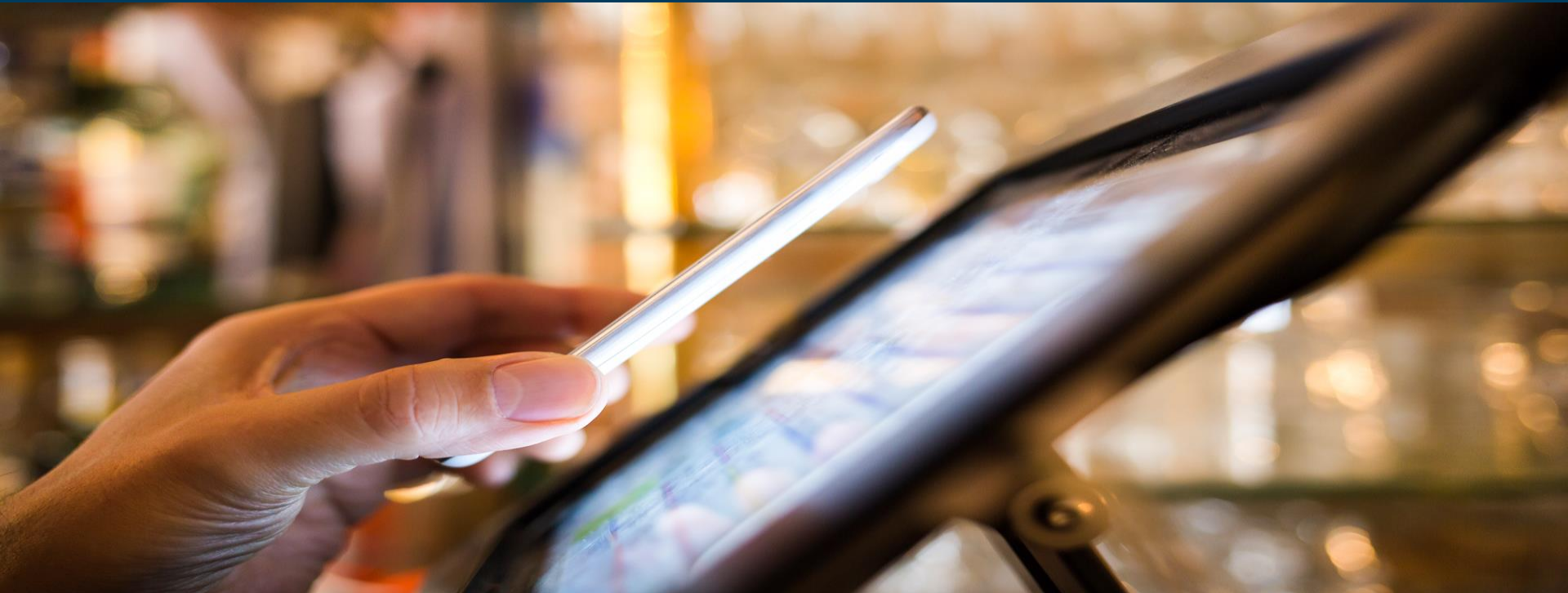


Forrester Opportunity Snapshot: A Custom Study Commissioned By Dell | March 2018

Harness Digital To Modernize Higher Education

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Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

Modernizing Digital Technology In Education To Help Enable Student Innovation And Success

The advent of digital technology has impacted every facet of society and business. Now, it is an integral part of public sector organizations, specifically education. New and more powerful digital technology is enabling professors, administrators, and participants in the educational institution to provide better learning environments for students.

PROJECT BACKGROUND

In March 2018, Dell commissioned Forrester Consulting to conduct a study to determine how technology has affected educational institutions. Traditionally, IT departments have controlled the technology-purchasing process, but with the advent of the digital age, students, professors and heads of departments are starting to get involved. To flourish, higher education institutions must equip their staff with the right tools and technologies to empower their delivery of exceptional experiences. In this study, Forrester conducted an online survey of 214 key decision makers involved in influencing higher education strategies in Canada, UK, and the US.



