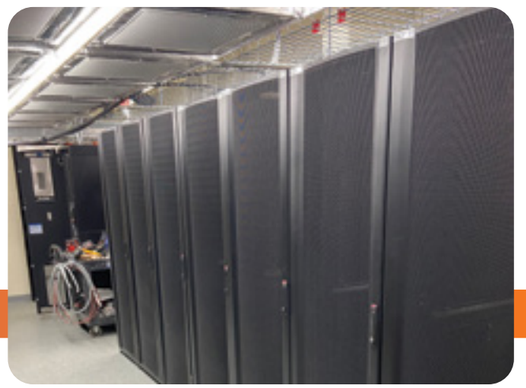
October 31st, 2019



February 11th, 2020

April 30th, 2020





Operation Divide & Conquer

INSTRUCTIONAL AND BUSINESS CONTINUITY

The phrase "unprecedented times" doesn't begin to capture the severity of the COVID-19 pandemic and its impact on virtually every aspect of life. For UMass Boston (UMB), the pivot, literally overnight, from an on-campus environment to a remote workforce, challenged each of us—professionally and personally. With no warning and little time to prepare, IT shifted into high gear to ensure business and instructional continuity for all students, faculty, and staff at UMass Boston.

"The UMass Boston COVID-19 journey began a little earlier than many others," said Raymond Lefebvre, vice chancellor and CIO. "It was Thursday, January 30, to be exact, when UMB experienced the first-ever reported case of the virus in Massachusetts and, at the time, the eighth reported case in the nation."

The UMass Boston senior leadership team lost no time in quickly activating the institution's crisis management team to deal with the initial reported case, which turned out to be an isolated off-site incident that did not impact the campus.

In response, IT established a COVID-19 call center in less than three hours to field calls from concerned members of the university community. The call center remains in place today, ready to be reactivated if necessary. "A lot has changed since January 30 and, like so many other institutions of higher education, UMass Boston has transitioned to remote teaching, learning, and working. Now more than ever, our students, faculty, and staff are dependent on IT services," said Lefebvre. "We quickly pulled together our remote IT workforce—92 people strong—to engage everyone, collectively, to chart a course forward.

To that end, IT staff, together, identified the many and complex tasks needed to meet the needs of faculty and staff across the institution and, importantly, said Lefebvre, "our students, who deserve no less. Collectively, our thought process was straightforward. Of necessity, IT staff would be working from multiple locations and, thus, would be physically divided for an undetermined amount of time. However, with a cohesive plan, we were confident that this physical distance need not impact our ability to meet any challenges we would face. Hence, we defined and implemented 'Operation Divide & Conquer.'"

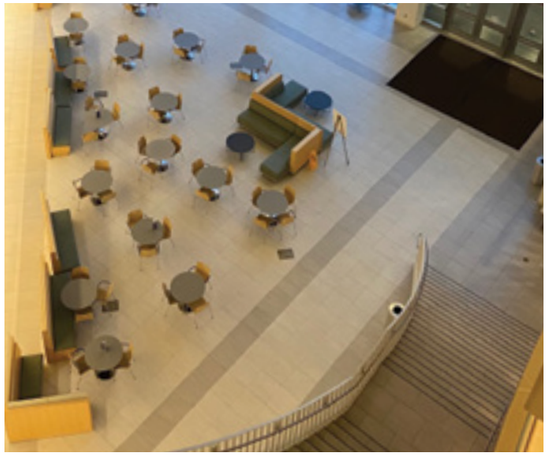
To accomplish this Herculean undertaking, Lefebvre developed a six-phase strategy: pre-lockdown, impending lockdown, lockdown, stabilization, standard operations, and reentry. Strategies focused on communications, security, ticket management, loaner devices, remote access, and live person chat support.

"Our IT infrastructure, our remote teaching and learning, our working capabilities, and our ability to work cohesively as an IT team remotely have not been a challenge," said Lefebvre. "What was a challenge, during the first four phases of the rollout, was the necessity to put previously active projects on hold, while concentrating on ensuring a stable remote learning and work environment."

As of this writing, Lefebvre said that IT has moved into the "standard operations" phase, meaning staff have resumed other projects, are advancing still more, and are keeping an eye to future needs. Due to the severity of the virus and the unknowns as to the future, the "reentry" phase, adhering to Massachusetts COVID-19 regulations, has brought 25 percent of the IT workforce back to campus in order to provide essential services and support on campus.

