From Crisis to Strategy: Digital Transformation or Digital Delusion?

Presented by EAB and HUMANE

We will begin the presentation shortly

Joining Us Today…

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Poll locked. Responses not accepted.

What word, phrase, idea, or technology comes to mind when you hear 'digital transformation'?

Is This What We Meant By Digital Transformation?

IE University deploying a fleet of UV ray robots to disinfect buildings at night and thermal imaging scanners to monitor temperatures of students entering buildings

Oakland University instructing students and staff to wear BioIntelliSense's BioButtons, which measure heart rate, temperature and respiratory rate—and predict early signs of COVID-19

'Since the pandemic started, I've been fielding daily requests from vendors with a new technology they want to sell me—all either costing six figures or seemingly having been developed in their parents' garage.'

CIO, UK Russell Group University

University of Southern California investing $2M in AV networking products from Audinate, Crestron and Shure to enable fully hybrid classroom instruction

University of Rochester installing sensors from Occuspace to monitor campus foot traffic and density and inform students about available and non-dense study spaces

Guam Community College partnering with startup QU-in to handle capacity and line management in high-traffic areas (e.g., registrar office, libraries, gyms, cafeterias)

Despite PlexiGlass, We're Shielded No Longer

Demographic, Competitive, and Technological Forces Behind Digital Transformation

Source: EAB interviews and analysis.

So, What Is Digital Transformation (DX)?

Digital Transformation is the process of using data and technology to drive change.

The emphasis is not on specific technologies but on the application of those technologies to core operational challenges or strategies.

Real digital transformation enables rapid scaling and adoption of the solution, which in turn drives widespread change.

Not technology for technology's sake

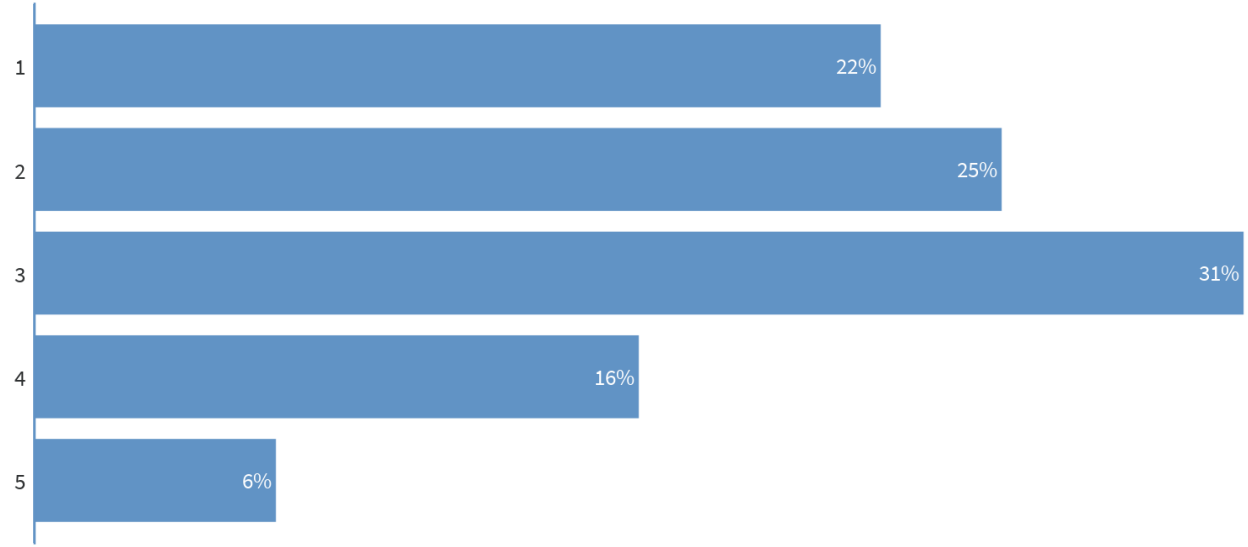
Solving big problems everyone agrees upon

Solutions are embedded in, not isolated from, daily activity

Source: EAB interviews and analysis.