Country

- › Canada: 17%
- › UK: 25%
- › US: 58%



Education institution type

- › Higher education: 100%



Job role

- › IT director: 26%
- › IT manager: 23%
- › Dean/principal/teacher: 43%
- › Head of department: 8%



Responsibility

- › Final decision maker: 46%
- › Part of a team of decision makers: 38%
- › Influence technology decisions: 16%

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2 3

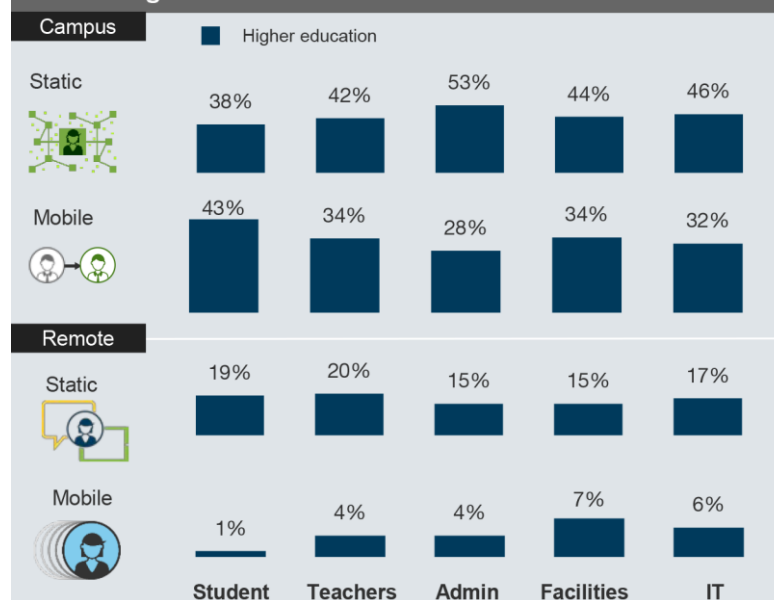
Technology Infrastructure Is Critical Today And Tomorrow

Education stakeholders are developing approaches to improve teaching and learning environments to empower students, professors, and administrators. These digital initiatives transform how education stakeholders teach, learn, and interact with each other and with their surrounding environment.

The consistent use of campus facilities by students, professors, admin staff, and facilities personnel, highlights the critical role of technology infrastructure on campus. Today's learning environment is primarily an on-campus experience, however, students are also increasingly learning off campus too — providing students with the capability to access support and learning resources with staff anytime, anywhere.

Education-stakeholder needs can vary significantly. Key factors impacting education technology requirements include: 1) the amount of time stakeholders spend in classroom environments; 2) the role of the education stakeholders, and 3) the type of academic institution.

Please estimate the percentage of time individuals in each of the following roles learn, teach, or work in the following classroom environments.



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell, May 2018.

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2 3

Educators Are Focused On Designing Experiences

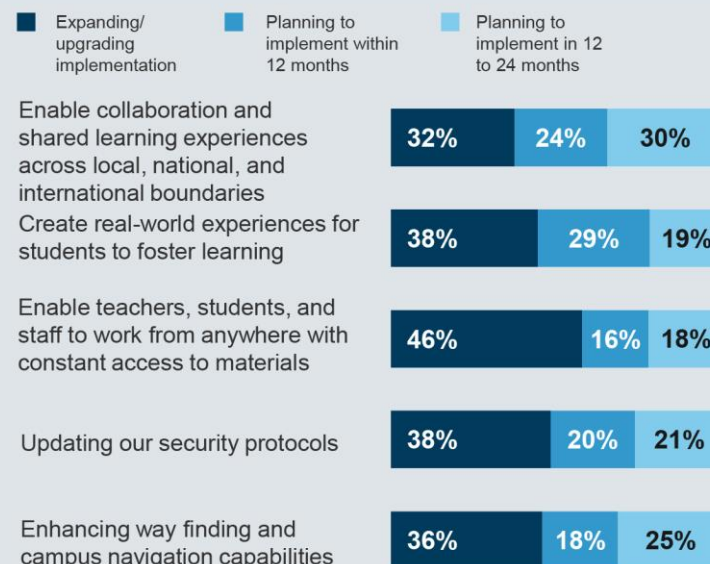
Educators value the experiences enabled and powered by technology. They understand that providing students and staff with a consistent and seamless access to digital content and curriculum is important.

The majority of respondents said they're expanding or planning to implement more collaborative shared learning experiences (86%), and also real-world experiences for students to foster learning (86%). Nearly half (46%) have already implemented capabilities to allow teachers, students and staff to work from anywhere with constant access to materials, and are expanding/upgrading in this area.

Educators are focusing on redesigning environments and learning experiences, and are pivoting on technology as a key enabler.



What is the timeline for addressing your strategic initiatives?



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell, May 2018.

