

**A better way to shrink the
collegiate digital divide,
boost student success,
and improve retention.**

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How large is the digital divide on college campuses?

The answer may concern you.

More than

50%

of college students experience stress from unreliable internet or device problems.¹

Some

2 million

college students—about 1 in 10—don't have access to a laptop for school.²

Nearly

3 in 5

college students face housing or food insecurity, which makes paying for technology a struggle.³

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Colleges and universities invest a lot of time and resources in technology. But most schools operate on the assumption that students will supply their own digital devices. Educators now have an opportunity to rethink the bring-your-own-device (BYOD) model. A new strategic approach will allow your school to advance equity and student success.

That's not the only benefit, though.

A recent survey revealed higher ed professionals' number one motivation for technology investment: **keeping up with competing institutions**.⁴ By embracing an alternative to the BYOD model, your school can stand above the competition. Doing so can improve your ability to enroll and retain students.

This playbook will show you how to strengthen your support for students and advance your institutional goals.





A new, better model and how it works.

Colleges are always improving their technology infrastructure to meet the needs of students, faculty, and staff. It's a never-ending effort to keep up.

Many schools, for instance, continually build out their Wi-Fi networks. **Four out of five colleges spend at least \$750,000 annually on their networks**, according to a 2019 survey. A third of schools spend more than \$2.5 million.⁵

Michael Kubit has been there. He served as Penn State's vice president for information technology and chief information officer. "When you're in IT, you hear student demands for more Wi-Fi all the time," Kubit says. "But you have to step back and ask: Is endlessly expanding Wi-Fi the right investment for all colleges?"

There's a larger point, says Kubit, who now serves as higher education advisor at T-Mobile, bringing digital innovation to colleges and universities. "A lot of schools are rolling out well-intentioned plans that don't address student access, equity, or success."

What could colleges achieve if they didn't take the BYOD model as a given? Digital transformation.

“Colleges and universities have typically seen technology as a cost center,” Kubit explains. “But it doesn't have to be. It can be used as a strategic differentiator. Digital transformation provides the opportunity to develop new business models.”

What does the new approach to tech look like in practice? Rather than expecting all students to bring their own devices and maintain reliable internet access, colleges provide every student an appropriate computing device that's enabled for both Wi-Fi and cellular connectivity. Cellular connectivity is key. All the on-campus Wi-Fi in the world won't help the student who can't afford internet, or who lives in a remote area without internet, or who confronts homelessness.



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Michael Kubit, Higher Education Advisor, T-Mobile for Education





Leveling the playing field.

Colleges across the country have rolled out wide-ranging plans to address inequity. Although these efforts are laudable, they often don't offer solutions to close the digital divide.

Dr. Anne Clancy has seen how easily colleges can overlook digital inequity. While serving as vice president of academic and student affairs for the City Colleges of Chicago, Dr. Clancy spearheaded a strategic plan around equity. The plan encompassed everything from mental health to academic support to food insecurity.

“But you know what we didn't talk about at all?” Dr. Clancy says. “Technology, devices, or connectivity.” She adds, “It's not because we

didn't care. The issue simply wasn't on our radar. It wasn't part of the research that was informing our plan. And this was only two years ago.”

But recent research has revealed both the depth of the digital divide and its consequences.

Digital inequity affects students across higher ed, including many enrolled at four-year schools with multibillion-dollar endowments. One land-grant university, for example, required all students to have a laptop. What happened? **Nearly 2% of students still lacked computers, mostly for cost reasons.**⁶ It didn't matter that the university offered loaners and financial aid for laptops.

Historically marginalized groups suffered disproportionately. **Black students, students with disabilities, and low-income students receiving significant financial aid were anywhere from 2.6 to 6.2 times more likely not to own a laptop**, according to a scholarly analysis.⁷ Even after controlling for demographic characteristics, the study found that, compared to their peers who had a laptop, those who lacked one “substantially underperform[ed].” The academic gap amounted to the difference between an A and a B+.⁸

Providing devices with internet connectivity helps close that gap. Colleges that transition away from the BYOD model ensure every student has the necessary tools to help them succeed.