"Remote leadership benefits from having a plan and an engaged leadership team and staff," said Lefebvre. "I would like to believe that Operation Divide & Conquer has helped the UMass Boston IT team navigate and respond to the COVID-19 crisis, while greatly minimizing the potential negative impact on members of the UMass Boston community.

As a direct consequence of engaging leaders at every level of the organization, said Lefebvre, several unforeseen positives have emerged. "We have experienced improved communication across the IT division, between both leadership and staff; increased cross-divisional teamwork and camaraderie with a customer service focus; realized budgetary savings that will help to offset the overall financial impact of COVID-19; and adopted new IT services and technologies.



"The creativity, focus, work ethic, and accomplishments demonstrated by each member of IT, and the positive responses from members of the UMB community, are highlighted in the pages that follow."

Instructional and Business Continuity

Flip Side of the Same Coin

As far as the challenges facing members of the IT staff go, instructional continuity and business continuity go hand-in-hand—you can't have one without the other. The former is a simplified way of referring to basically anything and everything related to creating a smooth and efficient remote teaching and learning environment. The latter demands the same efficiencies for all administrative and managerial functions.

When given the opportunity to appoint a staff member to remain on campus during the lockdown, to serve as the eyes, ears, and boots-on-the-ground for IT, Lefebvre assigned Jamie Soule, director of Network Services. Soule became the sole onsite support not only for IT teams, but also for any member of the UMass Boston community needing support. He either provided the assistance himself or delegated it to a member of one of the IT teams for remote assistance. As the person-on-campus charged with helping to keep the wheels turning, he did it all—even watered plants weekly."

Soule was the perfect person for the job. His background is eclectic: a longtime licensed electrician, he has performed over a dozen roles in IT infrastructure from electrical to security. Which is to say—he knows his stuff.

Our Lockdown Story Begins on March 20, 2020

One day, campus life hums along. Students rush between classes or stroll leisurely across campus in twos and threes; colleagues meet in the cafeteria, sharing stories over lunch. In the evenings, students relax in the residence hall or, perhaps, gather in study groups in the library. The atmosphere is charged with curiosity, meaningful discussions, friendly debates, camaraderie, and thoughts on how to spend the weekend.

Next day, nothing. No students rushing, strolling, or relaxing; no colleagues meeting. No camaraderie. No one to be seen. Overnight, 100 percent remote teaching, learning, and working became the unprecedented order of the day.

UMB's IT team stepped up. Carrying on the business of higher education is dependent on fully functioning technologies to support the new-normal world.

> *The reality is, you can't walk away from a technology infrastructure on a campus like ours; things break, alarms go off, equipment needs fixing, circuits need resetting, the reliability of equipment must be ensured. The list is endless. My job was to react to any requests that required onsite activity and, if I couldn't solve it, to delegate the issue to someone who could.*
>
> *IT went from 92 staff members on campus to one. Me. I am so incredibly grateful to my team and all the IT professionals, all our many colleagues across campus, our faculty, and our researchers. We all got caught on our heels. We were making up the rules as we went along, but it all went well—and continues to go—smoothly.*
>
> **Jamie Soule,** *Director of Network Services*

Alison Murray is senior information security specialist in IT's Information Security Office. Murray's team works very closely with Soule and his team to manage network equipment like firewalls and VPNs (virtual private networks), which allow users to send data over a public network securely. The two teams also collaborate as they work toward securing devices across campus.

> *As you can imagine, the use of VPN became a high-demand core service at the start of the lockdown, but many people didn't get to take the necessary setup steps to prepare their campus machines for remote connectivity or to move their data to a secure cloud solution for remote access before the campus shutdown. Things happened very quickly, and part of IT's focus was to get everyone into a good working state so we could help them move forward with improvements to services.*
>
> *Jamie and his teams were instrumental in helping us physically locate machines and power them on so the rest of the process could take place with other IT groups helping the UMass Boston community get back to normal operations in new remote settings.*
>
> *Many people across campus are working on various research projects, grants, or other scholarly works and need to continue to meet deadlines despite a pandemic.*
>
> *Jamie and his team helped us to help others at a moment's notice as issues arose within the first few weeks of working from home, and we are very grateful for their support and expertise.*
>
> **Alison Murray,** *Senior Information Security Specialist*

IT's Virtual "Walk-Up" Service: LiveChat

In times of crisis, innovation often saves the day. While Soule acted as sole onsite IT support, others staffed IT's new LiveChat, an option that is similar to the live chats many companies offer online.

