EDUCAUSE Annual Conference 2024

EDUCAUSE Teaching & Learning Symposium 2024

Visits to Houston Community College
Texas A&M University
San Antonio College
University of Texas San Antonio

French Delegation Report

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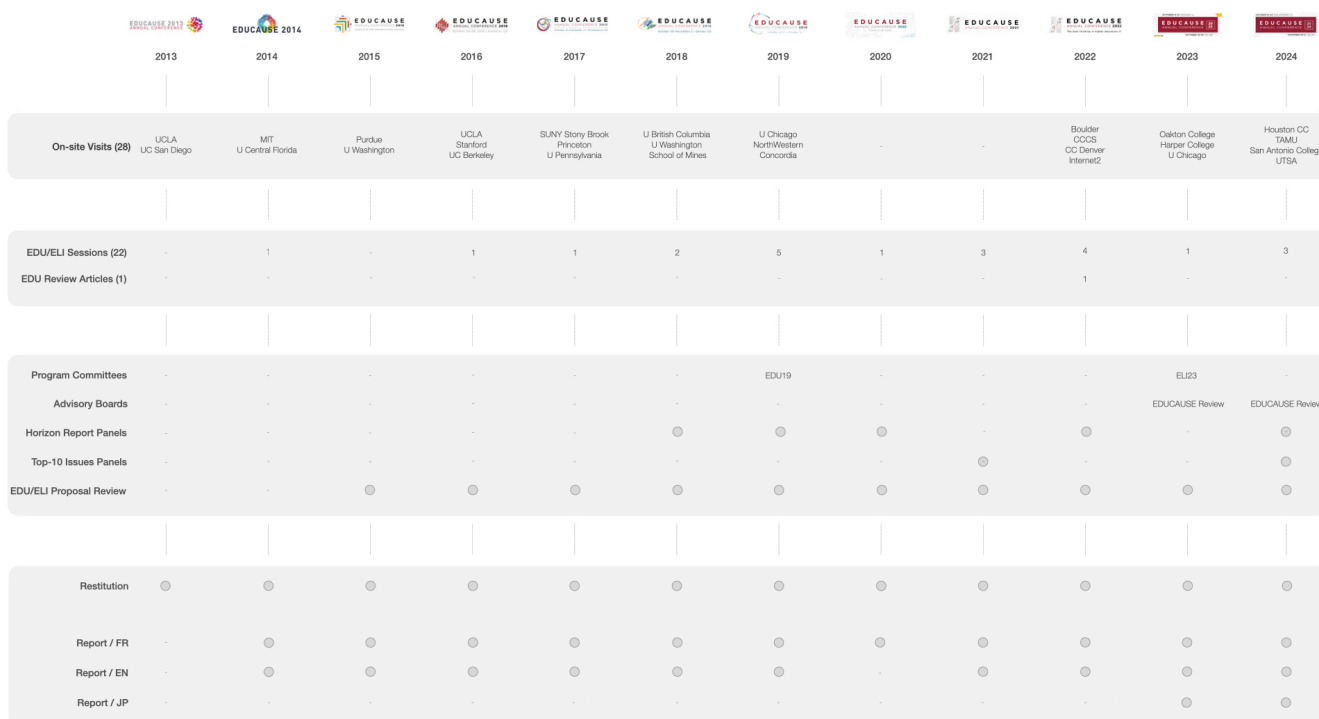
Forewords

The Annual Conference 2023 held in Chicago in October marked the 10th anniversary of the EDUCAUSE French Delegation. This milestone is obviously an opportunity for us to look back on the road travelled in a decade.

From the beginning, this initiative has sought to provide the French higher education community with an international perspective on digital issues, by bringing together complementary profiles capable of assessing the major trends and prospects. This has taken the form of ongoing participation in the EDUCAUSE Annual Conferences since 2013, which has been significantly enriched over the years. From an initial philosophy of simple participation that prevailed in the early years, the members of this Delegation have gradually become involved at various levels of EDUCAUSE, within the framework of the conferences and beyond (see the infographic below).

We have now selected twenty presentations on a range of topical subjects. Several of our members are also involved each year as proposal reviewers for the EDUCAUSE Annual Conference, and as members of the respective programme committees (in 2019 and 2023). Finally, some of us sit on expert panels for the EDUCAUSE Horizon Report and the annual Top-10 issues, are active in various thematic Community Groups (XR and Learning Spaces in particular), or are involved as writers of reference articles and translators of tools.

We should also mention the nearly thirty site visits that have also been carried out since 2013 before or after the EDUCAUSE Annual Conferences, which, in addition to the remarkable welcome we have always received, have provided us with an invaluable insight into the field through high-quality discussions.

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
On-site Visits (28)	UCLA UC San Diego	MIT U Central Florida	Purdue U Washington	UCLA Stanford UC Berkeley	SUNY Stony Brook Princeton U Pennsylvania	U British Columbia U Washington School of Mines	U Chicago NorthWestern Concordia	-	-	Boulder CCCS CC Denver Internet2	Oakton College Harper College U Chicago	Houston CC TAMU San Antonio College UTSA
EDU/ELI Sessions (22)	-	1	-	1	1	2	5	1	3	4	1	3
EDU Review Articles (1)	-	-	-	-	-	-	-	-	-	1	-	-
Program Committees	-	-	-	-	-	-	EDU19	-	-	-	ELI23	-
Advisory Boards	-	-	-	-	-	-	-	-	-	-	EDUCAUSE Review	EDUCAUSE Review
Horizon Report Panels	-	-	-	-	-	○	○	○	-	○	-	○
Top-10 Issues Panels	-	-	-	-	-	-	-	-	○	-	-	○
EDU/ELI Proposal Review	-	-	○	○	○	○	○	○	○	○	○	○
Restitution	○	○	○	○	○	○	○	○	○	○	○	○
Report / FR	-	○	○	○	○	○	○	○	○	○	○	○
Report / EN	-	○	○	○	○	○	○	-	○	○	○	○
Report / JP	-	-	-	-	-	-	-	-	-	-	○	○

Recognition of these different levels of intervention has enabled us to forge special links with EDUCAUSE and in particular its executive members (President, Vice-Presidents and Directors). Our actions have also given us significant visibility within the North American university community and beyond, leading to the establishment of formal collaborations, some of which are long-term. Several sessions have been given at different editions of the conference with American, Belgian, Japanese and Australian colleagues, ongoing cooperation throughout the year has been established with a number of international universities, and a partnership is in place with the Japanese EDUCAUSE Delegation through joint site visits and action around our report.

Our report is reaching an ever-growing international audience, thanks in particular to an English translation that we agreed from the outset, and which has been joined since 2023 by a Japanese version, produced and

translated in partnership with our friends at AXIES. Since 2014 and including this year's editions, twenty-three editions have been published, totalling more than 1,500 pages.

These different initiatives all contribute to achieving our fundamental objectives: to exchange ideas, raise awareness, inform, inspire and share in order to support the development of digital technology in French higher education.

Every year, our traditional community feedback meeting gives concrete expression to this commitment, and has become a major annual watchdog event, which we know is much appreciated. The following pages follow on from the feedback meeting on 28 January 2024. They cover the various workshops held at the EDUCAUSE Annual Conference in San Antonio in October 2024, the four on-site visits that were carried out, and the EDUCAUSE Teaching & Learning Symposium held remotely last June.

We wish you a pleasant and informative read.

The EDUCAUSE French Delegation Steering Committee
John Augeri, Laurent Flory, Thierry Koscielniak and Bruno Urbero

Tribute to Yves Epelboin

It is with great sadness that we pay tribute to our colleague, friend and mentor Yves Epelboin, a major figure in digital higher education and a key contributor to the EDUCAUSE French Delegation. Yves passed away on September 2, 2024, leaving behind an intellectual and institutional legacy that continues to influence our community.

Professor at the Université Pierre et Marie Curie (now Sorbonne Université), Yves led an exceptional scientific and academic career. After distinguishing himself in the field of physics, he became involved in the development of digital technologies for education and research, playing a pioneering role at a time when these tools were still little explored. His vision and commitment have laid the foundations for many structuring initiatives in the field of university digital technology.

In particular, Yves contributed to the creation and development of organizations such as CSIESR and EUNIS, where he mobilized collective expertise around strategic digital issues. His work in these structures has strengthened collaboration between institutions, both nationally and internationally, and supported the integration of digital technologies into higher education.

As a co-founder and an active member of the EDUCAUSE French Delegation, Yves has played a key role in representing French expertise on the international stage. He facilitated the emergence of innovative projects by sharing his network of American CIOs, his ideas and his understanding of the digital transformations underway in French and American higher education.

His speeches paid particular attention to digital uses for teaching and learning, and to related governance issues. He saw digital as a lever for improving the student experience and fostering innovative pedagogical approaches. John O'Brien, President of EDUCAUSE, underlined the importance of his role: "*His intellectual curiosity and openness have left their mark on many professionals around the world*."

Yves' influence was not limited to his concrete achievements. He was also a mentor to many colleagues, generously sharing his expertise and advice. His contributions fueled strategic thinking, notably on the use of immersive technologies and student-centered approaches. His work has enriched discussions on topics such as artificial intelligence in education and the evolution of learning spaces.

The signature of his e-mails, inspired by Ludwig Boltzmann, reflected his philosophy:

"*Man knows at last that he is alone in the indifferent immensity of the universe from which he emerged by chance.*"

This quote, though tinged with gravity, reflected his ability to place the challenges of the digital age in a broader perspective, where humility and critical reflection were paramount.

We extend our deepest condolences to his family and friends, and pledge to continue his work in the service of the academic community.

The current and past members of the EDUCAUSE French Delegation

French Delegation 2024

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Introduction & Trends in Higher Education in USA

Laurent Flory

The 2024 edition opened with significant political tension on the eve of the U.S. presidential elections. While the COVID-19 crisis now belongs to the past, the aftermath of this period continues to shape North American Higher Education and Research (HE(R)), notably through the accelerated adoption of hybrid models and the evolving expectations of students in terms of flexibility and digital services. EDUCAUSE, remaining true to its mission as a non-profit organization bringing together academic, industrial, and institutional stakeholders, continues to play a central role in foresight and technological innovation in the service of higher education.

This year, we visited two community colleges: Houston Community College and San Antonio College, as well as two large universities: Texas A&M University and the University of Texas San Antonio (UTSA). These visits illustrate the diversity of resources and objectives between large selective institutions and smaller ones with a strong social mission, deeply anchored in a specific geographical area serving local communities. The French delegation's study trip was enriched by strategic dialogues with the French consulate in Houston, whose assistance in organizing the delegation was greatly appreciated. Discussions with the Japanese delegation, now a regular partner, also helped strengthen international comparisons regarding institutional practices.

North American HE(R) continues to sink deeper into crisis. The loss of confidence in the system has become so significant that it is the central theme of the Top 10, which this year evolved from "Top 10 IT Issues" to simply the "Top 10," with... 11 selected priorities.

The use of generative artificial intelligence is expanding, either in a testing phase for some or in production for others, with significant challenges related to cost and privacy issues.

Generation Z, the first to be entirely digital-native and profoundly marked by the COVID crisis, is now the majority in institutions. This generation demands more in terms of tailored tools and support. Thus, student success remains an absolute priority and is among the most frequently discussed topics. Human dimension is increasingly at the heart of these challenges, as it should be central to technology.

As usual, this introduction aims to convey the necessarily subjective vision of HE(R) as well as the social, political, and economic contexts in the United States as perceived by the delegation. This vision serves as a key to understanding the report, placing it within a North American environment marked by major contemporary challenges in areas such as academic governance, equity, and pedagogical innovation amid a significant crisis in the higher education and research industry.

Good News: International Students are back...

The Open Doors 2024 report[1], from the Institute of International Education, published in November 2024 with the support of the U.S. Department of State, highlights the United States' continued dominance as the preferred destination for international students. During the 2023-2024 academic year, the total number of international students reached 1,126,690, a historic record. This increase is particularly driven by India, which became the leading country of origin with 331,602 students, surpassing China for the first time in over a decade. European students represent 90,600 enrollments, with a slight increase of 0.8%. There was a very slight decrease of 0.1% in the number of French students, totaling 8,543. Preferred disciplines remain business and STEM fields (science, technology, engineering, and mathematics). Thus, the United States regains an appeal that had been tarnished by the Trump administration's measures and the COVID crisis.
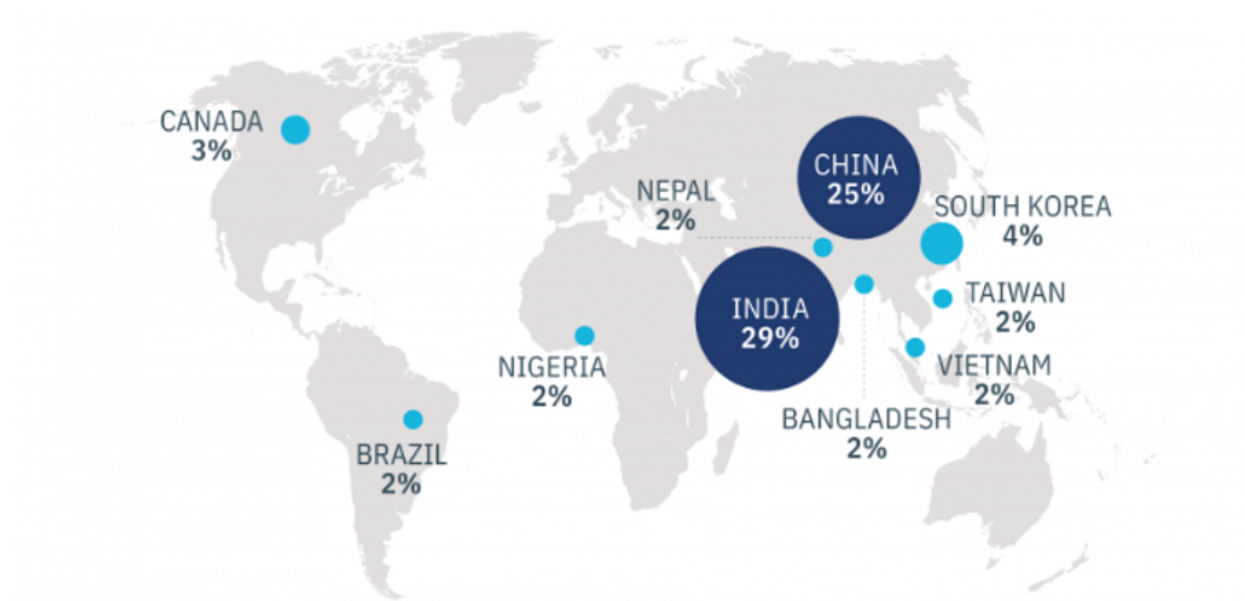

Figure 1 Leading places of origin of international students, 2023/24

In parallel, international student participation in professional internships under the Optional Practical Training (OPT) program increased by 22%, reflecting the appeal of practical training opportunities in the United States. However, non-degree programs, such as university exchanges and intensive English courses, experienced a 9% decline.

The mobility of American students abroad also saw a strong recovery after the pandemic, with 280,716 participants in 2022-2023, representing a 49% increase. Europe remains the preferred destination, hosting 64% of students, with France ranking fourth, having received 17,096 American students—an increase of 18.6%. The United States and Europe, notably France, thus confirm their central role in the international education landscape.

This edition of the report shows an almost complete return to pre-pandemic levels of student mobility, illustrating a gradual normalization of international academic exchanges. However, the presidential election results could potentially threaten this important source of revenue for institutions once again.

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[1] RAPPORT OPEN DOORS 2024 | Commission Franco-Américaine Fulbright: https://fulbright-france.org/fr/etudier-usa/actualites/rapport-open-doors-2024

… In an Sea of Bad News

Return on Investment of Higher Education in Question

The study conducted by the Foundation for Research on Equal Opportunity (FREOPP) on more than 53,000 degree and certification programs in the United States reveals significant disparities in profitability[2] depending on the fields of study and types of degrees. This analysis highlights that nearly a quarter of bachelor's programs and almost half of master's programs have a negative return on investment (ROI). Professional degrees, such as those in medicine or law, stand out with significant financial benefits, often exceeding one million dollars over a career.

Profitability differences are closely linked to the chosen field of study. Programs in engineering, computer science, economics, and nursing offer particularly high-income potential. On the other hand, programs in arts, education, psychology, and literature are characterized by low or even negative financial returns. Unsurprisingly, the quality of the institution also plays a decisive role: institutions with high success and on-time graduation rates generally offer more positive financial outcomes. Moreover, tuition fees, although high at some prestigious institutions, can be offset by access to better-paid professional opportunities. Surprisingly, some technical certifications, especially in manual trades, can surpass traditional university degrees in profitability.

However, one-third of students enroll in programs with negative profitability, and one-third of federal aid funds go toward financing pathways with negative ROIs. This situation mainly concerns two-year degrees and certain master's programs, whose costs are not always compensated by sufficient professional gains.

An additional study[3] published by Georgetown University's Center on Education and the Workforce (CEW) shows that while postgraduate degrees (master's, doctorates, and professional degrees) continue to offer higher income prospects, the constant increase in their costs and the resulting debts make them a risky bet for many students.
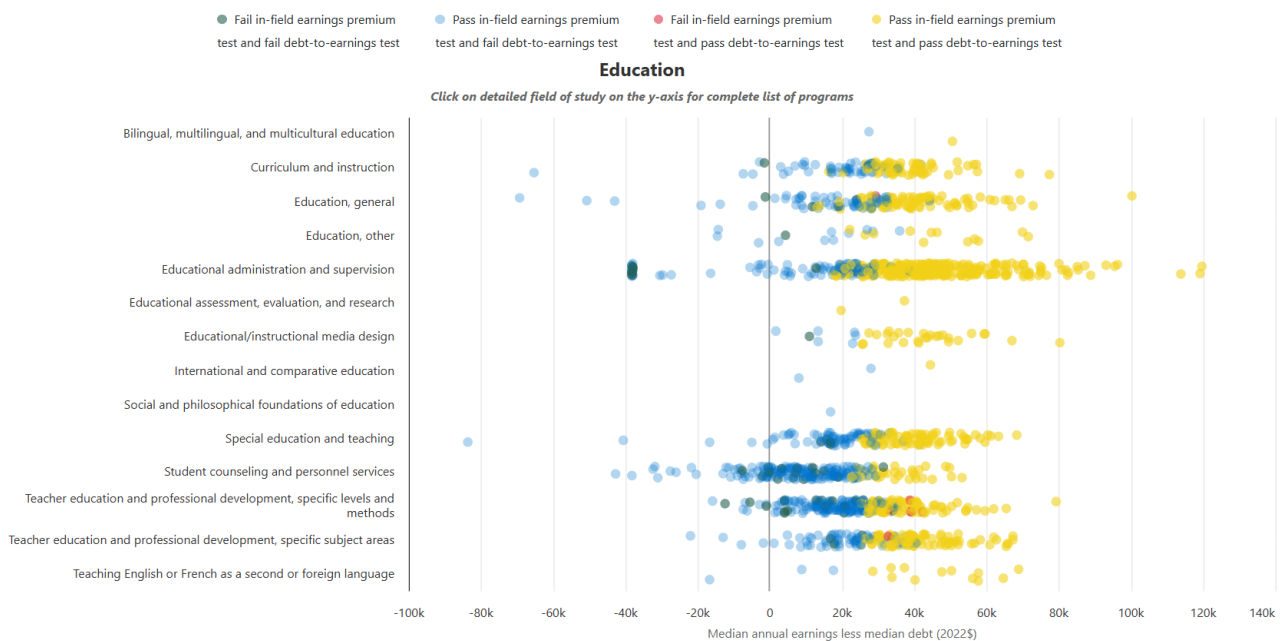

Figure 2 Median Annual Income Minus Median Debt by Field

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[2] Does College Pay Off? A Comprehensive Return On Investment Analysis - FREOPP: https://freopp.org/whitepapers/does-college-pay-off-a-comprehensive-return-on-investment-analysis/

[3] Graduate Degrees: Risky and Unequal Paths to the Top - CEW Georgetown: https://cew.georgetown.edu/cew-reports/graduatedegrees/

Between 2000 and 2020, the annual tuition fees for postgraduate programs increased by 233%, rising from $3,000 to $10,000. At the same time, the median debt amount rose by 47%, reaching $50,000. Although these degrees remain advantageous for employment and income, the income differential compared to bachelor's degree holders is gradually shrinking.

The CEW proposes linking institutions' access to federal loans to program profitability criteria. This would include tests based on the debt-to-income ratio of graduates and the additional income generated by the degree.

In conclusion, while postgraduate degrees remain a pathway to better-paying careers, their rising cost presents significant challenges, especially for the most vulnerable populations. Targeted reforms could help reduce these inequalities and improve the financial transparency of institutions yet politically very controversial.

Evolution of Student Debt in the United States: Toward Stabilization?

The evolution of student debt in the United States reflects a persistent crisis in higher education. Recent data shows that the total student debt reached approximately $1.77 trillion in 2024, showing, depending on the sources, either a steady increase compared to previous years, according to the Federal Reserve Bank of New York[4] a cautious initial decline[5] or according to the Federal Reserve a cautious initial decline after years of continuous growth.

In 2020, this amount stood at $1.6 trillion, representing a nearly 10% increase in four years and 43% over ten years. Approximately 43 million Americans currently hold student debt[6], according to the Department of Education, with an average amount per borrower of $37,700. The median debt per borrower with a bachelor's degree is around $25,000, but for one in four postgraduate degree holders, it exceeds $100,000[7]. The distribution of this debt by ethnic origin and gender also highlights deep inequalities. Women represent 58% of borrowers and are more likely to incur high debt due to pursuing advanced studies (American Association of University Women[8]).

Note: Analysis excludes those who borrowed no money to finance their educations
Source: AAUW analysis of U.S. Department of Education, National Center for Education Statistics, B&B:17 Baccalaureate and Beyond Longitudinal Study
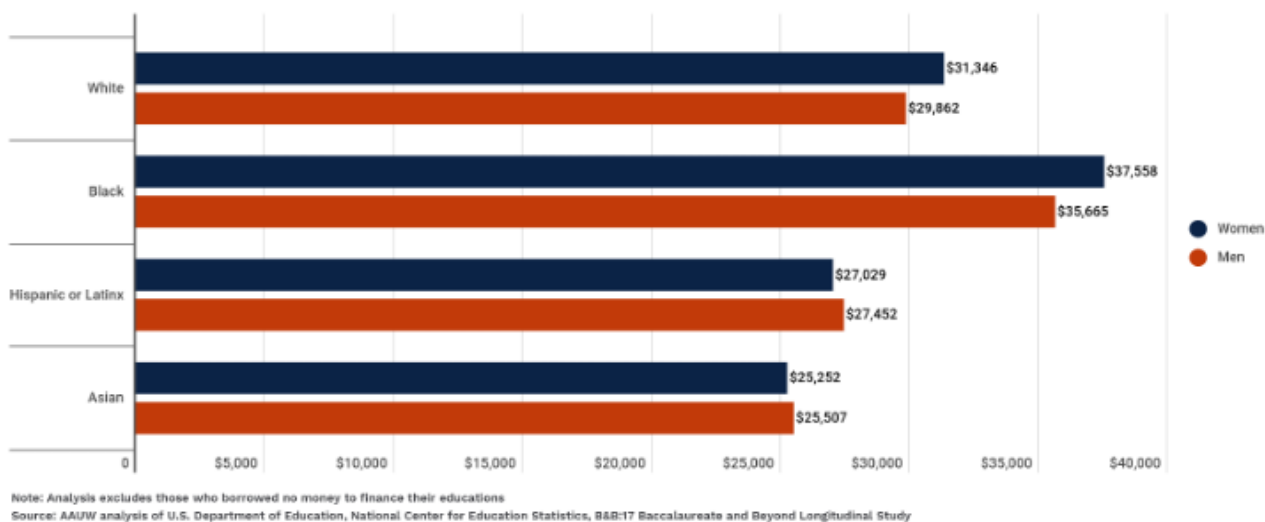
Figure 3: Mean Debt Amount by Ethnicity and Gender

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[4] https://www.newyorkfed.org/microeconomics/hhdc

[5] Student Loan Debt Statistics [2024]: Average + Total Debt: https://educationdata.org/student-loan-debt-statistics

[6] https://studentaid.gov/data-center/student/portfolio: https://studentaid.gov/data-center/student/portfolio

[7] États-Unis : la dette étudiante, menace pour les universités et enjeu politique majeur: https://theconversation.com/etats-unis-la-dette-etudiante-menace-pour-les-universites-et-enjeu-politique-majeur-239869 (in French)

[8] Women & Student Debt – AAUW : Empowering Women Since 1881: https://www.aauw.org/issues/education/student-debt/

Public policies have also impacted this dynamic. For example, federal income-driven repayment programs have allowed some borrowers to reduce their monthly payments, but these initiatives have not prevented the accumulation of interest. In 2023, the end of the repayment moratorium established during the COVID-19 pandemic exacerbated financial pressure for millions of households.

The issue of debt also underscores strong social inequalities: borrowers from minority backgrounds are particularly affected, with default rates higher than the national average[9].

