

A Higher Education Institution's

Guide to Digital Transformation

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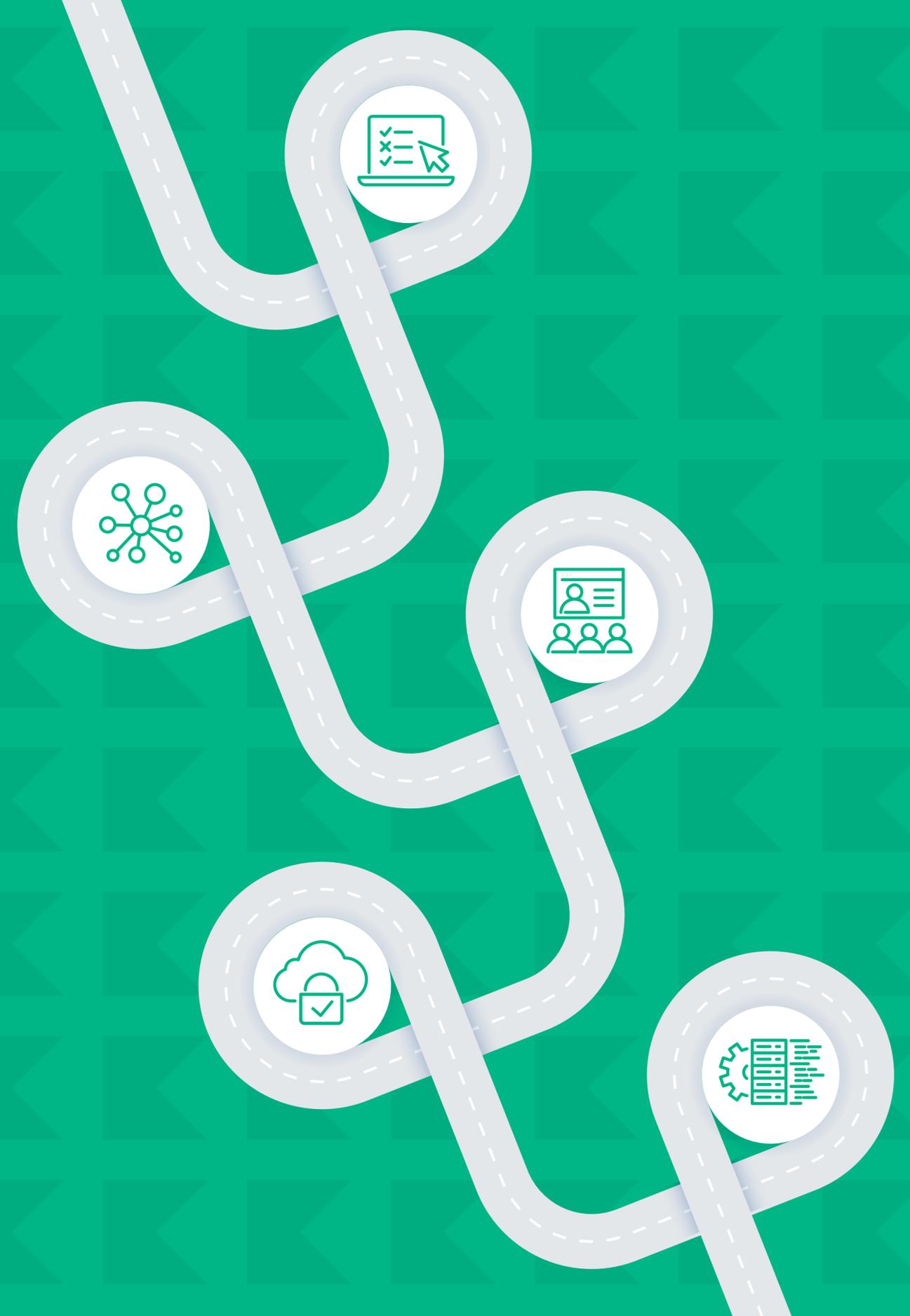


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Technology is transforming life all around us. Today, we have conversations with our audio systems, our cars can drive themselves, and we carry supercomputers in our pockets. Digital transformation, or DX for short, is all about finding ways to use new technologies to solve problems and simplify life and work in every industry, including higher education. In the grand scheme of things, digital transformation empowers higher education institutions in their missions to:



DX is improving teaching, learning, administration, and education overall. Digital transformation extends beyond e-learning, leveraging technology and data to improve institutional operations on a larger scale to benefit the lives of faculty, staff, students, and alumni.

