The Essentials for
Remote Learning

Security is a critical part of the equation as higher education institutions tackle new challenges, navigate evolving learning environments and deploy technologies with an eye to the future.

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Table of Contents

Educause Identifies Top IT Issues for an Uncertain Future

The association for information technology professionals in higher education has taken a different approach to its annual report on the top issues in IT: laying out possible scenarios for emerging from the pandemic over the coming year. BY DIAN SCHAFFHAUSER

EACH YEAR EDUCAUSE RELEASES A REPORT examining what its members consider the top **10 issues in IT** for the coming year. This year, however, members – IT leaders and professionals in higher education – faced a quandary: Nobody knows what 2021 will look like because COVID-19 is holding all of us hostage for the foreseeable future. So the organization took a new approach. As Susan Grajek, vice president of communities and research, explained in the most recent **Educause annual conference**, the research project laid out three possible scenarios for how colleges and universities "might emerge" from the pandemic next year:

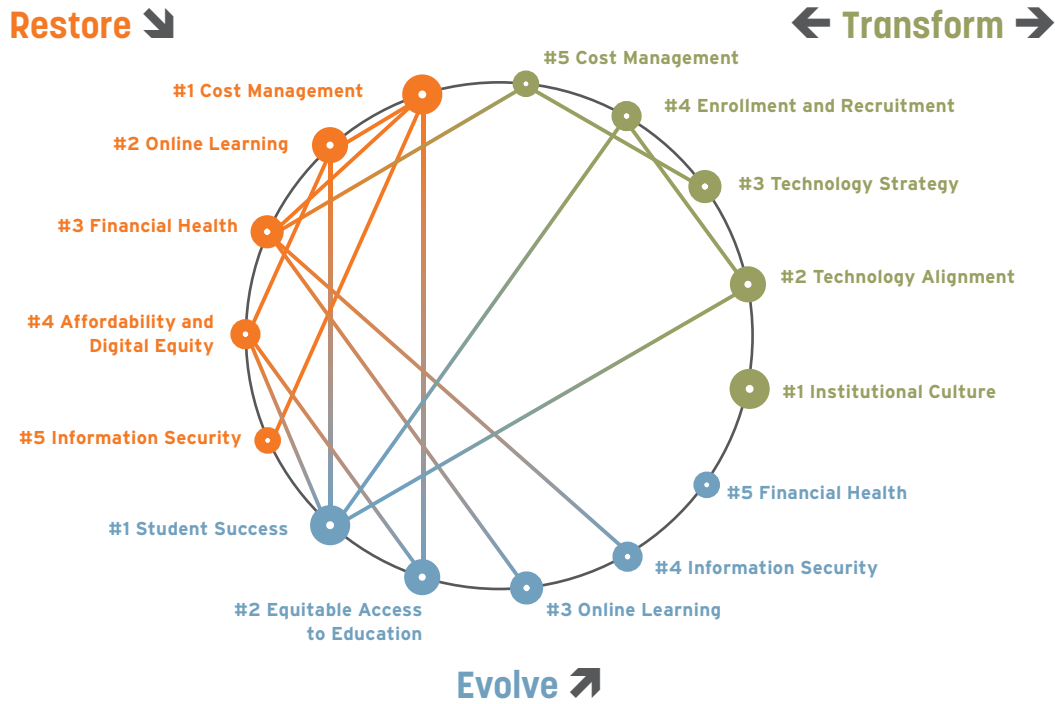**Restore:** meaning the school would focus on survival, how to get back to where it was prior to the pandemic.

Evolve: meaning it would focus on "adapting to the new normal".

Transform: meaning it would take "an active role" in innovating its approach to higher education.