Redefault Rates Are Significantly Higher Among Black and Hispanic or Latino Borrowers Compared With White Peers

Among borrowers who have experienced default, breakdown of the number of times their loans have defaulted by race and ethnicity
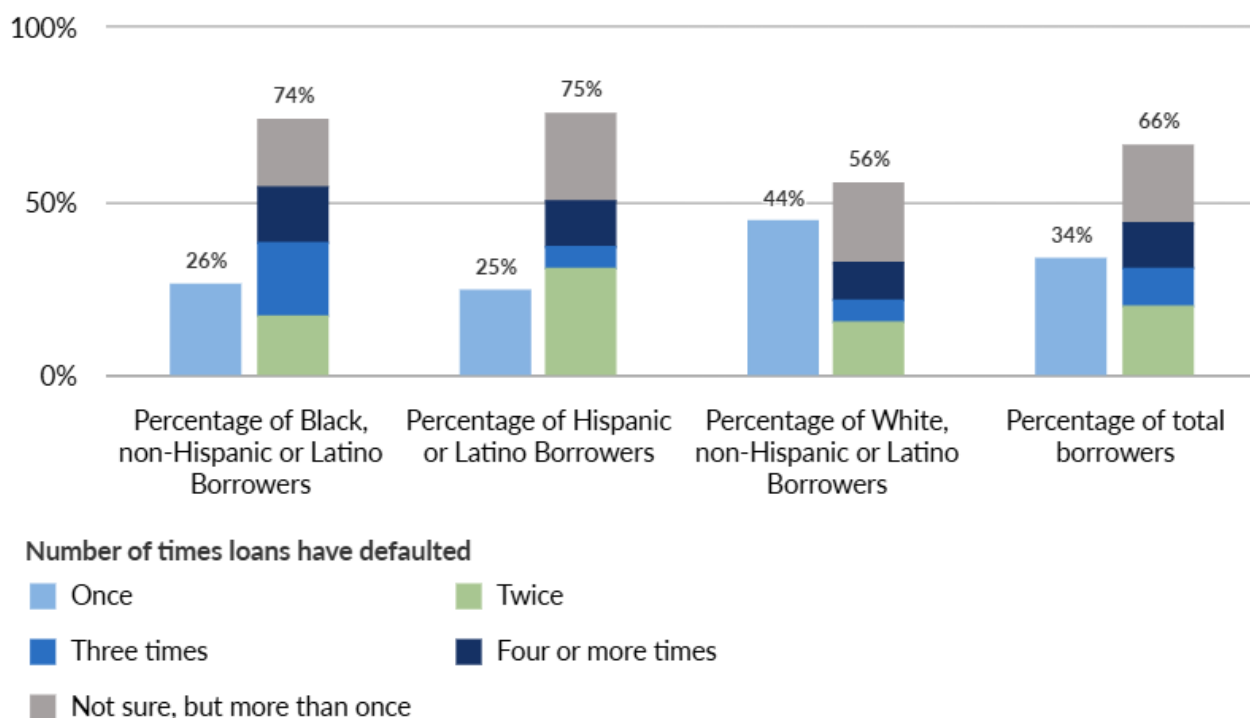

Figure 4 Default Rates by Ethnic Origin

Proposals for reforms, such as partial debt cancellation or free education in certain public fields, are at the heart of political debates[10][11][12]. However, partisan differences complicate the adoption of significant measures. The Biden administration implemented the Saving on a Valuable Education (SAVE) program in September 2023 to alleviate the burden of student debt by offering more accessible repayments and conditional partial cancellation. However, in August 2024, a court of appeals suspended the implementation of this plan, citing doubts about the

9 The Student Loan Default Divide: Racial Inequities Play a Role | The Pew Charitable Trusts: https://www.pewtrusts.org/en/research-and-analysis/reports/2024/12/the-student-loan-default-divide-racial-inequities-play-a-role

10 FACT SHEET: President Biden Announces New Plans that would Provide Relief to Borrowers Disproportionately Burdened by Student Loan Debt | The White House: https://www.whitehouse.gov/briefing-room/statements-releases/2024/04/08/fact-sheet-president-biden-announces-new-plans-that-would-provide-relief-to-borrowers-disproportionately-burdened-by-student-loan-debt/

11 FACT SHEET: President Biden Announces Over 1 Million Public Service Workers Have Received Student Debt Cancellation Under the Biden-Harris Administration | The White House: https://www.whitehouse.gov/briefing-room/statements-releases/2024/10/17/fact-sheet-president-biden-announces-over-1-million-public-service-workers-have-received-student-debt-cancellation-under-the-biden-harris-administration/

12 President Joe Biden Outlines New Plans to Deliver Student Debt Relief to Over 30 Million Americans Under the Biden-Harris Administration | The White House: https://www.whitehouse.gov/briefing-room/statements-releases/2024/04/08/president-joe-biden-outlines-new-plans-to-deliver-student-debt-relief-to-over-30-million-americans-under-the-biden-harris-administration/

executive's legitimacy to act without congressional approval. Nonetheless, the U.S. Department of Education canceled $17.2 billion in federal student loans, benefiting nearly 975,000 borrowers, according to a report[13] published by the Government Accountability Office (GAO) on October 24, 2024 (the last day of the conference). This initiative is part of the Borrower Defense program, which allows students to request debt forgiveness if they believe they were misled or defrauded by their educational institution.

The very high level of student debt has notable repercussions on life plans, with some delaying home purchases or savings accumulation due to repayment burdens, while others face lifelong consequences.
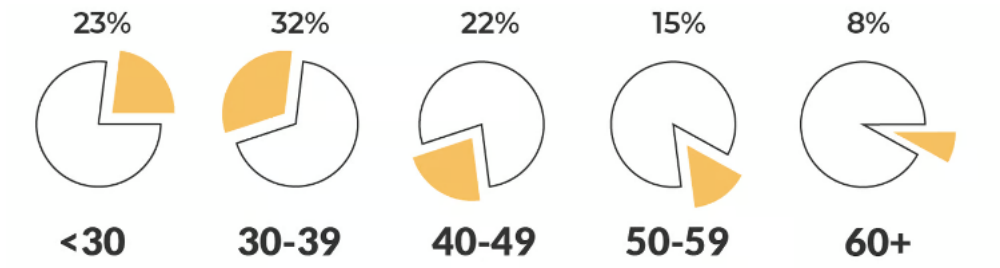

Figure 5 Debt Distribution by Age Group in the USA[14]

Reconsideration of Diversity, Equity, and Inclusion (DEI) Policies in Higher Education

Another illustration of the growing divide between Republicans and Democrats, and between urban and rural areas, concerns the increasing restrictions on funding and implementing DEI-related programs in universities, particularly within public systems. These restrictions are either imposed by mainly Republican-led states such as Alabama[15], Iowa[16], Utah[17], Idaho[18], Indiana[19] and Kansas[20] which joined[21] Florida, Texas, North Carolina, and Oklahoma in 2024—or introduced locally in anticipation[22], of potential stricter legal constraints, as seen in Missouri[23], Kentucky and Nebraska[24].

Various directives prohibit campuses and administrators from taking positions on political or social issues and limit funding for DEI initiatives. DEI-related roles and responsibilities must be redefined to focus on student

13 Department of Education: Student Loan Relief in Cases of College Misconduct | U.S. GAO: https://www.gao.gov/products/gao-24-106530 and Ed Dept. forgave $17.2B in student loans, report finds: https://www.insidehighered.com/news/quick-takes/2024/10/25/ed-dept-forgave-172b-student-loans-report-finds

14 Student Loan Debt Statistics [2025 Updates] données de juin 2024: https://thecollegeinvestor.com/student-loan-debt-statistics/ données de juin 2024

15 Alabama universities shutter DEI offices, open new programs, to comply with new state law | AP News: https://apnews.com/article/diversity-equity-inclusion-alabama-legislature-cb45a7667125543d5450134ff0ee4728

16 Gov. Reynolds Signs Several Bills into Law | Governor Kim Reynolds: https://governor.iowa.gov/press-release/2024-05-09/gov-reynolds-signs-several-bills-law#:~:text=SF%202435:%20A%20bill%20for%20an%20act,open%20enrollment%2C%20the%20state%20board%20of%20regents

17 USHE Guidance HB261 - FINAL.pdf: https://www.insidehighered.com/sites/default/files/2024-06/USHE%20Guidance%20HB261%20-%20FINAL.pdf

18 Idaho bans public colleges from having mandatory 'diversity statements': https://wpde.com/news/nation-world/idaho-bans-public-schools-from-requiring-student-diversity-statements-brad-little-boise-dei-equity-inclusion-gop-republican-northwest-kay-ivey-alabama-florida-wokeness-college-university-higher-ed

19 SEA 202 - Indiana University Northwest: https://northwest.iu.edu/academic-affairs/shared-governance/sea-202-questions.html

20 KS HB2460 | 2023-2024 | Regular Session | LegiScan: https://legiscan.com/KS/bill/HB2460/2023

21 A look at DEI eliminations at colleges across the US | Higher Ed Dive: https://www.highereddive.com/news/dei-eliminations-cuts-offices-colleges-texas-florida-kentucky-alabama/727414/?utm_source=chatgpt.com

22 In certain states, such as Alabama and Kentucky, laws prohibiting public funding for DEI programs have been adopted, accompanied by restrictions on training and discussions related to systemic inequalities or racial privileges. These measures raise concerns about academic freedom and access to an inclusive environment for all students. In Alabama, for example, although private and federal funds can still be used, public institutions remain limited in their ability to organize community support activities related to identity.

23 U of Missouri axes DEI office to pre-empt state mandate: https://www.insidehighered.com/news/diversity/race-ethnicity/2024/07/31/u-missouri-axes-dei-office-pre-empt-state-mandate

24 Kentucky and Nebraska dissolve their DEI offices: https://www.insidehighered.com/news/quick-takes/2024/08/22/kentucky-and-nebraska-dissolve-their-dei-offices

academic success without turning into political activism. However, support for specific student groups remains possible, provided that these initiatives comply with non-discrimination laws and do not promote a particular political viewpoint.

The 2023 Supreme Court decision to ban race-based considerations in admissions also had a significant impact. For instance, Harvard University reported[25] a drop of over 20% in Black student enrollments for the class of 2028. Other prestigious universities, such as the Massachusetts Institute of Technology and Brown University, reported similar declines in racial diversity among their new enrollees.

The implementation of these changes has sparked debates within academic communities. While some defend "institutional neutrality" as a protection of academic freedom, others fear that the elimination of DEI initiatives will reduce access to quality educational opportunities for historically marginalized groups. The coming years will reveal the real impact of these reforms on inclusion and student success in higher education.

Academic Freedom in Higher Education

In 2024, Republican lawmakers' growing involvement in debates and reforms concerning academic freedom in the United States illustrates the increasing tensions between promoting diversity and fears of restrictions on university autonomy.

The state of Indiana passed a law tying professor tenure to their ability to promote intellectual diversity and free debate. According to this law, instructors must expose students to varied perspectives and refrain from promoting personal political opinions during class hours. This law has sparked contrasting reactions: some see it as a tool to restore trust in higher education, while others view it as a threat to academic freedom.

Florida represents another notable example, with a series of reforms aimed at reshaping university governance. The "Stop Woke Act" and other legislative texts limit the teaching of topics related to systemic racism, sexism, and social privilege. The New College of Florida underwent a political overhaul led by the governor, resulting in dismissals, department closures, and curriculum revisions to emphasize Western thought classics. These measures have created a climate of uncertainty and led to mass departures among faculty members.

The politicization of university governance raises concerns about the balance between ideological diversity and respect for academic independence. In Florida, Texas, and Ohio, boards of trustees—often composed of politically affiliated figures—have increased authority over hiring and promotions, challenging the traditional model where such decisions were primarily faculty-led. Some observers view these actions as a response to the rise of progressive movements on campuses, perceived by some as hegemonic. However, academic organizations and free speech advocacy groups denounce political instrumentalization that could weaken the university's role as a space for reflection and debate.

Recent developments illustrate a trend toward redefining the academic framework around "political neutrality" while questioning the boundaries of academic freedom. While some defend the need for ideological plurality, others warn that the politicization of boards of trustees could compromise the quality and objectivity of education. The upcoming presidential election may influence the continuation or abandonment of these reforms, whose real impact on democracy and university cohesion remains to be assessed.

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[25] Harvard's Black enrollment dips after US Supreme Court bars affirmative action | Reuters: https://www.reuters.com/world/us/harvards-black-enrollment-dips-after-us-supreme-court-bars-affirmative-action-2024-09-11/

American higher education is sinking deeper into crisis

The North American higher education and research (HER) industry is dropping deeper into a demand crisis

The decline in enrollment is multifactorial. It is driven by an often negative return on investment (ROI) for studies, a new job market that values non-university skills, and socio-cultural factors such as growing distrust of HE(R) and the different aspirations of a new generation. These elements together contribute to a drop in interest from a pool of young people that is itself shrinking for demographic reasons[26].

At the same time, costs of HE continue to rise due to direct inflation—which soared during the COVID crisis before being controlled—or pricing policies of service providers. Thus, between 1983 and 2024, the American Higher Education Price Index[27] (HEPI) was multiplied by 4. It increased by 13% between 2021 and 2024.
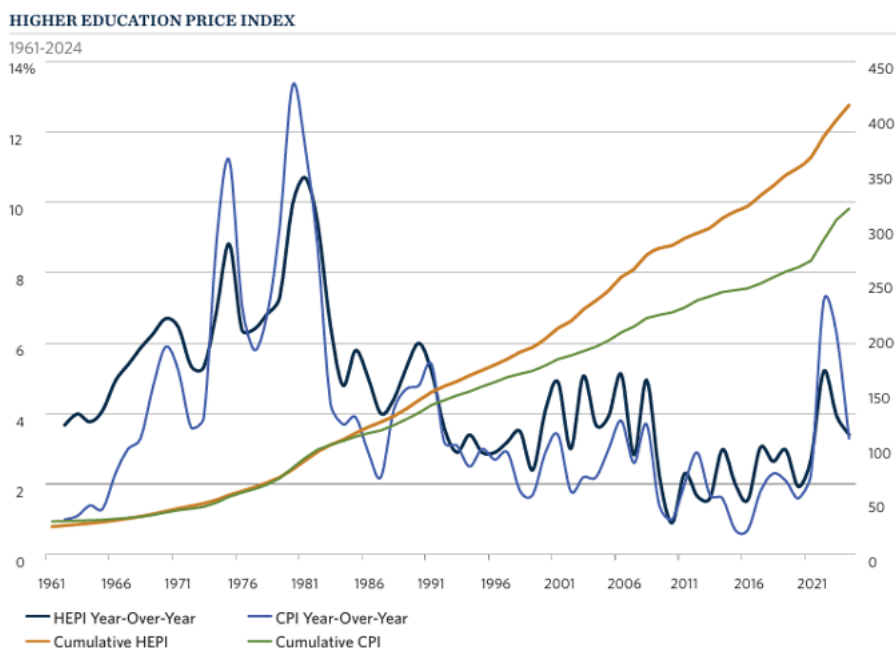

Figure 6 Higher Education Price Index since 1961

This represents a catastrophic "price scissors" effect[28] marked, on the one hand, by a decline in resources linked to enrollment and a continuous reduction in state and federal aids (with exceptions for extraordinary measures related to the COVID crisis) and, on the other hand, by an increase in expenses fueled by rising service prices, labor costs, and regulatory constraints generating additional costs.

The logical consequence is a double phenomenon of consolidation and regrouping between institutions or within a single institution (restructuring, reduction of remote campuses) and closures of institutions.

Strategies deployed range from expense optimization—such as closing programs and laying off staff—to consolidating campuses and filing for bankruptcy. Far from affecting only small institutions, this phenomenon also impacts some large universities. However, the most prestigious Ivy League universities or those in the top 100 remain relatively unaffected thanks to their attractiveness, resources, and powerful alumni networks.

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[26] 2024-Knocking-at-the-College-Door-final.pdf: https://www.wiche.edu/wp-content/uploads/2024/12/2024-Knocking-at-the-College-Door-final.pdf

[27] 2024 Higher Education Price Index Report: https://www.commonfund.org/hubfs/00%20Commonfund.org/04-Institute/HEPI/Reports/2024-Commonfund-Higher-Education-Price-Index.pdf

[28] Price Scissors - Wikipedia: https://en.wikipedia.org/wiki/Price_scissors

For example, Penn State, Marquette University, Northland College, Fontbonne University, and Birmingham-Southern College have implemented staff reductions, reorganized their regional campuses, and launched consolidation plans. At Penn State, satellite campuses with enrollment declines of up to 20% forced the administration to regroup 11 campuses under four regional chancellors to pool resources, and Fontbonne University eliminated 21 programs.

Inside Higher Ed counted[29] 16 institutional closures. Additionally, three institutions previously visited by the delegation underwent mergers in 2024: the University of Texas at San Antonio and the University of Texas Health Science Center at San Antonio, the two "schools" Penn State Law and Penn State Dickinson Law of Penn State University, and Cornish College, which merged with Seattle University.

The closures of institutions such as Medaille University, Cardinal Stritch University, and other Catholic institutions have sparked debates about the sustainability of the current university model. Critics point out that these closures often affect vulnerable communities and reduce access to a diversified education. Conversely, some initiatives, such as that of the New College of Florida, aim to transform structures to meet the growing demand for more specialized programs, although these reforms are often seen as political takeovers.

Meanwhile, universities like Catawba College demonstrate that significant donations can provide resilience in times of crisis. With philanthropic support reaching $200 million in multiple donations, this institution has increased the value of its endowment fund sevenfold, allowing it to finance sustainable programs and enhance its attractiveness.

The financial crisis in American higher education reveals and exacerbates growing disparities between institutions able to adapt due to significant resources and those condemned to close their doors due to declining enrollment and resources. Public policies and institutional strategies will need to evolve to ensure equitable access to education in an increasingly demanding economic context.

This is likely the central theme of this edition of EDUCAUSE regarding trust.

A Political Crisis on Campuses

In 2024, American universities faced a wave of pro-Palestinian protests, intensified since the start of new crisis in the Israel-Hamas conflict in early October 2023, which began on the eve of the EDUCAUSE23 conference. Students set up camps on campuses, demanding that universities refuse financial support from arms industries. Prolonged demonstrations took place at Columbia, Yale, and New York University, leading to arrests for trespassing. These movements appear to have taken the place of Black Lives Matter protests.

University leaders, such as Columbia President Nemat Shafik, had to testify before Congress about their handling of tensions, amid accusations of anti-Semitism and pressures to support student free speech. However, administrators hesitate to take political positions, citing legal risks and the universities' commitment to neutrality. The year 2024 became one of intense debate in HE(R). The integrity of university leaders has been strongly questioned in a context marked by heightened ethical expectations and increased student demands. Universities are seeking to balance the management of internal crises and activist movements to preserve a balance between academic freedom and institutional responsibility.

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[29] 2024 has seen more college closures than last year: https://www.insidehighered.com/news/business/financial-health/2024/12/13/2024-has-seen-more-college-closures-last-year

An Edition of EDUCAUSE Held on the Eve of the Presidential Election

In October 2024, as the U.S. presidential election scheduled for November 5 approached, the electoral campaign was marked by heightened activities from the two main candidates: Democratic Vice President Kamala Harris and former Republican President Donald Trump. Both candidates multiplied trips and rallies in key swing states such as Pennsylvania, Michigan, Georgia, and Arizona, where results are traditionally close and can determine the outcome of the election. On the eve of the election, Kamala Harris, who had benefited from a favorable wave of public opinion following President Biden's withdrawal, saw her lead over Donald Trump narrow day by day.

The debates focused on major issues, including abortion, climate change, immigration, healthcare, and the economy. These topics polarized the electorate and were at the core of the candidates' speeches and programs, ultimately quite distant from higher education and research (HE(R)).

As part of the 2024 U.S. presidential campaign, the positions of Kamala Harris and Donald Trump on higher education and research unsurprisingly reflect the traditional orientations of their respective parties.

In an article[30] published on October 14, 2024, by Higher Ed Drive, a comparative analysis of Kamala Harris and Donald Trump's positions on several key higher education issues in the United States was presented.

Accreditation

Donald Trump seeks to "replace left-leaning accreditors" and establish standards focused on American tradition and Western civilization while promoting accelerated and more affordable degrees. During his presidency, he had already eased accreditation rules by simplifying program approval. Kamala Harris, as California Attorney General, pursued accreditors deemed ineffective, notably the ACICS, accused of approving institutions that exploited students. Under the Biden-Harris administration, the ACICS lost its federal recognition in 2022.

Campus Protests

Trump criticized student protests, particularly pro-Palestinian ones, and advocates for radical measures such as the expulsion of foreign protesters. Harris takes a more nuanced stance: she acknowledges the motivations behind certain protests while disapproving of extreme rhetoric.

Cost of Education and Funding

Trump proposes alternatives to traditional degrees, such as an online "college" funded by a tax on large university endowments. Harris supports free tuition at community colleges and public universities for families earning less than $125,000 per year, in line with Democratic proposals that also include doubling Pell Grants.

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[30] Where the 2024 presidential candidates stand on higher education issues | Higher Ed Dive: https://www.highereddive.com/news/where-the-2024-president-candidates-stand-on-higher-education-issues/729612/?
utm_source=Sailthru&utm_medium=email&utm_campaign=Newsletter%20Weekly%20Roundup:%20Higher%20Ed%20Dive:
%20Daily%20Dive%2010-19-2024&utm_term=Higher%20Ed%20Dive%20Weekender

Student Loans

Trump opposes massive debt cancellations and welcomed the Supreme Court's decision that invalidated Biden's plan. Harris supports student loan reform and defends the SAVE program, which promises debt cancellation after ten years of payments.

For-Profit Institutions

Trump relaxed regulations for these institutions, including removing the "gainful employment" rule that cut funding to non-profitable schools. Harris, by contrast, actively fought against abusive practices, securing a $1.1 billion judgment against Corinthian Colleges during her tenure as California Attorney General.

Historically Black Colleges and Universities (HBCUs)[31]

Trump signed the "Future Act" for an annual funding of $255 million to HBCUs, but cuts in other programs drew criticism. Harris and the Biden administration injected over $6 billion into HBCUs, largely through COVID-19 relief funds.

International Students

Under the Trump administration, several policies restricted access for international students, including the "Muslim Ban" and visa limitations during the pandemic. Harris denounced these restrictions and participated in their dismantling under the Biden administration.

Title IX Regulations[32]

The debate surrounding Title IX reflects a broader issue on campuses: the search for a balance between protecting victims and respecting the right to a fair defense. Republicans often view Democratic reforms as politicizing universities and infringing on individual freedoms, while Democrats emphasize the need to ensure safe and inclusive learning environments. The differences between Trump and Harris on Title IX illustrate these ideological divides.

Trump promises to roll back Biden's rules that protect LGBTQ+ students and victims of sexual violence. Harris defends these rules, which expand protections for marginalized students but are criticized by some for limiting the rights to a fair defense.

Regarding HE, as with the other campaign topics, the approaches of the two candidates highlight a stark divide: Trump favors increased control over institutions and budget cuts, while Harris promotes equitable access and enhanced funding for vulnerable students.

On behalf of the entire delegation, enjoy reading
ぜひご覧下さい。 代表団より

This introduction was written with the assistance of the LLM ChatGPT and COPILOT, used to synthesize, analyze and structure the information gathered and the notes produced by the human author.

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[31] https://en.wikipedia.org/wiki/Historically_black_colleges_and_universities: https://en.wikipedia.org/wiki/Historically_black_colleges_and_universities

[32] Title IX is a US federal law passed in 1972 that prohibits discrimination on the basis of sex in publicly funded schools and universities. These regulations have evolved over the decades to include broader protections, particularly in the areas of sexual harassment, protection of LGBTQ+ students and the rights of victims of sexual violence.

Visit to Houston Community College (HCC)

Laurent Flory & Frédéric Habert

Houston Community College (HCC) is a public institution of higher learning located in Houston, Texas. Founded in 1971, its social mission is to provide affordable, quality educational access to a diverse student population, with an emphasis on inclusion, equity and community development. HCC is committed to preparing its students for rewarding careers and making a positive contribution to society. This structure is made up of 7 community colledges, one of which is exclusively online. HCC's policy is to make higher education as affordable as possible for local students.

This visit, co-organized with the Huston consulate, took place with the participation of consular staff.

Key figures

Student number[33] : For the 2022-2023 academic year, HCC had a total of 48,159 students, with 13,857 enrolled full-time and 34,302 part-time. The gender breakdown was 40% male (19,467) and 60% female (28,692).

Ethnic diversity : The ethnic composition of students was as follows: 33% Hispanic, 30% African-American, 14% Caucasian, 9% Asian, and 10% Asian.

Budget : For fiscal year 2024, HCC's approved budget was $401 million, divided mainly between property taxes (52%), tuition and fees (28%), and state endowments (17%).

Digital Strategy and services offered

HCC has developed an ambitious digital strategy to integrate information and communication technologies (ICT) into all its educational and administrative services. The main thrusts of this strategy include :

Integration of educational technologies : HCC offers a robust e-learning platform, enabling students to access courses and teaching resources remotely. This flexibility is designed to meet the needs of students with geographical or time constraints.

Technological resources for students : To bridge the digital divide, HCC provides laptops and Wi-Fi hotspots for students without access to these technologies. In addition, students and staff benefit from free access to Microsoft Office 365 Education, including tools such as Word, Excel, PowerPoint and Microsoft Teams.

Training and support : HCC offers workshops and training to help students and staff master essential digital tools, promoting the effective use of technology in learning and teaching processes.

Security and infrastructure : The institution continually invests in securing its information systems and improving its technological infrastructure to guarantee a reliable and secure user experience.

Pedagogical innovation : HCC HCC encourages the use of innovative teaching methods, such as blended learning and virtual laboratories, to enrich the educational experience and better prepare students for the demands of the modern job market. To illustrate this strategy, HCC has invested $50 million in an innovation center that offers an environment adapted to all Dys learners, but also designed for learners "spanning the autism spectrum to extroverts".

By adopting this digital strategy, HCC is demonstrating its commitment to providing accessible, modern and inclusive education, while responding to the challenges posed by rapidly evolving technologies and societal needs.

Finally, HCC offers two innovative programs in artificial intelligence (AI) and robotics:

- Associate of Applied Science en Intelligence Artificielle[34] : Launched in 2020, this program offers in-depth training in the fundamentals of AI, including machine learning, computer vision and natural language processing.
- Bachelor of Applied Technology in AI and Robotics[35] : Since 2023, HCC has offered this bachelor's degree program, making the institution the first community university in Texas to offer such a degree. The program aims to prepare students for careers in fields such as machine learning, robotics and automation.

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33 Houston Community College Student Population and Demographics: https://www.univstats.com/colleges/houston-community-college/student-population/

34 2020 | HCC launches artificial intelligence program | Houston Community College - HCC: https://www.hccs.edu/about-hcc/news/articles/2020/hcc-launches-artificial-intelligence-program.html?utm_source=chatgpt.com

35 Artificial Intelligence & Robotics, B.A.T. | Houston Community College (HCC) | We are Houston's Community College: https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/artificial-intelligence--robotics-bat/?utm_source=chatgpt.com

These programs are offered in collaboration with industry leaders such as Intel, Amazon Web Services, Microsoft and NVIDIA to enrich its academic programs and offer technical resources. These partnerships provide students with access to cutting-edge technologies and mentoring opportunities. In 2023, three HCC students won first prize nationally at the Intel AI Global Impact Festival competition, demonstrating the excellence of the program and the quality of the training received. Graduates of HCC's AI and robotics programs are well positioned to enter the job market with in-demand skills[36]. Les salaires de départ pour ces professions sont compétitifs, avec une moyenne annuelle d'environ 114000$ pour les nouveaux diplômés.

These programs offer a cost-effective pathway into high-tech careers, allowing students to benefit from affordable tuition while acquiring skills prized by employers.

Transfer programs to local universities

Houston Community College (HCC) offers transfer programs designed to ease students' transition to four-year universities, including the University of Texas. These programs allow students to begin their academic journey at HCC and then transfer their credits to partner institutions to pursue a bachelor's degree.

University transfer guide : HCC provides detailed guides[37] for students wishing to transfer to Texas universities, including the University of Texas. These guides help students select appropriate courses that will be recognized by the destination university, ensuring a smooth transition. This approach (commonplace, but emphasized by HCC teams) enables local students to start higher education at a more reasonable cost, before completing their bachelor's degree at a university and eventually going on to a master's degree.

In collaboration with universities such as the University of Texas at Tyler[38], HCC offers specific programs where students can be co-enrolled in both institutions. After completing certain course requirements and maintaining a required academic average, students can fully integrate the partner university's engineering program.

HCC emphasizes the economic benefits of its transfer programs.

Lower tuition costs : Starting your studies at HCC means lower tuition costs than at a four-year university. This means significant savings for students in the first two years of their academic career.

Access to advanced academic resources : By transferring to a four-year university, students gain access to specialized programs, research opportunities and state-of-the-art facilities, increasing their future earning potential.

Flexibility and support : Transfer programs offer a structured transition, with dedicated advisors to guide students, reducing the risk of lost credits and delays in graduation, which can save time and money.

In sum, HCC's transfer programs to universities such as the University of Texas offer a cost-effective and efficient route to a Bachelor's degree, with academic and administrative support throughout the process.

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[36] Houston Community College's AI, robotics programs grow | Community Impact: https://communityimpact.com/houston/bay-area/education/2024/02/20/houston-community-colleges-ai-robotics-programs-grow/?utm_source=chatgpt.com

[37] University Transfer Guides/Plans (Texas) | Houston Community College (HCC) | We are Houston's Community College: https://www.hccs.edu/support-services/transfers/university-transfer-guidesplans-texas/?utm_source=chatgpt.com

[38] UT Tyler Engineering | Houston Community College (HCC) | We are Houston's Community College: https://www.hccs.edu/programs/areas-of-study/science-technology-engineering--math/engineering/ut-tyler-engineering/?utm_source=chatgpt.com

Visit to Texas A&M University (TAMU)

Frédéric Habert

Key figures

Student number : TAMU has a total student body of 79,114 (making it the largest university in the USA), including 61,442 undergraduates. The student body breaks down as follows: 72,560 on the College Station campus, 2,804 on the Galveston and Doha (Qatar) campuses and 3,750 at the Health Science Center.