Despite this technological revolution sweeping through institutions all over the world, so many processes are still happening on paper. Due to a resistance to change, unwillingness to spend money, fear of technology, underutilization of IT departments, and a slew of other [reasons](#), some institutions still aren't digitizing, which jeopardizes their competitive edge and costs them the benefits of automation.

In this e-book, you will learn why your institution should urgently shift its focus to DX, what DX looks like on campuses like yours, and how, starting today, you can take steps to transform your campus.





Why Higher Education Institutions Need to Pursue Digital Transformation

Today, digital transformation is no longer an option—it’s something that must happen for an institution to keep its doors open. The reasons for this are enumerated below:

1 THE NEEDS OF THE MODERN-DAY STUDENT

Students of today are very distinct from those of past generations. They juggle a myriad of responsibilities and rely on the flexibility that technology provides in order to maintain life balance. As of January 2019, [one in three](#) college students were taking online courses for the sake of convenience and flexibility.

They’re also technologically sophisticated. Incoming college freshmen for fall 2020 were born in 2001 and grew up on digital devices. They expect the ease and convenience that digital technology has provided them their entire lives. In addition, they expect to have a seamless, visually appealing experience with an institution just as they do with other aspects of their lives every day on Netflix, Amazon, social media, and so on.

“ Online learning put as many as half the colleges and universities in the U.S. at risk of shutting down in the next couple of decades as remote students get comparable educations over the internet without living on campus or taking classes in person. Unless universities move quickly to transform themselves into educational institutions for a technology-assisted future, they risk becoming obsolete. ”

— Subhash Kak, Regents Professor of Electrical and Computer Engineering, Oklahoma State University



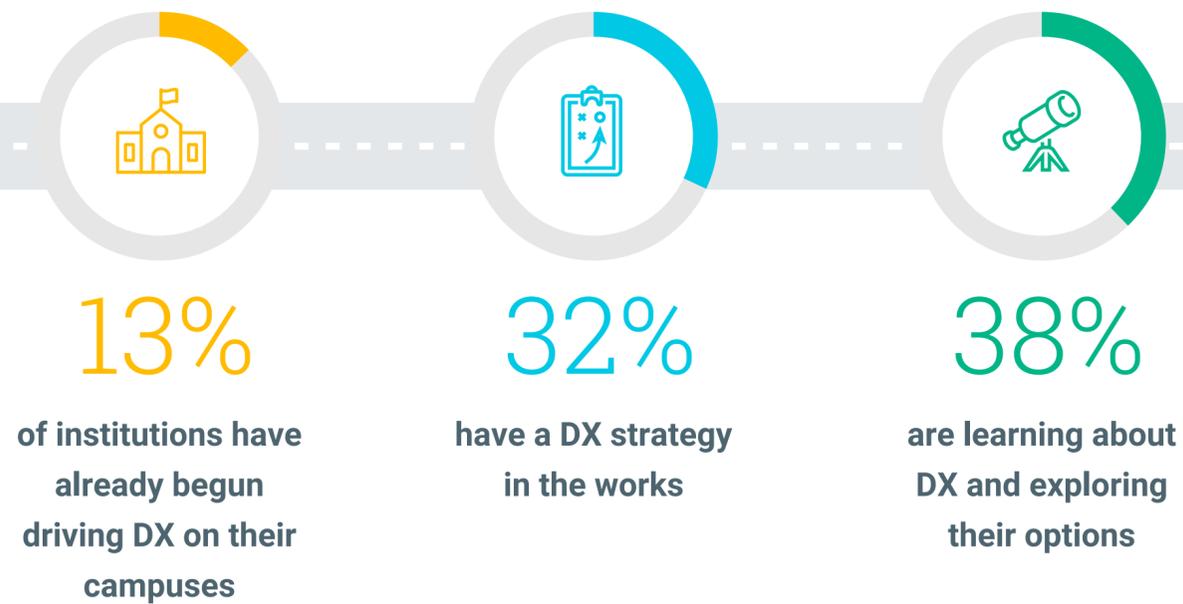
1 in 3

college students were taking courses online in 2019 for the sake of convenience and flexibility.