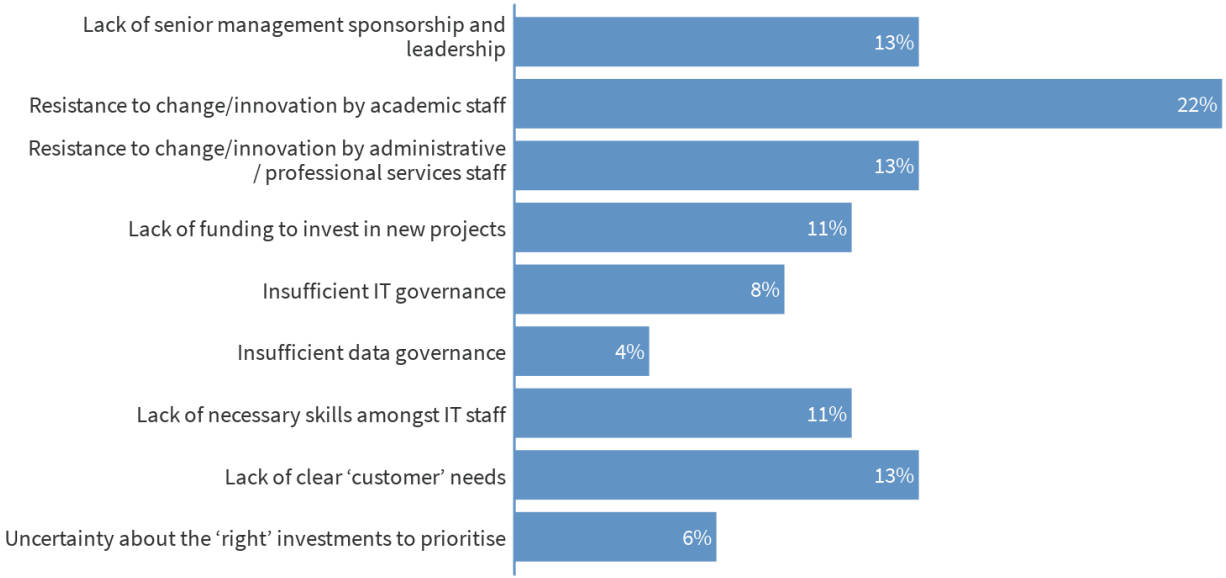
Respond at **PollEv.com/eab500**

On a scale of 1 (low) to 5 (high), how would you rate your institution's effectiveness at pursuing digital transformation BEFORE the coronavirus outbreak?



When poll is active, respond at **PollEv.com/eab500**

Select the THREE greatest barriers to digital transformation at your institution BEFORE the coronavirus outbreak.



Moving from Slogan to Impact No Easy Task

HE Sector's Unique Culture and Siloed Finances Have Hindered DX Efforts

Many HEIs Wrote 'Symbolic' Digital Transformation Strategy…

Typical University DX Strategic Plan:

- 5-10 page document
- Wish-list of technologies
- Buzzword bingo
- Few specifics on timing, resources, or success metrics

…But Lacked Credible Path to Realising Innovation or Scale

Barriers to Innovation

- Academic staff lack expertise and incentive to 'design-in' DX features
- No ownership for systematically evaluating DX opportunities
- Siloed, manual business processes