Staff : 11,114, including 4,300 faculty.

Budget : TAMU's endowment (including property) represents $18.13 billion.

General overview

IT transformation in Higher Education

The main campus in College Station is at the heart of this dynamic, with 75,000 students, including 25,000 engineering students. For TAMU, IT transformation in higher education is a fundamental process for meeting the challenges posed by rapid technological change while supporting institutional objectives. The main aims of the strategic project are to merge various IT departments, promote career development and integrate new technologies to enrich teaching.

The merger of IT services represents a major challenge, particularly in a context of expansion where the university aims to welcome 25,000 students over the next ten years, compared with 15,000 at present. This transition was accelerated by the demands of the pandemic, which required an immediate switch to distance learning. At the same time, the institution has refocused its strategy on career development to reduce staff turnover, which has fallen below 7%, reflecting improved employee retention and satisfaction. Finally, the impact of integrating technologies such as artificial intelligence, with its innovation cycles that are renewed every eight to nine years, requires constant monitoring and adaptation of teaching approaches.

Design, Build, Run, Deliver model

The 'Design, Build, Run, Deliver' model plays a key role in this transformation. It is based on the involvement of groups responsible for planning future technologies, developing innovative products and maintaining active engagement with end-users. This model structures teams according to their expertise and encourages close collaboration with start-ups and entrepreneurs, enabling the integration of innovative technological solutions.

Resolving technical debt and modernizing networks

Resolving technical debt is also a priority. The network infrastructure has been extensively upgraded by replacing obsolete equipment and significantly increasing the number of access points from 7,000 to 23,000. However, full modernisation remains a major challenge, involving the upgrading of 600 buildings, which raises logistical constraints and risks of delay.

Emerging technologies and challenges

The rapid development of technologies such as generative artificial intelligence and virtual reality presents both opportunities and complex challenges. Teachers, who are increasingly demanding new technological solutions, are pushing the university to respond quickly to their needs. At the same time, growing concerns are emerging about data confidentiality, particularly with the use of AI-based technologies.

Strategic planning

Strategic planning is closely aligned with the university's objectives, reinforcing the coherence between technological initiatives and the institutional vision. Partnerships with other universities also play an important role in sharing best practice. In this regard, the university maintains regular collaborations with ten partner institutions through quarterly meetings, as well as targeted discussions with the University of Michigan on AI deployment projects.

Network extension and institutional collaboration

The extension of the IT network is fostering greater collaboration between institutions and suppliers, paving the way for shared solutions and value for money. European alliances of universities have been formed to pursue common objectives, and groups such as the Common Solutions Group, which brings together 34 member institutions, enable approaches to be pooled to better address common challenges.

Collaboration with suppliers and open source solutions

Collaboration with suppliers is intensifying under pressure from disruptive start-ups, forcing established businesses to adopt a more agile approach. At the same time, the growing adoption of open source solutions, such as Moodle, confirms their crucial role in the digital transformation of education.

Integrating AI into education

Integrating artificial intelligence into education brings significant benefits, but requires rigorous management to limit the risks. To address these challenges, the university plans to develop an AI resource control framework to ensure data security and educate teachers on appropriate uses and potential risks, such as algorithmic hallucinations.

Local computing capacity for Artificial Intelligence

The development of local computing capacity is an essential condition for supporting research into artificial intelligence while complying with security and regulatory requirements. The university is working with state partners to install a local cluster, such as the NVIDIA HBRC cluster planned for Texas A&M University.

Overview of digital learning

The role of Sunay Palsole, Associate Vice Chancellor for Engineering and Distance Education, is critical to supporting digital learning in engineering programs within the A&M system. His work focuses on creating strategic and innovative solutions for distance learning while generating revenue, given that only 19% of funding comes from the state.

Effectiveness of HyFlex and hybrid models

The HyFlex model, although popular with students, proved ineffective for undergraduate programmes, resulting in 8% lower performance. However, this model could be suitable for higher levels. Hybrid models, if well organized, offer better results with a balanced mix of online and face-to-face learning.

Challenges of digital learning

The implementation of digital learning faces obstacles such as excessive workload for teaching staff, large class sizes (over 100 students), and low support from alumni, who prefer on-campus experiences.

Teacher training for digital learning and Active Learning and Engineering Programme (ALEP)

Training programs are in place to help teachers adopt active learning techniques. This training is reinforced by the Active Learning and Engineering Program (ALEP) initiative. Since 2017, the ALEP program has transformed teaching practices through interactive workshops and coaching for teaching staff. With over 243 participants, it encourages teachers to experiment with new methods and measures its impact through student satisfaction and teacher confidence. The workshops are supported by the Center for Teaching Excellence and are often fully booked.

Feedback from students and faculty

Feedback from students and teachers plays a crucial role in the continuous improvement of teaching practices. This feedback also influences promotion and tenure decisions for teachers.

Technology and support

The technological infrastructure, including fully equipped learning studios and standardised audiovisual equipment, ensures effective support for teachers. Services such as a help desk and technical training complement this support.

Using lightboards in education

Although lightboards increase student engagement, they do not have a significant impact on learning outcomes. Their use is nevertheless appreciated in the teaching of maths and arithmetic.

Lecture capture and content processing

An in-house AI-based tool improves the efficiency of lecture capture and processing, generating transcripts, materials and assessments. Voice cloning technology, used with the agreement of teachers, speeds up the correction of transcripts.

VR simulation for nuclear reactor management

Virtual reality (VR) simulations are a cost-effective alternative to face-to-face laboratories, offering similar learning outcomes while reducing costs and increasing access.

Development of market-oriented programs

Programs are designed in response to student demand and industry needs, with stackable certificates offering greater flexibility. Tools such as LightCast help to analyse the market and develop relevant curricula.

Alumni involvement

Alumni play a key role in adapting programs through their feedback and participation in workshops. For example, a recent workshop brought together alumni, current students and teachers to design AI tools for teachers.

Texas A&M University School of Engineering

Texas A&M University's School of Engineering is a key player in higher education and research, attracting large numbers of students and collaborating with state agencies to promote innovation and economic development. The school partners with three state agencies: the Texas Engineering Experiment Station, the Texas A&M Transportation Institute, and an agency dedicated to workforce development.

Faculty and students

With a renowned faculty and a large number of graduates each year, the School of Engineering is positioned among institutions of excellence. The school has more than 800 teaching staff. It also boasts 35 members of national academies, including 34 in the National Academy of Engineering and one in the National Academy of Sciences. Every year, around 5,000 students graduate from the school, taking Bachelor's, Master's and Doctorate degrees.

Research and innovation

The School of Engineering is a leader in research, regularly ranking at the top of the research expenditure league table. Thanks to its constant efforts, the school was recently recognized as number one in research expenditure, underlining its commitment to innovation and academic excellence.

Diversity and access to programs

The School of Engineering offers a diversity of educational pathways across several campuses, providing opportunities to suit a range of needs. The College Station campus is home to around 21,000 students, including 16,500 undergraduates, 3,900 masters and doctoral students, and 525 students on online programs. Other campuses broaden access to training, such as Galveston, which specializes in ocean and computer engineering, and Rio Grande Valley, which offers two engineering degrees. The Qatar campus, although in a transition phase, has already trained up to 900 students. In addition, engineering academies, in partnership with community colleges, offer pathways into these programs.

Enrollment management and future plans

The School of Engineering has achieved its enrollment targets and plans to stabilise its enrollment to optimise the use of its resources. With an initial target of 25,000 students by 2025, the school has already reached this milestone and is now adopting a strategy of stabilisation. Under the leadership of the new Dean, enrollment is expected to remain at between 24,000 and 25,000 students.

Shifting the balance between undergraduate and graduate students

The school aims to increase the proportion of master's and doctoral students by encouraging more undergraduates to go on to higher education. At present, only 15% of undergraduates go on to higher education, which leaves considerable room for improvement. The school is seeking to further balance this dynamic to support growth in research funding.

Research funding and academic staff development

The increase in research funding supports the expansion of doctoral programmes and the recruitment of new teaching staff. With a research budget of $445 million, particularly in areas related to defence and interdisciplinary projects, the school plans to recruit more doctoral students and strengthen its academic staff to meet the growing demands of research.

Student placement and retention

Student success and retention are greatly enhanced by the school's guidance and academic support programmes. The joint first-year engineering programme enables students to choose their specialization from among the 22 on offer. In addition, support tools such as the mathematics learning centre and integration seminars play a key role in their academic success.

International outlook and strategic partnerships

The internationalisation of the programmes and the worldwide partnerships prepare the students for the challenges of engineering in a globalised world. More than 1,000 students take part in international programmes every year, enhanced by partnerships with leading universities and work placements abroad. These initiatives strengthen students' international skills and broaden their academic opportunities.

Digital transition and remote campuses

Improving the digital learning experience is key to keeping students engaged on remote campuses. Although progress has been made, many students on remote campuses continue to favor the main campus. This highlights the need to invest in more immersive and engaging digital solutions.

Graduation rates

Recent reforms have led to a significant improvement in graduation rates in several departments. While the national graduation rate in engineering is considered successful at 50-60%, the school's departments are outperforming these figures thanks to a modernized pedagogical approach.

Lifelong learning

Continuing education programmes meet the needs of working professionals who are motivated to develop their careers. These courses offer a suitable solution for individuals seeking to obtain a degree while continuing their professional activities.

Integrating AI into education

Artificial intelligence offers promising potential for education, but its deployment requires in-depth exploration. AI tools are being experimented with as virtual advisors and to generate digital educational resources. These innovations need to be carefully integrated to maximise their educational impact.

Visit to Alamo Colleges / San Antonio College

Frédéric Habert

Key figures

Student number : San Antonio College has a total of 18,233 students (66,148 for all Colleges). The breakdown is as follows: 67% are of Hispanic origin and only 19% are full-time students. 33% of students continue their studies.

Staff : 621 faculty

General overview

Alamo Colleges is a five-college educational institution based in San Antonio, Texas. With an enrollment of 77,000 students and more than 350 academic programs, the institution offers bachelor's degrees as well as certificates in professional development.

Academic excellence and national recognition

Alamo Colleges is consistently recognized as one of the top community colleges in the United States through its recurring nominations for Aspen Prizes. San Antonio College is one of the top-performing institutions in the country, and Northwest Vista College was recently a finalist. This recognition demonstrates the institution's commitment to academic excellence and diversity.

Diversity and student profile

Alamo Colleges has a strong emphasis on diversity, with a majority of students of Hispanic origin (69%). Most students are non-traditional: 80% study part-time while working or raising families. The institution takes an inclusive approach, offering support to students through services such as access to books, clothing, mental health care, meals and accommodation.

Programs and internationalization

The programs on offer include degrees in cloud computing, cybersecurity and business management, recent additions to their portfolio. A notable initiative is Alamo U, dedicated to expanding undergraduate degree options. Internationalization also plays a key role. As many students are unable to travel abroad, the institution implements home-based internationalization strategies such as virtual exchanges (COIL) and programs such as Alamo Global Student Distinction, which allow students to demonstrate their global skills through digital badges. Alamo welcomes students from over 52 countries and collaborates with international institutions to offer face-to-face, virtual and overseas courses.

Professional development for faculty

Alamo Colleges invests in the professional development of its teachers through initiatives such as the Institute of Excellence, an eight-week program for new teachers to train them in effective and inclusive teaching practices. Participants explore topics ranging from campus navigation to andragogy and the use of technology. Teachers receive ongoing support through Learning Fridays, weekly training sessions, and Faculty 180, a system that evaluates and documents their teaching contributions. Teachers also receive certification in online education and training in digital tools such as Canvas and Open Educational Resources (OER)..

Teaching approach and innovation

The institution uses innovative teaching practices to ensure student success. For example, light boards and virtual reality simulations are used to improve student engagement, particularly in maths and laboratory courses. The in-house AI-supported lecture capture tool automatically generates transcripts, materials and assessments, facilitating blended and online learning. Alamo Colleges follows Quality Matters' international standards for online course design, ensuring accessibility and simplified navigation for students. This does not detract from academic rigor, but ensures that courses are aligned with clear pedagogical objectives and that students focus on learning rather than technological barriers.
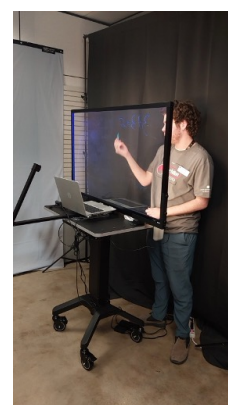
Student support and wider access

The institution does its utmost to help students achieve their goals, whether they are pursuing higher education or entering the workforce directly. Through initiatives such as Alamo Promise, students benefit from reduced or free tuition depending on their financial needs. Partnerships with local high schools also enable students to complete their secondary education with university credits.

Partnerships and collaborations

Alamo Colleges values partnerships, both locally and internationally. These collaborations promote student and teacher exchanges, enhancing academic and professional opportunities. For example, teachers from Alamo have taken part in training courses in Colombia, while the institution is exploring joint research projects and academic mobility initiatives.

Visit to University of Texas San Antonio (UTSA)

Frédéric Habert

Key figures

Student numbert : UTSA has a total of 34,864 students, including 30,020 undergraduates. The breakdown is as follows: 59% are of Hispanic origin and 45% are first-generation college students.

Staff : 7178 including 1 400 faculty

Budget : UTSA's endowment (including patrimony) represents $286.63 million.

General overview

Texas, a global economic powerhouse

Ranked as the world's 8th largest economy by GDP, Texas stands out for its dynamism and impressive economic growth. With nearly half a billion dollars in exports, the state attracts businesses, particularly those from California, thanks to its advantageous tax environment. San Antonio, home to the University of Texas at San Antonio (UTSA), is booming. The city's metropolitan population now exceeds 2.5 million, reinforcing its status as a key metropolis and boosting its economic development.

UTSA : An institution of excellence serving its community

Founded in 1969, UTSA is a public university that combines cutting-edge research with a strong commitment to the regional community. Recognized as an R1 research institution, the highest level in the United States, it ranks in the top 4% of American universities. The university adapts its educational programmes to the economic needs of San Antonio, creating opportunities for populations that are often marginalized. Around 40% of UTSA students are the first in their family to attend university, demonstrating its key role in social mobility.

A commitment to strategic areas

In cybersecurity, San Antonio is home to the second largest ecosystem in the United States, after Washington, D.C. For more than 25 years, UTSA has worked with government agencies, including the FBI and the NSA, as well as private companies to train experts in computer security. In brain health, the university is conducting pioneering research into Alzheimer's, precision medicine and stem cells to improve cognitive function. Artificial intelligence is another priority area, with support for the Matrix AI Hub, a collaboration centre dedicated to this technology. Finally, transdisciplinary research into global issues such as clean energy, drinking water and socio-economic inequalities, grouped under the heading 'Fundamental Futures', illustrates UTSA's commitment to tackling global challenges.

Economic and social impact

The planned merger with the University of Texas Health Science Center, which will bring together nearly 40,000 students, promises to amplify its impact. This merger will strengthen medical training opportunities and facilitate collaboration on ambitious research projects, thereby contributing to the local and national economy

An inclusive university adapted to its region

San Antonio, a predominantly Hispanic city, is a living laboratory for the demographic and social dynamics of the United States. UTSA strives to meet the needs of its students by offering accessible services and personalized support. The reorganization of the infrastructure has simplified access to resources, while specific support programmes aim to help first-generation students. In addition, many professors and staff share similar backgrounds to those of the students, reinforcing a sense of closeness and mutual understanding.

International collaboration and innovation

UTSA places great importance on international partnerships to enrich its educational programmes and research projects. It also strives to prepare its students for global challenges by promoting cultural exchanges and encouraging transnational collaborations.

IT engineering research and development at UTSA

A commitment to innovation and inclusive education

UTSA, in partnership with Texas State University, is pursuing innovative computer engineering initiatives focused on applied research and the development of educational programs tailored to the changing needs of the marketplace. These efforts are aimed at integrating students, particularly those from community colleges, into cutting-edge projects, while enabling them to acquire directly applicable skills in the field of artificial intelligence (AI) and data science. This commitment to innovation and inclusion provides unique opportunities for often marginalized populations, promoting diversity in technology careers.

Research and integration of students in laboratories

UTSA encourages the participation of community college students in collaborative research projects. These students work alongside graduate students on initiatives involving artificial intelligence and engineering. Their contribution is particularly notable in laboratories where they apply AI concepts to real-world problems. These experiences build their confidence and skills, while giving them their first taste of the world of university research.

Development of accelerated programs in AI and data science

One of UTSA's major objectives is to meet the growing demand for qualified professionals in the fields of AI and data science. Accelerated training programs have been developed to enable students to acquire skills in just two years, without the need for traditional four-year degrees. These courses are supported by industry partners such as Google, Amazon Web Services (AWS), and Intel, and include specific certifications tailored to market needs. These programmes aim to reduce the barrier to higher education and offer significant opportunities, particularly in economically disadvantaged regions such as South Texas.

Strategic partnerships with industry

UTSA relies on collaborations with startups and small businesses to provide research and development opportunities. These partnerships include projects in intelligent energy management, where students use AI to develop predictive models from real energy data. Such projects illustrate the importance of the practical application of AI and reinforce the relevance of the skills acquired by students. Google, AWS and Intel also play a key role in curriculum development, financially supporting educational initiatives and providing resources to integrate the latest technological advances. These collaborations enable UTSA to expand its educational offering and remain at the forefront of technological innovation.

Solving engineering and IT shortages

In the United States, a shortage of around 6 million engineers is expected in the coming years. UTSA is taking an active role in addressing this shortage by establishing two-year educational pathways leading to transfers into four-year bachelor's degree programs at Texas State University or UTSA. These pathways are designed to ensure a seamless transition and an experience comparable to that of students who started directly at four-year universities. Statistics show that transfer students are often more successful than their traditional counterparts.

Representation and appeal of engineering

One of the major challenges for UTSA is to strengthen the appeal of engineering among its students, particularly those from marginalized backgrounds. Many students do not know any engineers in their circle and have never considered a career in this field. UTSA is working to remedy this problem by exposing students to inspirational role models, developing clubs such as the Society of Women Engineers, and recruiting minority faculty members, particularly women and Hispanics. These initiatives aim to provide diverse representation and encourage students to plan for careers in engineering.

Dual education programs for high school students

UTSA offers an innovative dual education program that allows high school students to take university courses while completing their high school diploma. These students can obtain an associate's degree (equivalent to two years) even before finishing high school. The program is entirely free and offers a seamless transition to a bachelor's degree, reducing the overall cost of higher education. Around 10,000 students currently participate in this program, which includes partnerships with local high schools and integrated courses on university campuses.

Faculty Development and technological integration

UTSA invests in the professional development of its teachers to meet the diverse needs of students. This includes training in educational technologies, such as the use of Open Educational Resources (OER), online course management via Canvas, and the integration of virtual reality simulations. These initiatives aim to modernise teaching and ensure an enriching educational experience, whatever the learning modality (face-to-face, online or hybrid).

Practical applications of AI in curricula

Engineering programmes at UTSA include practical applications of AI, such as the creation of personalised prostheses using photogrammetry and 3D models. Students learn not only how to use generative tools such as ChatGPT, but also how to apply the fundamental principles of AI to solve real-world engineering problems. These skills are essential to prepare students to adapt to the rapid technological disruptions in the marketplace.

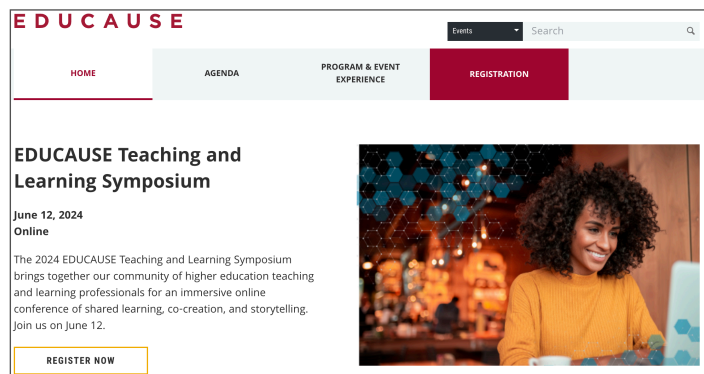### Diversity and inclusion in technology careers

UTSA is committed to promoting diversity in its engineering programs, including hiring minority faculty and creating spaces for traditionally underrepresented groups. These efforts include setting up clubs and communities to encourage the participation of women and minorities in fields historically dominated by men.

EDUCAUSE Teaching & Learning Symposium 2024

John Augeri, PhD

New format

The first edition of the EDUCAUSE Teaching & Learning Symposium[39] was held on June 12th 2024, in replacement of the former ELI Annual Meeting which was annually scheduled until then[40]. This change of title was accompanied by a significant evolution in the format: from a conference organized face-to-face over two and a half days, this new event was held over a single day, and exclusively remotely (synchronous on the day itself, with recordings and content made available asynchronously afterwards).

E D U C A U S E

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EDUCAUSE Teaching and Learning Symposium

June 12, 2024
Online

The 2024 EDUCAUSE Teaching and Learning Symposium brings together our community of higher education teaching and learning professionals for an immersive online conference of shared learning, co-creation, and storytelling. Join us on June 12.

REGISTER NOW

While the historical focus on Teaching and Learning issues has logically been maintained, the structure of this symposium has also been largely reworked compared to previous years. The ELI Annual Meetings model combined plenary sessions, breakout sessions (in parallel on the same time slot), and poster sessions. All of them responded to major current topics and issues that had been selected by the program committee. This first edition of the Teaching & Learning Symposium, in its side, was structured in a more vertical way, with on the one hand a single core topic (*Balancing Humanity and Technology: AI in the Classroom*[41]), and on the other hand an identical program for all of the more than 150 registered participants.

Program

The day started with an opening keynote entitled From Vivaldi to Van Halen: A Story of Music, Creativity, and Innovation[42] which especially explored the relationships between music and creativity and innovation, with a perspective on the need to integrate technology while preserving humanity.

This was followed by four *Learn and Design* type sessions, each combining 15 minutes of presentation and 45 minutes of active and collaborative application. These four sessions addressed the issue of AI from multiple and complementary angles, thus integrating an important phase of reflection from the participants regarding the potential for integrating the principles presented within their own institution. To this end, the organizers provided participants with an *EDUCAUSE Teaching and Learning Symposium Experience Guide* allowing them before, during, and after the event to set up an action plan, collect resources, and create connections within the community. These *Learn and Design* sessions were:

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[39] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning

[40] See the article on ELI Annual Meeting in the 2023 edition of this report

[41] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/program-and-event-experience

[42] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/from-vivaldi-to-van-halen--a-story-of-music-creativity-and-innovation

AI Wrote This Title: How AI and Course Design Can Coexist[43]

This session discussed the IA matters from the Instructional Design standpoint, and how AI and Course Design can co-exist. Presenters especially showed how Instructional Design Teams can create a strategy to use IA and guide others to use it mindfully, and more globally how to infuse AI into course design process.

Authentic Assessment Meets AI: Fostering Human-Centric Pedagogies[44]

This session addressed the (re)definition of the Human-Technology relationship, by focusing on the importance of fostering a partnership between humans and AI in education (shifting from AI as a tool to AI as a creative partner). It especially emphasized on the (re)design of assessments that embrace human-centered pedagogy, and methods which authentically engage students.

Educational Development in the Era of Cooperative Machine Learning: Outcomes, Algorithms, and Students as Partners[45]

This session questioned the role of Faculty Development at the age of AI. It presented a four step plan settled at Purdue University that intends to prepare Faculty to develop an informed and critical insight on AI and its inflections on Teaching and Learning.

Start with Students: A Policy Development Approach[46]

This session presented the way students could be actively involved in a generative AI usage policy development for students and faculty. It especially focused on an *AI & Education* course in which these students learned about AI, tested it, and imagined its applications to settle a set of usage policies which were then institutionalized.

Still with a view to transposing and implementing locally the topics, principles, feedback and methodologies that they have allowed to be addressed, the four *Learn and Design* sessions were followed by 30 minutes of *Test & Reflect*. The objective of this moment was to allow participants to begin designing an action plan and a strategy at their local level, and through the EDUCAUSE community.

The *Teaching & Learning Symposium 2024* concluded with a keynote speech entitled Are We Alice in Wonderland, or Willy Wonka in the Chocolate Factory?[47] which contrasted on the one hand a vision of constantly adjusting to developments related to AI, and on the other hand that of active innovation through the implementation of new learning experiences. This closing session thus aimed to understand the characteristics of personas responding to these two visions, to explore different strategies, and to identify ways to take into account values such as ethics, fairness, and integrity.

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[43] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/learn-and-design-1--ai-wrote-this-title-how-ai-and-course-design-can-coexist

[44] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/learn-and-design-2--authentic-assessment-meets-ai-fostering-humancentric-pedagogies

[45] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/learn-and-design-3--educational-development-in-the-era-of-cooperative-machine-learning-outcomes-algo

[46] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/learn-and-design-4--start-with-students-a-policy-development-approach

[47] https://events.EDUCAUSE.edu/symposiums/2024/teaching-and-learning/agenda/send-off--are-we-alice-in-wonderland-or-willy-wonka-in-the-chocolate-factory

Articulation with EDUCAUSE Annual Conference

The 2023 edition of this report highlighted a real complementarity between the ELI Annual Meeting of the time and the EDUCAUSE Annual Conference which is held approximately four months later. The change in format related to the transition to an EDUCAUSE Teaching & Learning Symposium does not call into question this complementarity, insofar as the focus on a particular issue of Teaching and Learning practices that is its own may very directly concern some colleagues, compared to the much broader scope of the EDUCAUSE Annual Conference. The Teaching & Learning Symposium is distinguished, once again, by its focus on questions and issues relating to Teaching Practices enriched by technology, more than on the technology itself.

To the extent that the new format of the Teaching & Learning Symposium seems to be organized around a specific annual theme (to be confirmed for future editions), it is more the announcement of the latter by the organizers that will have to guide the choice of possible participation.