> *On campus, IT's walk-up service is quick. People rely on it and, more often than not, the services rendered result in a quick solution to an issue. Of course, the pandemic put an abrupt end to this. We needed a virtual "Walk-Up" service.*
>
> *So, we leveraged an existing piece of technology called LivePerson, an industry-leading chat support app. It's a text-based web interface offering a real-time chat with an agent. We put it up quickly, and it was promptly accessed by members of the UMass Boston community.*
>
> **Maxwell Razdow**, *Manager of IT Lab Operations*

Luci Nguyen, IT Lab Ops student supervisor, was tasked with the scheduling and training side for LiveChat, the purpose of which is to provide remote assistance to the Service Desk.

> *Before LiveChat, the service desk was overwhelmed with tickets submitted by voicemail and emails. Emails were easy to respond to, but the voice messages were hard to understand, with lots of missing information, all of which required time-consuming follow-up. With LiveChat, we can assist our clients almost immediately. In the first couple of months, we have responded to over 3,750 chats with an 80 to 90 percent resolution rate on first point of contact.*
>
> **Luci Nguyen**, *IT Lab Ops Student Supervisor*

Instructional Continuity: The Challenges, the Rewards

"As can be imagined," said Apurva Mehta, associate chief information officer, "with this all happening so quickly, there was a lot of anxiety. A vast majority of our faculty have not taught online or used Blackboard and related tools to manage their courses; hence the work to get them all up to speed in a few short weeks would be an enormous task."

Members of the Educational Technology team—instructional designers and technologists, Blackboard administrators, and classroom technicians—put together a plan in a hurry, created a lot of group training sessions for faculty, and offered to meet one-on-one if needed. Approximately 1,200 faculty teach over 2,500 face-to-face classes plus 350 online courses, so it's clear there was a lot of heavy lifting to get everyone onto and comfortable with a common set of online teaching tools—Blackboard, Collaborate, VoiceThread, and Zoom.

The speed with which the lockdown happened and the need for extensive training were two of the biggest challenges for everyone involved. The rewards were the ways in which faculty embraced the challenges, made time for the trainings, and transformed their face-to-face courses to engaging remote learning classes.

A handful of the many responses from grateful members of the UMass Boston community follow:

> *Dear Apurva, I would be in the dark without the consistent and thoughtful tutorials from Jouliana Bosneva [instructional designer in IT Ed Tech & Learning Commons]. Truly, she has been a godsend to me. She helped me reconceptualize my course during spring break; introduced me to using Zoom as a host; attended a couple of classes with me in order to serve as my backup just in case there were glitches; and spent time after class to debrief and help me perfect my skills in both Zoom and Blackboard. I cannot express enough how truly thankful and impressed I am working with the overall IT team at UMB.*
>
> **Denise Patmon,** *Associate Professor of Education*

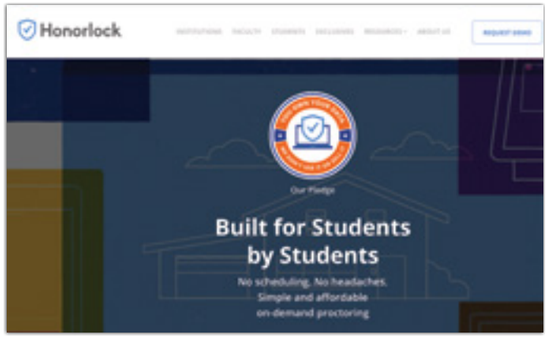
> *Dear Paula [Thorsland, manager of eLearning and instructional support], I am writing to notify you that your team is doing an excellent job during this unprecedented situation. The culture of providing quality service and prompt responses is impressive.*
>
> **Davood Golmohammadi,** *Associate Professor of Management Science and Information Systems*

> *I cannot even begin to tell you how incredibly grateful I am for the support, instruction, and inspiration you have offered to our community. What you have done is nothing short of miraculous. I am techno-challenged, and even I have managed to successfully conduct meaningful online courses. This is all exclusively due to the extensive instructions and support you have provided.*
>
> *When this is all over, your department deserves a parade in its honor! Just knowing you are all in the background to help has increased my own confidence beyond words.*
>
> **Joan Struzziero,** *Counseling and School Psychology*

On the other hand, while a crisis can stifle action with feelings of overwhelming powerlessness, in the case of UMB's IT teams, the crisis inspired innovative solutions. Take Honorlock, for example.

"When this is all over, your department deserves a parade in its honor!"

—Joan Struzziero, Counseling and School Psychology



On-Demand Proctor Services: Honorlock

One of the many issues facing faculty when teaching and learning went remote was academic integrity. "With students taking exams and tests online via Blackboard or other systems," said Mehta, "we needed a good system in place to ensure the integrity of the tests." One challenge: Respondus, UMB's existing system, does not work with Chromebooks, which are being used extensively during the lockdown.