2 INCREASED STUDENT RECRUITMENT AND RETENTION

The world is quickly going digital, and it shows no signs of slowing down or ever turning back. Higher education is no exception. The challenges of both recruiting and retaining students are proving increasingly more difficult. According to [research](#) by EDUCAUSE, a nonprofit association devoted to the advancement of IT in higher education:



If your institution falls in the remaining 17% that is not investing any time or thought into DX, you may be lagging behind over 80% of institutions who are making these efforts, potentially threatening your ongoing ability to exceed student expectations.

3 THE OPPORTUNITY TO RETHINK AND IMPROVE BUSINESS PRACTICES

Institutions ushering in the digital age have a unique opportunity to evaluate their problems and the way technology may be able to resolve them. To name just a few:

- **Paper resources are impractical. Digitization uses resources more efficiently and makes them more accessible.**
- **Without planning software or data analytics, it's harder for professors to be productive or achieve higher learning outcomes.**
- **Paper and PDFs are not secure and leave student data susceptible to breaches, which introduces serious liabilities for a university.**
- **Digital tools scale learning opportunities to larger bodies of students and meet more needs at once.**

Failure to rethink antiquated educational practices could negatively impact an organization's student retention and processes. Fortunately, a [recent Gartner survey](#) reported that 86% of institutional CIOs believe a digitally integrated campus is the future of education. 59% have plans to change their business model to accommodate the digital transformation. Are you among them?





That's why university campuses all over the world are embracing DX, hoping to reap all the benefits of a digital makeover promises:



Greater revenue growth



Lower costs



A better student experience



Easier scalability



Increased retention



Simplified enrollment



Time saved



Data-driven decisions



Reduced security threats



Optimized resources



Improved privacy



Improved learning and evaluation

The Benefits of DX for a Higher Education Institution

According to [EDUCAUSE](#), digital transformation is helping schools everywhere to build upon their core values and achieve their missions by:

- **Facilitating teaching strategies that meet a larger circle of learners.**
- **Widening the scope of research possibilities through data availability.**
- **Opening the possibility of new fields of research and disciplines.**
- **Paving the way for institutions to improve business practices.**



Top DX Trends Happening on Campuses

To accomplish their goals, many institutions are leveraging current technological trends such as AI, analytics software, and mobile apps. For example, where pen-and-paper college applications were once standard, online application forms can now be filled out in minutes without any human interaction.

Outlined below are some of the most [prominent DX trends](#) used to transform institutions of all shapes and sizes.

UNIVERSITY APPS: Schools everywhere are using university apps to perform a variety of useful functions for students in all stages of the university experience. Apps can easily be downloaded onto a smartphone, tablet, or laptop and serve as an emergency alert system, a campus calendar of events, a directory or map of the campus, a discussion thread, and so much more.



The University of Alabama uses its [app](#) as an athletic and events calendar, a directory, an emergency alert system, a map, and much more.



The University of Arizona has an [app](#) to help students manage their meal plans, find access to research materials, find the fastest routes to class, and beyond.



Ashford University's [app](#) functions as a forum for class discussions as well as a place to check grades and degree progress.

ONLINE CURRICULUM: Moving education online is an effective strategy that's helping schools all over the map increase enrollment, student retention, and graduation rates. Digital curriculum, whether for a handful of classes or an entire degree program, is giving today's students the freedom they need and keeps institutions competitive.



Harvard Business School Online found a financially sustainable model that helped it earn \$12 million in revenue in 2017. As of [2019](#), the number of enrolled students more than doubled to 19,000, and revenue continues to rise.