Those scenarios generated three lists of top IT issues instead of one; but each list was limited to five issues instead of 10. The report is available **on the Educause website.**

	Restore ↘	Evolve ↗	← Transform →
1	**Cost Management** Reducing institutional costs and increasing workforce efficiency	**Student Success** Advancing student support services to help students attain academic and career goals	**Institutional Culture** Contributing to a culture of transformation
2	**Online Learning** Strengthening online and hybrid education	**Equitable Acess to Education** Providing technologies, support, and policies for diverse users	**Technology Alignment** Identifying and applying sustainable digital strategies and innovations
3	**Financial Health** Revising budget models and IT governance	**Online Learning** Progressing from emergency remote teaching to online learning	**Technology Strategy** Developing an enterprise architecture that keeps pace with strategic change
4	**Affordability & Digital Equity** Providing increased support for students' technology needs and enabling technology availability	**Information Security** Developing a cybersecurity operations strategy	**Enrollment & Recruitment** Exploring and implementing creative holistic recruitment solutions
5	**Information Security** Providing information security leadership	**Financial Health** Partnering to develop new funding sources	**Cost Managment** Focusing on digital transformation

EDUCAUSE'S 2021 "TOP IT ISSUES" FELL INTO THREE SCENARIOS: RESTORE, EVOLVE AND TRANSFORM.
SOURCE: **"TOP IT ISSUES 2021: EMERGING FROM THE PANDEMIC."**

Restore ↘   ← **Transform** →

#1 Cost Management

#2 Online Learning

#3 Financial Health

#4 Affordability and
Digital Equity

#5 Information Security

#1 Student Success

#2 Equitable Access
to Education

#5 Cost Management

#4 Enrollment and Recruitment

#3 Technology Strategy

#2 Technology Alignment

#1 Institutional Culture

#5 Financial Health

#4 Information Security

#3 Online Learning

Evolve ↗

EDUCAUSE IDENTIFIED INTERCONNECTIONS AMONG THE TOP IT ISSUES ACROSS THE THREE SCENARIOS.
SOURCE: **"TOP IT ISSUES 2021: EMERGING FROM THE PANDEMIC."**

Some things didn't change. As usual, a roster of expert panelists, both IT and non-IT, identified the top IT issues for the coming year. That part of the process was no different from previous years, when the panelists pick out 15 to 20 issues for members to vote on. But this year, the experts created three versions of each issue list, one for each scenario. Then Educause surveyed members on those three lists to come up with the top five issues for each.

The research project also worked under three assumptions:

Assumption 1: that vaccines would become available and the pandemic would start "to resolve" during 2021.

Assumption 2: the scenarios would be "high-level" and "very general," to accommodate school variation in culture, vision and business model.

Assumption 3: one outcome probably wouldn't wholly fit any single institution; a school's financial health might follow one scenario while its academic work might follow another.

Many of the issues overlap from one scenario to another. As Grajek pointed out, the "Restore" and "Evolve" outcomes share four issues in common. But the details are different. For example, while information security showed up on both Restore and Evolve lists, for Restore, the issue of security "is qualified by the need to be budget conscious," she noted, and more tactically-minded. The concerns in the Evolve list are focused on developing a more strategic approach to cybersecurity and expands the scope to encompass off-campus security protection too.

Likewise, while online learning appeared as an issue on both lists, in survival mode (Restore), the emphasis is on dealing with the emergency of "remote teaching" and follows a more structural approach that focuses on "supports, processes and policies." In the adaptation mode (Evolve), the quality of online learning takes on more importance.

The Transform issues, on the other hand, were more unique to that scenario, with one exception: "Cost Management" appeared in both the Restore and the

Transform lists. But while the Restore version of cost management emphasized the reduction of institutional costs and doing more with less, under Transform, cost management was focused on digital transformation, "to increase agility and reduce redundancy," as Grajek stated.

Educause used correlation analysis to uncover the connections among members' choices within and across issues in the scenarios. As Grajek explained, those who rated the Restore version of the cost

management issue especially high (or low) for their institutions were far more likely also to rate the Evolve version of equitable access to education high or low. The same was true between Restore's online learning and Evolve's student success.

Grajek commented on two issues "that came up again and again in the panels." The first was diversity, equity and inclusion, a set of concerns that "hint at IT affordability and digital equity in the Restore scenario and equitable access to education in the Evolve scenario." According to the experts, diversity, equity and inclusion were so important, they "[transcend] all the themes" and take multiple forms: "ensuring equity of access and outcomes for higher education, having a workforce that's diverse in many, many ways and that can reflect the diversity of our students and faculty and foster inclusion so no one feels marginalized or maltreated." As Grajek noted, "We need to keep these basic human rights in mind and in deed, as we lead and manage technology professionals and as we work with and support students, staff, faculty and the communities that we work in."