Shanna Smith Jaggars, Ohio State’s assistant vice provost and director of the Student Success Research Lab, has said, “There’s a lot of discussion about the digital divide among the general population and K–12 students, but I don’t think that people realize that college students also have a digital divide among them.”⁹

Indeed, whereas the BYOD model dominates higher ed, one-to-one device programs have become the norm in the K–12 space. By 2021, **90% of district leaders reported that they had given a device to every middle and high school student.**¹⁰

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Increasing your school's enrollment, retention, and completion rates.

The digital divide clearly hurts students. It can also have a negative impact on colleges and universities, because it hinders their enrollment and retention efforts.

Even before the pandemic, **7% of academically successful students dropped out of community college because they couldn't secure reliable internet access.** Another 5% left school because they didn't have access to a computer.¹¹

The researchers responsible for those findings concluded, "If colleges heard directly from students about why they drop out, the schools could help them with targeted resources. Or, better yet, they might be able to prevent students from dropping out in the first place."¹²

Dr. Clancy echoes this point. She joined T-Mobile as a higher education advisor in large part to help shrink the digital divide. Dr. Clancy encourages higher ed leaders to "think about how tech barriers lead students to drop out, but also consider the students who never enroll in the first place because they don't have the tech they need."

Enrollment plans obviously must play a central role in any college's strategy, but ensuring student success may be even more important. Why? Students who enroll have already cleared significant hurdles to get to your school. They have demonstrated their interest in succeeding at your institution. The more you can do to support and motivate them, the more likely they will be to stay in school.

Retaining students also proves more efficient and has a greater bottom-line impact. In 2022, **enrolling a single undergraduate cost a private college an average of \$2,795**—up 32% since 2020.¹³ Retaining a student requires far less time and expense.

Then there's the lost revenue. The failure to retain students costs the average four-year college nearly \$10 million every year.¹⁴

Overall, four-year institutions lose \$16.5 billion in revenue annually. And those numbers are based on a 2013 report by the Educational Policy Institute.¹⁵ A more recent analysis pegs the **annual revenue loss at \$27.1 billion**.¹⁶

Institutions that address the digital divide are seeing gains in retention. To take one example, Western Governors University—the nation's largest online university—created a \$1 million Online Access Scholarship fund to underwrite the costs of devices and broadband access to students in need. Some 2,000 WGU students have received free hotspots and unlimited service from T-Mobile.

Western Governors' six-year graduation rate for undergraduates stood at 52% in 2021. With this initiative, the university projects to **raise that rate to 65%** by 2025.¹⁷

Streamlining your approach to IT.

A key element of changing your institution's technology mindset involves reimagining how to orient your IT. Tight budgets and staff shortages plague most higher ed institutions. So even if you recognize the benefits of issuing student devices, you may doubt you have the funding or IT staff to make the transition.

The concerns are understandable. But the inefficiencies and risks that come with the BYOD model could outweigh those worries.

For instance, many colleges still have computer labs. If they supplied students with connected devices, they could reduce the money and space they devote to labs.

Michael Kubit, drawing on his CIO experience, highlights risk concerns. "When everyone is working on their personal devices, you don't have the same level of security that an institutional-provided device would have," he says. "The school's email system is the largest threat surface and represents some of the greatest risk. You see viruses, malware, and ransomware potentially introduced into the university environment through those personal devices." But schools that distribute connected devices can protect their network by making sure the devices have authenticated access, for example.



Moreover, when every student brings their own device, IT support desks must handle many different platforms—everything from new MacBooks to 10-year-old hand-me-down laptops that can no longer receive updates. Or they choose not to service student-owned devices, which contributes to a greater digital divide.

“If you run service operations,” Kubit says, “you know that complexity breeds the need for more support. The complexity of supporting a wide range of devices means more staff time and more cost for your school.”