SOFTWARE FOR DATA-DRIVEN DECISION-MAKING: Institutions embracing DX gain a better understanding of their students, programs, processes, and campuses as they collect and analyze data. These numbers provide insights that help streamline processes and improve operations in a way that benefits everyone. Arizona State University (ASU) is exemplary in using data analytics to drive informed decision-making. With the help of data analytics from 2002 to 2012, [the university saw](#):

30% | 52% 

A 30% increase in general enrollment and a 52% increase in minority enrollment

51.5% 

A 51.5% increase in awarded degrees

12+ 

12+ new transdisciplinary schools and large-scale research initiatives

647% 

A 647% increase in the number of low-income, first-time freshmen in Arizona

ASU President Michael Crow said,

“ For us, to be a public university means engaging the demographic complexity of our society as a whole. It means understanding that demographic complexity. It means designing the institution to deal with that demographic complexity. And it means accepting highly differentiated types of intelligence: analytical intelligence, emotional intelligence. Students are not of one type but are of many, many types. Taking all of that and overlaying it with hundreds of degree programs results in so many variables and so many dimensions of complexity that you actually can't operate the institution unless you make a fundamental switch and say to yourself that, at the end of the day, it is just about analytics. ”



WORKFLOW AND FORMS AUTOMATION: While so many institutions have made leaps and bounds in digital transformation, some are still wasting time on administrative inefficiencies. For example, EdTech Magazine [reported](#) in July 2019 that universities around the world waste 2,000 hours on average each month on manual tasks like expense reports. DX means embracing forms and workflow automation, which saves time, resources, and money carrying out work that could be automated.

- Several years ago, [The University of Mississippi](#) automated attendance tracking using classroom attendance scanners in an effort to gather information on student behavior and help them succeed.

LIBRARY DIGITIZATION AND CHATBOTS: Even though students have the internet at their fingertips, the library is still (and always will be) an invaluable resource. Some schools are investing in the digitization of paper resources to make the library widely accessible to more students and staff members. Digitally transformed institutions have even begun to use chatbots for research Q&A.

- The University of St. Thomas uses a [widget](#) for communicating with librarians as well as a chatbot for reserving library materials and search queries. Such digital tools could have applications on all parts of campus.

AI FOR SUCCESS TRACKING METRICS: Artificial intelligence is an excellent tool for helping struggling students succeed in higher education pursuits. At the University of Florida, data analytics and automation are used to keep track of each student's academic progress and keep them on track to graduation. When someone falls behind, the instructor can easily see that the student needs extra support.

- Andy McCollough, associate provost for teaching and technology [explained](#), “What this does is give these support personnel—who play an important role in the life of all students and particularly those students who are needing some direction—more information. It keeps them up to date so they can be proactive in helping these students achieve their academic goals and then directing them in ways that will be consistent with their success.”

SECURE CLOUD-BASED STORAGE: Higher education institutions are brimming with sensitive data. Highly secure storage is a must-have. By using the cloud, institutions can bypass inboxes, fax machines, and printers. In the cloud, institutional and student data is encrypted and backed up, accessible online only by authorized users from anywhere in the world. This effectively reduces the burden on IT officials and saves your campus against data breaches resulting in potentially significant financial losses.

- The University of Florida [adopted cloud storage](#) through Google's G Suite which gives students and professors a “lightweight, browser-based productivity and collaboration tool.” It simplifies file sharing and collaboration, making research easier than ever before.



A Roadmap to Digitally Transforming Your Campus

Every higher education institution is at a different stage in its digital transformation. Where does your organization sit in the process? What should your leaders do to move your institution forward?

According to the [Harvard Business Review](#), the higher education digital development roadmap looks like this: digital newcomer, emerging adopter, and advanced institution. As we dive into these stages in greater detail below, think about where you stand, where DX fits within your current educational landscape, and how you can continue to make forward strides.

1 DIGITAL NEWCOMER

If your institution offers less than 3% of classes online, and has neither the budget to expand digital education nor the experienced staff to do so, your institution fits into this category. It lacks the fundamentals of remote teaching because the institution needs the necessary tools and funding to embrace video conferencing and online collaboration.