The second issue that may not have appeared in the

roster but still permeates everything IT does right now, said Grajek, is burnout. "We all feel it, and there's no time that things will slow or ease up."

In a short video clip David Seidl, vice president for IT and CIO at Ohio's **Miami University**, referred to the problem of burnout as an "existential struggle." "A lot of institutions are going to be fighting an existential struggle before they fight a making-things-better struggle, and we're seeing it already across our state,"

> "COVID has vaulted us several years ahead in digital transformation, the adoption of online learning, the need to replace business models, public scrutiny of the cost and value of higher education and agility in decision-making."

he said. Even though he reminds his staff to treat the current job as a "marathon," it's hard for them to remember that, because "we keep running into things that we need to sprint for."

While there's no easy antidote to either of those broad challenges, Grajek reminded the audience, what schools need to remember is that the pandemic has brought opportunity too. "COVID has vaulted us several years ahead in digital transformation, the adoption of online learning, the need to replace business models, public scrutiny of the cost and value of higher education and agility in decision-making," she said. And while there's nothing new about "racial injustice, our current political polarization and the unfair and uneven impact of the pandemic on people of different ethnicities and means," the current crisis has shined "a harsh light on our challenges." In 2021, she concluded, colleges and universities need to "align with a new clarity of purpose and sense of urgency ... answer the difficult questions and start moving forward to emerge from this pandemic, by restoring, evolving and transforming."

Dian Schaffhauser is content editor for
Campus Technology.

Rutgers: 5 Ways to Improve Remote Learning

Information overload, a lack of community, connectivity issues, missing campus routines — students learning remotely face all of these challenges and more. Here's how to help. BY RHEA KELLY

ACCORDING TO A RECENT STUDY out of **Rutgers University-New Brunswick,** students need a sense of community and connection in order to thrive in remote learning experiences. In a national survey of more than 3,000 undergraduate students across 31 universities, the researchers found that the majority of respondents "craved the human connections they lost when leaving their schools amidst the pandemic." About two-thirds of students said they had trouble keeping track of deadlines or understanding expectations; 55 percent felt they could not communicate with their professors enough; and 71

percent struggled with concentrating on coursework due to at-home interruptions.

"Faculty may need to develop connections in different and more conscious ways than they have in the past," noted Vikki Katz, an associate professor at Rutgers' **School of Communication and Information** and co-lead on the study, in a statement. "This is not just about tech support, but rather about creating a sense of trust and connection, evaluating in ways that feel fair to students, and understanding that many have chronic issues of digital inequality. What

students miss most tells us what they value most."

Based on what students shared in the survey, the researchers came up with five recommendations for remote teaching and learning:

1 | Assume students are "under-connected."

Students' access to quality internet and digital devices is often limited. Fifty-five percent of survey respondents said their internet connection at home was slowed by having too many people online at once; 27 percent had to rely on a device in poor working condition; 25 percent could not livestream reliably; and 24 percent could not download large files, the study found. It's important for faculty to acknowledge students' connectivity struggles and plan for accommodating their needs, the researchers stressed. For example, recorded lectures should be kept short – under 15 minutes – so that the video files are not

> To mitigate the "overload" in a digital environment, the researchers recommended limiting the number of digital platforms used as well as restricting course communications to a single medium.

too large to download on a slow connection. Likewise, synchronous class meetings should be optional, brief and held on a consistent day and time, to help students manage the connectivity required to attend.

2 | Avoid information overload.

In the spring, students often found themselves accessing different apps and platforms for each class, making it difficult to keep up with assignments and deadlines. To mitigate the "overload" in a digital environment, the researchers recommended limiting the number of digital platforms used as well as restricting course communications to a single medium (such as e-mail or announcements within the learning management system).

3 | Build student community.

The researchers cautioned against assigning group projects, which can breed resentment between students even in the best of times – and are made more problematic by the challenges of remote learning in a

pandemic. Instead, encourage collaboration in short-term, low-stakes projects with clear instructions and explicit expectations. In addition, make the most of real-time class meetings, said Katz: "Zoom is great for enabling the class interactions that build community. Knowing students cannot manage long meetings, need strong internet or may share a computer, faculty shouldn't waste precious interactive time by lecturing live. Instead, build breakout sessions into live video sessions, so that students can connect with one another."