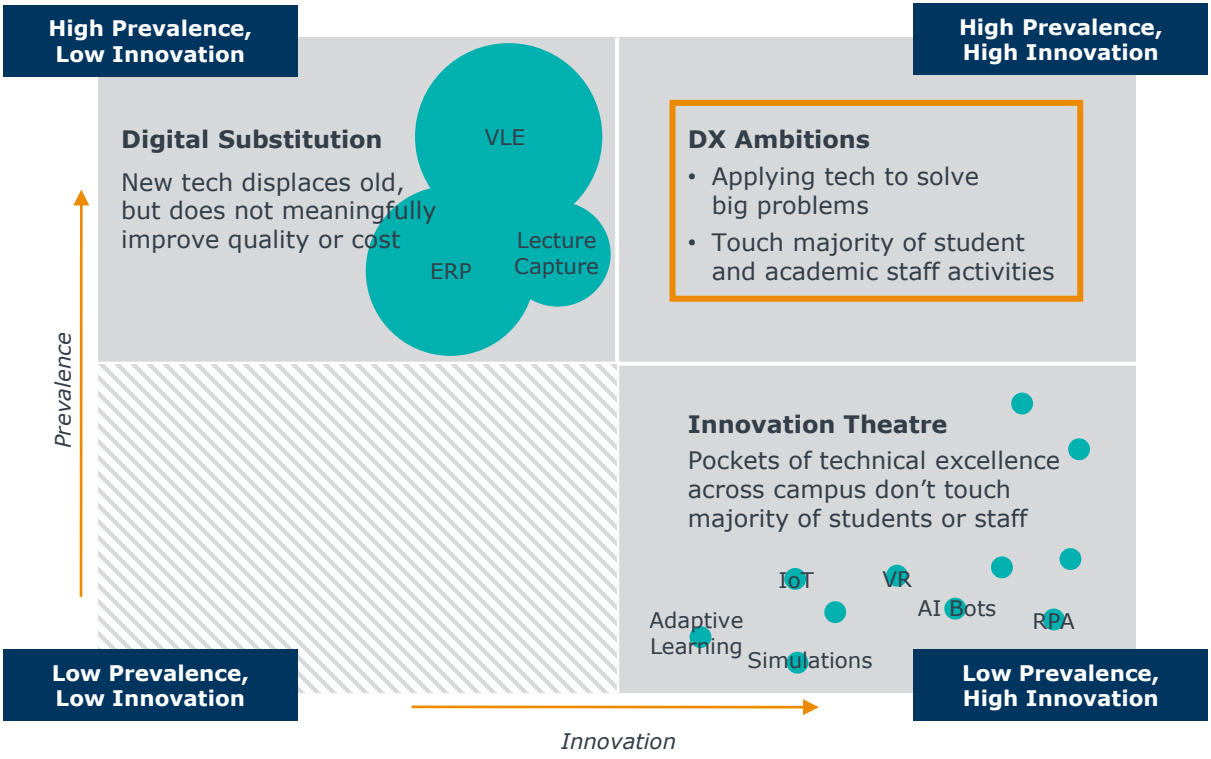
Barriers to Scale

- Academic units lack adequate funding for DX projects
- Central administration struggles to get units to agree on requirements
- Legacy IT infrastructure and lack of data standards prevent interoperability

Source: EAB interviews and analysis.

Genuine Transformation Frustratingly Elusive

That Which Is Scalable Isn't New; That Which Is New Isn't Scalable



Source: EAB interviews and analysis.

In the Midst of Seismic Shifts in DX Opportunity

What We Said Pre-Pandemic	What We Believe Now
DX investments can differentiate your institution in the market and expand value	DX investments are necessary to avoid falling behind the pack
DX is 80% change management and 20% prioritization	DX is 20% change management and 80% prioritization
DX initiatives move analogue products and services onto a digital platform in response to 'digital native' demands	DX initiatives should replace and streamline transactional services while enhancing and supporting the learning experience
DX improves the on-campus experience via interconnected applications and tools	DX should widen the access of students and staff to a digital campus regardless of geographic or financial barriers
DX can unlock a new operational end-state	DX can unlock an agile operating environment in which you can pivot between modalities, based on need

Source: EAB interviews and analysis.

Digital Innovation Snapshots Across Three Domains

A Review of Higher Education Transformations

1

Marketing and Recruitment Pipeline

Virtual Engagement Platforms

AI Application Bots

New Media Gurus

2

Student-Centric Campus Experiences

360-Degree Digital Assistants

Multi-Channel Student Voice Monitoring

Smart Scheduling

3

Administrative Efficiency Opportunities

Robotic Process Automation

Needs-Driven Maintenance

On-Demand Resourcing

From Take-Home VR Headsets…

VR 'Swag' Amplifies University Brand for Geographically Distant Prospects

Wayne State Enrolment Team Gives Away Cardboard VR Headsets…

- Dismayed at diminishing returns of print collateral, Enrolment shifts spend to 'take-home' VR
- 'Engaged' prospects receive free Google Cardboard headset with university branding
- University-produced VR app features student life, academic, and athletic experiences

…Leading to Application and PR Ripple Effect Beyond Historical Reach

10,000

Google Cardboard headsets distributed to prospects

$2

Cost per headset

10,000+

Recruitment 'impressions' as students explore VR content

> 'I wanted any student in the world to feel like they're sitting in a classroom at Wayne State. The app shows the heart of the classroom, the heart of Wayne State, and the heart of Detroit.'
>
> *Melissa Crabtree, IT Customer Service Director*

Source: Wayne State University, Detroit, MI; C&IT Helps Launch Wayne State Virtual Experience App, September 24, 2018; EAB interviews and analysis.