Digital tools make it simple to take action and digitize, and the first step is getting faculty, staff, and students adjusted to digital mediums. Need help getting started? Your peers at other institutions and DX software vendors are a great place to seek help. Both can offer sage advice, and some vendors offer training for effective online teaching and learning.

After COVID-19, we expect that few institutions will remain in this category. The pandemic has closed much of the digital divide practically overnight, forcing institutions like the [University of Houston-Downtown](#) to devise a new IT strategy for remote education in mere days. Today, nearly every institution is adopting technology at some level.



2 EMERGING ADOPTER

If your institution falls into this category, you are no stranger to online learning. You've already implemented fundamental communication tools, and a few of your departments offer online classes. Faculty and staff have seen the benefits of technology firsthand and are ready to embrace it. Your obstacle now? Fast-track the DX journey of your institution and empower the task force handling your DX strategy.

The next step is to enable those within your institution to adopt their own digital solutions. They need resources, such as machine learning or automation solutions, and perhaps a bit of direction from IT, to be successful in creating online courses.

3 ADVANCED INSTITUTION

Digitally advanced institutions already have a powerful digital framework and an experienced faculty that regularly teaches online, offering a vast catalog of digital content. If this is where you stand, keep it up! Your main focus should be continuity. Additionally, your institution could promote engagement in the virtual teaching and learning community. This will potentially position your school to become a key contributor to the global higher education community.



The Top Five Things to Do This Year to Drive Digital Transformation

If an institution is not currently pursuing digital transformation, it's likely facing at least one of several [common problems](#): lack of *digital dexterity among faculty, lack of funding, fear and resistance to technological change, security concerns, and/or a general lack of knowledge about driving this cultural change.



***Digital dexterity** is “the ability and ambition to use technology for better business outcomes,” [according to Craig Roth](#), Gartner Research vice president. For the IT leader, it means building a tech-friendly business culture.

To make this technological shift less overwhelming, we've identified five things you can do this year to drive DX. These strategies have been successfully implemented at various institutions and could serve as potential resolutions to your school's concerns. As your institutional leaders put their heads together in pursuit of these five goals, you will find your organization to be more productive, more profitable, more valuable to students, and better equipped to compete in the educational landscape.

1 INCENTIVIZE DIGITAL LITERACY

The digital literacy task force at the American Library Association [defines](#) digital literacy as “the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills.” In a [survey](#) of 300 students and faculty members:



49%

of faculty members described themselves as digitally literate



Only 23%

of students said they felt faculty was actually digitally literate

The push to change these numbers is in the hands of institutional leaders and heads of IT. One solution is to incentivize digital literacy by rewarding staff members for the creation of digital content or to consider a professor's level of digital literacy before awarding tenure.



In 2017, the University of Rhode Island held a [winter symposium](#) on Digital Literacy in Higher Education and proposed a number of exercises to help faculty learn digital literacy skills:



Compile a list of easily digestible tutorials for each course, program, or discipline – all of which would be available in one place online



Offer monetary rewards for completing digital training



Give staff members the time to discuss their successes with digital teaching and learning in “lunch and learn” hours or “show me” sessions



Provide office hours when IT can help faculty with technology

Focus on digital citizenship by:



Making all of the institution’s technological resources more widely accessible



Teaching digital etiquette



Training on digital security, compliance laws, and school policies



Fostering opportunities for digital communication



If possible, take your DX efforts a step further by incentivizing faculty and staff members to become *citizen developers. Rather than waiting for IT, university employees can build their own solutions to the problems they encounter daily. Roughly [61%](#) of all institutions are either running active citizen development initiatives or have plans to run them in the future in response to the [high demand](#) for IT solution requests that aren't getting fulfilled.



*The Gartner glossary [defines](#) a **citizen developer** as “a user who creates new business applications for consumption by others using development and runtime environments sanctioned by corporate IT.” In layman’s terms, these are people with little to no coding experience who are empowered with IT tools to build applications that resolve the problems they regularly face.

61%



of all institutions are either running active citizen development initiatives or have plans to run them in the future in response to the high number of unfulfilled IT requests.