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2 3

Technology Infrastructure Underpins Anytime, Anywhere Experiences

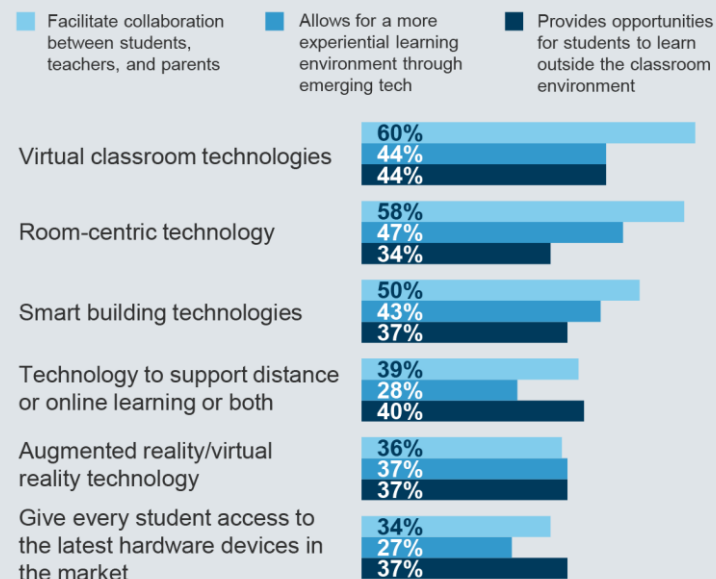
Educators are leveraging emerging technology to achieve their vision of elevated learning environments centered on collaboration and experiential learning. Room-centric technology in particular is being used to enable more experiential learning (47%), whereas virtual classroom technologies provide the best opportunities for students to learn outside the classroom environment (44%).

A range of emerging technologies are also being used to facilitate greater collaboration between students, teachers and parents.



Higher education institutions are turning to a range of emerging technologies, from virtual classroom tech, to AR and VR, to enhance learning environments and experiences.

What type of services or technology will help you meet your strategic initiatives?



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
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Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

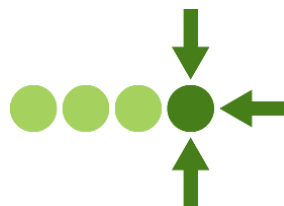
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Enabling Technology In Education Requires A Three-Pronged Approach

Today's education infrastructure is multilayered, encompassing everything from campus facilities and data centres to software/applications and platforms. Our study found that higher education technology investments focus on supporting mobile and virtual classroom environments.

Ultimately, it's critical to maintain current learning environments to sustain the level of service being provided to students. Eighty percent of survey respondents identified online learning technologies and productivity tools to enable their strategic priorities. However, they're also embracing a forward-looking perspective by tracking emerging technologies to consider in the future such as virtual labs and augmented reality solutions. Essentially, these new solutions can help educators build an environment where learning is easier, improved, sustainable, and mirrors real-life experiences.

Over the next 12 months, 74% of higher education institutions will be looking to improve the support they provide to more flexible environments for students and professors.



How important are each of the following technologies in helping you address the priorities for your academic institution?



Base: n420 key decision makers involved in influencing strategic education strategy initiatives
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell, May 2018

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2 3

Technology In Education Is Only Impactful If Key Challenges Are Addressed

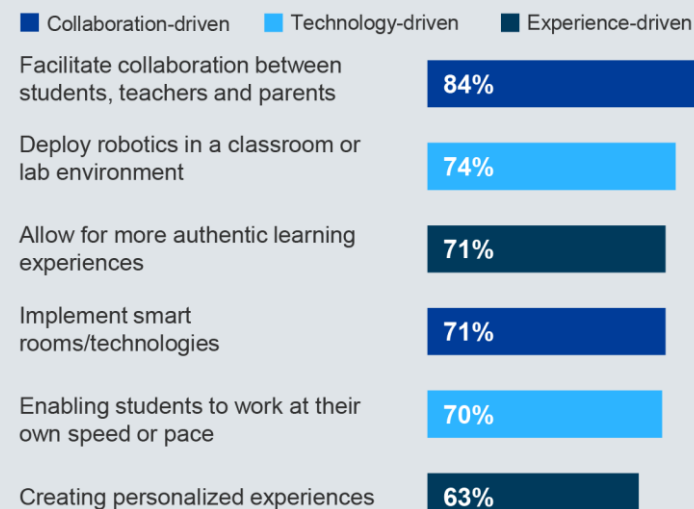
Academic institutions face a range of challenges as they pursue their technology initiatives which are broken down into three categories:

Collaboration. Technology not only helps to bind users together, but it also helps to cultivate a collaborative environment that supports, teaches, and inspires all participants. Yet, 84% of respondents identified collaboration between all participants as the biggest challenge to achieving their priorities — mainly due to the lack of the right software platforms. Collaboration should be easy, interested, and valued.