> *After speaking with our sister campuses, we learned about Honorlock, which works as an extension to the Chrome browser. Hence, no software needs to be downloaded. Honorlock records each student's activity and uses AI and/or a "human" to flag students that may have done something out of the ordinary.*
>
> **Apurva Mehta**, *Associate Chief Information Officer*

As of this writing, Honorlock is being piloted with a few math courses. The initial feedback has been positive, and Mehta said that IT will likely expand its subscription to this service. So, between Respondus and Honorlock, faculty should be able to administer tests and exams in a secure manner.

Lectures-To-Go: Echo360

Then there is Echo360, a game-changer for faculty teaching in a remote-teach-a-day world. Echo360 is a lecture capture recording tool, allowing faculty to record lectures in Echo and post them on Blackboard. Students can then access and listen to the lecture when convenient. In the beginning, however, the whole concept of "convenient" was fodder for debate, although quickly resolved.

> *In-person classes happen at specific times. However, remote classes compete with at-home schedules. Parents might be home, maybe younger siblings too; perhaps internet connections are not-so-great. Accommodations had to be made. Echo360 was a great solution, allowing students to "attend" class when their at-home environment permits.*
>
> **Apurva Mehta**, *Associate Chief Information Officer*

Echo360 video views in March 2019 were around 14,000. In March 2020, Echo360 views increased to 26,000; April 2019, 17,000 compared to April 2020, 36,000; and May 2019, 15,000 compared to May 2020, 22,000. IT plans to install additional Echo360 classroom appliances to better prepare for the future if needed.

Instructional Continuity Meets Business Continuity: eSignature to the Rescue

It is a colossal understatement to say that COVID-19 affected every aspect of day-to-day business operations, the need to sign a document being high on the list of challenges. Of course, there's always snail mail if you have the time or inclination. But the solution was simple and quick: DocuSign's eSignature offers the capability to sign documents online.

> *In early 2020, we had maybe 20 eSignature users. Everyone wanted an actual signature, otherwise known as a wet signature. The prior slow adoption of eSignature experienced a rapid uptick. Today, we have over 3,000 users.*
>
> **Linda Modiste,** *Assistant Vice Chancellor for Application Services*

> *eSignature has allowed us to easily adapt many business processes for remote working. We constantly need signatures to accomplish things like authorizing spending money in particular ways, bookkeeping, and reimbursements. Additionally, we are required to obtain informed consent from individuals participating in UMass Boston research and assessment programs, which means they are briefed about the study before agreeing to participate. Without this tool, these things would have been difficult, if not impossible.*
>
> **Eric Berry,** *Director of Labs in Psychology*

Faculty and Staff: Get IT Loaner Program

When faculty and staff were sent home to work remotely due to COVID-19, many had to use their own personal computers to do their jobs. This was okay for the first couple of months, but when the campus announced that it would be remote for the foreseeable future, it became clear in June 2020 that something would need to be done to provide faculty and staff with the technology they need to be successful. Which is when the Get IT technology loaner program was born.

Get IT is all about providing faculty and staff with the tools they need to perform their jobs from home seamlessly. To that end, IT readied approximately 400 pieces of equipment for the Get IT loaner program. Equipment included laptops, PCs, MACs, desktops, monitors, webcams, etc., as well as workstations, which are geared toward heavier applications like those needing more memory and processing power.

> *COVID-19 caught everyone off guard, with no time to prepare. Working from home, many faculty and staff found they didn't have the right machines to do their jobs efficiently. And with the university's decision to extend the lockdown through the fall semester, the need to get the right machines to the right people became even more urgent.*
>
> **Mike Lyons,** *Assistant Vice Chancellor for IT Client Services*

The Get IT portal allows faculty and staff to sign up to request a loaner device. A service desk ticket is automatically opened, and the request is sent for manager approval. Once granted, curbside pick-up is arranged outside the Integrated Sciences Complex.

Loaner Laptops and Chromebooks

In response to COVID-19, IT procured 200 Chromebooks with the intent of making them available to students in need. The lockdown sped up the process, and IT immediately put the loaner program in high gear.