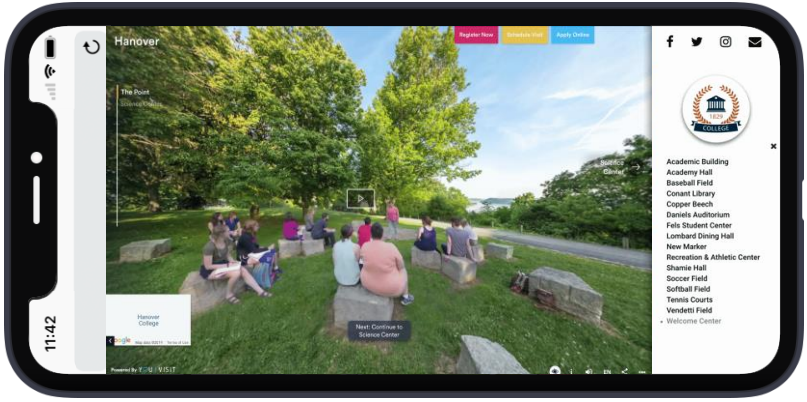
…to Virtual Reality Campus Tours

State-of-the-Art Virtual Tour Capabilities Cater to Gen Z Expectations

360° photos and videos enable 'day in the life' exploration of campus

Mobile-first content mimics platforms with which prospects are already familiar

Embedded videos capture one-of-a-kind experiences unique to a specific campus



Personalised tours show a student athlete the training facilities, or a musician the orchestra hall

Audio and video guides with thousands of language, accent, and inflection permutations

Algorithms push students through the tour at a rate that optimises engagement and application call-to-action

Source: Hanover College, Hanover, IN; YouVisit; EAB interviews and analysis.

Offering an On-Campus Experience at a Distance

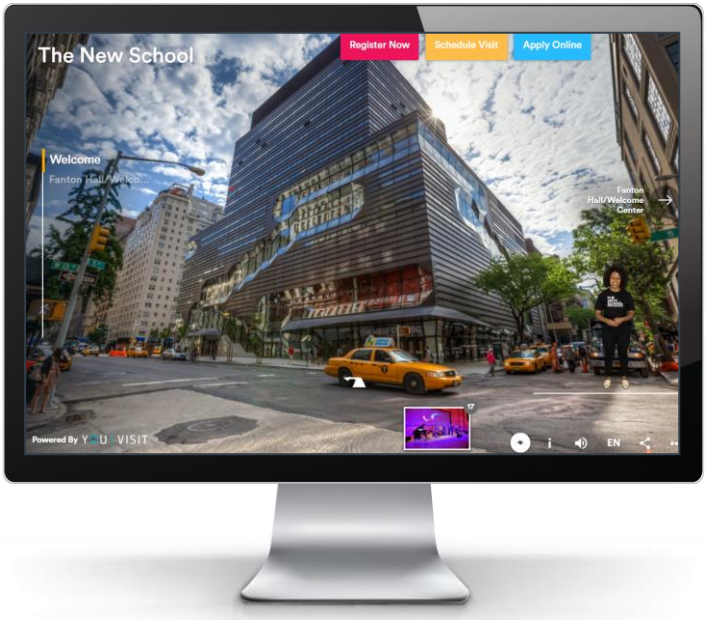
The New School's 360° Virtual Experience Targets Regional and International Recruitment

93 **Countries represented** among the 17K visitors that took a virtual tour

68% **Admit rate** among applicants sourced via the virtual tour, higher than the 57% overall admit rate

$8.5M **Influenced revenue** from admitted students whose application journey began with a virtual tour

THE NEW SCHOOL YOU | VISIT



Take your own tour here.

Source: The New School, New York, NY; EAB interviews and analysis.