EDUCAUSE Annual Conference explained

Thierry Koscielniak, PhD

Start Here: 2024 EDUCAUSE Conference Orientation[48]
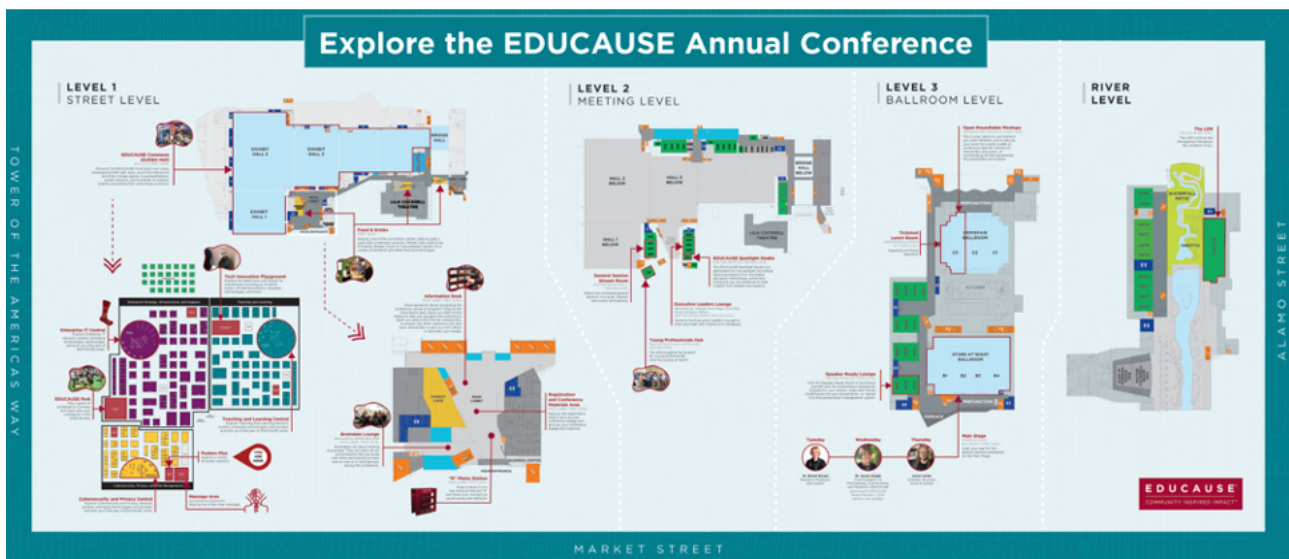
The Start Here: 2024 EDUCAUSE Conference Orientation, presented by Eden Dahlstrom, Vice President at EDUCAUSE, and Vanessa Kenon, Associate Vice President for Technology Compliance and Community Engagement at the University of Texas at San Antonio, provided attendees with an essential introduction to the conference venues. This orientation offered a detailed walkthrough of the conference map, ensuring that participants could navigate the event effectively and take full advantage of the diverse offerings.

The EDUCAUSE Annual Conference spans multiple venues, each thoughtfully designed to host specific activities, sessions, and interactions. Below is a detailed description of the key locations as outlined in the map.

Session Spaces

The Sessions Spaces are the focal point for large-scale gatherings, including keynote speeches and breakout sessions. This expansive space is where attendees will hear from prominent thought leaders and visionaries discussing the latest trends, challenges, and opportunities in educational technology. The hall is equipped with state-of-the-art audiovisual systems to accommodate immersive presentations and ensure an engaging experience for large audiences.

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[48] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/start-here-2024-EDUCAUSE-conference-orientation

EDUCAUSE Commons

EDUCAUSE Commons is a dynamic, interactive hall featuring vendors, startups and solution providers. It offers attendees the chance to explore innovative products and services that address higher education challenges, such as AI tools, learning management systems and cybersecurity solutions. Vendor booths often include live demonstrations, interactive exhibits and networking opportunities with representatives. The exhibition hall is a discovery center, providing resources to take back to institutions for practical application.

This hall includes the poster session area, where educators, researchers and administrators present case studies, research findings and innovative practices. Attendees can browse these visual presentations, engage in dialogue with the authors and learn about emerging trends and challenges in higher education. This space is ideal for discovering real-world applications and ideas directly from practitioners.

Breakout Rooms

Scattered throughout the conference venue, breakout rooms host workshops, panel discussions, and interactive sessions. These smaller, focused spaces allow for in-depth exploration of specific topics, such as personalized learning with AI, diversity and inclusion in EdTech, and the latest research in immersive technologies. Breakout rooms foster intimate learning environments where participants can interact directly with presenters and peers.

Networking Lounges

Networking lounges are strategically placed throughout the conference area to provide informal spaces for attendees to relax, connect, and engage in conversations. These lounges are designed to encourage professional relationships, exchange of ideas, and collaboration. Participants can meet peers working in similar fields, share insights, and form valuable connections in a casual setting. Some lounges may also host informal meetups organized around specific themes or interests.

Community Meeting Spaces

Dedicated to interest-based gatherings, these spaces host meetings for EDUCAUSE's various community groups. They are ideal for attendees who wish to engage in collaborative discussions on specialized topics such as generative AI ethics, institutional strategy, immersive learning, or accessibility in education. These spaces provide an excellent opportunity to network with colleagues who share similar professional goals and challenges.

Demo Rooms

The demo rooms are set up to showcase live demonstrations of emerging technologies and solutions. Vendors and EDUCAUSE staff use these rooms to present hands-on, practical applications of tools and systems. Attendees can see products in action, ask detailed questions, and gain a deeper understanding of how these technologies could be integrated into their institutions.

Poster Session Area

The Poster Session Area features displays from educators, researchers, and administrators presenting case studies, research findings, and innovative practices. Attendees can browse these visual presentations, engage with the authors, and learn about emerging trends and challenges in higher education. This area is ideal for discovering real-world applications and insights directly from practitioners.

Help Desk and Information Booths

Located at key points throughout the venue, the help desks and information booths provide attendees with assistance and guidance. Whether it is navigating the conference map, troubleshooting the EDUCAUSE app, or finding specific session locations, these booths are essential for ensuring a smooth and stress-free conference experience.

Food and Beverage Areas

Scattered across the venue are designated food and beverage stations, offering attendees opportunities to recharge between sessions. These areas often double as informal networking spaces where participants can connect over coffee or a quick meal.

Quiet Zones

For attendees seeking a moment of respite, quiet zones are available for relaxation and reflection. These spaces are designed to be peaceful environments, free from the hustle and bustle of the main conference activities.

Tips for navigating the venues

The presenters emphasized the importance of utilizing the conference map and the EDUCAUSE mobile app to plan each day effectively. The app allows attendees to create personalized schedules, locate venues, and receive real-time updates. Participants were also encouraged to arrive early to high-demand sessions such as keynotes and workshops, as these venues tend to fill quickly.

To foster meaningful connections, the presenters recommended spending time in the networking lounges and community meeting spaces. These areas provide an excellent opportunity to meet like-minded professionals and establish long-term relationships.

The EDUCAUSE Annual Conference offers a thoughtfully organized environment designed to accommodate a wide range of activities, from large-scale keynotes to intimate breakout sessions. The orientation session and the accompanying map ensure that attendees, whether first-timers or seasoned participants, can navigate the event confidently and make the most of their experience. By exploring each venue and engaging in the diverse opportunities available, participants can leave the conference enriched with knowledge, connections, and actionable insights.

This comprehensive guide underscores EDUCAUSE's commitment to creating an inclusive, engaging, and impactful conference experience for all attendees.

Tips for getting ready to network
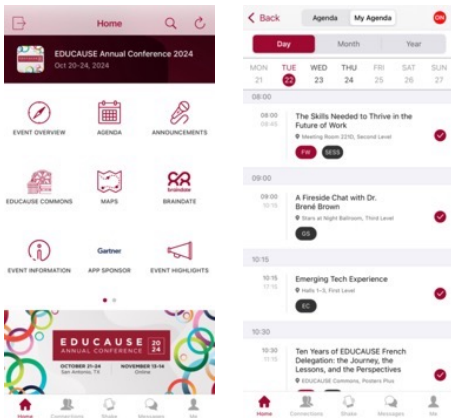
Before attending the conference, load the EDUCAUSE application to access the interactive map and, above all, the customizable agenda.

You can use the app to organize your meetings, take notes and evaluate sessions.

Once you've got your official badge, do not forget to affix the stickers provided by the organization. Here are two sheets of stickers, so you can easily tell which is the most recent.

Tie ribbons and badges to show you are part of the communities, projects and centuries-old friendship between your country and the USA. A wooden bow tie is optional.

Then take a welcome selfie.

At the end of the conference, you'll probably have more ribbons and decorations.

Presenting at EDUCAUSE

John Augeri, PhD, Bertrand Mocquet, PhD, Laurent Flory, Thierry Koscielniak, PhD, Emmanuelle Vivier Bruno Urbero, PhD and Romuald Arnold[49]

Since 2014, the EDUCAUSE French Delegation, through several of its members, has given twenty-two sessions as part of the EDUCAUSE Annual Conferences, their Online version, and the ELI Annual Meetings (now Teaching & Learning Symposiums).
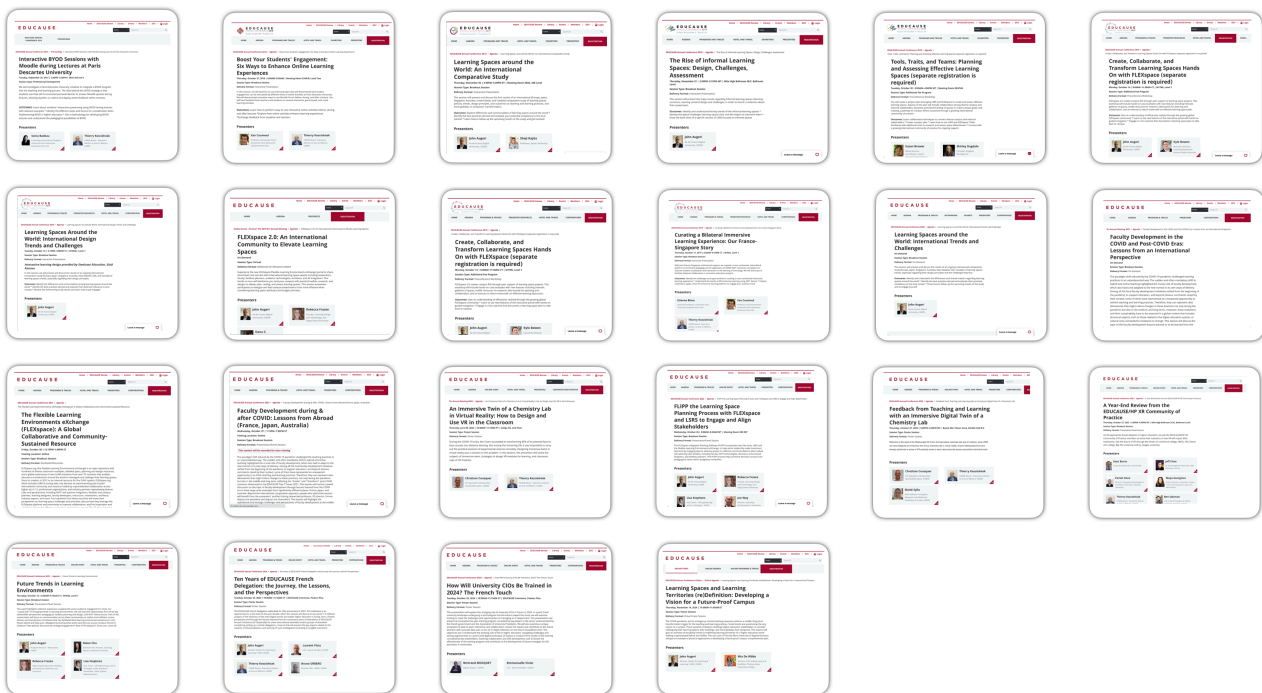
Submitting a session to the annual EDUCAUSE conference is a major opportunity to showcase academic initiatives and innovations to an international audience, and potentially to establish collaborations. However, this process requires careful and advance preparation to ensure that the proposal meets the demanding selection criteria of this event, and that the content resonates with the target audience, while highlighting the specificities of the French context. This article describes the different stages of topic selection, design and presentation, as well as lessons learned from the experience.

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[49] Romuald Arnold, Digital Vice-President of Reims Champagne-Ardenne University wasn't a part of the 2024 EDUCAUSE French Delegation but contributed to the poster *How are University CIOs Be Trained in 2024? The French Touch*

Choice of topic: a balance between innovation and international understanding

The choice of theme is crucial to capture the attention of conference visitors, largely dominated by North American colleagues. Keeping this context in mind when defining the topic is essential: if a topic focused on the French context can be retained, its angle of approach and treatment must represent a potential contribution to an international audience. A topic too focused on the French context risks not presenting the required relevance. The proposal submission form also includes a Session Takeaways section asking to clearly list the contributions for the audience of the session concerned. In addition, the chosen theme must of course fit into the tracks defined by the program committee for the edition of the conference in question. It should also be emphasized that the treatment of the topics must respond to a practitioner approach, more than a scientific one (even if references in the matter are quite welcome to enrich and clarify the discussion).

Choice of format

EDUCAUSE offers different submission formats for the two modes of participation in its annual conference: in person on site and remotely via the Online version scheduled a few weeks later.

On-site

- **Presentation or Panel:** These are the most common face-to-face presentation formats, lasting 45 minutes, involving a maximum of four presenters (+ a possible moderator in the case of the Panel).
- **Learn and Design:** A session format more oriented towards reflection and practical application on the part of the participants: 45' (with 5 to 10' of initial presentation) integrating a majority of working time in small groups, two presenters maximum.
- **Workshop (pre-conference):** This format is specific to the pre-conference sessions, which are held the day before the official opening, and which involve a specific registration (and therefore a cost). The duration is however much longer: half-day or full day.
- **Poster:** One or more assigned 45' slots, as well as space in the EDUCAUSE Commons.

Online

- **Live Session:** This is the remote equivalent of the on-site Presentation and Panel: 40 minutes broadcast live, four presenters maximum.
- **Facilitated Playback / Simulive:** A pre-recorded 20' format, with a maximum of two presenters who must however be connected at the time of the broadcast to interact with the participants.
- **Virtual Poster:** The Online equivalent of the Face-to-Face Posters. A 45' slot allocated during which the poster must be presented over 5 to 10' several times to allow participants to see several. Two presenters maximum.

Production and finalization of slideshows and posters

The modalities of the production of the materials are at the discretion of the presenters. However, EDUCAUSE provides a PowerPoint template that can be used, as well as specific guidelines and advice for posters. The printing of the latter as well as their transport to the site is the responsibility of the presenters, even though centralization initiatives can be proposed by local universities (this was the case in San Antonio, where the reproduction service of The University of Texas Health Science Center at San Antonio offered to print the posters

to the participants and send them to the conference site, for a fee). It should also be noted that EDUCAUSE suggests making the materials and posters available to participants via the conference website.

Presentation and interactions during and after the sessions

The session selection process takes into particular account the modalities of interaction with the participants. The exchanges can take place during, but also - and this is feedback from several members of the delegation - after the sessions. This is an even more important point since the time allocations are relatively short, in particular for posters for which the passages will have to involve a presentation several times. Managing the influx of questions, participants and visitors is therefore important, as is recording the contact details of interested colleagues for future contact.

Support from EDUCAUSE

EDUCAUSE provides presenters with a presenter support platform, in the form of an online forum, open several weeks before the conference. This forum allows them to exchange with other presenters, ask questions about technical and practical requirements, and benefit from very rich feedback.

On the conference site, a Presenter Room is systematically available to presenters. In addition to workspaces and the presence of staff offering specific support, this Presenter Room offers to test the materials with the same type of video projectors as those installed in the various presentation rooms.

Contacts and follow-up

During the 2024 edition, as in previous ones, the sessions presented by members of the delegation, regardless of their formats, benefited from a real audience, and allowed some to establish contacts that have lasted over time, sometimes becoming tangible collaborations. The questions raised by the participants particularly demonstrated the curiosity and interest in how the French Higher Education system tackles issues that are ultimately the same as across the Atlantic, which echoes the discussions that the delegation can have during site visits.

2024 presentations

The three proposals of the French delegation in 2024 in San Antonio were accepted by the reading committee, which demonstrates both the interest of this community in the topics presented but also in the testimonies of the presenters. Here is a short summary and feedback.

How are University CIOs Be Trained in 2024? The French Touch (Bertrand Mocquet, PhD, Emmanuelle Vivier, Romuald Arnold)[50]

This presentation explores the changing role of university CIOs in France in 2024. In a post-Covid university landscape undergoing a technological transformation towards the cloud, we examine training to meet the challenges and opportunities of managing an IT department. This talk will present an innovative 5-year training program, co-created by key players in the sector and promoted by the French government and the Association of University Presidents. We also examine a unique ecosystem of peer interaction and collaboration: ADSI-ESR, Amue, CSIESR and IH2EF.

The objectives are as follows:

1/ Understanding the evolving role of CIOs in higher education, addressing challenges and seizing opportunities in a post-Covid digital landscape.

2/ Explore a unique French model of training CIOs, co-created by key players, promoting collaboration and skills development.

3/ To evaluate the effectiveness of the training program and contribute to the development of future strategies for CIO education in universities.

We had about ten people interested in training during our sessions in EDUCAUSE Commons, all of whom hold CIO positions at universities such as Notre Dame, the University of Texas at San Antonio, the University of Helsinki, a university in England, and the University of Alaska. The discussions mainly focused on the organization of the training, the training framework (particularly appreciated because it does not exist in the USA) and the modules offered (also well received). Several participants stressed that they did not have an equivalent system in their respective countries, training either through private offers or through public management programs that do not specifically target CIOs. Questions also emerged regarding initial training, which does not exist in an institutionalized way in France, as well as on the future of this training, in particular the developments currently being drafted and the integration of non-HE profiles into the new CIOs.

Ten Years of EDUCAUSE French Delegation: the Journey, the Lessons, and the Perspectives (John Augeri, PhD, Laurent Flory, Thierry Koscielniak, PhD, Bruno Urbero, PhD)

The French Delegation EDUCAUSE celebrated its tenth anniversary in 2023. Marking this milestone represents an opportunity to look back on the past decade, which this poster proposes to do. It is composed of two main parts:

1/ A reflective analysis of the evolution observed in the main digital issues and trends in Higher Education, from a French perspective and through ten years of continuous participation in the annual EDUCAUSE conference.

2/ Particularly for other non-North American participants, a modus operandi that presents the key aspects of the creation, institutionalization, and management of such a delegation, and its most tangible results.
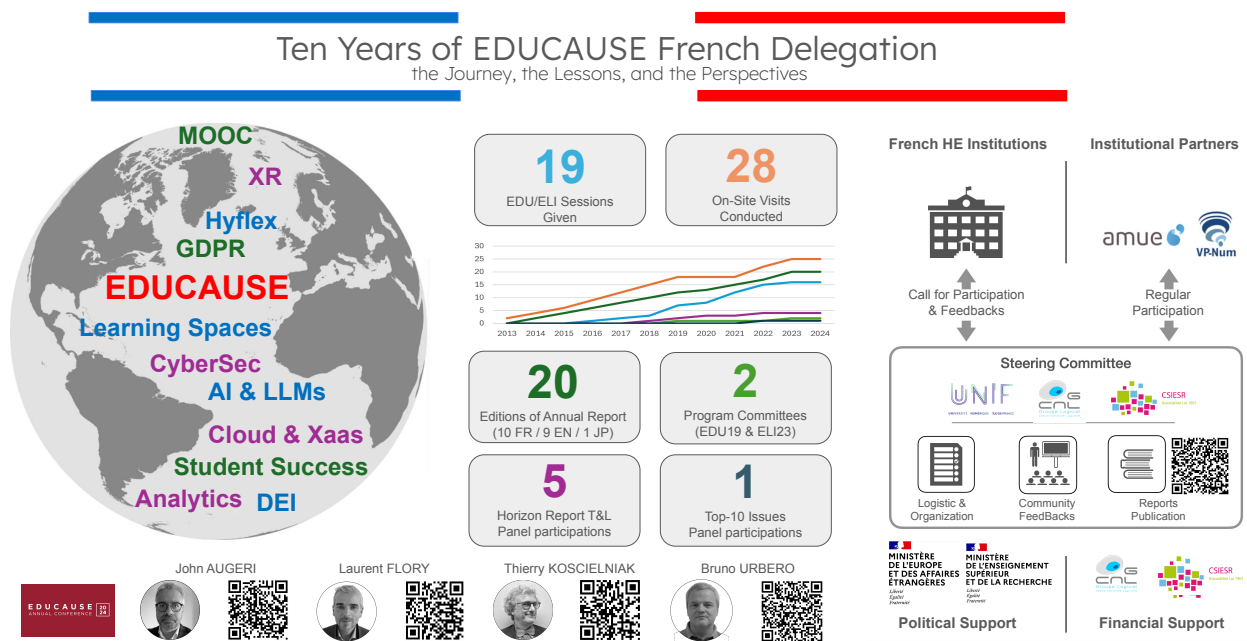
About fifteen participants, curious and interested in the French prism that this poster offers, visited the presenters during the two sessions. Coming from North American universities, but also from other establishments (notably Japanese and Belgian), their visit allowed for rich discussions concerning the visions respectively perceived concerning the major challenges to come.

Learning Spaces and Learning Territories (re)Definition: Developing a Vision for a Future-Proof Campus (John Augeri, PhD, Mia de Wilde[51])

The COVID pandemic and the implementation of emergency measures in remote and then hybrid have acted as a trigger for a transformation of teaching and learning practices in the medium and long term. For their part, societal trends are questioning the very definition of what a campus is. These systemic developments present decision-makers in higher education institutions with a challenge to reconsider the design of their learning spaces, their buildings, and more generally, their campus.

This session offers an overview of global trends relating to the redefinition of learning territories in a world of Higher Education which is changing towards a generalization of hybridizations and HyFlex, and is notably fueled by research carried out for several years by UNIF.

An application of this conceptual approach is also proposed through the example of Thomas More University (Antwerp, BE) and its master plan aimed at developing a campus ready for the future.
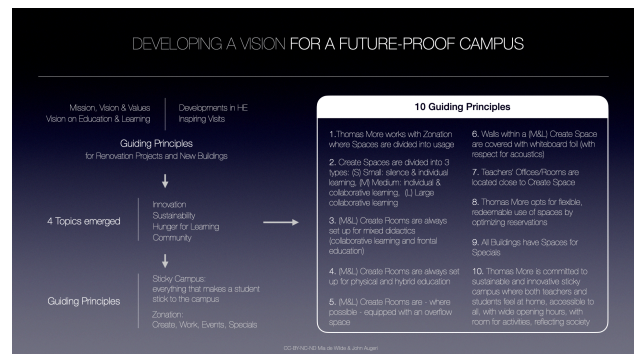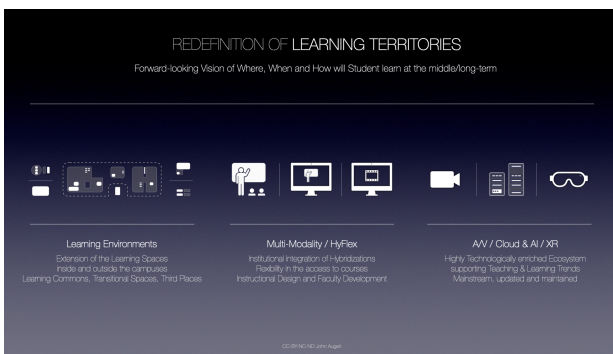
This *Virtual Poster* programmed during the Online conference was presented three times to around fifteen participants, who were particularly sensitive to the perspective it offers in relation to the issues relating to Learning Spaces.

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[51] Mia de Wilde is Director ICT, Infrastructure & Facilities and Change Manager at Thomas More University, Antwerp (BE)

EDUCAUSE Annual Conference 2024 Opening and Closing Keynotes

Thierry Koscielniak, PhD

In 2024, the opening and closing keynotes were hosted by two remarkable personalities in a fireside chat format: Brené Brown, renowned researcher in vulnerability, leadership and organizational culture, and Jaron Lanier, pioneer of virtual reality and digital ethics. These speakers brought unique insights that resonate across the higher education landscape, prompting institutions to rethink not only how they operate, but also their commitment to technology and humanity.

Dr. Brown's keynote challenged traditional notions of leadership, advocating for environments rooted in empathy, inclusivity, and accountability. Her emphasis on combating burnout and fostering ethical workplace cultures served as a call to action for academic leaders to prioritize well-being and authenticity.

Lanier's closing address delved into the evolving role of technology in society, particularly the ethical implications of artificial intelligence (AI). His call for human-centered innovation underscored the need for education systems to empower individuals as creators rather than passive users of technology.

A Fireside Chat with Dr. Brené Brown[52]

Dr. Brené Brown, a renowned researcher and author, opened the EDUCAUSE 2024 Annual Conference with a keynote address that explored themes of vulnerability, leadership, and organizational culture. Her presentation offered insights into fostering environments that prioritize courage, empathy, and accountability.

Brown began by recounting her academic journey, reflecting on the challenges she faced and how they shaped her perspective on institutional inclusivity. She noted that many academic systems are designed for an idealized student archetype, often marginalizing those who do not fit this mold. She advocated for more inclusive approaches that consider the diverse experiences of students and staff, emphasizing the role of vulnerability in fostering authentic and transformative leadership.

A core focus of her keynote was the issue of burnout, which she linked to toxic workplace cultures. Citing research, Brown highlighted that disrespect and unethical practices are primary drivers of burnout, surpassing workload concerns. She proposed a shift from "safe spaces" to environments where accountability and transparency are central, enabling individuals to engage in constructive dialogue and navigate organizational challenges effectively.

Brown also addressed the use of power within academic and organizational contexts, distinguishing between "power over" and "power with." She advocated for collaborative leadership approaches that empower teams and align organizational goals with values of diversity and inclusion. Her emphasis on empathetic leadership and the need for shared accountability provided a framework for fostering trust and resilience within institutions.

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52 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/opening-general-session

In conclusion, Brown underscored the importance of modeling the values leaders wish to see within their teams. By integrating principles of empathy, courage, and inclusivity into leadership practices, institutions can cultivate environments that support innovation, well-being, and long-term organizational success.

Navigating the Digital Frontier: A Fireside Chat with Jaron Lanier on Technology, Humanity, and the Future[53]

Jaron Lanier, a pioneer in virtual reality and a leading thinker on digital ethics, closed the EDUCAUSE 2024 Annual Conference with a thought-provoking fireside chat. His keynote explored the interplay between technology, humanism, and education, offering a critical lens on how technological advancements impact societal and individual agency.

Lanier began by emphasizing the fundamental need for human-centered technology, asserting that technology must be guided by human values to remain meaningful. He critiqued the tendency within the tech industry to focus on abstract or self-serving goals, arguing that such approaches undermine the societal relevance of innovation. This humanistic framework, he noted, is essential for creating technology that serves people rather than systems.

A significant portion of the discussion addressed the implications of artificial intelligence (AI) on education and the future of work. Lanier warned against the passive adoption of AI tools, which he believes positions individuals as downstream users rather than upstream creators. He advocated for a shift in higher education, emphasizing the need to teach students adversarial and creative skills that allow them to critically evaluate and innovate with AI. Such an approach, he argued, would empower students to remain active contributors in an increasingly automated world.

Lanier also highlighted emerging trends, such as AI systems with persistent memory, which could revolutionize long-term learning but pose ethical and functional challenges. He called for education systems to engage with these technologies thoughtfully, fostering creativity and critical thinking to counteract the risk of reducing individuals to mere consumers of technology.

In closing, Lanier expressed optimism about the potential for technology to address global challenges, including poverty and sustainability. However, he cautioned that meaningful progress depends on prioritizing human agency and collaboration.

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[53] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/closing-general-session

EDUCAUSE Top-10 Issues 2025

John Augeri, PhD & Laurent Flory

The announcement and publication of the Top-10 for the coming year is an eagerly awaited highlight of every EDUCAUSE Annual Conference[54]. It should be noted that its name has recently changed, with the *IT Issues* mention removed[55] which marks a determination to broaden its scope.

The EDUCAUSE Top-10 is a list of digital issues and perspectives identified as major for the coming year, and drawn up by the community for the community. For this purpose, and as every year, Susan Grajek, EDUCAUSE's Vice President for Partnerships, Communities and Research, is bringing together a ten-month panel of international experts[56] with technological or non-technological backgrounds, CIOs and teachers/researchers. It is worth mentioning that this year's participants included John Augeri, member of the French EDUCAUSE delegation and co-editor of this article.

The following lines summarize and comment on elements of the complete version of the Top-10 2025, published in EDUCAUSE Review[57] and to which readers are invited to refer where appropriate. We would also like to point out that the 2025 edition of the Top-10 is the last to be published under the editorship of Susan Grajek, who announced her forthcoming retirement at the conference. The EDUCAUSE French Delegation, and especially its Steering Committee, would like to take this opportunity to warmly thank Susan for her leadership and decisive contribution to the community over many years, through the Top-10 and beyond, but also for the always open, warm and constructive welcome she has given our delegation over the years.