An institution’s IT department is a key player when it comes to driving digital change, and it needs support from leaders. Now is the time to hire, train, and invest in technological skills and, if you don’t already have them, develop roles for IT experts on a digital task force to take ownership of pushing DX across your campus.

Based on recommendations from Jan Martin Lowndahl, Distinguished BP Analyst with Gartner’s Higher Education practice, institutions should:

- **Hire new staff members (if needed) with a wide technological skill set**
- **Create a DX team for strategizing and implementing campus-wide initiatives for digital change**
- **Educate senior leaders of an institution on the importance of digital transformation**
- **Assemble DX teams with key stakeholders who will help innovate and drive DX on campus**
- **Establish institution-wide policies that formally value digital literacy**
- **Use the CIO to conduct digital dexterity development activities, such as seminars**

2 STRENGTHEN IT AND DIGITAL TASK FORCES

Based on [results](#) from the 2019 Campus Computing Project, an annual nationwide survey of higher education IT officials, responders felt that only about 30% of their C-level peers were ‘very engaged’ in digital learning and transformation initiatives. When leaders are neither engaged nor well-informed, impactful changes cannot take place.



3 INVESTIGATE NEW TECHNOLOGIES

Technological innovators are always testing new solutions that will shape the way college students interact with institutions. Technologies like AI, blockchain networks, computer simulations, and more. These innovations do not spell the end of campuses or introduce financial hardship for institutions. Rather, they open doors to new possibilities. For example, AI teaching assistants and chatbots make it possible for students to get answers to their questions during their 2 a.m. study sessions rather than having to wait for a professor's office hours.

Utilize pilot groups across campus to experiment with new technologies such as virtual reality, robotic process automation, and/or predictive analytics. Measure results in limited time trials to determine which investments will most effectively drive the mission of your institution, be it student success or driving impactful research.

4 INTEGRATE AND HARNESS THE POWER OF DIGITAL DATA

Data management has been identified in EDUCAUSE's [Top 10 IT Issues](#) for five years running. With hundreds of faculty and staff, thousands of students, and dozens of enterprise-level systems, data is everywhere. The difficult part is harnessing it.

Universities like the University of Miami have adopted [self-service data integration](#) as a simple solution to their misaligned and siloed data collection systems. Institutions using data integration tools can combine information from all their data tracking systems and store them as one cohesive and interactive analytics report.

5 AUTOMATE PROCESSES

Institutions are under constant pressure to innovate while doing more with less. In this paradigm, the cost of not optimizing processes is too great to ignore. Countless efforts have undoubtedly been initiated; the average institution has three to five automation solutions in place today.

These continuous optimization initiatives do not produce long-term impacts because process owners—often staff and faculty members—do not have the appropriate technical skills or access to them to solve their process pain with the existing automation platforms on campus. While IT manages as many requests as possible, there are simply too many requests and ongoing process changes to handle. As a result, staff and faculty continue to create paper and PDF processes to solve interim process creation or optimization needs.





Some of the following processes are often subject to optimization neglect as more pressing priorities take place:

-  **Accounts payable**
-  **HR recruitment and onboarding**
-  **Purchase requests**
-  **Telecommute, flex work or vacation requests**
-  **Major changes or class withdrawals**
-  **Research grant and experiments**
-  **New program proposals**
-  **Vendor contracts review and approval**
-  **Course evaluations**

Institutions looking to further drive the mission of the organization should take the following two steps to process automation:

1

First, identify which processes can be optimized by existing systems on campus today. Take a comprehensive project management approach, with IT influence, to triage and optimize these processes. Such processes should be more complex and may require intricate integrations or custom coding to support.

Second, look for solutions accessible to the everyday staff and faculty—your true subject matter experts—looking to build new processes, optimize existing ones, or overhaul their workflows all together. These solutions should be secure, compliant, mobile-ready, and powerful enough to integrate with any line of business applications. They should also be easy enough that they don't require hours of training to learn.

2



A Case Study: Davidson College

Davidson College faced a common problem: How do institutions of higher education create sustainable, strategically driven change?