> *Within two days, IT set up all 200 Chromebooks so students could use them securely and access UMass Boston remotely. On the third day, I worked with campus police to make sure they had an ample supply of devices in the police station so they could schedule students to come pick up a Chromebook at socially distanced intervals of time. The role of the campus police was to schedule pickup, check ID's, and distribute the devices.*
>
> **Jamie Soule,** *Director of Network Services*

The Loaner Chromebook Initiative was so successful that IT procured an additional 200 devices and partnered with Library Services to provide access to loaner Chromebooks via the Circulation Desk. Students simply reserve the device online as they would a library book. Curbside pickup outside the Integrated Sciences Complex is then arranged. University Advancement is assisting with the financing by fundraising to cover the Chromebook purchases.

> *During lockdown, my laptop stopped working, and I was not ready to buy another, and furthermore there was no place open to buy one. I turned to UMass Boston's loaner program and borrowed a Chromebook. That made things a lot easier for me, because without your program I would probably have had to use my phone. That was the only option I had. Thanks again for your help.*
>
> **Daniel PetitFrere**, *'22*

Getting Together

We've heard enough times that "We're all in this together," but what about getting together? As effective as remote teaching, learning, and working can be, nothing beats meeting with colleagues face-to-face. And while that's not possible in the middle of a pandemic, several ways do exist in which colleagues can meet virtually to discuss projects, brainstorm, ask and answer questions, and socialize.

And when it comes to virtual socializing, no one plans it better than Salina Allen-Sharpp, executive assistant to Raymond Lefebvre, vice chancellor and CIO. The success of this past summer's event, a virtual BBQ, says it all. IT's VIBE (Virtual IT Bbq Event) was a huge success, well "attended," complete with backyard grilling, a VIBE playlist, prizes, and so much more.

> *I was skeptical at first, but once I got into it and started thinking creatively, it all came together. We made it fun for the whole family.*
>
> **Salina Allen-Sharpp**, *Executive Assistant to Raymond Lefebvre, Vice Chancellor and CIO*

The irrefutable fact is that not only socializing, but also both instructional and business continuities thrive on meaningful human interactions. Of course, two people can accomplish a lot using good old-fashioned email, but email lacks the human element and is impractical when several colleagues need to get together.

Enter Zoom and Microsoft Teams

Used minimally prior to lockdown, Zoom became the go-to technology for meetings and conferences post-lockdown. Faculty meet with students; students meet with students; staff meet with colleagues.

"Zoom, an easy-to-use video conferencing software, has been widely adopted during the lockdown."

—Apurva Mehta, Associate Chief Information Officer

> *Zoom, an easy-to-use videoconferencing software, has been widely adopted during the lockdown. Prior to March 6, the university had approximately 370 Zoom licenses. By the end of July, that number had mushroomed to 1,850.*
>
> **Apurva Mehta**, *Associate Chief Information Officer*

Zoom has become so popular that as of September 2020, it has been expanded to a Zoom Enterprise License, which translates into Zoom for all students, faculty, and staff.

Zoom Webinar is yet another tool in the remote worker's toolbox. It is different from a Zoom meeting where attendees can be seen and heard. A Webinar is a virtual "event," with a host who chairs the event and invites panelists or presenters to share information via voice alone or PowerPoint, and/or video presentations. Up to 5,000 people can "attend" a Webinar, making it impractical, in most cases, for attendees to participate.

> *The Chancellor's Office wanted a virtual town hall last spring. The Webinar tool was perfect. We ended up with about 1,000 attendees. Panelists from administration and finance, enrollment management, the budgeting office, and others presented departmental plans for the future. IT functioned in the background, syncing up slides in unison with each speaker as needed. At the close of the event, attendees were encouraged to send questions via email.*
>
> **John Jessoe**, *Manager of Classroom Technology and AV Services*

Webinars also have been used on a regular basis for orientation sessions, virtual faculty meetings, virtual events such as Earth Day, as well as College of Nursing and the Office of Alumni/University Advancements events. Then there's *Microsoft Teams.*

> *Microsoft Teams is a collaboration platform that includes videoconferencing but adds document sharing, calendar management, and shared communications. Teams is much more focused on teamwork collaboration, whereas Zoom is more about meeting via videoconferencing only.*
>
> **Terrence Phalen**, *Director of the Project Management Office*

Immersive Reality Changes the Landscape—Literally

Like many things in life, how we do things is based on individual preference. Remote teaching, learning, and working is no exception. One person may prefer zooming into a conference; another might want to join a Microsoft Team. Well, how about this next option—the recently introduced immersive reality that adds neat visuals and, to be honest, a little playfulness to the equation. Young or older, Immersive Reality is sure to delight the "gamer" in each of us.

Immersive Reality and Business Continuity

Simply said, immersive reality uses a gaming platform to provide a 3-D virtual reality world with the added benefit that it renders this world on a regular monitor—no 3D headset required. Just join your world; create your individualized avatar—hair color, clothing, skin tone, and those little details that let your personality shine through. Then invite your colleagues to join you.