Support becomes much simpler when everyone has the same school-provided device. What happens if a student’s device stops working? “They bring it in for service, you reimage them a new one, and they walk away,” Kubit says. “That’s it.”

When your school rethinks its approach to tech, you can reallocate resources. You will also reduce headaches the BYOD model brings.

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Prioritizing student success.

Learning is no longer confined to the classroom, the library, or even to your campus. It happens virtually everywhere, and at any time. So rethinking the BYOD model is not simply a matter of providing each of your students with a device. You'll be able to create an extension of your institution and deepen your students' connection to it.

Schools that approach this initiative strategically equip the devices to ensure their students have the appropriate resources for success.

“Say you're a new student who receives a connected device from your college,” Dr. Clancy explains. “Now you have immediate access to the bursar's office so you can check your student financials whenever you want. You have access to the career counseling office, to academic counselors, to mental health facilities, to the library, to the learning management system. It's all right there on this one device.”

In short, the student has a virtual campus in front of them. No more hunting around websites that may be difficult to navigate or have out-of-date information.

This approach does more than offer convenience. It knocks down obstacles to student success. That, in turn, can help your school retain students.

Recent research bears out this point. The scholars who studied why community college students drop out cited several factors. One factor was that students lacked key information. They didn't know what they needed to do to graduate or which courses to take next.¹⁸

Imagine if those students had had easy access to academic advising right from their device. A targeted resource like that can reduce stopouts and dropouts.

Another factor: Some students left school because they mistakenly believed there was a financial hold on their account. Either they had a miscommunication with the school or they suffered from limited time with advisors. Here again, historically disadvantaged groups suffered most: "Hispanic and Black former students were over two and three times more likely, respectively, than white former students to say they could not register due to a financial hold," the researchers reported.¹⁹

A connected device equipped with key school resources could have helped those students get timely and accurate account information.



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Dr. Anne Clancy, Higher Education Advisor, T-Mobile for Education



Supporting your students, strengthening your school.

In the end, student equity and success stand as the most important benefits of shifting away from the BYOD model.

Even better, improving student equity and success will help your school stand apart from its peers. So how can your institution make the shift while facing crunched budgets and overstretched staff?

Think big but start small is a phrase—and a strategy—many entrepreneurs and innovators use.

By thinking big, you change your institution's mindset around technology. You approach tech as a powerful tool for student success and for differentiating your college from others.

But, by starting small, you don't let the scope of the transformation overwhelm you. You may not be able to shift away from the BYOD model all at once, and you don't need to. Start somewhere.

Michael Kubit recommends a pilot program. "Pick a small cohort of students and provide them with a connected device," he says. "A good place to look might be at your school's programs that support socioeconomically disadvantaged students, such as TRIO, Upward Bound, or Posse. These programs have limited budgets and typically get hand-me-down computers." Running a pilot will give you data that can inform how you roll out the project further. "Look to see what the results are," Kubit explains. "Do you see an improved success rate? Is there an improved retention rate? Are the students more engaged? Let the data guide you."

“When I was at Penn State... we equipped one of our campuses with iPads for all students, faculty, and staff. When the pandemic hit, that campus was much better prepared to continue operations because everyone had a connected device.”

Michael Kubit, Higher Education Advisor, T-Mobile for Education

Take a hard look at your budget and see where you might find funds for a pilot rollout. Perhaps you have a discretionary budget you can use. Or perhaps you can reallocate money from one part of your budget to support the pilot program.

Kubit cites an example from his CIO experience. “When I was at Penn State, I supported the effort of our Teaching and Learning with Technology (TLT) team to study digital literacy and its impact on student success. We equipped one of our campuses with iPads for all students, faculty, and staff. When the pandemic hit, that campus was much better prepared to continue operations because everyone had a connected device.”

Digital equity remains a major challenge for higher education. By addressing the digital divide, you will help your students—and your institution—thrive.



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