To address the problem, the college's leadership held a visioning retreat in December 2018. As a result, they appointed a new Digital Transformation team in 2019.

This dedicated change team tackles specific tasks selected and prioritized by leaders, and each initiative is directly related to the multi-year strategic plan to further support the mission of Davidson College. The small, agile team is made up of generalists who eat, sleep, and breathe digital transformation every day. With no operational responsibility, such as fixing network issues or installing software, they can move from one strategic technology project to the next using skill and creativity to make a significant impact through automation, training, and collaboration.

“ The digital transformation team works because so many projects are bigger than one silo. ”

— JD Mills, Manager, Digital Transformation, Davidson College

So far, Davidson College's DX team has successfully accomplished 8 projects since March 2019. Their successes include significantly reducing tech debt, digitizing paper processes for the first time, and turning over the management of forms to departmental-level stakeholders. With each new project the DX team completes, their success is further propagated throughout the institution, giving other departments the confidence and motivation to utilize their services."



How COVID-19 is Impacting DX

In this current moment in time, DX is being driven by risk mitigation. When the coronavirus came to the US, universities everywhere were forced to shut their doors and resume classes online, which impacted over [1.6 billion](#) students worldwide. Some schools, like Harvard Business School Online, had already embraced DX. They were ready for the sudden shift. But many less prepared institutions scrambled to create online-only courses overnight in order to resume teaching.

As Harvard Business Review [explains](#), digital transformation in higher education institutions happens through punctuated equilibrium or long periods of gradual change infused with small occasions of rapid change. COVID-19 is one of those rare moments of rapid change. Adaptation in such an unusual time demands flexibility. Faculty responded remarkably, digitizing what they could overnight. With more time, they can perfect an online-compatible lecture series; if the situation requires it, institutions will need to supply their professors with the tools to create a full-fledged online curriculum.

Virtual learning is the way of the future, and institutions are beginning to realize they need a plan for distance learning that extends beyond 2020. In preparation for future pandemics and other calamities, institutional leaders must strategize long-term plans to mitigate future risks. Online education must become a core part of every university's plan for the sake of a school's continuity and resilience in times of change.

As institutions decide how to increase digital competency in the midst of COVID-19 and determine their plan for the future, they will experience a beneficial, enduring, institution-wide digital transformation. Such a strategic transformation could form the basis for a bright and successful future. Digitally literate schools will be able to navigate their way through the present and any future crises without missing a beat.

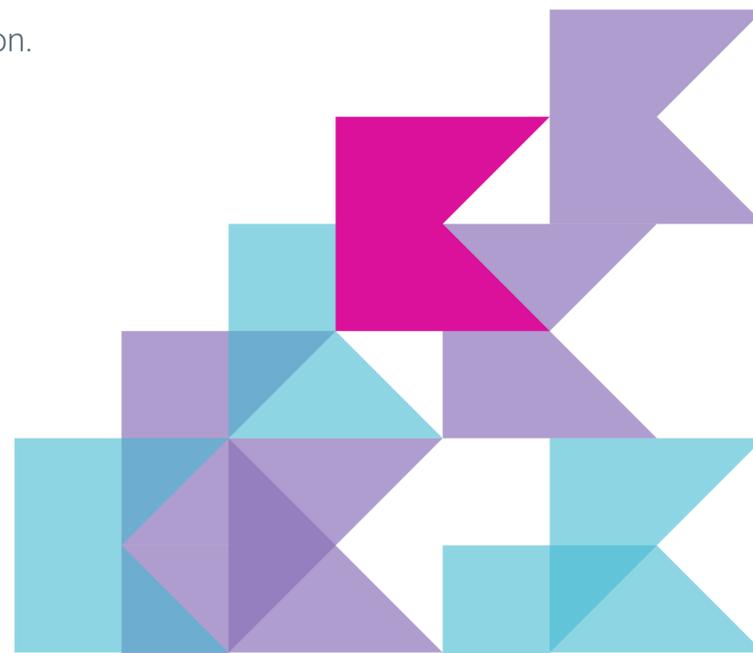


What Makes “Kuali Build” Stand Out Among the Rest?