In a business context, your "world" might consist of virtual offices and conference rooms. Avatars can move freely; speak to colleagues in real time; upload PDFs, PowerPoints; share files and computer screens; annotate on whiteboards. Avatars can even wave, point, and clap.

When avatars approach others, they can speak with each other. All that is needed is a PC with a microphone, whereas with Zoom, for example, you need both a camera and a microphone. "Immersive reality offers an opportunity to socially engage with colleagues in a more involved way," said Lefebvre.

To that end, IT set up a virtual team suite, which consists of four conference rooms and 36 virtual offices. Staff members, represented by their individualized avatars, can attend a conference or arrange to meet colleagues in one of the virtual offices or conference rooms. The system also allows for drop-ins just as an in-person, open-door policy offers colleagues the same opportunity.

Presently Immersive Reality is utilized mainly by IT for business administration purposes. But when Peter Bonitatibus, director of Student Affairs Technology Services, got wind of the technology, he was intrigued. As of this writing, about 10 student affairs professionals have created virtual offices allowing for more engaging virtual collaboration between their office and IT.

Immersive Reality and Instructional Continuity

"Immersive Reality from a social perspective has a lot of potential," said Lefebvre. "Not being on campus is tougher for students, but in an immersive reality world, they can engage with friends and classmates in a more interactive and, importantly, entertaining way." Enter Frame VR, a web-based immersive reality platform that runs directly in a web browser—no

software to install. Frame VR is designed from the ground up to promote social engagement.

In its early exploratory stage, Frame VR does not have an official team tasked with implementing it. However, to tease out the potential of the new technology, Lefebvre formed a small working group, including Zack Ronald, AV Services; John Mazzarella, IT Communications; Lisa Link, Web Services; and IT student employee Donna Kimmel. This approach is flexible and agile and paves the way to its potential transition into becoming a more formal official service in the future.

Over the years, Link has done a lot of work with photography students and has always been interested in getting students involved in projects. She, Kimmel, and sophomore Ssam Samidinov teamed up to produce a 3D immersive reality art gallery using Frame VR, complete with individual art galleries, student photography exhibits, display tables, and more. The 3D space helps visitors learn because—although they are avatars—they are moving around, exploring the environment

> *Frame provides the background of our gallery space. Our job was to plan it, decide what to include and how to make the gallery an engaging space where students might meet, learn, or display their own work … I love working with the students—their creativity and work ethic. I'm so grateful, and I give a huge thank-you to Ray for supporting this project.*
>
> **Lisa Link,** *Senior Web Designer*

An open framework supported by all browsers and devices, Frame VR uses WebGL technology to create the 3D graphics. Daniel Haehn, assistant professor of computer science, is a fan and has incorporated the technology into his CS460 graphics course.

> *For me, an important part of remote teaching is exploring different environments to engage the students. One environment is Frame VR, which allows users to create their own avatars and interact with others. I am offering CS460 to students of all levels of experience.*
>
> **Daniel Haehn**, *Assistant Professor, Computer Science*

Rolling Out the Virtual Red Carpet

Our story to this point focuses on the existing UMass Boston community. However, lest we forget, incoming freshmen and transfer students have needs too. And as challenging as the lockdown is for us all in the know, students new to the ways of UMass Boston face much greater anxieties and unknowns. This latest challenge involved IT finding remote-friendly ways to introduce new students to the UMass Boston community of learners. The solution: Beacon Preview.

Online Orientation

The online orientation project known as Beacon Preview was a monumental cross-divisional endeavor involving expertise and knowhow from IT and representatives from Student Affairs, Academic Affairs, Enrollment Management, Financial Aid, Public Safety, Residence Life—everything an incoming student would need to know in advance before registering for classes. The project was so complex, the initial decision was made to launch Beacon Preview first to transfer students only.

> *We partnered with a vendor, ADG Advantage Design Group, to help us with the overall design concept, a kind of modern presentation written with a specific voice chosen by our partners in Student Affairs. Students navigate through the site, and at the end of the orientation, we supply them with a list of URL's that are most relevant for each individual student and provide them with next steps to meet with an advisor and register for classes. It's as personal as you can get without meeting in person.*
>
> **Mary Ryan,** *Data Integration Specialist*

The story here is like so many stories during the lockdown. Whereas the launch of Beacon Preview originally focused on transfer students, the continued lockdown for the fall 2020 semester required the team to fast-track the same online orientation rollout to incoming freshman students.