Admitted Student Social Communities

George Mason University's P2P App Creates Instant Peer Network

1

Peer to Peer (P2P)

New students engage in conversations and start to build a community (opt-in chat rooms based on interests, geography)

2

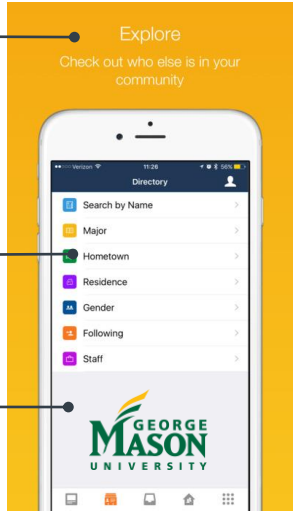
Current Users

Current GMU students field questions and provide feedback on their experiences

3

Experts

Academic staff and other institutional staff address complex questions about academic programmes and career outcomes



Enrolment Team Uses App to:

Manage interventions

- Keyword alerts triage interventions by notifying appropriate staff when specific words mentioned

Enlist (and guide) staff participants

- App access serves as ongoing focus group to range of campus members (housing, IT, academic staff, etc.)
- Two admissions counselors monitor on a part-time basis

Harness data

- Grades and test scores included for each admitted students
- Volume of interactions serves as enrolment predictor

4x

more likely to yield when a student uses app

60%

of out-of-state students who join app community yield

Source: George Mason University, Fairfax, VA; "George Mason University Case Study", www.targetx.com/solutions/schools-app; EAB interviews and analysis.

Digital Assistants Go to School

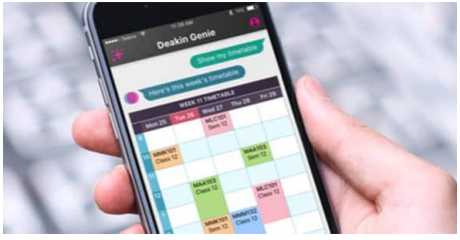
University-Branded Smart Speakers Becoming Ubiquitous on Campuses

Saint Louis University's Amazon Dot Can Be Found in Every Student Dorm Room

- Big tech players—Google, Amazon, Apple—competing for market share amongst HEIs
- Devices programmed with 'skills' that offer on-demand information about campus events and services

Student-Facing Mobile Apps Still Uncommon…At Least Good Ones

Deakin University's Genie App Remains the Standard Bearer of AI-Powered Student Apps



- Rather than 'There's an App for That', new trend pushes students towards single front door for university services
- Most evolved apps interface with LMS, library, finance system, calendar, etc.

Source: Lindsay McKenzie, "Alexa, What's the Deal With You, Anyway?" *Inside Higher Ed,* August 22, 2018; "Just in Time for Back to School: Updates from Alexa On Campus," AWS Blog Team, *AWS Amazon,* October 23, 2019; "UNSW Steps Up to University Challenge," Microsoft News Center, *Microsoft,* August 5, 2019; Arizona State University, Phoenix, AZ; Saint Louis University, St. Louis, MO; University of New South Wales, Sydney, Australia; EAB interviews and analysis.

Spectrum of Catering and Nudging

In Developing AI Assistants, HEIs Strike Balance Between Catering to Students' Wants and Nudging Them Towards Success-Oriented Behaviours

Arizona State University (U.S.)

"Sunny" answers prospects' routine questions related to financial aid and enrolment

University of New South Wales (AUS)

"Question Bot" flags students at risk of dropping out based on early warning signs and directs them to support

Saint Louis University (U.S.)

"SLU"—via Amazon Dots installed in every student room—provides details about campus life and community events

Lancaster University (U.K.)

"Ask L.U." interfaces with LMS to provide academic support, e.g. playing past lectures and delivering assignment feedback

Source: Lindsay McKenzie, "Alexa, What's the Deal With You, Anyway?" *Inside Higher Ed,* August 22, 2018; "Just in Time for Back to School: Updates from Alexa On Campus," AWS Blog Team, *AWS Amazon,* October 23, 2019; "UNSW Steps Up to University Challenge," Microsoft News Center, *Microsoft,* August 5, 2019; Arizona State University, Phoenix, AZ; Lancaster University, Lancaster, England; Saint Louis University, St. Louis, MO; University of New South Wales, Sydney, Australia; EAB interviews and analysis.