Technology. Being digitally connected and possessing the knowledge, skills, and confidence to use technology effectively in a learning environment is time consuming, difficult, and requires a steep learning curve. Seventy-four percent of respondents said its challenging to deploy robotics in a class/lab environment. In fact, it's difficult to implement smart rooms/technologies in general (71%), which is why pretested solutions enable evaluation before implementation.

Experience. Collaboration and technology present new opportunities to redefine the learning experience. However, the current scenario that is faced by education institutions paints a different picture. Poor collaboration and the inefficient use of technology means the experience deteriorates; 71% said they struggle to allow for more authentic learning experiences. As difficult as it is, education institutions continue to be challenged with providing consistent, relevant experiences that can be personalized (63%).

How important are each of the following technologies in helping you address the priorities of your academic institution? (Showing "very challenging" and "challenging")



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
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Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2 3

Revise The Number Of Third-Party Vendors To Decrease Complexity

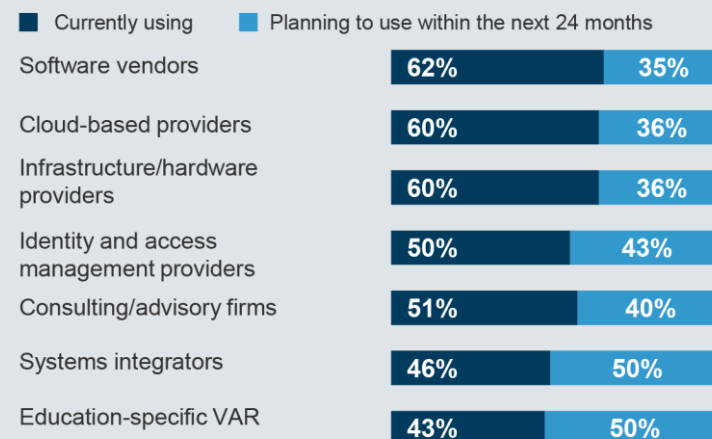
Education institutions need help operationalizing their road maps and providing infrastructure for sweeping transformation activities. They're now turning to a fragmented array of third-party vendors including software vendors (62%), hardware and infrastructure providers (60%), and even system integrators (48%) to assist with their technology requirements. However, seeking out so many different types of third-party vendors only adds to deployment complexity because educators need to determine how to get each vendor's individual technology components to work together seamlessly.

To make sense of their third-party ecosystem, education stakeholders must redefine their technology partnership requirements. Rather than using many different types of third-party technology partners, education stakeholders should focus on selecting a few key technology partners that can help their education facility address multiple components and integration requirements.

Fifty percent of higher education institutions are more likely to seek out education-specific VAR.



Are you currently employing or planning to work with any of the following third-party organizations to meet your technology requirements? Who do you think will be able to help you?



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell, May 2018.

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2

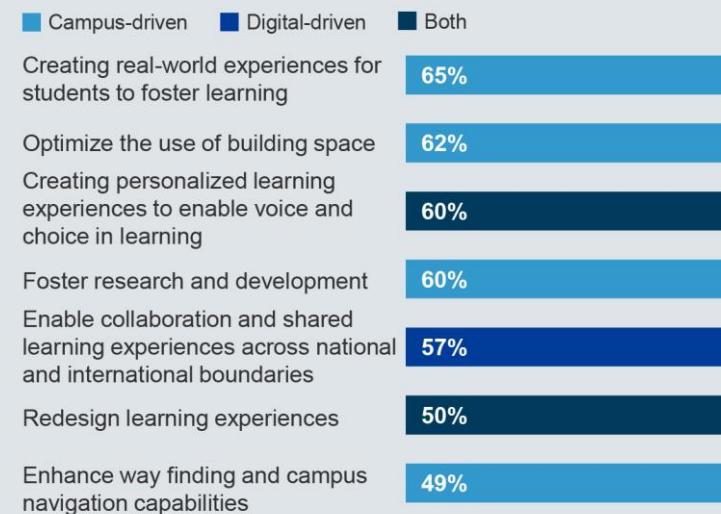
Improving On-Campus Experiences Is The Catalyst For Modernizing Education

Not all education-related services, experiences, and/or applications can be distributed online through mobile devices or laptops. Research and development labs, virtual reality environments, and collaboration environments can be implemented on campus to improve the learning experiences available to students.