Restoring trust

The ten items in the Top-10 are traditionally placed under a major theme, presented as the subtitle of the edition in question. The theme selected for 2025 is *Restoring Trust*.

Trust in higher education varies from country to country, and seems to be associated with political and societal considerations. The U.S. prism, through which the Top-10 is mostly viewed, reveals a problem of trust, the origins of which are not particularly recent[58]. Studies cited in the EDUCAUSE Review article[59] devoted to this Top-10 2025 report, for example, that 31% of the American population consider higher education to be on the right track, compared with 68% who think the opposite. This skepticism is fuelled by the cost of higher education, and questions about its ability to provide access to stable, well-paid employment[60].

Beyond this general perception, organizations also face a trust issue when it comes to the way they use data and technology. Trust in large tech companies declines even faster than trust in higher education[61]. The way in which organizations use data appears to be decisive, particularly for Millenials and Gen Z, for whom it can be a criterion of choice. In this context, the rise of Artificial Intelligence also raises obvious questions about the trust that can be placed in technology. However, higher education needs technology and data. It therefore needs an

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[54] Discussed in every issue of this report

[55] previously, this publication was entitled *Top-10 IT Issues*

[56] https://www.EDUCAUSE.edu/about/mission-and-organization/governance-and-leadership/member-committees/meet-it-issues-panel

[57] https://er.EDUCAUSE.edu/articles/2024/10/2025-EDUCAUSE-top-10-restoring-trust

[58] Several aspects of this trend have already been discussed in previous editions of this report, in the article *Trends of Higher Education in US.*

[59] https://er.EDUCAUSE.edu/articles/2024/10/2025-EDUCAUSE-top-10-restoring-trust#fn1

[60] Here again, see the article *Trends of Higher Education in US* in the previous editions of this report

[61] EDUCAUSE Review cites Sean Kates' article as a reference, Jonathan Ladd, and Joshua A. Tucker, "How Americans' Confidence in Technology Firms Has Dropped," The Brookings Institution, June 14, 2023.

AI strategy that takes account of the skepticism that may exist about the ability of institutions to use this data ethically, transparently and safely.

Trust is also based on emotional and behavioral aspects. Institutions need to show that they understand and care about their students, staff and wider community, while at the same time ensuring that they work in a way that combines efficiency and effectiveness. Decision-makers must therefore cultivate both benevolence and competence, and strike an appropriate balance between the two.

Digital decision-makers within an institution can play a decisive role in meeting these challenges: by implementing technology- and data-driven strategies that improve teaching, lower costs and reduce risks, by establishing and managing processes that guarantee data security and user confidentiality, and by creating user-centric digital experiences. EDUCAUSE Top-10 2025 thus proposes to restore trust around three axes:

THE COMPETENT INSTITUTION

2. Administrative Simplification
7. Faster, Better, AND Cheaper
9. Taming the Digital Jungle
10. Supportable, Sustainable, and Affordable (tie)

THE CARING INSTITUTION

3. Smoothing the Student Journey
4. A Matter of Trust
8. Putting People First
10. Building Bridges, Not Walls (tie)

THE FULCRUM OF LEADERSHIP

1. The Data-Empowered Institution
5. The CIO Challenge
6. Institutional Resilience

Building the competent institution: Competence is an essential component of trust, particularly in view of the steps that CIOs may have to take in 2025 to equip institutions with digital tools.

Fostering the caring institution: Trust in institutions stems from trust in the people who work in them, and this trust must be earned. The focus must be on increasing institutional efficiency and improving user experiences.

Leveraging the fulcrum of leadership: Building an institution that is both competent and caring is a balancing act that leadership must strive to achieve. This balance is never achieved once and for all, but must be part of a dynamic process.

In the following chapters, we first list the ten selected items, then divide them into the three axes, and discuss how they can contribute to the achievement of each.

The 2025 ten items

#1 The Data-Empowered Institution: Use data, Analytics and AI to improve student success, win the enrollment race, increase research funding, and reduce inefficiencies.

#2 Administrative Simplification: Streamline and modernize processes, data and technologies.

#3 Smoothing the Student Journey: Use technology and data to improve and personalize student services.

#4 A matter of Trust: Promote institutional strategies to protect confidentiality and secure institutional data

#5 The CIO Challenge: Leading digital strategy and operations in an era of frequent leadership transitions, resource limitations, social unrest and rapid technological advances

#6 Institutional Resilience: Contribute to institutional efforts to prepare for and cope with a growing number and diversity of risks

#7 Faster, Better, AND Cheaper: Use technology to personalize services, automate work and increase agility

#8 Putting people first: Helping staff to adapt, develop and thrive in an era of rapid change and continuous digital progress

#9 Taming the Digital Jungle: Update and unify digital infrastructure and governance to increase institutional efficiency and effectiveness

#10 (ex-aequo) Building Bridges, not Walls: Improving digital access for students while preserving their privacy and data protection

#10 (ex-aequo) Supportable, Sustainable, and Affordable: Develop an institutional strategy for investments, pilot projects, policies and uses of new technologies

The competent Institution

A new generation of enterprise resource planning (ERP) systems offers facilities a valuable opportunity to solve an age-old problem: over-administration. However, ERP projects and back-office modernization initiatives are not just about technology. They enable technology and operations managers to more effectively apply process improvement frameworks, enterprise architectures, project portfolio management, analytics tools and technologies such as AI to the full range of administrative functions and tasks involving staff, faculty and students.

The promise of these new solutions is twofold. Firstly, they improve affordability and confidence in higher education. Processes perceived as obsolete tarnish an institution's image, reinforcing the already existing reputation of a sector often seen as inefficient and archaic. Administrative simplification, by reducing costs and effort, can directly contribute to lowering the cost of education. It also conveys to the public the image of a modern, efficient organization, alleviating the frustrations associated with higher education.

Secondly, they optimize institutional operations. Administrative functions form the bedrock of an institution's activities, whether it is paying teachers, enrolling students or managing grants. Fast, efficient administrative operations enable the entire institution to achieve these goals with fluidity and performance.

Benefits also include increased efficiency through process simplification, which reduces workloads, eliminates some tasks, speeds up others, and limits time-consuming errors. What's more, these modern systems maximize the use of available tools. Unlike past ERP projects, where institutional requirements often dictated costly adaptations, the lessons learned have enabled a closer alignment between user expectations and the capabilities of the new systems. Today, these tools offer functionalities which, when properly integrated, can not only meet basic administrative needs, but also pave the way for innovative uses.

Finally, these transformations can strengthen human bonds and the link to the institutional mission. Outdated systems and complex manual processes have often supplanted the human interactions at the heart of educational missions. Administrative modernization, when done right, can free up time for meaningful collaboration and mission-aligned work. Technological personalization can also provide faculty and staff with more relevant information about students, fostering enriching interactions and improving both students' sense of belonging and staff job satisfaction.

To move forward effectively, it is imperative to adopt a methodical approach to processes. Revising and redesigning processes takes time, as does understanding the capabilities of a new system and its potential impact. Communicating the importance of this work to the community and encouraging sustained, if demanding, attention are essential for optimal results. Disagreements between stakeholders are inevitable and can slow down or compromise the project. As such, this approach requires strong, empowered leadership, capable of managing tensions and making balanced decisions quickly, while keeping the focus on realistic, achievable goals.

The promise of "faster, better, cheaper" is nothing new in digital technology. At times, this promise has been fulfilled, delivering quality education more efficiently. However, there have also been occasions when promising technologies have not lived up to expectations. The promise remains relevant, however, and there is growing pressure to find ways of using technology to reduce institutional costs while improving services and outcomes.

Current systems, structures and cultures allow facilities to operate below their potential. Externally, the pace of innovation is accelerating, but its adoption in higher education often lags behind other sectors, notably consumer-oriented businesses, which define stakeholder expectations. Although there is a willingness to innovate within institutions, this willingness often seems fragmented, manifesting itself in places. The higher education industry is a proud one, with a long memory. Executives and employees often refer to past technology initiatives that did not work. It is necessary to learn from the past, but not to remain stuck in it, while welcoming an often uncertain future.

As educational services expand to a more diverse student population, including underrepresented groups and first-generation students, new challenges arise. To meet them effectively, institutions need to create personalized learning experiences that help students achieve their educational goals, give them a sense of belonging and strengthen their ties to the institution.

In many institutions, presidents and principals are focused on obtaining and increasing grant funding, as well as developing their research activities. Much of today's research depends on cutting-edge, often expensive, technologies. Faster, better, cheaper" is also a goal for digital infrastructures.

The promise : Serve a wider audience: Personalization and the possibilities offered by digital education can provide cost-effective ways for institutions to reach more students and meet their accessibility needs without compromising educational quality.

Stay relevant and competitive: Higher education is unaffordable for many people. Some companies are seizing this opportunity to compete with institutions by offering certifications and microloans at lower cost and in shorter timescales. Some entrepreneurs even hope to use artificial intelligence (AI) and other technologies to marginalize higher education altogether. University and college leaders can meet this challenge by offering similar flexible solutions and adopting equally adaptive and agile approaches to educational innovation, while drawing on what these companies do not have: historic expertise in teaching, learning, advising and supporting students.

Leveling the playing field for students: Personalization, digital learning and accessibility support promise to give every student, in every institution, the tools they need to access a quality education. Teachers able to use learning management systems and associated technologies to personalize not only content and assignments, but also pace, can reach all learners more effectively.

Fostering a sense of belonging: Personalization helps students feel seen and understood, which can give them a sense of belonging right from the start of their relationship with the institution. Student services and academic staff can use student information to tailor services, learning experiences and extra-curricular activities. This can help students integrate quickly, encourage them to interact with their peers, and help them stay on track.

Offer personalized teaching at lower cost: There is no substitute for the inspiration and mentoring that an exceptional teacher can offer, or the benefits of a strong relationship with a faculty member. However, few institutions can afford a very low faculty-to-student ratio, and the majority of professors do not have the opportunities or incentives to provide this kind of teaching and mentoring. The American Association of University Professors reports that 70% of teaching staff are in "contingent" positions. Adaptive learning solutions and other personalization tools can complement excellent teaching. These solutions can provide each student with personalized feedback and learning opportunities in every course, helping institutions to significantly reduce the cost of teaching more students.

Reducing research costs: Knowledge creation today, particularly in high-impact research, relies on teams of scientists and staff often working in different institutions and internationally. Technologies and data can greatly accelerate research and enhance collaboration. However, academic researchers struggle to fund data- and

computationally-intensive research, even with grants. Research IT professionals can help reduce these costs by using data intelligence tools to automate and consolidate storage, moving large amounts of data to less expensive archives. This also helps to meet emerging compliance requirements, while minimizing the risks associated with security breaches.

Increasing sustainability: Automation, intelligent HVAC systems, better management of high-performance computing clusters and space management software can optimize energy consumption and reduce waste. This reduces operating costs and helps institutions achieve their sustainability goals, while boosting the confidence of students, for whom environmental issues are key.

Reduce administrative costs: Automation saves time and effort in carrying out administrative tasks. This can enable resources to be reallocated to activities linked to the educational mission, or institutional costs to be reduced.

The Key to Progress : Industry-wide collaboration and commitment could make all the difference. All players in the ecosystem need to work together to use technology and data to make higher education truly faster, better and cheaper. This implies close collaboration between suppliers and institutions, as well as between the institutions themselves via associations, consortia and other networks. It also requires IT and non-IT managers to share responsibility for challenges and solutions, and for companies to rethink their approach, prioritizing social responsibility over mere profit generation.

#9 Taming the Digital Jungle: Update and unify digital infrastructure and governance to increase institutional efficiency and effectiveness

Data plays a crucial role, and its collection has become increasingly widespread within establishments. However, this proliferation has resulted in a messy, jungle-like digital environment, where tools and data are scattered and risks difficult to anticipate. This disorder calls for the creation of a controlled digital ecosystem, where establishments can identify essential data, eliminate risks, and have the right tools at their disposal for each task efficiently.

Modernizing and unifying digital infrastructures, services and governance can streamline administrative processes and reduce manual tasks. Resources freed up in this way could be reallocated to core missions such as teaching, research and student support. This approach also helps to reduce risk: too many tools and too much data multiply vulnerabilities and increase the cost of protecting personal and institutional information. A more coherent, centralized organization helps to meet compliance requirements more effectively.

Unified data governance also makes it possible to meet current needs and anticipate future ones. With an overview and robust analytics, decision-makers can better understand and solve problems, while preparing strategies for future challenges. It also enhances the student experience, providing seamless, centralized access to resources and support services, while enabling institutions to better identify their needs.

Such a digital ecosystem can promote student success by identifying and reducing inequalities through reliable and diversified data. It also promotes the personalization of services, learning paths and experiences, whether for students, staff or teachers.

To succeed in this transformation, institutions need to lay solid cultural and political foundations. This requires community involvement, the adoption of best practices and active communication. A culture of innovation and continuous improvement is essential to introduce appropriate digital solutions and encourage the active participation of all stakeholders. This collective approach makes the transition smoother and increases motivation to contribute to change.

#10 (ex-aequo) Supportable, Sustainable, and Affordable: Develop an institutional strategy for investments, pilot projects, policies and uses of new technologies

In the rapidly changing higher education landscape, institutions face the crucial challenge of implementing new technologies in a responsible, sustainable and affordable way. This balancing act is not just a matter of fashion; it is essential if institutions are to remain competitive, enhance the experience of students and staff, and continuously adapt to new educational paradigms. Declining public confidence and declining enrollments have heightened the urgency for institutions to develop comprehensive strategies for innovating new business models for technology adoption.

Higher education is expensive. An institutional innovation strategy in which digital technology accompanies and supports the reduction of administrative costs, the reduction of technological redundancy and the improvement of the impact of technological investments is one of the avenues proposed.

Improving the reputation of higher education. Improved sustainability could help reverse the decline in the reputation of higher education. Environmental sustainability is much more important to Generation Z and millennials than to older generations. Institutions that integrate sustainability goals into their technology strategy as part of a green agenda could have a recruitment advantage: young people are more likely to use products and services from companies and organizations that actively engage in environmentally friendly practices.

Competition in higher education and lifelong learning is increasing. Institutions that can change quickly and innovate more effectively will be able to adapt agilely to changing circumstances and needs, as well as to new opportunities. They will be able to transcend the reputation of higher education as being reluctant to change and slow to adopt new practices, methods or tools.

The rapid advance of artificial intelligence (AI) is capturing everyone's attention. AI is going to change everything. But how? We are still in the early days. Leaders at many institutions recognize the importance of gaining experience with AI and using that experience to integrate potentially AI-infused futures into institutional visioning and strategic planning. These leaders will also need to reconcile the high energy levels required to power AI with the institution's sustainability goals.

Higher education leaders still too often manage institutional services and missions as if students and faculty were captive audiences ready to tolerate cumbersome procedures and outdated working or learning environments. Institutions need to provide an environment of services, experiences and products at the level of the outside world, enabling teachers to conduct cutting-edge research and offering students learning experiences that can translate directly into state-of-the-art digital experiences.

Leadership built on relationships of mutual trust and commitment to corporate values can make all the difference. Innovation is hard, disruptive work. Strong, cohesive and collaborative leadership can reduce friction, provide essential skills and capabilities. It can encourage exchange and constructive criticism, and support a unified commitment to successful innovation. Digital is no longer incidental; however, building and maintaining trust with the CIO continues to test a facility's ability to truly deliver on the promise of added digital value.

In conclusion

Competence - and the ability to produce results - is an essential component of trust. Digital departments, and in particular IT Departments, face this challenge, particularly in terms of the development, modernization and deployment of business tools, whose adaptation to the local context and ongoing maintenance represents a financial challenge. In general, this modernization process concerns not only tools and technologies, but also processes. (item #2).

Another facet of building a competent institution lies in its ability to help staff and students work and learn more easily and effectively by increasing personalization, automation and agility. Personalization of the user experience ensures that technologies meet individual needs. Automation, meanwhile, reduces the workload and the risk of errors. Lastly, agility ensures an institution's ability to adapt quickly to new needs. (item #7).

The multiplication of digital services and uses within institutions has resulted in a form of jungle in which data is scattered across the campus. This jungle needs to be tamed to ensure that institutional investments in business intelligence and other analytical tools actually help to reduce costs, improve student success and achieve other data-driven and data-intensive goals. (item #9).

AI is just one example of the wealth of new technologies that institutional players are likely - even eager - to adopt. But these corresponding investments must be well thought-out, adapted to the users and their terminals, tailored to the institution, and in line with compliance requirements. Beyond the technical component of this work, the strategic aspect is essential, as the various stakeholders at the decision-making level may have opposing views on the added value of a new investment, or expect autonomy in their technological choices. (item #10).

The caring Institution

#3 Smoothing the Student Journey: Use technology and data to improve and personalize student services.

A lot of effort goes into applying, enrolling, learning and graduating from a higher education institution. Students must use many institutional services and interact with faculty, staff and tools. The student journey is complex, and students have little idea of what it involves. Student services can simplify and accelerate this journey, but they can also make it complicated and confusing. Students should be able to focus on their educational goals and experiences without worrying about what documents to submit, to whom and when. They should be able to get the help and resources they need, and know where to go if they need special resources or additional support. Academic work can be difficult, but administrative work should be straightforward. Student services managers work with IT departments and other stakeholders to rethink and modernize services so that they contribute to, rather than hinder, student success.

Helping more students succeed. Whatever the nature of the student journey, technology can help simplify it, and data and analytics can be used to make interactions with students more personal and targeted. Over time, institutions can learn what works best and what to avoid, which could help reduce some of the inequalities between student populations.

Modernize student experiences. While the Amazon.com experience, where users can access almost anything they want through a single point of entry, is still out of reach for most institutions, digital leaders can still use technology and data to update and improve students' interactions with the institution.

Attract potential students. Student success professionals know which types of students the institution can best serve. Improving student services can not only benefit current students, but can also be promoted during recruitment.

Simplify transitions between institutions. Fully integrating technology applications within the institution and collaborating with education systems and consortia to simplify data transfers could both simplify student transitions, whether from secondary to post-secondary education or from a two-year to a four-year institution, whether immediately or after a multi-year break, and help institutions better understand the student trajectory.

Better serve distance students. Good digital student services are particularly important for institutions with limited or no physical campus, or those offering digital-only educational options.

More targeted, cost-effective investments. Rather than designing and sizing services for a generalized use case applicable to all, facilities can identify who really needs which services, and tailor their provision accordingly.

Structure for success. Find a good partner to help, whether it is another establishment that has done this work well and can advise, or a business partner who understands higher education. Identify a trusted person within the institution to lead the work to ensure ongoing responsibility and accountability. Support this leader with a strong, achievable vision, an empowered governance structure and the right cross-functional teams to collaboratively plan and execute the work.

Regulations are increasing. Cybercriminals, whether private or state-sponsored, seek to steal research data and other academic intellectual property, as well as the personal information of institutional members. Institutions have legal, reputational, operational and ethical obligations to protect students, faculty, staff and alumni. Protecting data means protecting individuals. However, openness, sharing and collaboration are fundamental values of higher education. Not all data needs to be protected with the same rigor, and faculty and administrators want data to be as accessible as possible to students, the public and other stakeholders. Trust is built as much by the information and knowledge shared with others as by the data and information protected and retained.

Focus on trust. Using the word "trust" opens up the possibility of having important and difficult conversations with outside parties that go beyond individual cybersecurity and privacy tactics. These tactics are crucial, but there is a broader concern about whether institutions are trustworthy. The world is experiencing a crisis of trust. Public trust in higher education used to be very high, but it has declined, as it has in almost every other sector. Refocusing work around cybersecurity and privacy as an issue of trust offers an opportunity to demonstrate that institutions understand that by protecting privacy and safeguarding data, they are protecting and valuing people. This, along with accessibility and success reforms, can help establishments regain people's trust.

Building trust by valuing confidentiality. Other industries have invested far more in analytical resources and data infrastructure than higher education. They use customer and stakeholder data to persistently and aggressively promote, price and improve goods and services. While limited resources are a big reason why higher education lags behind in data exploitation, another contributing factor is that higher education places a higher value on privacy than the business world.

Building trust by protecting data. Higher education is a source of valuable data, ranging from research data to individuals' financial and personal information. Institutions that can keep pace with threat vectors by protecting digital assets, ensuring stakeholders have the knowledge and resources to avoid hacking, and responding quickly and comprehensively to inevitable breaches won't just protect data. They will increase and preserve community trust.

Maintain and obtain federal funding. For institutions to continue to receive research funding from federal agencies, the U.S. government requires them to manage this data appropriately, including, for certain types of funding, implementing a cybersecurity program that complies with the appropriate federal cybersecurity framework, such as NIST 800-171.

Attract and retain students. Students need to trust that their institution cares about them. Protecting student privacy is one way to demonstrate this. Therefore, teachers and administrators must be able to show that they are effectively managing student data and privacy.

Improve institutional services. The work of auditing and improving data flows, access and storage can be combined with efforts to improve business processes and user experiences. An end result of this holistic thinking about the way institutions do business will be increased cybersecurity, greater privacy and a better experience for faculty, staff and students.

Common ground in the industry could make all the difference. Common ground would be a shared means of expressing the degree of trust among higher education institutions, a shared understanding of the importance of data, information, security and privacy, and shared solutions. The Higher Education Community Vendor Assessment Toolkit (HECVAT) has become a useful common tool for assessing solution providers' cybersecurity (and soon privacy) practices against a number of standards and regulatory requirements. Having a framework-agnostic (or inclusive) equivalent that facilities could use to express their trustworthiness to outside parties could save each facility from having to figure out how to do it on its own. It would also give presidents and boards a comparative standard to help them make better decisions about funding privacy and security programs. Shared solutions are another form of common ground. Shared solutions are more affordable, especially for smaller establishments with limited capacity to fund sufficient cybersecurity. They also enable facilities to respond more

quickly to threats, which can make all the difference. Smaller facilities can also share staff to ensure 24/7 coverage and access to specialized expertise.

In the face of rapid technological change, excitement and dismay at the impact of artificial intelligence (AI), and increasing financial pressures, higher education institutions face unique challenges in maintaining a skilled and motivated IT workforce. As any CIO knows, using technology and data to advance strategic priorities depends on the people who implement the technology and manage the data. An excellent workforce is invaluable. To attract and retain talent, CIOs will need to develop more sophisticated management skills and influence cultural change within their organizations.

Recruiting and retaining good people is difficult. Recruitment mistakes happen, and they are damaging. When people leave, the facility suffers a significant loss in terms of productivity and institutional knowledge. However, staff are more likely to stay and less likely to burn out when facilities invest in people. They are also more likely to appreciate and contribute to their workplace. An excellent working environment can also be an excellent recruitment tool.

Everyone is under pressure to do more with less, and to increase employee productivity. One way to do this is to foster effective teams. Groups of people tend to be more effective at solving problems and innovating when they work well together, especially when they collaborate across teams and disciplines. When people feel valued, they are more committed. If they are valued and empowered, they will be more comfortable and effective as collaborators.

Higher education can't compete with business in terms of salary, resources or, in some cases, flexibility. But it can compete on mission. Leaders and supervisors can create an environment where people feel valued and see themselves as an integral part of the institution and its mission. Facilities that focus on people, rather than skills, can help staff feel seen and recognized, rather than as interchangeable parts. If people feel valued, they will be more engaged and collaborative.

The human experience is becoming increasingly digital. Teaching and learning are taking place in new ways. Technology managers can work with other school leaders to understand how to navigate, work and be together in this developing digital environment. Helping staff adapt and thrive in an increasingly digital world means exploring how we learn, how we know what we know, and other big questions. If higher education can understand these things, then perhaps it can help to understand them in communities, in politics and in other places where people come together.

Building a culture of trust is essential. Staff who trust their working environment are more productive, committed and loyal. The four most important components of trust are empathy and kindness, open communication, competence and follow-up, and a flexible and supportive work environment.

#10 (ex-aequo) Building Bridges, not Walls: Improving digital access for students while preserving their privacy and data protection

Higher education institutions will focus on increasing digital access for students while ensuring confidentiality and data protection. As technology continues to advance, institutions aim to provide up-to-date digital resources and tools that enhance learning and prepare students for their careers. However, expanding access to digital platforms and information also raises questions about how best to protect student privacy and institutional data.

Students benefit from increased digital access, but they are vulnerable when their personal data is stolen or exposed. Institutions that can increase digital access while protecting student privacy and data will bring learning and institutional resources to students while helping them feel safe, increasing trust in higher education and enhancing the student experience.

Increasing digital access for students means redefining learning territories, whose boundaries extend beyond the traditional physical confines of the campus, and integrating them into academic strategies. This is particularly true for hybrid and HyFlex configurations, which promise to make high-quality education much more flexible and available worldwide through multimodal access. These trends require us to rethink learning environments and build secure access to connect off-site environments to the campus itself.

The digital divide may concern equipment, bandwidth, digital literacy, tools and applications, access to peers and mentors, or an environment conducive to learning. Although this is not always the case, costly technological advances can widen this divide, as those who "have" use their resources to rapidly acquire state-of-the-art devices, tools and networks. It is towards the others, those who "don't have" or "have less", that efforts to increase digital access must increase. Institutions that focus on these more disadvantaged populations can help bridge the growing digital divide.

The rate of data creation has never been higher and is set to continue rising. Removing barriers to accessing data and information, whether it is lack of access, lack of data literacy or cost, to ensure that students get the data they need when they need it and where they need it is essential to preparing them for professional and post-graduate life.

Students may be primarily concerned with their grades, but they also have access to a wealth of other data to which they are not as attentive, such as their use of the LMS. What is more, there is a wealth of personal data that the institution tracks that students do not have access to, such as their perseverance in a major, study rooms reserved per term or use of IT resources. Restricting access to data helps protect students' privacy and data security. However, the more information they have about their education and progress, the better they can manage their education.

Increasing computing power and data, as well as the wider diffusion of artificial intelligence (AI), exacerbate and complicate long-standing ethical challenges related to data and data privacy. Staff and teachers need to make students aware of the risks and responsibilities associated with widespread digital access. This will help shape future digital workers and citizens with the skills and values to use data ethically and prudently, and to defend their digital rights.

Innovation and forward-looking teaching and learning practices require collaboration. Broader access to data and digital resources can facilitate and extend collaboration. Again, wider, multimodal access requires greater safeguards and additional training.

By granting students digital access to and ownership of their own data (e.g. study records, skills portfolios, etc.) and enabling digital consent management, institutions can help students build their own "digital brand" and market it to potential employers. Finland's MyData portfolio concept is an example of this kind of empowerment. Institutions can also better align curricula with industry needs by intentionally linking curricula to skills and sharing this information with companies (without, of course, providing data that can be attributed to individual students).

By also granting employers anonymized digital access to skills from higher education institutions, academic leaders can better align their training offerings with industry needs.

Having interoperability frameworks for data, digital access and data protection would be revolutionary. The key to progress lies in fostering a culture of collaboration and shared responsibility, with institutions working together to develop common frameworks and standards for digital access and data protection. This collaborative approach can help overcome resource limitations, accelerate innovation and ensure that best practices are widely shared and adopted. Accompanying the co-creation of such frameworks within communities of institutions and solution providers will not only help achieve interoperability more quickly, but also prevent government regulators from stepping in to legislate and decide on requirements and deadlines.

In conclusion

Digital tools and services are often intended to enhance or replace interactions between students, teachers and staff. The institution must ensure that they function properly and efficiently, and that they are secure for their users. The challenge of optimizing and securing the user experience must therefore be taken into account by institutions (item #4).