Automated Student Service Responsiveness

Portfolio of Smart Apps Leads Students Where They Want to Go

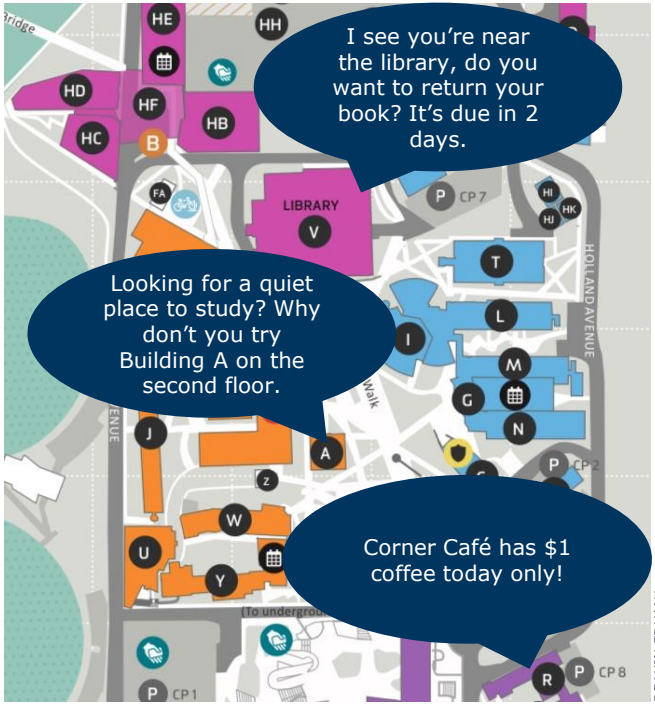
- Genie, Deakin University's virtual assistant, interfaces with Scout, a personalised smart campus navigation and wayfinding app
- Genie uses Scout GeoSensor networks and students' personal information to provide location-based support

Genie by the Numbers

12K daily conversations facilitated by Genie

25K unique student users and app downloads in first five years

Sample Student-Centric Features



Source: "Deakin Scout," YouTube video, *Deakin University*, July 15, 2019; Digital Deakin, *Deakin University*; Matt Johnson, "Deakin's Genie Assistant Tackles 12,000 Conversations a Day," *IT News*, September 9, 2019; Deakin University, Victoria, Australia; EAB interviews and analysis.

Bridging AI and Human Support

STAFFORDSHIRE UNIVERSITY

Staffordshire University's Beacon App Nudges Students to Success

- First AI assistant in UK HE sector
- Responded to 10K queries in the first month (January 2019), from ordering ID cards to locating lecture halls
- Student-driven product roadmap leads to new skills, like recommending clubs and societies
- 'Nudges' seek to non-intrusively intervene and promote success-oriented behaviours

Sample Beacon 'Nudge' Campaign

Problem

Unengaged students at risk of failing or dropping out

Institutional Knowledge

Relationships with assigned personal tutors improve attainment, retention

Nudge

Did you know your personal tutor is Dr. Staffs Beacon? You can reach out to her for advice!

Result

300 new relationships formed between students and personal tutors

Source: "Developing a Digital Strategy for Student Support with an AI Chatbot," *Times Higher Education,* 2019; Staffordshire University, Staffordshire, England; EAB interviews and analysis.

Rapid Response at Concordia College

Robust Student Information System Assists in Shift to Remote Instruction

Departure Forms

Push **departure forms through student system** to determine students':

- **Housing plans** (return to home of origin, remain in dorm, etc.)
- **Financial situation** (including ability to travel)
- **Computer and internet** access for online learning

83%

of students completed form sent via email

Text Messaging

Used a **text message campaign** to follow up with students who didn't submit their forms

99%

of students completed form after text campaign

Progress Reports

Launched **Progress Reports,** allowing academic staff to flag struggling students and submit alerts based on:

- Academic participation
- Academic performance
- Emotional well-being
- Financial concerns
- Technology barriers
- Doubt about staying at Concordia

93%

of staff submitted Progress Reports

425

students flagged

Recalibration, Not Radical Redesign, of Back Office

EAB Survey Data Suggests Leaders are Willing to Push Forward Pandemic-Aligned Changes, But Not Yet Ready to Touch the Sector's 'Third Rails'

Top Five Strategies Cited Ripe for Radical Transformation

- ✓ Remote work policies
- ✓ Information technology
- ✓ Automation
- ✓ Space utilisation practices
- ✓ Shared services

Bottom Five Strategies Cited Ripe for Radical Transformation

- ✗ Athletic conference affiliation
- ✗ Academic staffing models
- ✗ Hospitals and health systems
- ✗ Doctoral programmes
- ✗ Athletic programmes supported

Potential Factors Driving Responses

Most common targets for radical change were forced to transform by pandemic—not intentional strategic visioning

Short-term financial and operating realities limit capacity to implement deeper structural changes

Post-pandemic uncertainty clouds strategic decisions, raises risk perception, and lowers risk tolerance

Source: EAB interviews and analysis.