4 | Foster new learning rituals and routines.

Many survey respondents reported missing the routines of campus life and struggling to stay on track remotely. The researchers recommended three techniques for reinforcing a sense of routine in a course: First, commit to a specific schedule for releasing recorded lectures and readings each week. Next, establish the pace by releasing learning content in stages, rather than all at once. Finally, set the tone by creating opportunities for students to interact with their instructor at specific times.

5 | Develop evaluations that feel fair.

Traditional timed exams may no longer work, the researchers pointed out, due to connectivity issues or technology hiccups. Instead, open-book exams "that require students to apply key course concepts, rather than merely provide definitions for those concepts," can be more effective, they noted. Also, it's important to reevaluate the course syllabus in light of the potential for academic dishonesty. "Are there graded assignments that make for easy cheating? If so, how can you remedy that to protect students' integrity? Also consider whether a curve still fairly reflects student learning in relation to their peers in a remote environment; many [survey respondents] worried that curves incentivized dishonesty in the spring," Katz advised.

The researchers have compiled their survey findings and insights in series of posts on "**Left To Their Own Devices**," a web resource devoted to "lessons for how to redesign remote instruction to be more equitable, foster community, and help students thrive." The project is co-authored by Katz along with Amy Jordan, a professor and chair of Rutgers' Journalism and Media Studies department, Alyvia Walters, a Journalism and Media Studies doctoral student, and Luna Laliberte, an undergraduate in communications. They plan to add new content to the site as the semester continues.

*Rhea Kelly is executive editor for **Campus Technology**.*

Cybersecurity 'Most Daunting' Challenge

A recent survey found that securing cyberspace is the top challenge engineers will face in the coming years. BY DIAN SCHAFFHAUSER

WORLDWIDE HEALTH CONCERNS ASIDE, cybersecurity is the "most daunting challenge," according to a survey of engineers around the globe. One in five (19 percent) recently chose securing cyberspace as the biggest challenge that engineers will face over the next 25 years. That was followed by development of "economical clean energy, mentioned by 18 percent; sustaining land and oceans, chosen by 16 percent; and creating "sustainable and resilient infrastructure" (11 percent).

The survey, which included 10,077 respondents from 119 countries, was undertaken by **DiscoverE**, an organization that works to draw young people into the engineering field.

What could hold them back from addressing these challenges? A shortage of engineers now (mentioned by 52 percent) and in the future (54 percent), and a lack of government support.

"Solving the world's problems is an enormous collaborative undertaking involving both the public and private sectors and extending across disciplines, borders and demographics," said Kathy Renzetti, executive director of DiscoverE, in a statement.

"Engineers are the world's problem solvers, yet engineering is often overlooked or under-appreciated as providing the solution to major challenges such as climate change, digitalization and food security," added Gong Ke, president of the **World Federation of Engineering Organizations (WFEO)**.

At the behest of the WFEO, the UNESCO General Conference named March 4 as "World Engineering Day," in recognition of engineers and their role in solving big problems and to encourage students to study in the field.

The same survey found that engineers rated their level of optimism at 62 (on a scale of one to 100) for tackling global problems. Their votes for the top three innovations that could turn science fiction into reality were transportation, artificial intelligence and space travel.