This security challenge is also linked to the extension of learning environments beyond the physical campus, as can be seen in hybrid and HyFlex configurations. These projections imply that the security issue must be combined with easy access to digital resources, tools and continuums from locations that go beyond the boundaries of the campus (item #10).

The number of tools and applications designed to support and facilitate interactions between students and the institution is increasing, and they are having a growing impact on student success. Deploying them involves collaboration between student services and digital services, which must once again take into account the user experience, making it transparent and value-added (item #3).

The challenge of attracting and retaining competent staff (and maintaining the corresponding staffing levels) is fundamental. These staff, both within the IT departments and beyond, need to acquire the skills they need to use digital technology and data in their daily work. Rather than simply offering training in this area, the institution needs to put in place a genuine corporate culture that prioritizes staff, their development and collaboration (item #8).

The Fulcrum of Leadership

#1 The Data-Empowered Institution: Using data, Analytics and AI to improve student success, win the enrollment race, increase research funding, and reduce inefficiencies.

Institutions are making progress in using data and analytical tools to optimize their resources and promote success, both for themselves and their students. However, current budget constraints make it crucial to rely on solid evidence to guide investment decisions. Key Performance Indicators (KPIs) enable decision-makers to gain a shared view of their school's performance, identify its strengths and determine priority areas for further investment.

Data mining offers a number of promising opportunities. It increases enrollment by helping admissions managers identify prospective students and promote the institution's distinctive features, in line with student expectations and local market needs. It also helps improve student success through real-time analytics, enabling rapid intervention with at-risk learners while monitoring the effectiveness of actions taken. By better understanding the diverse expectations of new generations of students, institutions can adjust their services, teaching and programs to better meet their needs. Analysis of performance and learning preferences also enables teaching to be personalized, and targeted investment to be made in courses where students are having the most difficulty.

Data plays an essential role in continuous improvement. It enables us to assess whether interventions are producing the desired results, and to adjust or discontinue those that are not. Access to rich and varied data facilitates better resource planning, with more accurate forecasts of enrollment, student retention and support service needs. In research and innovation, advanced analytical capabilities and artificial intelligence help institutions attract the best academic talent, foster interdisciplinary collaboration and make projects more efficient and less costly.

To make the most of data, it is essential to have the right mix of skills and human resources. Existing positions need to integrate new skills, and teams need to be trained to meet emerging needs. Leaders must also collectively agree on measures to focus limited resources on initiatives with the greatest impact. Recognizing data as a true corporate asset implies a cultural shift where it is shared and governed collectively rather than monopolized by individuals. It is also crucial to develop data literacy so that all players can interpret and use this information while respecting security and confidentiality rules.

Data quality and integration need to be improved to ensure reliability and relevance, which requires a single source of truth and better system interoperability. Furthermore, a balance between openness and confidentiality of data is essential to enable effective use while protecting the privacy and rights of individuals. Finally, establishments belonging to consortia can collaborate to share skills and solutions to meet common challenges.

In the face of budgetary pressures and enrollment issues, the strategic use of data appears to be an essential condition for ensuring the sustainability and success of establishments. This requires a coordinated approach, investment in analytical skills and technologies, and increased collaboration between stakeholders.

The role of CIO has always been a complex one, requiring a balance between tactical operations and corporate strategy, innovation and risk management, technical expertise and human skills, as well as between virtually unlimited needs and severely limited resources. Today, internal and external pressures make this role even more challenging. CIOs are called upon to participate in arbitrations on critical issues such as campus security, freedom of expression, confidentiality, financial constraints, climate change and innovative business models. In a context marked by increased instability and frequent change, the role of the CIO is essential in unleashing the potential of establishments, helping them to realize their vision and advance their mission. An effective CIO does not impose, but creates the conditions to enable innovation and adaptation, while managing the growing risks associated with data security and confidentiality.

The promise of the CIO role lies in the ability to redefine this function as an exercise in radical collaboration and partnership, far removed from traditional command-and-control models. By collaborating with other facility leaders, the CIO can integrate strategies, reduce redundancies, identify cumulative risks and strengthen communication and cooperation between units. This role also involves attracting, developing and retaining talent, despite the scarcity and high cost of IT skills. A respectful, authentic and open working environment can compensate for the inability to compete financially with other organizations. The CIO must also create a space conducive to innovation, balancing the management of operations with the ability to explore new ideas. Finally, he or she contributes to the agility of the organization, which rests on a solid foundation combining infrastructure, governance, open culture and committed teams, enabling the organization to adapt quickly to change while remaining stable in the face of turbulence.

A culture of trust is crucial to progress. This trust is based on strong collaborative relationships, increased transparency and the ability to link technological and corporate strategies. It reduces friction, facilitates decision-making in the face of uncertainty, and speeds up processes. A clear mission also strengthens the success of CIOs, aligning objectives across the institution to simplify negotiating priorities and adapting to disruptions. Furthermore, transitions in leadership offer opportunities to redefine the CIO's role and create new dynamics.

It is essential to diversify the profiles of corporate technology leaders to strengthen the pool of CIOs. This means rethinking the role of the CIO and encouraging talent from a variety of backgrounds to consider the role. Each institution should invest in the development of its staff, plan for succession and offer leadership opportunities to promising employees. Institutional perfectionism, which often holds back necessary change, needs to be replaced by a pragmatic and adaptable approach. Institutions need to understand that strategies that have worked in the past can become obstacles in a context of rapid change, particularly with the emergence of new technologies such as artificial intelligence.

However, CIOs also need to exploit their institution's competitive advantages, whether these be their geographical position, their expertise in high-demand research or teaching disciplines, or their ability to attract a specific type of student or faculty member. Leaders who can identify these differentiators before their peers can position their institution to maximize these assets in an increasingly competitive environment.

#6 Institutional Resilience: Contributing to institutional efforts to prepare for and cope with a growing number and diversity of risks

Institutional resilience refers to an institution's ability to anticipate, respond and adapt to rapidly changing circumstances, so as to maximize opportunities and minimize the consequences of unforeseen events. Higher education faces a wide and growing range of risks, many of which are beyond direct control or influence. No institution can be totally prepared for the unexpected, especially as today's limited resources do not allow for massive investment in risk management. The key is to raise awareness of potential risks, anticipate their impact on the establishment and its community, and build a solid foundation for risk detection and mitigation. This approach enables a rapid response when, inevitably, a crisis occurs. Inter-facility coordination and leadership capable of making decisions under uncertainty are crucial assets, especially in times of emergency.

An important promise of this resilience lies in the possibility of restoring confidence in higher education. Public confidence in the sector is steadily declining. Although some criticisms fall outside their remit, CIOs can help manage institutional risks and mitigate negative reputational impacts. At the same time, they can reinforce this trust by streamlining student services to improve their interactions with the institution, developing engaging and effective learning experiences, and creating an environment where students feel safe.

Another key issue is the avoidance of existential threats. Technologies, while they may be the source of certain risks, also represent powerful solutions for anticipating and mitigating them. Technology and data management leaders play a crucial role in identifying and preparing the establishment for technological disasters, such as ransomware attacks or major operational disruptions. They also work with executives to design and test continuity and disaster recovery plans, to cope with events such as weather disasters, pandemics or social unrest that impact academic and administrative operations.

Crises, however, also bring their share of opportunities. They pave the way for transformation. By taking advantage of these situations, as was the case with remote working and learning during the pandemic, CIOs can enable establishments to reinvent themselves. By prioritizing staff responsibilities in areas that cannot be outsourced or automated, they create space for teams to develop new skills, anticipate change and adapt when necessary. By limiting the impact of crises, CIOs also preserve the resources and energy essential for corporate innovation and initiatives that bring real satisfaction to staff.

To make progress in this area, it is crucial to learn from minor incidents to avoid major crises. Small problems should be seen as opportunities for early warning, not isolated events. Today's world, marked by disasters once unimaginable, demands a discipline of foresight. By identifying the weak signals of coming changes, managers can use these warnings to anticipate and prepare for emerging problems, protecting the business from potentially disastrous consequences.

In conclusion

Building an institution that is both competent and caring, as described above, is a balancing act. Improving institutional efficiency can be achieved at the expense of support for students and staff, or their working conditions. Similarly, investing in the well-being and quality of working conditions for users may involve additional expenditure. The institution's leadership must respond to this challenge: balancing competence and benevolence. This balance, moreover, must not be taken as definitively achieved by decision-makers: it is the result of constant adjustments and decisions, linked, for example, to a growing number of risks.

Maintaining the right balance must be based on decisions that are themselves based on tangible elements: data mining and analysis and AI (item #1).

Through the design, deployment and implementation of tools and services, CIOs contribute to the balance between institutional objectives and user well-being. CIOs thus have a central role, which is proving particularly

difficult today, given the turnover of decision-makers, technological developments, reduced funding and increased social unrest, all of which contribute to a form of institutional instability. (item #5).

Finally, higher education is facing a worrying number of risks and crises. Trust in institutions will be won or lost depending on how they prepare for and respond to them, and therefore on their capacity for resilience. (item #6).

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This article was produced with the assistance of the LLM ChatGPT and COPILOT, used to synthesize, analyze and structure the information gathered and the notes produced by the human authors.

Learning Environments: Change Management, Hybridizations & HyFlex

John Augeri, PhD

This report has been covering the latest news on Learning Spaces (innovative physical learning spaces) for many years. These spaces have indeed attracted growing interest for more than two decades, often being presented as a vector, a catalyst, sometimes a marker of pedagogical innovation within the campuses that host them. They have themselves experiences evolutions, particularly on the typological (with the emergence of informal[62] then transitional spaces), conceptual, and strategic levels, which we have also been able to observe over the years through the programming of the EDUCAUSE conference (and through sessions in which members of the delegation were involved), but also through on-site visits.

It is obviously unnecessary to remind the impact that the COVID pandemic has had on face-to-face teaching. While the remote teaching measures (full then partial) then implemented in response to the emergency situation were initially temporary, the perspective of mainstream hybridizations (HyFlex and others) in the middle and long term, already discussed in previous editions of this report[63], then became part of the thinking of practitioners and stakeholders, and has remained a strong trend since 2020, despite a number of questions that remain significant. The discussions held this year during the conference and on-site visits once again confirmed this evolution, with in particular an almost systematic mention of the A/V capture features of the Learning Spaces that were visited.

This leads to considering a phenomenon of redefinition of the very notion of campus, and more generally of learning territories[64], based on face-to-face/remote and synchronous/asynchronous dimensions, the balances of which would be defined around a generalized multimodality, potentially flexible for the student. Therefore, more than a focus on Learning Spaces in the material sense of the term, it is indeed a holistic approach to Learning Environments integrating their physical and digital components, and their strategic, operational, and pedagogical dimensions that seems to be establishing itself as the norm.

This article reflects this trend, reporting not only on the traditional meeting of the EDUCAUSE Learning Space Design Community Group, but also on several sessions that illustrate strong issues revolving around Learning Spaces, and more generally around Learning Environments: on the one hand, the change management necessary for their implementation and the Analytics that can shed light on it, and on the other hand, their redefinition in conjunction with Hybrid and HyFlex configurations.

The Top-10 also reflects these different moves. In the 2025 edition detailed and commented on above in this same report, item #10 (tie) *Building Bridges, not Walls* which underlines the need to guarantee the confidentiality of users, and the protection of their data while broadening students' access to resources and content, which can particularly correspond to Hybrid and HyFlex configurations. Configurations that were already targeted a year before by item #6 *Meeting Students where they are* of the Top-10 2024, which invited to broaden access to the different services provided by the institution.

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[62] especially discussed in the 2018 edition of this report

[63] especially the 2022 and 2023 ones

[64] concept discussed in the session *Learning Spaces and Learning Territories (re)Definition: Developing a Vision for a Future-Proof Campus* mentioned below

Learning Space Design Community Group meeting

The Annual Conference in San Antonio saw, as every year, a meeting of the EDUCAUSE Learning Space Design Community Group[65]. This traditional meeting, organized for several years in an open manner around discussions and questions/answers, allowed to discuss various current topics, and recall the different means and meetings that allow for the fueling of exchanges within the community. The EDUCAUSE Connect platform[66] thus brings together numerous discussion threads (dealing in particular with equipment, practices, job offers, announcements of thematic conferences, feedback), on very varied topics. At the same time, the Community Group leaders now propose a monthly videoconference meeting, each of which focuses on a specific theme that can be the subject of suggestions from members. The meetings of the last semester thus especially addressed the questions of Faculty Development, inclusion in design, or outdoor spaces. These meetings are also announced on the Connect platform.

Change Management and Analytics

The prospect of a generalization of Learning Spaces within campuses, or at least of moving beyond an experimental stage, naturally raises the question of the change management which must take into account the full diversity of issues which are concentrated in these spaces.

Space matters: Leading change with physical and digital learning environments[67]

McGill, through Adam Finkelstein (Associate Director, Learning Environments, Teaching and Learning Services) and recipient of the EDUCAUSE Community Leadership Award 2024) gave a session dedicated to the change management related to the implementation of innovative spaces. The university has significant experience in this area, having been involved in such an approach since 2006.

The presentation began with a reminder of the McGill context, with a mostly technologically enriched Face-to-Face (in comparison with Remote teaching), and of a strategy around Learning Spaces which relies in particular on a *Teaching and Learning Services* department operating at the intersection of Teaching and Learning, IT, facilities, and purchasing matters.

The discussion continued on the issue of the messages that spaces convey about Learning, emphasizing that they can create expectations in terms of behavior, suggest ways of acting, and communicate what is valued. Aspects of design, architecture and equipment can carry these messages. In addition, the essential nature of supporting teachers on personal, pedagogical and organizational levels was recalled.

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[65] https://www.EDUCAUSE.edu/community/learning-space-design-community-group

[66] https://connect.EDUCAUSE.edu/community-home?CommunityKey=5ea15eae-22e1-453b-854a-af345776fe60 (need an EDUCAUSE account)

[67] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/space-matters-leading-change-with-physical-and-digital-learning-environments

With these different foundations in place, the discussion then addressed the challenge of organizational change inherent in an evolution of Learning Environments, and the different stages through which its conduct can pass. McGill relied on the following main axes:

- Develop a collaborative vision, and strategic and governance planning
- Base orientations on educational principles, and on taking into account Diversity and Inclusion
- Set up comprehensive and sustainable support
- Operate data-based decision-making

It is on this basis that the university has established a list of guiding principles for designing Learning Spaces[68], which are reflected in the various components such as layout, furnishing, technology, acoustics, lighting and colors. These principles, and the change management implemented for several years now, have enabled the conversion of more than 500 spaces and created more than 1,300 seats in generic or specialized Active Learning Classrooms.

From Silos to Insights: Leveraging Learning Space Analytics[69]

Following on from the session discussed above, and in particular the issue of data-based decision-making, McGill also presented a poster dedicated to Analytics applicable to Learning Spaces, and its strategy in this area.

This poster listed the challenges related to the management of a set of rooms and the data concerning them: definition, typologies, access, duplication, visualization, questions, roles, and strategies. It also noted a form of dispersion of data relating to Learning Spaces between facilities services, Teaching & Learning, educational support services, and IT and A/V services. Each having and managing distinct and complementary data.

McGill addressed this issue by launching an approach aimed at connecting these different data sources together, based on data extraction, conversion, and aggregation systems. This same approach made it possible to optimize the use of these different data, in particular by setting up thematic dashboards, displaying for example their level of use, their potential to support innovative teaching methods, or their score in evaluation systems such as the Learning Space Rating System[70], already discussed several times in previous editions of this report.

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[68] https://www.mcgill.ca/tls/spaces/principles

[69] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/from-silos-to-insights-leveraging-learning-space-analytics

[70] https://unif.fr/learning-space-rating-system/

Impact of Hybridizations and HyFlex on the Learning Spaces

The trends observed around Hybrid and HyFlex configurations, already mentioned in the 2022 and 2023 editions[71] of this report, directly impact Learning Spaces. Two sessions in particular (one at the San Antonio conference, the second at the Online event) once again discussed this articulation.

Beyond the conference itself, it should be noted that this same issue was raised during the on-site visits, and is therefore reported in the corresponding articles in this same report.

Is HyFlex the Death of Lecture Halls ?[72]

This first session focused on the impact of the HyFlex implementation in terms of space typologies was based on a panel bringing together the University of Nevada Las Vegas, Roger Williamson University, and UC Berkeley School of Optometry, whose discussions were moderated by a representative of Logitech. Involving the audience through live polls, this session addressed issues such as the institutional approach to the transition from Lecture Halls to smaller and more flexible Learning Spaces, the technological integration of HyFlex, the evaluation of its implementation, or the optimization of HyFlex-compatible Learning Spaces to promote student success.

Beyond the simple title of this session, the discussions confirmed the impact that a possible generalization of HyFlex can have on the type of Learning Spaces favored on the institutional level, and the challenge that their equipment represents in terms of technologies, particularly A/V.

Learning Spaces and Learning Territories (re)Definition: Developing a Vision for a Future-Proof Campus[73]

The author of this article and Mia de Wilde from Thomas More University (Antwerp, Belgium) presented a Virtual Poster at the EDUCAUSE Annual Conference Online in November discussing the consideration of general trends around Hybridizations and HyFlex in the implementation of a strategic Learning Spaces scheme on a campus scale, and its operational implementation. This session thus first presented a principle of redefinition of Learning Territories in the perspective of the medium and long-term based on three pillars: an extension and diversification of Learning Spaces in and beyond campuses, a generalization of multimodality in Teaching and Learning practices, and a technological

ecosystem capable of supporting these movements. A prefiguration of these perspectives was then illustrated through the example of the master plan established by Thomas More University[74] and its implementation through an iterative approach to room conversion. This is based on ten fundamental principles that were listed following preparatory work that was largely associated with stakeholders on campus. Thomas More has already deployed two standardized types of rooms: Hybrid Pro and Hybrid Advanced (the second representing an evolution of the first, notably designed on the basis of surveys and feedback).
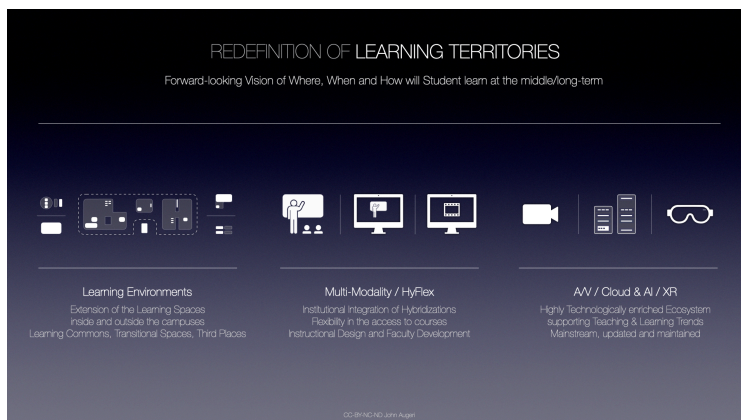
Emerging Technologies for Learning

Thierry Koscielniak, PhD

Once again this year, the EDUCAUSE 2024 conference was an event that left participants breathless with so many opportunities for information and exchange.

It is always frustrating not to be able to attend all the presentations that are at the heart of your monitoring and research work, especially when you are a presenter yourself and your slot collides with inspiring sessions. Fortunately, being a member of the French delegation means you can share out the subjects and the presentation sessions.

This year, it has been possible to transcribe as faithfully as possible eleven sessions, the opening and closing keynotes and numerous posters[75]. Many thanks to the presenters who took the trouble to upload their slides or posters. It is recommended that readers follow the link at the end of each title in the footnote, which begins with https://events.EDUCAUSE.edu/annual-conference/2024/agenda/. There you will find the resources to download.

Emerging Tech Community Group Meeting Featuring an Expert Panel and Professional Networking[76]

The *Emerging Tech Community Group Meeting Featuring an Expert Panel and Professional Networking* at the EDUCAUSE 2024 Annual Conference provided an in-depth exploration of how emerging technologies are reshaping the higher education landscape. Moderated by Courtney McHenry, Board Account Manager for Corporate Engagement at EDUCAUSE, the session featured a panel of esteemed industry leaders, including Curtiss Barnes, Chief Executive Officer of 1EdTech; Dr. Tasha Dannenbring, a senior consultant at Unicon Consulting; Dan Quigg, CEO of Public Insight; and Jeremy Dean, Vice President at Hypothesis. The session offered practical strategies for startups and insights into fostering impactful collaborations between technology providers and higher education institutions.

Courtney McHenry opened the discussion by emphasizing EDUCAUSE's strategic priority of influencing the evolution of the higher education technology market. She detailed the purpose of the Emerging Tech Program, which supports startups by providing discounted exhibition opportunities, mentoring sessions with industry professionals, and a year-round platform for engagement. Rebranded from Startup Alley to the Emerging Tech Experience, the program aims to connect new companies with institutions while fostering innovation that aligns with the needs of learners and educators. McHenry also highlighted EDUCAUSE's plans to expand the program beyond the annual conference, creating continuous opportunities for startups to gain visibility and refine their solutions.

Curtiss Barnes, the CEO of 1EdTech, provided a wealth of insights from his extensive experience in educational technology. Barnes emphasized the importance of understanding the complexities of the higher education sector, a field that often resists change due to its focus on stability and long-term impact. Drawing from his tenure leading an organization known for its interoperability standards, Barnes highlighted the critical need for usability in technology solutions. He warned against overcomplicating products, stressing that startups must

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[75] All the posters have been analyzed and processed from the PDF files to produce a strategic summary with the use of ChatGPT-4o Plus using a custom GPTs (May 2024 version). This summary was then revised by the author, but only slightly, as the results are striking. The picture in this article was taken with the author's cell phone. The English language and French translation have been optimized using DeepL Translator Pro.

[76] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/emerging-tech-community-group-meeting--featuring-an-expert-panel-and-professional-networking

focus on creating user-friendly tools that address specific institutional challenges. According to Barnes, startups must also avoid catering too narrowly to a single partner, which can lead to unsustainable growth and difficulty scaling.

Dr. Tasha Dannenbring shared a complementary perspective, emphasizing the role of relationship-building in aligning solutions with institutional priorities. With her background in institutional research and consulting, Dannenbring underscored the importance of listening to client needs and engaging in iterative development processes. She discussed her experience fostering collaboration between technology providers and faculty, noting that research partnerships and co-presenting at conferences can help build trust and credibility within the academic community.

Dan Quigg reflected on lessons from his entrepreneurial career, particularly the pitfalls of designing solutions that lack clear budgetary alignment within institutions. Quigg shared how one of his early ventures created an innovative app that generated significant excitement at a trade show but failed to gain traction because institutional research departments lacked the budget to adopt it. This experience reinforced the importance of tailoring solutions to address priorities that institutions are willing and able to fund. Quigg also emphasized the importance of "value mapping," a concept from Brent Keltner's Revenue Acceleration Playbook. By aligning products with institutional use cases and demonstrating measurable benefits, startups can establish stronger connections with their target audiences.

Jeremy Dean brought an educator's perspective to the discussion, advocating for partnerships that go beyond transactional relationships. Dean argued that startups should see early adopters as collaborators who can help refine their products and expand their reach. Sharing a personal anecdote, he recounted how an informal conversation during a past EDUCAUSE conference ultimately led to a significant partnership years later. This experience, Dean noted, underscores the importance of building authentic connections rather than focusing solely on product pitches.

The panel also addressed the challenges of introducing new technologies to a traditionally risk-averse sector. Barnes and Quigg agreed that startups need to differentiate themselves by providing exceptional service and demonstrating unique value propositions. Dean suggested that starting with smaller, scoped partnerships within institutions can help establish a track record of success and build momentum for broader adoption. The importance of selecting the right institutional partners was also emphasized, with panelists advising startups to identify colleges and universities with teams that are open to experimentation and innovation.

Sustainability and impact measurement emerged as recurring themes throughout the session. Barnes highlighted the need for startups to remain aligned with their mission, ensuring their solutions contribute to the advancement of education and societal progress. Panelists encouraged startups to track and communicate the positive outcomes of their technologies, reinforcing their value to institutions that prioritize student success and innovation.

The session concluded with a networking opportunity, where attendees exchanged ideas and formed potential collaborations. McHenry encouraged participants to explore smaller EDUCAUSE events, such as the Teaching and Learning Symposium and regional conferences, which provide more intimate settings for building relationships and understanding institutional needs.

Immersive technologies - XR

The integration of extended reality (XR) technologies into higher education has emerged as a transformative approach to reimagining teaching, learning, and research. The XR section of this article focuses on the dynamic applications and strategic implementations of XR within academic institutions, highlighting its potential to enhance engagement, foster interdisciplinary collaboration, and support innovative pedagogical practices. Recognizing XR as a multifaceted tool, this section explores initiatives across diverse educational contexts, offering insights into the opportunities and challenges that accompany the adoption of immersive technologies.

The EDUCAUSE 2024 Conference served as a platform to examine the integration of XR through various case studies, panel discussions, and presentations. Institutions showcased their efforts to harness XR for virtual labs, collaborative learning spaces, and immersive storytelling, providing a glimpse into how these technologies are shaping the future of education.

Through an in-depth analysis of these initiatives, this section aims to provide a comprehensive overview of XR's evolving role in higher education. It highlights best practices, lessons learned, and forward-looking strategies, offering valuable guidance for institutions seeking to leverage XR to create more inclusive, adaptive, and impactful learning environments.

This chapter is the ninth in a series of articles begun in 2016 in the delegation's previous reports :

2016 - Learning with Virtual Reality - page 43

2017 - Teaching with Virtual Reality - page 42

2018 - Immersive Learning: Promises kept? - page 48

2019 - Immersive Learning: Massive Feedback in 2019 - page 61

2020 - Immersive Learning : grand cru 2020 - Production réduite et d'excellente qualité - page 105 (no English translation)

2021 - Using immersive technologies to teach - page 38

2022 - Immersive Learning: XR Station, a demonstration dedicated space - page 75

2023 - XR sessions - page 76

In the EDUCAUSE online library, a page of summary documents provides a starting point for discovering immersive technologies and their educational applications : *Extended Reality (XR)*[77] .

France Immersive Learning[78], the network of French producers and users of Immersive Learning[79], has produced a guidebook, an English version of which was published at the end of 2024 : *Immersive Learning Guide*[80]

XR in Education Community Meetup[81]

The *XR in Education Community Meetup* during the EDUCAUSE 2024 Annual Conference provided a robust platform for educators and technologists to discuss the expanding role of extended reality (XR) in higher education. Co-moderated by Sean Hauze, Senior Director of Instructional Technology at San Diego State University, and Randall Rode, an education strategy consultant, the session highlighted both the opportunities and challenges faced by institutions integrating XR into their educational practices. The discussion was further enriched by the contributions of panelists Becky Lane (Cornell University), Joe Doan (Texas A&M), Sean Hauze, and Mike Wallace (North Carolina State University), each offering insights shaped by their institutional contexts and XR initiatives.

The session opened with a focus on the multi-faceted role of XR as a tool for enhancing engagement and facilitating complex learning experiences. Randy Rode emphasized that implementing XR is not simply about acquiring technology but involves developing comprehensive strategies that consider institutional culture, funding models, content creation, and accessibility. Drawing on the work of the EDUCAUSE XR Community Group, Rode discussed the Open Extended Reality (OEXR) Library[82], a collaborative project aimed at fostering

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[77] https://library.EDUCAUSE.edu/topics/emerging-technologies/extended-reality-xr

[78] https://www.linkedin.com/company/france-immersive-learning/

[79] https://www.fil-asso.fr/

[80] https://www.fil-asso.fr/collect/description/462263-o-fil-immersive-learning-guide-in-english

[81] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/xr-in-education-community-meetup

[82] https://er.EDUCAUSE.edu/articles/2024/4/from-xr-pilots-to-full-scale-deployments-considerations

resource sharing among institutions. This initiative underscores the importance of cross-institutional collaboration and offers a repository of case studies, implementation frameworks, and XR resources.