‘Taking the Robot Out of the Human’

RPA (Robotic Process Automation) in Brief

Method of training artificial intelligence or software “bots” to mimic human behavior, allowing them to perform high-volume, repeatable tasks

Tasks Suitable for RPA Implementation

- High-volume manual processes
- Repetitive tasks
- Tasks with multiple steps
- Tasks requiring multiple digital interfaces

Sample RPA Applications

- Reconcile employee IDs across multiple HR systems
- Automate the upload of student documents
- Pinpoint expired employee credit card accounts
- Reconcile student coursework with graduation requirements
- Automate processes for booking rooms for meetings, events, etc.
- Process purchase-orders invoices
- Create tagged records in student portals for communication from student services

Select Institutions Using RPA

RUTGERS THE STATE UNIVERSITY OF NEW JERSEY

Carnegie Mellon University

THE UNIVERSITY OF SYDNEY

NYU

Source: B Duncan & K Lundy, “Robotic process automation (RPA) for colleges and universities,” *Ernst & Young*, December 11, 2019; N Jackson, “Robots Welcome,” *Business Officer*, December 2019; Carnegie Mellon University, Pittsburgh, PA; New York University, New York, NY; Rutgers University, New Brunswick, NJ; University of Melbourne, Melbourne, AU; University of Sydney, Sydney, AU; University of Texas System, Austin, TX; EAB interviews and analysis.

From RPA Novice to Champion

Repeated Successes Along the University of Melbourne's Robotic Process Automation (RPA) Journey

Enrolment: Student exam results collated and entered into enrolment system, replacing need for additional data entry staff

Procurement: New supplier registered in the procurement system within 30 minutes, replacing the previous 5-day queue

IT: System access established for new employees in 10 minutes, replacing the previous three-week wait time

HR: Automated verification of all timesheet adjustments removing need for manual checking of adjustments

Contract Management: New contracts automatically recorded without the need for manual checking and approvals

22
RPA applications

10K
Hours of labour saved annually

THE UNIVERSITY OF MELBOURNE

"Administrative tasks are very repetitive, very rule-based. RPA was brought into the University of Melbourne to reduce the high-volume tasks so **we can actually do more data analysis and gather more insights into what students actually want**."

Shiv Chandra
RPA Manager, University of Melbourne

What's Next?

Melbourne will train internal "RPA Champions" to utilise open-source RPA tools, thus avoiding expensive external hires and encouraging bottom-up use cases for RPA technology

Source: Anthony Bosisto, "University of Melbourne – Case Study," *RPA Solutions,* June 7, 2017; Jennifer O'Brien, "Uni of Melbourne gets cozy with 'bots' to help staff, students," *CIO.com*, March 13, 2019; "University of Melbourne Saves 10,000 Hours Annually with Automation Anywhere," *Automation Anywhere,* May, 2019; University of Melbourne, Melbourne, Australia; EAB interviews and analysis.

Automation's Role in Containing Labour Costs

Technology Enables Savings But Won't Solve All Workforce Challenges

Benefits and Limitations of Automation Solutions in Workforce Evolution

✓ Reduce reliance on transactional labor	✗ Typically automates only a fraction of average FTE workload
✓ Create staff capacity for strategic work	✗ Does not address staff skills gaps that preclude new strategic work
✓ Increase staff satisfaction with business processes	✗ Solutions underutilised if staff don't see value or understand how to use them

Complementary Solutions Needed

1. Cultivate **smaller** but **more productive** workforces
2. Develop **organisational models** that scale admin costs
3. Streamline **administrative processes**

Source: EAB interviews and analysis.