> *There is no way we could have managed a project of this scope and with these technical requirements without IT's support and expertise. They developed a timeline, helped us negotiate technical issues with the vendor, and is a major reason that we received the product in time for our re-imagined virtual orientation this summer.*
>
> *Since our project was already near completion when the pandemic hit, we were able to move our transfer orientation process completely online and create a separate online module for freshman students. This was a game changer given the move to remote orientations due to COVID-19.*
>
> *I honestly don't know how we would have made it through this spring and summer without the Beacon Preview being ready to go in May, and I give much of the credit to Mary [Ryan] and Terry [Phalen] for keeping us on task!*
>
> **Shelby J. Harris, PhD,** *Associate Dean of Students*
>
> *Covid-19 changed everything. What we thought we were going to do regarding orientation needed to be expanded. We had to shorten our timeline, go back and review all content for suitability, and add content when needed. And then we had to test. I'm so proud of our team and how things came together.*
>
> **Mary Ryan,** *Data Integration Specialist*

IT CARES

Community Assistance Raises Everyone's Spirits

Whether we're talking student orientation, meeting with business associates, teaching, or attending classes—so much of what typically happens in a university environment comes down to human interactions. A university is a community of various groups of like-minded people feeding off each other not only in terms of conducting the business of higher education, but also in growing and communicating socially.

Salina Allen-Sharpp, executive assistant to Vice Chancellor and CIO Ray Lefebvre, was acutely aware of the isolation some folks might be experiencing as a result of being cut off from their colleagues. She proposed to Lefebvre, who agreed, that she initiate a 6 a.m. "Early Riser" drop-in coffee hour for staff inclined to join.

Allen-Sharpp also initiated "Lunch & Learn" virtual sessions, which became yet another way for colleagues to check in with colleagues and share knowledge during lockdown.

> *We all try to connect with each other as much as possible. We're just catching up, sharing funny stories, and engaging in team building activities. It keeps people interested and engaged.*

> *Lunch & Learn is a great way to keep our spirits up and participate in activities that are fun.*
>
> **Salina Allen-Sharpp**, *Executive Assistant*

> *I love the whole concept of "Lunch & Learn." It gives us all a chance to learn about something new, something that may or may not have anything to do with the job. We can get to know each other a bit better at the same time. And the presenter has a chance to show off something they think is worth sharing.*
>
> *My topic was digital scrapbooking with Photoshop, and it's something I'm passionate about. Scrapping is my artistic outlet and my therapy when life gets too stressful. It was wonderful that I was able to bring that to work and share.*
>
> **Marlo Filoso,** *Systems Administrator*

Procurement and Communications

Of course, for all things IT to happen, two more critical components are needed: financing to support each of the projects; and a good communication plan to let folks know the latest happenings.

Procuring Technology

Technology can be expensive. Very expensive. But so is not having the right technologies to do the right job at the right time. And right now, the times demand the right technology, not regardless of expense but uncompromised by it.

Neil Rosenburg, IT's assistant vice chancellor for business operations, has been instrumental in moving financing forward quickly, soliciting quotes, and processing purchase orders for critical technology needs.

> *We try to be as efficient and responsive as possible, working with application services, infrastructure services, and other departments to determine the best way to move forward. In the first 120 days of lockdown, half or more of all purchase orders were COVID-needs related. The goal always is to make it easier to teach, learn, and work remotely.*
>
> *We've purchased a lot of equipment and software products to support a remote environment. And I want to say that this would not have been possible without the relationships and trust that Ray [vice chancellor and CIO] has developed with colleagues over the last year. So, when expenditures arise, some quite large, they move through the campus procurement process pretty quickly. Ray's knowledge, energy, and enthusiasm are very much appreciated.*
>
> **Neil Rosenburg**, *Assistant Vice Chancellor for Business Operations*

Keeping UMass Boston Community Members Informed

John Mazzarella, manager of training, communication, and marketing for IT, is responsible for communicating all things IT: reminders of existing services; notices regarding new services; alerts if something is offline for one reason or another, etc. This task is straightforward in the on-campus scheme of things—emails, flyers, computer screen messages, digital on-campus signage. One method or another gets the message across when you are on campus.

Since the lockdown, however, Mazzarella has been limited to communicating IT initiatives and changes via email only. Given the number of daily emails each person receives, it can be a challenge to attract a recipient's attention.