When institution decision-makers invest in software to drive digital transformation initiatives, they expect it to improve research processes and student success. In many cases, however, the software creates more work and distracts from what matters. Powerful solutions tend to be complicated, time-consuming, and require engineers, adding to the overall expense. Simple solutions, on the other hand, often have compliance issues and lack basic security measures.

Kuali Build, a low-code forms and workflow automation platform built exclusively for higher education, sits in the sweet spot between complex and simple campus systems, acting as the interconnected glue. Kuali’s distinct community partnership approach, built over 15 years of collaborating with higher education and focusing on user experience, has resulted in an easy-to-use yet powerful and secure automation platform adoptable by business users in every department across campus. If you’re ready to digitally transform your institution, we’re here to help you take the next steps. Visit [Kuali.co](https://kuali.co) to learn more about our software and how we can help your institution achieve its mission.

Request a Kuali Demo



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Sources

- 1 <https://er.educause.edu/articles/2020/1/top-10-it-issues-2020-the-drive-to-digital-transformation-begins>
- 2 <https://mason.gmu.edu/~sprotops/OnlineEd.pdf>
- 3 <https://er.educause.edu/articles/2020/1/how-colleges-and-universities-are-driving-to-digital-transformation-today>
- 4 <https://theconversation.com/universities-must-prepare-for-a-technology-enabled-future-89354>
- 5 <https://studyportals.com/blog/rise-of-digital-in-international-student-recruitment/>
- 6 <https://edtechmagazine.com/higher/article/2018/05/5-ed-tech-trends-redefine-connected-campus>
- 7 <https://www.ecampusnews.com/2019/07/15/7-examples-of-digital-transformation-in-higher-education/2/>
- 8 <https://www.hbs.edu/about/annualreport/2019/financials/Pages/default.aspx>
- 9 <https://er.educause.edu/articles/2012/7/no-more-excuses-michael-m-crow-on-analytics>
- 10 <https://asunow.asu.edu/content/asu-president-appointed-committee-digital-design>
- 11 <https://edtechmagazine.com/higher/article/2019/07/survey-finds-universities-waste-time-manual-expense-reports>
- 12 <http://attendance.olemiss.edu/>
- 13 <https://www.stthomas.edu/libraries/ask/>
- 14 <https://edtechmagazine.com/higher/article/2019/05/universities-use-ai-boost-student-graduation-rates>
- 15 <https://www.it.miami.edu/about-umit/divisions-and-subunits/infrastructure-and-operations/integrated-solutions/index.html>
- 16 <https://hbr.org/2020/05/higher-ed-needs-a-long-term-plan-for-virtual-learning>
- 17 <https://www.theguardian.com/higher-education-network/blog/2012/may/15/digital-literacy-in-universities>
- 18 <https://www.edweek.org/ew/articles/2016/11/09/what-is-digital-literacy.html>
- 19 <https://www.insidehighered.com/quicktakes/2016/03/23/study-examines-attitudes-digital-media>
- 20 <https://mediaeducationlab.com/sites/default/files/Digital%20Literacy%20in%20HigherEd%202017%20final.pdf>
- 21 <https://www.gartner.com/en/documents/3970067/the-future-of-apps-must-include-citizen-development>
- 22 <https://www.mendix.com/press/business-in-crisis-due-to-it-resource-shortages-self-medicating-with-shadow-it/>
- 23 <https://www.gartner.com/en/information-technology/glossary/citizen-developer>
- 24 <https://www.campuscomputing.net/survey>
- 25 <https://www.gartner.com/en/documents/3981627/top-10-business-trends-impacting-higher-education-in-202>
- 26 <https://www.govtech.com/education/higher-ed/Top-10-Higher-Ed-IT-Issues-of-2017.html>
- 27 <https://www.mckinsey.com/~media/mckinsey/featured%20insights/Future%20of%20Organizations/What%20the%20future%20of%20work%20will%20mean%20for%20jobs%20skills%20and%20wages/MGI-Jobs-Lost-Jobs-Gained-Report-December-6-2017.ashx>