Insights from Institutional Implementations. Becky Becky Lane of Cornell University shared her experience of leading XR initiatives at two institutions with vastly different contexts. At Cornell, Lane oversees a well-funded lab dedicated to immersive AI and digital storytelling. She highlighted the importance of demonstrating the pedagogical benefits of XR, particularly in large, resource-intensive institutions where funding decisions require strong justifications. In contrast, her work at Pitcairn College involved grassroots efforts to persuade faculty of XR's value, showcasing its potential through pilot projects. Lane argued that XR's true value lies in providing diverse and personalized learning experiences that complement traditional methods.

Joe Doan discussed the development of XR programs at Texas A&M, initiated in response to remote learning challenges during the pandemic. Faculty requests to simulate lab-based dissections in VR led to the creation of immersive learning environments supported by the university library's technology team. Doan emphasized the role of faculty champions in driving adoption and sustaining XR projects, even in resource-limited settings. He noted that XR has the potential to democratize access to advanced learning experiences, making sophisticated educational tools available to a broader student population.

Mike Wallace presented North Carolina State University's decentralized approach to XR adoption. With no single centralized XR center, the institution relies on partnerships between departments like engineering, libraries, and instructional technology. Wallace highlighted the importance of normalizing XR as an instructional tool, integrating it into competitive grant programs, and using lightweight platforms like 360-degree video to address scalability challenges. This approach has enabled NC State to address instructional needs across a wide range of disciplines, from agriculture to cultural studies.

Sean Hauze provided an overview of San Diego State University's Virtual Immersive Teaching and Learning (VITaL) initiative, which has evolved into a formal interdisciplinary research center. Starting with a single VR headset in 2017, the initiative expanded through faculty-driven projects and external grants, securing over $4 million in funding. Hauze highlighted the integration of AI and XR, such as using digital avatars for interactive learning, as a key area of future growth. He also emphasized the importance of aligning XR initiatives with institutional research goals, enabling their integration across diverse academic disciplines.

Challenges and Emerging Trends. Throughout the discussion, panelists addressed common challenges, including scaling XR projects, managing accessibility concerns, and navigating institutional silos. They advised against acquiring hardware without clear use cases, advocating for a "just-in-time" approach to procurement. This strategy ensures resources remain aligned with rapidly evolving technological trends. Panelists also discussed balancing content creation and procurement, noting that platforms like Uphill, which enable interactive 360-degree video, can bridge the gap between custom development and off-the-shelf solutions.

The session concluded with reflections on the intersection of XR and artificial intelligence (AI). Panelists noted that while AI has dominated institutional priorities in recent years, its integration with XR presents significant opportunities for procedurally generated content and adaptive learning environments. However, sustaining momentum for XR initiatives requires strong faculty and administrative advocacy, particularly in the face of competing institutional priorities.

For further insights and resources, attendees were encouraged to join the EDUCAUSE XR Community Group's ongoing discussions and explore its initiatives online en ligne[83].

Does Your Campus Need an Extended Reality Center? Peer Perspectives and Strategies for Success[84]

The session, "Does Your Campus Need an Extended Reality Center? Peer Perspectives and Strategies for Success," brought together thought leaders and practitioners to explore the implementation of XR centers on university campuses. Moderated by Randy Rode, an education strategy consultant, the session featured panelists Becky Lane (Cornell University), Joseph Doan (Texas A&M University–Corpus Christi), and Sean Hauze (San Diego State University). Each shared insights from their experiences establishing XR resource hubs, detailing strategies for success, operational challenges, and lessons learned.

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[83] https://www.EDUCAUSE.edu/community/xr-extended-reality-community-group

[84] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/does-your-campus-need-an-extended-reality-center-peer-perspectives-and-strategies-for-success

The presenters emphasized that XR technology is now recognized as an effective tool for enhancing learning outcomes, from engaging students in complex simulations to enabling virtual field experiences. Institutions are increasingly experimenting with XR tools, driven by faculty and student interest. However, transitioning from pilot programs to full-scale XR centers demands careful planning and coordination across various institutional dimensions, including culture, finances, technology, and operations.

Establishing XR Centers: key approaches. The session outlined diverse approaches to founding and sustaining XR centers. Becky Lane provided an overview of Cornell University's Creative Technology Lab, which operates within the Center for Teaching Innovation under the Office of the Provost. Opened in January 2024, the lab supports faculty in integrating emerging technologies, such as immersive technologies, generative AI, and digital storytelling, into their pedagogical practices. Lane highlighted the importance of aligning the center's goals with institutional priorities, noting that faculty champions were instrumental in securing support and funding.

Joseph Doan detailed the establishment of the Immersive Reality Lab at Texas A&M University–Corpus Christi, which emerged from the university library's initiative to meet faculty demands during the pandemic. This lab provides tethered and standalone VR headsets and a Cave Automatic Virtual Environment (CAVE). Doan emphasized that the lab's success relied heavily on fostering faculty buy-in and addressing practical needs, such as ensuring accessibility and offering technical support. The lab also supports interdisciplinary projects, reflecting the growing integration of XR into diverse academic fields.

Sean Hauze shared the evolution of San Diego State University's Virtual Immersive Teaching and Learning (VITaL) Research Center, established in 2017. Initially a grassroots initiative involving a single VR headset, the center has grown to support over 80 courses across disciplines, ranging from undergraduate instruction to doctoral research. Hauze emphasized the importance of leveraging grant funding and fostering collaboration among faculty, students, and external partners. He also highlighted the integration of AI in XR applications, such as using digital avatars for interactive learning experiences.

Challenges and Strategies for Success. The panelists discussed several challenges that institutions face when scaling XR projects. A recurring theme was the lack of clarity in ownership and support structures, with responsibilities often divided between IT departments, libraries, and teaching centers. Rode highlighted findings from ongoing interviews with XR center directors, which revealed frequent friction points, such as inadequate staffing and fragmented operational responsibilities. The lack of standardization in XR technology and licensing models was another significant hurdle, complicating procurement and management.

To overcome these barriers, the presenters recommended building strong cross-departmental partnerships and identifying faculty and student champions to advocate for XR initiatives. Lane noted that hosting events such as idea jams, hackathons, and visioning exercises can foster community engagement and attract institutional support. Doan emphasized the need for comprehensive planning frameworks that address both the technological and cultural dimensions of XR adoption, ensuring alignment with institutional priorities and strategic goals.

The session also addressed the question of content creation versus procurement. Panelists highlighted the cost and complexity of developing custom XR content, advising institutions to consider flexible platforms like 360-degree video tools as a cost-effective alternative. At Cornell, Lane's team uses platforms such as Uphill to create interactive experiences, enabling faculty to develop content without extensive technical expertise. Similarly, Hauze described San Diego State's approach of balancing in-house development with vendor-provided solutions to maximize flexibility and scalability.

For further insights and resources, the presenters encouraged attendees to explore the EDUCAUSE XR Community Group's initiatives[85], including the Open Extended Reality (OEXR) Library and strategic planning frameworks.

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[85] https://www.EDUCAUSE.edu/community/xr-extended-reality-community-group

Development of Accessibility in Digital Twins in Virtual Reality for Education: Two case studies[86]

This poster explores two case studies from the Conservatoire national des arts et métiers (CNAM) in France, focusing on the work of a multidisciplinary team led by Maité Sylla, Full Professor in Organic, Biorganic and Medicinal Chemistry and Christian Cousquer, a specialist in ICT, XR and accessibility. These case studies demonstrate how immersive technologies can enhance pedagogical practices while addressing accessibility challenges.

The first digital twin (DT), which has been in operation for over three years, was designed to serve the educational needs of students in chemistry, agrifood, and pharmaceuticals. This DT provides a safe and controlled environment for students to engage in practical training, such as performing experiments and using laboratory equipment. Accessibility features were incrementally added to this platform, such as customizable visual feedback systems, haptic responses to simulate real-world textures and movements, and audio instructions that guide students through complex procedures. These tools cater to diverse learning needs, including students with visual impairments, motor disabilities, and learning disorders such as dyslexia. The incorporation of these features has enhanced student engagement and reduced the reliance on physical resources, making laboratory training more sustainable and inclusive.

The second digital twin is still under development and focuses on the study of airplane aerodynamics. This case exemplifies the intersection of immersive learning and scientific research. It employs advanced simulations to allow learners and researchers to explore aerodynamic phenomena, offering unprecedented levels of interactivity. Accessibility tools, such as colorblind-friendly visualizations and adaptive interfaces for individuals with motor challenges, are being integrated from the outset. This proactive approach ensures that the platform will be inclusive upon deployment. The research-oriented nature of this DT also means that it serves dual purposes: as a pedagogical tool for students and as a research platform for faculty and external collaborators. The progressive design strategy emphasizes iterative feedback from users, ensuring the accessibility tools address real needs effectively.

The implementation of these features in both cases highlights the importance of collective intelligence in the development process. The project team leveraged feedback from educators, students, and accessibility experts to refine the tools. For instance, user testing identified the need for customizable font sizes and interface designs to assist students with dyslexia and other cognitive impairments. Additionally, these features were aligned with international standards such as the XR Accessibility User Requirements (XAUR), ensuring compatibility with best practices in immersive learning.

Balancing immersion, usability, and accessibility posed challenges. VR technology's immersive nature provides unique pedagogical advantages, such as engaging spatial memory and evoking emotional resonance. However, these benefits can be undermined if the systems are not intuitive or accessible to all learners. The CNAM team addressed this by prioritizing user-centric design and educator training. Workshops were organized to familiarize faculty with VR technologies, equipping them with the skills to effectively integrate these tools into their curricula. Christian Cousquer and Maité Sylla's poster underscores the transformative potential of VR in education when accessibility is prioritized. The progressive enhancement of accessibility features in these digital twins ensures that students with varying abilities can fully participate in and benefit from immersive learning. For example, visual adaptations for colorblind users allow for clear differentiation of chemical reactions in the first DT, while audio-guided aerodynamic models in the second DT make complex concepts more comprehensible.

VR Voyage: Navigating Immersive Education[87]

The presentation *VR Voyage: Navigating Immersive Education*, led by Bertha Saldívar, Director of Educational Technologies and Digital Transformation at Tecnológico de Monterrey, and Ursula Saldívar, Director of Innovation and Emergent Technologies at the same institution, provided an in-depth exploration of how Virtual Reality (VR) is being integrated into the university's educational ecosystem. Drawing on insights from both the presentation

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slides and the transcript, the session highlighted the strategic implementation, pedagogical benefits, and future vision for VR-enabled learning across Tecnológico de Monterrey's campuses.

Strategic Vision and Implementation of VR Zones. Le Tecnológico de Monterrey has established *Virtual Reality Zones (VR Zones)* as a cornerstone of its commitment to transforming education through technology. Located in campus libraries, these zones are designed as accessible spaces where students can engage in immersive educational experiences. The presenters emphasized that these VR zones align with the university's TEC21 educational model, which prioritizes active and challenge-based learning.

Currently, 18 VR zones operate across 12 higher education campuses and six high schools, with plans to expand to all 26 campuses by 2026. These zones feature 47 VR stations, enabling approximately 600 immersive learning experiences (ILEs) per semester. Faculty members actively curate and develop VR applications that support the curriculum, focusing on areas such as STEM education, humanities, and intercultural competencies. The scalable and modular infrastructure allows for both individual and collaborative learning, ensuring flexibility in usage.

Pedagogical Applications and Student Engagement. The VR zones support a wide variety of educational activities, including:

- Immersive Lessons Designed by Faculty: Professors design VR lessons tailored to their course objectives. For instance, medical students can perform virtual dissections, while engineering students can explore simulated environments to understand complex machinery.
- Exam Preparation: Students can use VR applications to review and practice key concepts in a more interactive and engaging format. For example, students studying anatomy can explore the human body in 3D, which enhances spatial understanding and retention.
- Collaborative Class Sessions: VR facilitates interactive group work, enabling students and professors to engage in discussions within virtual environments. This approach is particularly effective for problem-solving and teamwork.
- Exploration of Curated VR Content: A catalog of VR applications curated by faculty allows students to explore supplementary materials that enrich their understanding. For instance, cultural studies students can take virtual tours of landmarks, such as the Colosseum in Rome, to gain immersive insights into historical and architectural significance.

Operational Excellence and challenges. The presenters emphasized the robust operational processes underpinning the VR zones' success. Each VR zone is equipped with user-friendly interfaces and on-site technical support to ensure smooth operations. Regular training for faculty and staff ensures that they are well-prepared to integrate VR into their teaching practices.

The challenges of integrating VR into education were also addressed. Faculty adoption was initially hesitant, as many instructors were unfamiliar with immersive technologies. To overcome this, Tecnológico de Monterrey implemented professional development workshops focused on VR pedagogy, highlighting the transformative impact of immersive learning.

Another challenge was ensuring accessibility. The presenters explained that the VR zones were designed to be inclusive, featuring adjustable settings and interfaces for students with diverse needs. Future developments aim to incorporate haptic devices and AI-driven personalization to enhance accessibility further.

Future vision for VR in education. Tecnológico de Monterrey's ambitious roadmap includes the expansion of VR zones to reach 30,000 students per semester by 2026. The university is also exploring the integration of advanced technologies such as haptic feedback, spatial computing, and artificial intelligence to create more interactive and adaptive learning environments.

Beyond physical expansion, the institution is prioritizing research into the long-term impact of VR on learning outcomes. Early feedback from students and faculty has been overwhelmingly positive, with many highlighting improved engagement, critical thinking, and creativity. The presenters underscored the importance of continuous evaluation and collaboration with technology providers to refine and enhance the VR experience.

Conclusion. The "VR Voyage" presentation showcased Tecnológico de Monterrey's leadership in immersive education, demonstrating how VR can bridge the gap between theory and practice. By creating accessible, scalable, and innovative learning environments, the university has set a benchmark for integrating immersive technologies into higher education. This initiative not only equips students with cutting-edge skills but also fosters a culture of innovation, preparing them for success in an increasingly complex and technology-driven world.

Navigating New Realities: The Integration of VR Technology in Higher Education Courses[88]

The poster entitled *Navigating New Realities: The Integration of VR Technology in Higher Education Courses*, presented by Robert Granado, Assistant Director of Academic Technology, and Elyse Ramirez, Lead Learning Experience Designer, from the University of Texas at San Antonio (UTSA), highlighted the university's transformative journey in incorporating virtual reality (VR) into its academic programs. Beginning in the fall of 2022, UTSA piloted VR-enhanced courses across various disciplines, including philosophy, history, engineering, and cultural studies, with the aim of exploring the potential of immersive technology to enrich student learning experiences.

The presenters outlined UTSA's pedagogical framework for integrating VR, which is grounded in experiential and constructivist learning theories. The courses leveraged VR's immersive capabilities to create interactive simulations, virtual field trips, and immersive storytelling experiences. These approaches aimed to engage students by fostering collaboration, providing alternative learning pathways through universal design principles, and encouraging deeper interaction with course content. For example, one course used VR to simulate archaeological exploration in Peru, while another implemented virtual road trips to teach Spanish language and culture.

Feedback from students underscored the effectiveness of VR in enhancing engagement and realism. Approximately 40% of participants cited the immersive and realistic nature of VR environments as its most compelling feature, followed by 35% highlighting interactivity and engagement, and 25% noting the uniqueness and novelty of the technology. These findings affirmed the pedagogical benefits of VR in fostering active and meaningful learning experiences.

However, the integration of VR was not without challenges. Students reported technical difficulties (40%), physical discomfort (30%), and limitations in content and interaction (30%) as areas for improvement. To address these concerns, UTSA implemented a comprehensive support structure that included troubleshooting assistance, regular equipment maintenance, and faculty training in VR content creation and integration. The university emphasized the importance of sustainability in its approach, ensuring that VR systems were updated and compatible with emerging technologies.

Looking ahead, UTSA plans to expand VR integration to new disciplines, including art, science, and additional cultural studies. The presenters noted that future developments would be informed by student feedback, with efforts focused on refining content to address technical and accessibility issues. Additionally, the university plans to incorporate advancements in VR hardware and software to enhance the quality of the immersive experiences offered.

During the French delegation's visit to UTSA campus, Mr Granado and Ms Ramirez had the opportunity to demonstrate some of the VR solutions used in VR-enhanced UTSA courses.
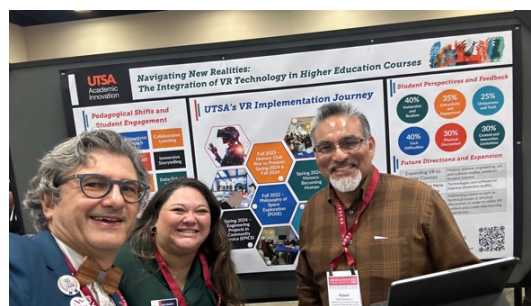
Examining the Pedagogical Effectiveness of Virtual Reality Software in Visualizing Historical Sites[89]

The poster entitled *Examining the Pedagogical Effectiveness of Virtual Reality Software in Visualizing Historical Sites*, presented by Marisa Beard, Associate Dean of Educational Technology, and Amos Gutierrez, Assistant

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[88] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/navigating-new-realities-the-integration-of-vr-technology-in-higher-education-courses

[89] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/examining-the-pedagogical-effectiveness-of-virtual-reality-software-in-visualizing-historical-sites

Director of Creative and Academic Technology, both from Abilene Christian University, showcased findings from a study investigating the educational benefits of virtual reality (VR) in teaching about historical sites. The experimental study focused on the use of VR to explore Moses' Tabernacle, comparing its effectiveness against traditional video-based methods.

The study employed a mixed-methods approach, dividing participants into a control group (CG), which used video, and an experimental group (EG), which engaged with a VR walkthrough of the Tabernacle. Both groups participated in a pre-event quiz and attended a lecture on the Mosaic Law and the Tabernacle. The experimental group completed a VR-based activity and then took a post-event quiz. Both groups were assessed again two weeks later through a unit exam to measure long-term retention.

Quantitative results demonstrated statistically significant improvements in the experimental group's perceived attention, motivation, and comprehension of spatial relationships. Students in the VR group reported higher engagement and a deeper understanding of the Tabernacle's spatial elements, which were critical to the study's objectives. The experimental group also outperformed the control group in the unit exam, indicating superior long-term retention of information about the Tabernacle's elements and purposes.

Qualitative data from interviews with participants in the experimental group highlighted the immersive and interactive qualities of VR as key factors contributing to their enhanced learning experiences. Students described the VR walkthrough as an engaging and effective way to visualize the Tabernacle, providing a spatial context that was difficult to grasp through traditional methods.

The findings underscore the potential of VR as a pedagogical tool, particularly in fields requiring spatial comprehension and experiential learning. However, the presenters also noted challenges such as the cost of VR hardware and software, as well as the need for technical support and faculty training. These barriers must be addressed to facilitate broader adoption of VR in educational settings.

Overall, the study provides compelling evidence for the pedagogical effectiveness of VR in enhancing attention, engagement, and comprehension, offering a valuable model for integrating immersive technologies into curricula.

Leverage AI to Auto-Generate XR Lesson Plans on the Fly[90]

The poster session entitled *Leverage AI to Auto-Generate XR Lesson Plans on the Fly*, presented by Eric Kunnen, Senior Director of Innovation and Research, and Joseph Van Harken, Innovator in Residence at Grand Valley State University (GVSU), introduced a groundbreaking approach to integrating augmented reality (AR) into education. Through their collaboration with Ludenso, the presenters showcased an AI-powered solution that enables educators to create comprehensive AR lesson plans with minimal effort, eliminating the need for technical expertise, coding skills, or prior XR experience.

The innovation centers on a system that uses AI to analyze prompts or documents provided by educators and then generates AR-enhanced content tailored to specific pedagogical needs. The process involves three main steps: first, educators craft a prompt that outlines the desired learning objectives or content focus. Next, the AI generates an initial AR lesson, which can be edited and refined using the system's intuitive tools. Finally, the completed lesson is embedded directly into web-based Learning Management Systems (LMS), where students can view and interact with it in 3D or AR formats. This streamlined approach ensures that educators without advanced technical backgrounds can still incorporate immersive technologies into their teaching practices.

A key aspect of this innovation is its scalability. Designed to empower educators at all levels, the solution is part of GVSU's broader campus innovation ecosystem, which fosters experimentation and collaboration in emerging technologies. This ecosystem includes facilities such as the futurEDlab and student-led initiatives like the Student Technology and Innovation Guild (STING), where student assistants collaborate with faculty and staff to design and build technology applications addressing real-world pedagogical challenges. By integrating these collaborative processes, the system not only supports the creation of AR lesson plans but also encourages engagement with emerging technologies across the institution.

The presenters highlighted the transformative potential of AI-powered AR in enhancing student engagement and comprehension. For instance, AR visualizations make abstract or complex concepts more tangible and interactive, enabling students to better grasp and retain key ideas. This capability is particularly valuable in

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disciplines like STEM, where spatial understanding and visual representation play critical roles, but it also holds promise for areas like the humanities and social sciences. The system's ability to rapidly generate tailored AR experiences further supports differentiated learning by allowing educators to adapt content for diverse student needs.

GVSU's focus on accessibility and ease of use is central to the project's success. The presenters emphasized that the system democratizes access to AR-enhanced education by removing traditional barriers, such as the need for technical training or costly resources. This ensures that a wide range of educators can leverage the tool to transform their classrooms, regardless of their technological expertise or institutional budget.

The project also prioritizes collaboration, involving educators, students, and community partners in the design and deployment of AR-enhanced lessons. This inclusive approach ensures that the content is not only pedagogically sound but also relevant and engaging for its intended audiences. GVSU's innovation ecosystem further supports this goal by providing spaces for experimentation, workshops, and the development of best practices for integrating AR and other emerging technologies into education.

The presenters noted that preliminary feedback from educators and students has been overwhelmingly positive. Educators appreciate the system's simplicity and its ability to generate high-quality AR content quickly, while students report increased engagement and interest in courses incorporating AR elements. Additionally, the scalability of the approach positions it as a practical solution for institutions looking to expand their use of immersive technologies without incurring significant costs or requiring extensive infrastructure changes.

Walking the (Virtual) Walk: Exploring DEI Principles through XR[91]

The poster session titled *Walking the (Virtual) Walk: Exploring DEI Principles through XR*, presented by Crystal DeJaegher and Kael Kanczuzewski, both Academic Technology Specialists at the University of Notre Dame, demonstrated the potential of Extended Reality to deepen understanding and engagement with Diversity, Equity, and Inclusion (DEI) principles. This project was implemented during Notre Dame's "Walk the Walk Week," an event designed to foster dialogue and reflection on DEI issues across the university community.

The presenters highlighted how XR technologies, particularly virtual reality, were used to create immersive and interactive experiences that placed participants in the shoes of individuals from diverse backgrounds. Through VR, participants engaged with scenarios that highlighted systemic inequalities, unconscious biases, and social challenges faced by marginalized communities. This experiential approach offered a more profound and empathetic understanding of DEI concepts, moving beyond traditional lecture-based methods.

A key feature of the project was its structured integration into curriculum and class activities, ensuring sustainability and avoiding the novelty effect often associated with XR tools. Participants were guided through a combination of immersive VR experiences and facilitated discussions, creating a safe space for open dialogue. These discussions enabled participants to share their reactions, insights, and questions, both anonymously and publicly. This reflective process was deemed essential for consolidating learning outcomes and fostering meaningful conversations about inclusivity and equity.

The project's findings underscored the importance of embedding XR experiences within broader educational strategies to maximize their impact. The presenters observed that while XR tools effectively conveyed the emotional and cognitive dimensions of DEI principles, their effectiveness was enhanced when paired with structured debriefing sessions and actionable takeaways. For example, participants noted how the immersive scenarios revealed nuances of bias and inequity that they had not previously considered, prompting reflections on their own behavior and encouraging them to advocate for change.

Looking ahead, the team outlined plans to expand the project for the 2025 "Walk the Walk Week." A new initiative, "Virtual Borders," will immerse participants in the experiences of individuals crossing the Texas/Mexico border. This project will employ interactive storytelling and 360-degree video to onboard faculty and students gradually into the use of fully immersive VR. The phased approach aims to build familiarity and competence with XR technologies among educators while expanding their application in various educational contexts.

The poster also featured qualitative feedback from participants, who described the experience as impactful, emotional, and thought-provoking. Many reported feeling a heightened sense of empathy and a call to action to address issues of inequality. One participant remarked, "Being 'present' showed me things I wouldn't have

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91 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/walking-the-virtual-walk-exploring-dei-principles-through-xr

experienced otherwise. This is something my family has not had to worry about." Such testimonials reflect the potential of XR to create profound personal connections to complex social issues.

Additional resources shared by the presenters included tools and content for extending the DEI conversation, such as the "Whiteness Project," a series exploring racial identity, and "After Trayvon," a discussion among Black and Latino boys about their lived experiences. These resources complemented the XR initiative, providing further avenues for participants to engage with DEI topics.

In conclusion, "Walking the (Virtual) Walk" illustrated the transformative potential of XR in advancing DEI education. By combining immersive technologies with strategic curriculum integration and reflective dialogue, the project offered a scalable and impactful model for fostering empathy, awareness, and actionable change within educational settings. The presenters' emphasis on sustainability and phased implementation ensures that the initiative will continue to evolve and contribute meaningfully to DEI efforts in higher education.

GenAI for education

Generative AI (GenAI) has emerged as a transformative force in education, with applications ranging from enhancing instructional design to redefining student engagement. The EDUCAUSE conference highlighted this rapidly evolving field, offering a wealth of sessions, presentations, and posters dedicated to exploring its impact on higher education. The focus extended beyond technical capabilities to consider strategic integration, ethical concerns, and institutional alignment, providing attendees with actionable insights into how to navigate the complexities of adopting GenAI effectively.

This section delves into the innovative approaches showcased during the conference, emphasizing the intersection of AI and education. The highlighted sessions reflect a broad spectrum of applications, from faculty development initiatives that foster AI fluency to strategies for using GenAI in curriculum design and administrative operations. Presenters also explored the challenges associated with AI adoption, including governance, algorithmic bias, and equitable access, underscoring the importance of a comprehensive and thoughtful approach.

In the 2023 edition of this report, you will find 45 links to useful EDUCAUSE resources on GenAI in the article "Innovations & trends in EdTech: a 360° view"

Cooking Up Innovation: Crafting a Menu of AI Faculty Development Options[92]

The presentation *Cooking Up Innovation: Crafting a Menu of AI Faculty Development Options* led by Leslie Mojeiko, Senior Instructional Designer at the University of Florida and recipient of the 2024 EDUCAUSE Rising Star Award, and Chris Sharp, Educational Technologist at the same institution, showcased a comprehensive and innovative approach to equipping faculty with AI fluency. With the University of Florida (UF) aspiring to be a leading "AI University," the presenters detailed how they designed a creative, multi-tiered faculty development program framed as a culinary menu to make AI adoption accessible, engaging, and impactful.

Building an AI University. UF's initiative to integrate AI across disciplines aims to prepare graduates for an AI-driven workforce. A critical component of this vision is ensuring faculty members—regardless of their fields of expertise—are equipped to incorporate AI into their teaching practices. The challenge lies in addressing diverse comfort levels, technical skills, and the time constraints of faculty. The team at UF designed a development program that uses the metaphor of a three-course meal to provide flexible, approachable, and meaningful learning opportunities for faculty to adopt and integrate AI.