> *In the course of a day on campus, we would post the same message in different places. On-campus messages are hard to miss. Since lockdown, the email messaging is the same, but more frequent. We're so much more reliant on this one method to get the message out. We've almost tripled the number of emails we send each week. Many are paired to the website with links to additional information.*
>
> **John Mazzarella,** *Manager of Training, Communication, and Marketing for IT*

Our Story Continues...

Operation Divide & Conquer has entered its sixth, and final, phase: "Reentry." While the reentry phase was initially intended to return all students, faculty, and staff to campus, sadly, continued progression of the COVID-19 pandemic has forced UMass Boston to remain remote through the fall semester 2020, with no end in sight as of this writing.

The reentry phase has returned 25 percent of the UMass Boston IT workforce to campus, while the remainder of the IT staff will continue to work remotely until further notice. This workforce split has proven to be effective with the majority of students, faculty, and staff being remote as well.

To help guide a similar campus-wide faculty and staff reentry planning process, IT procured "Safe Campus," a suite of modules available through UMass Boston's ServiceNow platform, which is currently used for incident tracking, administration, and oversight.

> *Safe Campus modules allow the university to oversee, manage, and administer the various activities and data collection that will be utilized to track return-to-campus activities. Modules include PPE Inventory Management, Employee Readiness Survey, Health Screening, Workplace Safety, and Contact Tracing. The modules will be configured to best fit the needs of the Boston campus and will be implemented in a phased-in approach which began in August.*
>
> **Linda Modiste**
> *Assistant Vice Chancellor for Application Services*

IT Staff, Working from Home, 2020

When All Is Said and Done...

Let's cut to the chase: when a challenge surfaced, a solution was found. Remote workspaces are up and running; lines of communication between students, faculty, staff, and IT hum right along. Innovative technologies, group trainings, LiveChat, Zoom, Cloud PC etc. etc. etc. ensure instructional and business continuity. Anita Miller, associate vice chancellor for academic affairs, summed it all up.

> *The UMass Boston IT staff are normally a terrific, reliable bunch. However, when we moved to working remotely in March 2020, they became superheroes. Three examples are:*
>
> *For years, we have been asking faculty to create Blackboard shells for their courses "just in case" they were needed. Lots of faculty did so.... but some did not. Nevertheless, when we went remote and they had to move their courses to online platforms, IT "helped the helpless" migrate smoothly and easily and provided backup support whenever needed.*
>
> *Many UMass Boston students (and some faculty and staff) did not have technology available at home, relying on UMass Boston resources in the computer labs (or their offices) for computers, printers, and internet access. IT worked with the central offices to buy and loan Chromebooks to students and employees so they could continue working or taking classes remotely.*
>
> *For those employees who did have home technology, IT stepped up and enabled seamless transitioning from work to home, including mundane tasks such as when a VPN connection went down, IT would go to that person's office and power up or fiddle with the computer to reconnect it. They also used their remote-control ability to upload needed software, install virus protection, or trouble-shoot computer problems for employees working from home or students needing help.*
>
> *I'm thinking of issuing superhero capes to all IT employees when I return ... assuming we have the budget to do that and they don't get in the way of their IT operations.*

Anita Miller, *Associate Vice Chancellor for Academic Affairs*

Information Technology Services
University of Massachusetts Boston
100 Morrissey Boulevard
Boston, MA 02125-3393

IT SERVICES DIVISION—MISSION, VISION, VALUES

In 2019 we embarked on a 10-step visioning process with each member of IT contributing to the dialogue. The goal: articulate our mission, vision, and values. And then, fulfill our mission, achieve our vision, and live our values.

INFORMATION TECHNOLOGY SERVICES MISSION STATEMENT

Information Technology Services (ITS) provides a diverse population of students, faculty, and staff with reliable and secure technology, services, and solutions to continuously improve scholarship; teaching and learning; research; and business processes to enhance student success and support the mission of the university.

VISION STATEMENT

To be a trusted partner in providing secure, transformative and innovative Information Technology services to advance teaching, learning, research and administrative practices, through dynamic and adaptive customer service.

STATEMENT OF VALUES

Information Technology is committed to the values of:

- **Caring** – We interact with students, faculty, and staff with respect, empathy, and professionalism.
- **Inclusion** – We embrace our differences to provide the best service to a diverse UMass Boston community.
- **Innovation** – We value creativity and critical thinking, focusing on developing efficient, effective technology services and solutions.
- **Collaboration** – We work together to implement new services and technologies to solve problems and improve the quality of life for all.
- **Dedication** – We are committed to the mission of the university and the people we serve, and we work hard to ensure successful outcomes.
- **Excellence** – We strive to provide high-quality service and support to our community of students, faculty, and staff.

21.135RC