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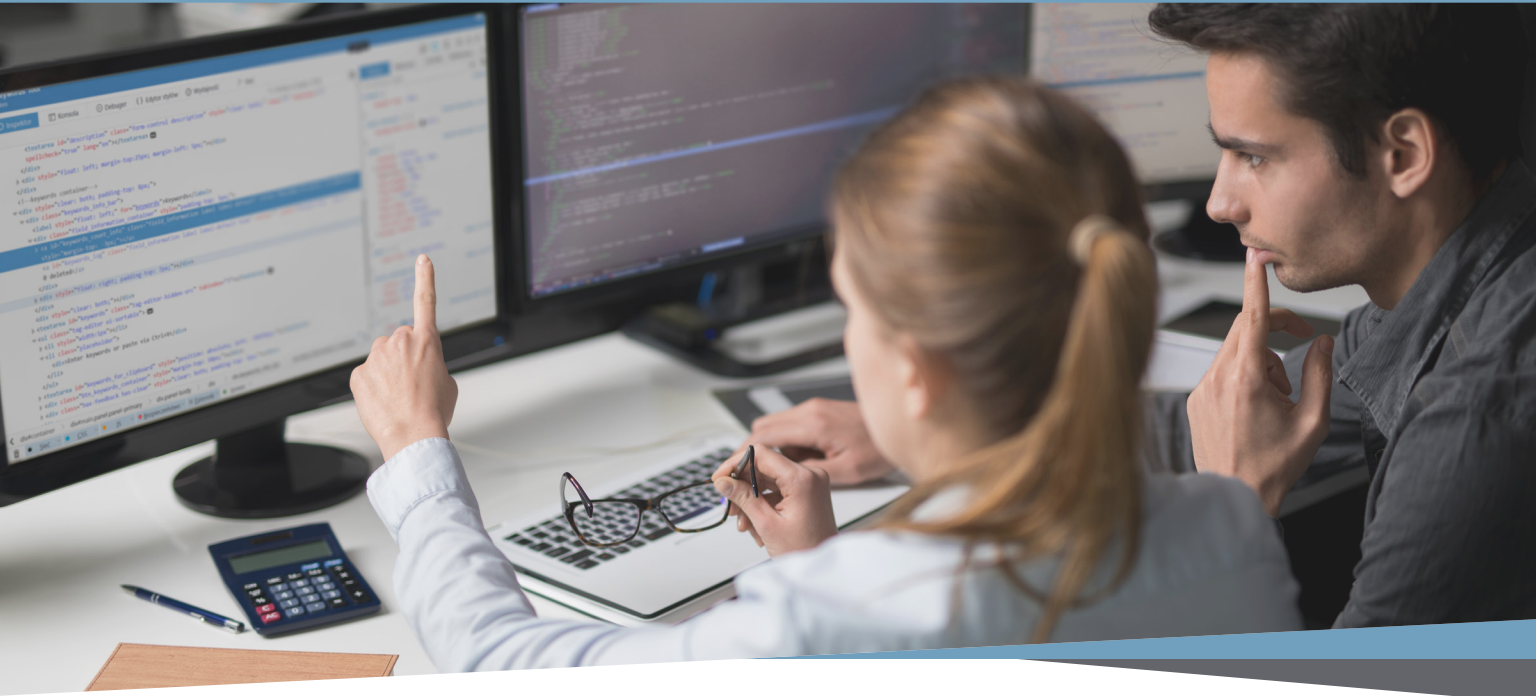
AI Tech to Drive Privacy Compliance

Artificial intelligence will have tremendous impact on the privacy technology market, says market research firm Gartner. **BY DAVID NAGEL**

WITHIN THE NEXT FEW YEARS, artificial intelligence will power 40 percent of privacy compliance technologies. That's up from 5 percent now, according to market research firm **Gartner**.

"Privacy leaders are under pressure to ensure that all personal data processed is brought in scope and under control, which is difficult and expensive to manage without technology aid. This is where the use of AI-powered applications that reduce administrative burdens and manual workloads come in," Gartner explained.

Among the drivers, according to Gartner, is the need for organizations to respond quickly and accurately to subject rights requests (SRRs). According to a recent Gartner Security and Risk Survey, "Many organizations are not capable of delivering swift and precise answers to the SRRs they receive. Two-thirds of respondents indicated it takes them two or more weeks to respond to a single SRR. Often done manually as well, the average costs of these workflows are roughly $1,400 USD, which pile up over time."

Said Bart Willemsen, research vice president at Gartner, "The speed and consistency by which AI-powered tools can help address large volumes of SRRs not only saves an organization excessive spend, but also repairs customer trust. With the loss of customers serving as privacy leaders' second highest concern, such tools will ensure that their privacy demands are met."

The need for privacy compliance is creating a new technology market, one that Gartner predicts will rise to $8 billion through 2022.

"The privacy-driven technology market is still emerging," said Willemsen. "What is certain is that privacy, as a conscious and deliberate discipline, will play a considerable role in how and why vendors develop their products. As AI turbocharges privacy readiness by assisting organizations in areas like SRR management and data discovery, we'll start to see more AI capabilities offered by service providers."

David Nagel is editorial director for Campus Technology.