Educational institutions are significantly interested in prioritizing on-campus experiences. For example, 65% want to create real-world experiences for students to foster learning. They're also proactively rethinking the value proposition of their campus environment with 62% prioritizing the use of building space or enhancing way-finding and campus navigation capabilities (49%). However, creating personalized learning experiences to enable voice and choice can be applied to either campus or digitally driven priorities. Savvy education institutions look beyond these initial cost benefits to include differentiating the experience of students in the building, or enabling better navigation on campus..

Which of the following best describes the priorities of your education institution?

(Showing "critical" or "high" priority combined)



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
Source: A commissioned study conducted by Forrester Consulting on behalf of Dell, May 2018.

Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

1 2

Learning Environments Should Be Anytime, Anywhere Experiences

Digital and virtual environments are an asset to educational institutions and they can be utilized on campus or remotely by students. Capturing information in a digital format is valuable, but experiencing the benefits of personalization whether the student is remote or on campus is even better.

Sixty-eight of educators “agree” or “strongly agree” that professors need the flexibility to create and teach students in a manner which best addresses the student’s needs and preferences — supporting the anytime, anywhere experience.

Creating centres for excellence in digital learning, academic institutions can allow instructors to be accessible to students outside of the classroom, to enable flexibility for learners, and to provide a wide variety of learning resources for students.

Digital environments can . . .

- › Make classes more engaging (57%)
- › Increase productivity of staff (55%)
- › Personalize the education experience (47%)

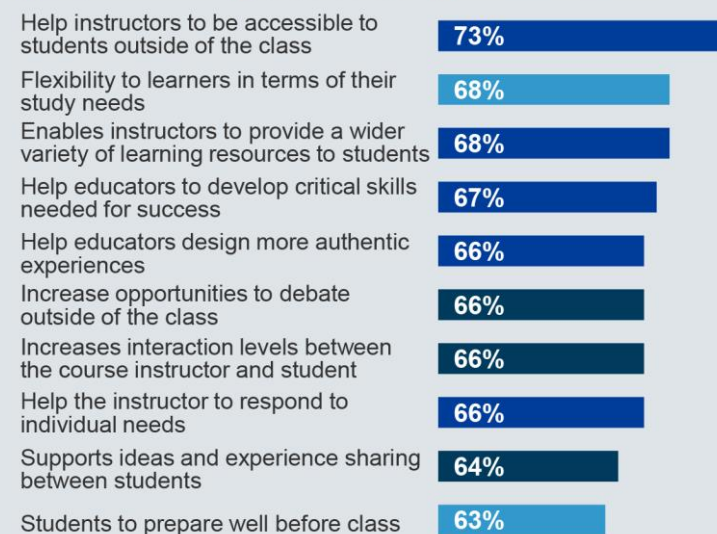


How much do you agree with the following statements?

“A digital/virtual environment . . .”

(showing “strongly agree” and “agree” combined)

■ Helps instructors ■ Helps students ■ Increases interaction



Base: 214 key decision makers involved in influencing strategic education strategy initiatives
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Harness Digital To Modernize Higher Education

OVERVIEW

SITUATION

APPROACH

OPPORTUNITY

CONCLUSIONS

Enable, Evaluate, And Assess Digital Educational Requirements

Although the transition into a modern digitally-equipped education institution is a daunting one, with the right business strategy and partners a host of new and exciting opportunities can be opened. Education institutions of all types are using digital technology to transform how students, professors, and administrators teach, learn, and interact with each other and with their surrounding environment.



Modernize the campus experience by enabling anytime, anywhere learning with partners. Today's learning environments are primarily on-campus. However, education stakeholders must identify their future technology road map requirements by evaluating demand for various types of learning environments, stakeholder technology, campus evolution opportunities, and the type of institution it is. But avoid using a fragmented array of third-party technology partners which will only increase complexity.



Enable collaboration as a core aspect of your technology transformation — and that includes partners. Empowering students, staff, and administrators with the ability to seamlessly interact with each other and to access digital content and curriculum is a core priority for many education institutions. This journey should not be embarked on alone, instead focus on selecting a few key technology partners who can assist your education institution with multiple technology and integration components whilst collaborating with you.

METHODOLOGY

In this study, Forrester conducted an online survey of 214 key decision makers involved in influencing higher education strategy initiatives and digital transformation to evaluate the current state of the education sector. Respondents were from Canada, the US, and the UK.

ABOUT FORRESTER CONSULTING

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