Tip of the Digital Transformation Iceberg

Six DX Trends Worthy of Planning and Consideration

Multimodal Instruction for Career Exploration and Lifelong Learning

High-Impact Investments:

- Mobile-Accessible Course Materials
- Multimodal Undergraduate Interdisciplinary Tracks
- Lifelong Learner Platforms
- Freemium Adult Learner Marketing
- Personalised Curriculum Recommendation Engines

Personalised, Multichannel Prospect Communications

High-Impact Investments:

- Personalised Recruitment Campaigns
- Virtual Reality Campus Tours
- AI Application Bots
- New Media Gurus
- Admitted Student Social Communities

Frictionless Student Services and Success-Oriented Interventions

High-Impact Investments:

- 360-Degree Digital Assistants
- Smart Scheduling Tools
- On-Demand Service Delivery
- Student Voice Platforms
- Mental Health Micro-Assessments

Curated, Value-Driven Alumni and Donor Engagement

High-Impact Investments:

- Digital Channel Micro-Engagements
- Mix-and-Match Communications Optimisation
- Targeted Affinity Campaigns
- AI-Powered Donor Identification and Scoring
- Plug-and-Play Donor Outreach

Predictive Estates Operations and Space Management

High-Impact Investments:

- Proactive Maintenance Sensors
- Predictive Fault Detection
- Space Utilisation Analytics
- Mobile Maintenance Platforms
- Integrated Asset Tracking

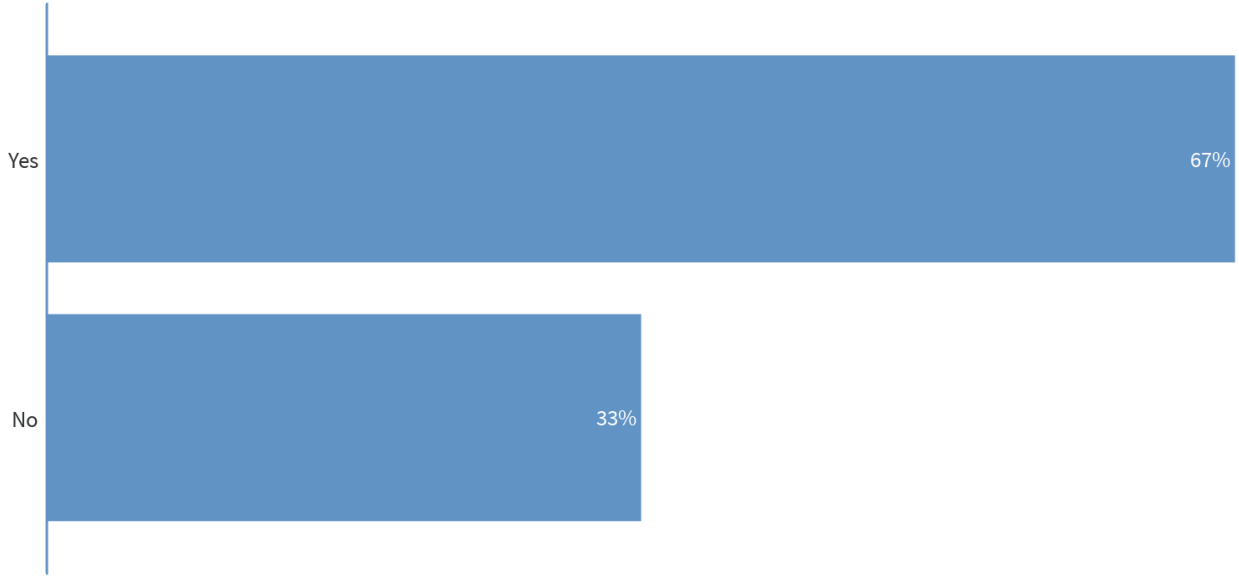
Business Processes and Data Tools Designed for Customer Needs

High-Impact Investments:

- Just-in-Time High-Speed Computing
- Open-Source Research Tools
- Industry Partnership Portals
- University and Researcher Reputational Multipliers
- Grant Writing Scripting Bots

When poll is active, respond at **PollEv.com/eab500**

Since the outbreak of the pandemic, has your institution expressed its intent to revise or develop a new digital strategy?



What is at the top of your list of digital transformation ambitions for the next 1-2 years?

Combining physical and digital
uniform systems
Acknowledge the heterogenous and networked character of our work
data security
external relations management
digital learning environments
Making digital learning easy
Look at how we plan to integrate the digital and physical campus.
Combination of real life experiences and DX
Solve psychological problems and technophobia
Digital campus plaN in order of urgency
Stop the magical thining - become more mature
Technology enhanced learning upgrading the educational model
Creating effective peer groups to continue the development of teaching methods.
Culture transformation
Budget shift, from buildings to IT
Liberate innovation
Effective staff collaboration
Security
Roadmap the 'consumer' side
Digital competence development, introduction and education sessions for employees
Complete a pilot

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