The *Three-Course Meal* framework. The presenters divided their offerings into three categories: appetizers, main courses, and desserts, with each representing a level of engagement and depth.

Appetizers: Flexible and Digestible Introductions. Appetizers are short, interactive training sessions designed to introduce faculty to the basics of AI in education. These sessions, branded as Tech Bytes, are 60-minute live virtual workshops that address specific tools or strategies. Each Tech Bytes session is developed collaboratively with UF's instructional designers, faculty, and the Center for Teaching Excellence. Examples from the program include :
- "Generative AI Recipes": A session focusing on how AI can be used for content creation and lesson planning.
- "Take to the Skies with Navigator AI": Highlighting tools that assist in classroom navigation and organization.

The format includes real-time participation, interactive demonstrations, and a Q&A segment, with sessions recorded for asynchronous access. The engaging branding, which often includes themes and costumes such as chef hats, makes these sessions more appealing and memorable. This approach has significantly boosted attendance, with hundreds of faculty participating across disciplines.

Main Courses: In-Depth Learning Communities. Main courses represent a deeper commitment to learning through Faculty Learning Communities (FLCs). These semester-long groups meet biweekly and are designed to foster

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92 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/cooking-up-innovation-crafting-a-menu-of-ai-faculty-development-options

collaboration among faculty from different disciplines. Facilitated by UF's instructional design and AI2 Center teams, the FLCs provide hands-on training and discussions on how to integrate AI into course design. Participants develop and implement AI-enhanced instructional strategies tailored to their subject areas. Examples include using generative AI for grading assistance, creating interactive simulations for student practice, and fostering critical discussions on AI ethics.

The FLCs focus on sustained engagement, enabling faculty to build a strong foundation in AI while also creating a supportive community of practice. Faculty often leave the program with tangible outcomes, such as redesigned syllabi, AI-enhanced assignments, or classroom tools ready for implementation.

Desserts : Individualized Consultations. Desserts represent high-touch, personalized support for faculty seeking tailored AI solutions for specific teaching challenges. These one-on-one consultations provide opportunities to address unique needs, develop innovative tools, and scale instructional practices. Examples shared by the presenters include :

- A chatbot designed to simulate juror interviews for a law course, allowing students to practice questioning in a realistic, scalable environment.
- A diagnostic AI tool used in medical training to simulate patient interactions, helping students hone diagnostic skills in a controlled virtual setting.

These consultations are led by UF's instructional designers and technologists, ensuring that faculty receive expert guidance to translate their ideas into practical applications.

Key Insights and Successes. The presenters emphasized that the program's success stems from its creative approach to branding and delivery. By using metaphors and thematic marketing—such as the culinary menu concept and event-specific costumes—the initiative attracted faculty who might otherwise be hesitant to engage with AI. This light-hearted framing demystified the technology while creating an inviting atmosphere for learning.

Another critical success factor was the program's collaborative design. The presenters highlighted the importance of interdisciplinary teamwork, involving faculty, instructional designers, and technologists in creating resources that align with UF's educational priorities. This collaborative approach ensured that the program remained practical, relevant, and adaptable to various teaching contexts.

Future directions. UF's AI faculty development initiative continues to evolve, with plans to expand the program's reach and incorporate emerging AI technologies. The presenters noted the importance of scaling these efforts while maintaining the personalized, high-touch approach that has defined the program. They also emphasized the potential for other institutions to adapt the "menu" framework to their unique contexts, encouraging participants to think creatively about how to implement AI faculty development on their own campuses.

Charting New Courses: Navigating the Integration of Generative AI in Higher Education[93]

The poster presentation *Charting New Courses: Navigating the Integration of Generative AI in Higher Education*, delivered by Celia Coochwytewa, Assistant Director of Academic Operations, and Matthew Keating, Instructional Designer, both from Arizona State University (ASU), explored the innovative use of generative AI tools in academic settings. The session provided a roadmap for integrating AI into course design, emphasizing collaboration, iterative improvement, and alignment with institutional guidelines.
It is important to note that all the resources in this presentation are available online[94].
ASU's approach leverages the potential of generative AI to address pedagogical challenges and enhance learning outcomes while adhering to ethical and institutional standards. The presenters introduced a structured framework, detailed in the Generative AI Development Checklist, which guides stakeholders through three key phases: conceptualization, collaborative development, and implementation. This checklist ensures a systematic and inclusive process, engaging diverse stakeholders such as faculty, IT staff, and administrators while prioritizing ethical considerations like transparency, privacy, and accessibility.
During the initial conceptualization phase, ASU encourages identifying specific pedagogical challenges or learning objectives that AI can address, such as enhancing engagement or improving student support systems.

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[93] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/charting-new-courses-navigating-the-integration-of-generative-ai-in-higher-education

[94] https://drive.google.com/file/d/1AuAi-kRovB3WRmYUCaxvWvN-SFXTVzOD

The process includes surveying existing tools to avoid redundancy and fostering early communication with faculty and other stakeholders to align AI initiatives with institutional goals. This phase emphasizes the importance of clearly defining objectives and ensuring institutional support before development begins.

In the collaborative development phase, ASU facilitates working groups to tailor AI tools to specific programmatic or curricular needs. The presenters stressed the necessity of aligning AI functionalities with course objectives and incorporating institutional guidelines for teaching and learning practices. Metrics are established early to evaluate the performance and impact of the tools. For example, faculty within ASU's Nursing Program collaborated to integrate ChatGPT into their preparation for the National Council Licensure Examination (NCLEX), designing AI-assisted test items and therapeutic communication personas to simulate real-world scenarios. This alignment between AI applications and pedagogical objectives was highlighted as a critical success factor.

The implementation and deployment phase involves pilot testing, collecting feedback from end users, and refining the AI tools based on real-world usage. The presenters highlighted the importance of comprehensive user training and creating robust support systems for troubleshooting and iterative improvements. Qualitative feedback from students and faculty, gathered through surveys and focus groups, plays a crucial role in refining the tools to ensure they meet user expectations and institutional standards. This iterative process is central to maintaining the effectiveness and ethical alignment of AI applications.

The presentation also introduced ASU's AI Innovation Challenge, which invites faculty and staff to propose innovative applications for AI tools like ChatGPT Enterprise. Selected projects receive support from the Edson AI Hub, a centralized resource at ASU dedicated to advancing AI in teaching and research. Notable projects include the creation of AI-driven rubrics and resources tailored to specific learning environments and institutional needs. The presenters emphasized that these initiatives are supported by tailored faculty consultations, workshops, and resource-sharing sessions, ensuring that users have the tools and knowledge needed to integrate AI effectively into their curricula.

ASU's roadmap for generative AI integration demonstrates a thoughtful balance between innovation and ethical considerations, highlighting the transformative potential of AI in higher education.

AI in Higher Education: Friend or Foe? Insights from Student Perceptions and Classroom Integration[95]

The poster presentation, *AI in Higher Education: Friend or Foe? Insights from Student Perceptions and Classroom Integration*, delivered by Tadd Farmer, Senior Learning Experience Designer at WGU Labs, examined the growing role of artificial intelligence (AI) in higher education through three research studies. The presentation explored student perceptions, uses of AI tools, and their impact on the learning experience, providing a nuanced view of AI as both a potential ally and a challenge in educational contexts.

The first study surveyed 2,365 post-secondary students from a mix of institutions, including online universities, four-year colleges, and community colleges. The findings revealed a substantial increase in awareness and use of AI tools among students, with 72% reporting awareness of AI tools in 2024, up from 43.7% in 2023. However, only 28% had used tools like ChatGPT, and disparities emerged across demographic groups. Despite growing familiarity, many students lacked confidence in their AI skills, including evaluating AI-generated content, writing effective prompts, and understanding how AI works. Only 18% reported receiving guidance from faculty on AI use, signaling a gap in institutional support. Most students viewed AI as beneficial for providing preemptive support and tutoring but expressed hesitance about relying on AI for tasks traditionally performed by faculty, such as grading or teaching entire courses. The majority of students also deemed it unethical to use AI for generating homework or exam responses but were more open to using it for brainstorming and research.

The second study focused on a pilot program in which 18 computer science students used premium ChatGPT tools in a course. Students used AI as a reference for quick answers, as an instructor to explain concepts and troubleshoot problems, and as a coach to overcome learning challenges. They reported improved learning experiences and considered AI moderately to very helpful. However, the study's findings on AI's impact on measurable outcomes, such as assessment scores, were anecdotal and inconclusive.

The third study evaluated Kyron Learning, an AI-powered video platform that uses branching scenarios and instructor-recorded videos to personalize support. Out of 1,374 students invited to participate in a web

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95 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/designing-an-ai-roadmap-to-improve-student-outcomes

development course study, only 17.1% consented, and 45.4% of participants meaningfully engaged with the platform. Students who engaged with Kyron Learning found it effective and expressed interest in integrating it into more courses. However, the platform did not result in measurable improvements in student outcomes such as pass rates or time to completion, leaving its effectiveness open to further investigation.

Overall, the presentation highlighted the dual nature of AI in higher education. While students perceive AI as a helpful learning tool, challenges such as uneven adoption, lack of confidence in AI skills, and ethical concerns persist. Farmer emphasized the need for institutions to focus on AI literacy and provide robust support for integrating AI into teaching and learning.

Plotting the Course: Developing a Dynamic GenAI Strategy[96]

The presentation *Plotting the Course: Developing a Dynamic GenAI Strategy*, delivered by Deloitte's higher education team, including Tamara Askew, Bob Caron, Carlee Diggins, and Maddie Pongor, explored the opportunities and challenges of adopting generative AI (GenAI) in higher education institutions. The session emphasized creating a comprehensive and scalable strategy to maximize the value of GenAI while addressing its risks and aligning its use with institutional goals.

The presenters framed the discussion around the AI Readiness and Management Framework, which provides a structured approach to planning and executing GenAI initiatives. This framework involves setting a clear vision, identifying high-impact use cases, and integrating AI into institutional systems and workflows. The presenters stressed the importance of aligning AI goals with strategic priorities, such as teaching, learning, research, student success, and operational efficiency. By doing so, institutions can avoid being distracted by AI's technical capabilities and instead focus on applications that deliver tangible value.

A key theme was the need for institutions to evaluate their AI maturity. The team introduced the AI Strategy Maturity Curve, which categorizes organizations into four stages: foundational, exploratory, innovative, and exponential. This progression highlights how institutions can transition from early awareness of AI to fully leveraging its transformative potential through governance, scalability, and measurable outcomes.

The presentation also addressed the ethical considerations of AI, introducing the Trustworthy AI™ framework, which emphasizes fairness, transparency, accountability, and security. The presenters argued that these principles are crucial for mitigating risks associated with AI, such as bias, data privacy concerns, and regulatory compliance. They also discussed the importance of "human-in-the-loop" governance, ensuring that AI complements rather than replaces human judgment in decision-making processes.

Attendees were encouraged to adopt a phased approach to AI implementation, starting with smaller, low-risk use cases and gradually expanding as institutional capacity grows. The presenters shared examples of successful GenAI projects in areas like personalized tutoring, content generation, and operational automation. These case studies demonstrated the potential of AI to enhance learning outcomes, streamline administrative processes, and improve overall institutional efficiency.

Personalized AI Tutoring as a Social Activity: Paradox or Possibility?[97]

The poster presentation *Personalized AI Tutoring as a Social Activity Paradox or Possibility?* by Ron Owston, Professor Emeritus and Research Associate at Contact North, explored the potential of AI tutoring tools to combine personalized learning with social interaction. Owston addressed a key paradox: while AI tutoring offers tailored support for individual learners, it risks isolating them from collaborative, social learning experiences. The session demonstrated how thoughtfully designed social learning activities can integrate AI tutoring to enhance both engagement and outcomes in classroom and online settings.

Central to the presentation was the introduction of AI Tutor Pro, a user-friendly, freely accessible platform capable of adapting to learners' needs across various subjects and levels. Owston highlighted how AI tutoring, when combined with structured social activities, could create rich, interactive learning environments. Examples of such activities included collaborative problem-solving, peer tutoring, role-playing, and games. For instance,

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96 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/plotting-the-course-developing-a-dynamic-genai-strategy

97 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/personalized-ai-tutoring-as-a-social-activity-paradox-or-possibility

role-playing scenarios allowed students to engage in simulated dialogues supported by AI, fostering both individual and group learning. Similarly, peer tutoring leveraged AI-generated prompts to guide discussions and encourage knowledge exchange among students.

The presentation emphasized the importance of integrating AI tools into blended learning and project-based approaches to support both individual and collective goals. Activities like foreign language practice with AI-powered interactions and group reflection sessions illustrated the potential for fostering active exploration and creative learning. These applications demonstrated how AI tutoring could function as a complement to traditional pedagogical methods, enhancing engagement without sacrificing opportunities for social interaction.

The session concluded with strategies for balancing AI-driven personalization with collaborative learning, aiming to create inclusive, interactive educational environments.

Building a GenAI Foundation to Let Your Institution Soar[98]

The poster *Building a GenAI Foundation to Let Your Institution Soar* explored strategies for establishing a structured yet innovative framework for generative AI (GenAI) in higher education, presented by Eyal Darmon (Managing Director, Accenture), Michael Milligan (CIO, University of Massachusetts System), and Patty Patria (CIO, Babson College). The session highlighted two institutional case studies: Babson College's GenAI strategy and the University of Massachusetts (UMass) President's Office initiative, both demonstrating the balance between fostering innovation and ensuring responsible implementation.

Babson College's approach focused on rallying the institution around a cohesive and ethical GenAI strategy. This included determining specific use cases for GenAI in teaching, operations, and career preparation. Examples of applications ranged from integrating AI tools into curricula to streamlining administrative processes. Babson prioritized aligning these initiatives with institutional values, addressing challenges such as data privacy, ethical risks, and faculty training. Patria emphasized that a well-defined strategy provided clarity and purpose, enabling Babson to harness GenAI's potential responsibly.

The UMass President's Office initiative establishes a GenAI Center of Excellence (COE), a system-wide resource for structured implementation and guidance. The COE serves as a hub for defining consistent policies, risk management practices, and use-case evaluation frameworks. Milligan highlighted its role in ensuring transparency and equity in GenAI adoption, supporting stakeholders across the university system.

Enhancing Accessibility in Higher Ed: The Role of AI in Creating Inclusive Learning Environments[99]

The poster presentation *Enhancing Accessibility in Higher Ed: The Role of AI in Creating Inclusive Learning Environments*, by Rob Gibson, Dean of ITAS at Wichita State University, focused on the transformative potential of Artificial Intelligence (AI) in making education more accessible. Gibson highlighted how AI tools can break down barriers for learners with disabilities, fostering equitable access to education.

Central to the presentation was the exploration of AI-driven solutions such as speech-to-text transcription, personalized learning environments, and assistive technologies for visually or hearing-impaired students. These tools are designed to address specific needs, such as creating real-time captions during lectures or providing audio descriptions for visual content. Gibson emphasized the importance of integrating these technologies into broader institutional strategies to ensure their effectiveness and scalability.

The presentation also detailed strategies for implementing AI tools responsibly. This includes collaborating with stakeholders, such as students and accessibility specialists, to identify the most pressing needs and evaluating tools to ensure compliance with accessibility standards. Gibson highlighted the potential of generative AI in crafting inclusive content, such as automatically adjusting the readability of texts or creating multimodal resources tailored to diverse learning preferences.

Through case studies, Gibson demonstrated how AI can foster inclusivity while enhancing learning outcomes. For instance, AI-assisted platforms that adapt content delivery based on individual learning needs were shown

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[98] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/building-a-genai-foundation-to-let-your-institution-soar

[99] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/enhancing-accessibility-in-higher-ed-the-role-of-ai-in-creating-inclusive-learning-environments

to improve engagement for students with cognitive disabilities. These examples illustrated the transformative role of AI in creating inclusive, learner-centered environments.

Leveling the Playing Field: The Role of Generative AI in Promoting Equitable Education[100]

The poster presentation *Leveling the Playing Field: The Role of Generative AI in Promoting Equitable Education* by Dr. Qingwen Dong from the University of the Pacific, highlighted the transformative potential of generative AI technologies like ChatGPT in creating more inclusive and equitable educational environments. The study explored how GenAI tools enhance accessibility and support for diverse student populations, with particular attention to first-generation and international students.

Using a qualitative methodology, the research examined student interactions with GenAI tools, emphasizing their ability to provide personalized, immediate feedback and accessible support. Findings revealed that GenAI enhances student engagement and creativity by enabling diverse approaches to research and problem-solving. Participants described the tools as intuitive and effective for personalized tutoring, fostering a deeper understanding of complex topics and improving their confidence in academic tasks.

However, the presentation also addressed significant challenges, including concerns about the accuracy and ethical use of GenAI. Students expressed the need for clear guidelines and institutional support to maximize the tools' benefits while mitigating risks such as misinformation.

Practical Guide to Leverage AI Literacy as a Catalyst to Foster Engagement and Creativity in Teaching[101]

The poster *Practical Guide to Leverage AI Literacy as a Catalyst to Foster Engagement and Creativity in Teaching*, presented by Minh Le, Principal Instructional Designer at Teachers College, Columbia University, outlined a structured approach to help faculty effectively integrate generative AI into their teaching practices. The guide addressed common challenges faced by educators, including ethical dilemmas, data privacy concerns, and the rapid pace of technological change, which often leave faculty overwhelmed.

Minh Le proposed a five-step action-driven framework designed to enhance AI literacy and transform teaching methodologies. The first step, Educate, focused on building foundational AI knowledge, enabling educators to evaluate and apply AI tools in diverse contexts. The second step, Experiment, encouraged starting small by exploring the functionalities of a single AI tool and redesigning courses using frameworks like Bloom's Taxonomy and SAMR to align AI integration with pedagogical goals. The Engage step highlighted the importance of clear communication about AI policies and offering resources to guide students in responsible AI use. The fourth step, Evaluate, emphasized gathering feedback from students and assessing the impact of AI tools on learning and engagement. Finally, Evolve urged educators to refine their courses and invest in ongoing professional development to stay updated on advancements in AI.

Shaping AI Strategy for Faculty Development through Instructional Design[102]

The poster *Shaping AI Strategy for Faculty Development through Instructional Design*, presented by Steven Varela from the University of Notre Dame, highlighted the role of instructional design in integrating generative AI into faculty development. The initiative was driven by the creation of an AI video series[103] aimed at introducing educators to AI concepts and supporting their effective implementation in teaching practices.

The project leveraged collaborative efforts among faculty, IT specialists, learning designers, and administrators. Learning designers acted as change agents, employing design thinking to structure meaningful content. The video series covered topics such as designing assignments in the age of AI, navigating AI tools with academic

[100] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/leveling-the-playing-field-the-role-of-generative-ai-in-promoting-equitable-education

[101] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/practical-guide-to-leverage-ai-literacy-as-a-catalyst-to-foster-engagement--creativity-in-teaching

[102] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/shaping-ai-strategy-for-faculty-development-through-instructional-design

[103] https://learning.nd.edu/learning-technology/ai-in-teaching-and-learning/ai-for-teaching-and-learning-video-series/

integrity, and exploring pedagogical strategies for incorporating GenAI into curricula. Faculty feedback emphasized the clarity and structure provided during project phases, ensuring alignment with institutional goals. Survey data from the initiative revealed that co-designing resources with multidisciplinary teams fostered a collaborative ecosystem that streamlined the production process. Faculty expressed increased confidence in exploring AI tools and applying them in discipline-specific contexts. Next steps include recruiting additional faculty to expand the video series, focusing on best practices and deeper integration into course design.

Is AI Write or Wrong? Student Perspectives on Using AI to Complete Writing Assignments[104]

The poster *Is AI Write or Wrong ? Student Perspectives on Using AI to Complete Writing Assignments* explores student attitudes and behaviors regarding the use of Artificial Intelligence (AI) tools for academic writing. This study, presented by Sarah Bonnema and Laura Rusnak of the University of South Florida, highlights both the perceived benefits and concerns surrounding AI in academic contexts.

Quantitative findings from the research indicate that a significant proportion of students—81%—have previously utilized AI tools, with 73% reporting use for school assignments. Tools such as ChatGPT and Grammarly are among the most commonly employed, valued for their ability to assist in brainstorming ideas, proofreading, improving clarity, and correcting grammar and spelling.

However, while students recognize the utility of these tools, they also express apprehensions. Concerns include the potential for AI to impede learning, degrade writing skills, and trigger academic sanctions if misused. Interestingly, students advocate for a balanced approach, suggesting that AI should be used selectively—for example, in generating ideas or refining writing—without replacing the core effort required to complete assignments.

Game-Changing Education: Transforming Learning Experiences with Gamification and Generative AI[105]

The poster *Game-Changing Education : Transforming Learning Experiences with Gamification and Generative AI*, presented by Claudia Arcolin, Lorenzo Brancaleon, and Alexia Cormier from the University of Texas at San Antonio, detailed the transformative potential of combining gamification and generative AI (GenAI) to enhance learning experiences in higher education (online resources[106]). By merging these cutting-edge technologies, educators can create dynamic, interactive, and personalized educational environments that engage students and inspire curiosity.

Gamification was presented as a proven strategy for fostering motivation, critical thinking, and collaboration. It leverages game design principles such as challenges, rewards, progress tracking, and leaderboards to make learning experiences immersive and enjoyable. These elements transform passive learners into active participants, encouraging them to explore content deeply and develop problem-solving skills. Examples provided in the poster included gamified learning modules that allow students to earn badges for completing tasks and gaining mastery of specific topics, as well as interactive simulations that mimic real-world scenarios.

Generative AI complements gamification by creating adaptive and personalized content that meets the diverse needs of students. The presenters highlighted how AI-generated learning pathways, problem sets, and real-time feedback can provide targeted support to learners, ensuring they remain engaged and aligned with learning objectives. In one example, GenAI was used to develop physics reasoning problems tailored to individual student progress, allowing learners to practice skills relevant to their current understanding. Students also had the opportunity to create their own problem sets using templates powered by AI, encouraging creativity and fostering deeper connections to course material.

The pilot implementation of these technologies in a physics course showcased significant potential. Students engaged with customized AI-generated reasoning problems and participated in peer critiques of the problems, promoting collaborative learning. These activities not only helped students refine their understanding but also

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[104] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/is-ai-write-or-wrong-student-perspectives-on-using-ai-to-complete-writing-assignments-1

[105] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/gamechanging-education-transforming-learning-experiences-with-gamification-and-generative-ai

[106] https://myutsa.padlet.org/claudiaarcolin/game-changing-education-class-activities-for-transforming-le-5r8w8fg7waiijvut

cultivated critical evaluation skills, demonstrating the potential of this approach to go beyond traditional rote learning methods.

The poster emphasized the importance of data-driven refinement in integrating these technologies. By analyzing student performance and feedback, educators can continuously improve the gamified and AI-driven experiences to align with learning goals and student preferences.

The Power of Partnerships to Advance GenAI Integration in Higher Education[107]

The poster *The Power of Partnerships to Advance GenAI Integration in Higher Education*, presented by Jonny Engelberg, Megan Masters, and Dan Wheatley, highlighted the role of collaborative efforts in integrating generative AI (GenAI) into institutional strategies. Drawing on a survey of over 40,000 students and instructors (full results[108]), the presentation demonstrated how interdisciplinary collaboration between academic units, administrative teams, and technology vendors such as Qualtrics can facilitate evidence-based decision-making for effective AI integration.

A core element of the project was the design and deployment of a GenAI survey instrument, developed through feedback sessions with campus stakeholders. The survey captured quantitative and qualitative insights on GenAI use, perceptions, and expectations. Results indicated that while most respondents were familiar with tools like ChatGPT, only a minority reported routine use in academic contexts. However, 67% of students and 56% of instructors anticipated increased use of GenAI in the future, signifying its growing importance.

Qualtrics played a pivotal role in implementing narrowcasting protocols and collecting detailed data. This enabled the generation of actionable insights, such as the need for fiscal and human-centered investments to support GenAI's responsible use. Findings also informed the development of institutional guidelines for ethical technology adoption and instructional design.

Smarter Students, Smarter Teaching : The AI Advantage in Teaching Writing and Humanities[109]

The poster *Smarter Students, Smarter Teaching : The AI Advantage in Teaching Writing and Humanities*, by Michelle Kassorla and Eugenia Novokshanova from Georgia State University, examined the integration of generative AI tools in freshman composition courses at an urban, minority-serving institution. The study analyzed how AI-enhanced instruction impacts student learning, writing performance, and engagement in Composition I and II courses.

The study compared student outcomes from AI-integrated courses (2023-2024) with traditional courses (2021-2022). Quantitative data revealed significant gains in key areas, including organization, source comprehension, research support, mechanics, and digital literacy. These results were assessed using program-level learning objectives and rubrics. For example, students in AI-integrated courses displayed improved critical thinking skills, such as analysis and evaluation, enabling them to construct more sophisticated arguments.

Qualitative insights were derived from student reflections, highlighting increased confidence and metacognitive awareness. Students reported that AI tools helped them overcome technical writing barriers, brainstorm ideas, and generate outlines, fostering creativity and emotional well-being. Collaborative activities using AI further enhanced self-efficacy and a sense of belonging in the classroom.

GenAI for Strategy and Policy

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[107] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/the-power-of-partnerships-to-advance-genai-integration-in-higher-education

[108] https://it.umd.edu/analytics/genaisurvey

[109] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/smarter-students-smarter-teaching-the-ai-advantage-in-teaching-writing-and-humanities

Generative AI (GenAI) is reshaping institutional strategies and policies in higher education, prompting institutions to navigate complex challenges and opportunities. The EDUCAUSE 2024 Conference spotlighted this evolving landscape, examining how AI technologies are being integrated into governance, pedagogy, and operational frameworks. Central to these discussions were institutional policies aimed at fostering responsible and effective AI use, balancing innovation with ethical considerations, and addressing equity and transparency.

The section on GenAI for Strategy and Policy explores how institutions are crafting comprehensive strategies to manage the integration of AI at scale. Presentations and panel discussions addressed topics such as AI governance structures, data privacy, and the development of ethical frameworks to guide decision-making. Institutions are increasingly adopting collaborative approaches, forming interdisciplinary teams to ensure that AI strategies align with educational goals and institutional values.

Case studies and frameworks presented at the conference highlighted the role of policies in mitigating risks, such as algorithmic bias, while promoting equitable access to AI tools. Participants also explored adaptive governance models, recognizing the rapidly changing nature of AI technologies.

The Future of IT Leadership: AI as Chief Information Officer[110]

The presentation entitled *The Future of IT Leadership : AI as Chief Information Officer* offered a thought-provoking exploration of how artificial intelligence could redefine the role of Chief Information Officers (CIOs). Moderated as a panel discussion, it featured insights from Peter Angelos, Executive Information Officer at Fond du Lac Tribal and Community College; Jody Couch, CIO and AVP for IST at Dalhousie University; Sandeep Sidhu, CIO at Emily Carr University of Art & Design; and Lindsay Sill, Executive Director of the Canadian University Council of Chief Information Officers (CUCCIO). The session blended humor, speculative scenarios, and critical analysis to assess whether AI could effectively take over or augment the CIO role.

Evolving role of CIOs. The panel began by examining how the role of CIOs has transformed over the years, from technical oversight to strategic leadership. Sandeep Sidhu highlighted the increasing complexity of managing technology ecosystems in higher education, arguing that CIOs today must blend technical knowledge with leadership and relationship-building skills. The idea of AI replacing CIOs raised questions about the essential elements of the role, such as consensus-building, decision-making under uncertainty, and fostering institutional culture—skills AI lacks.
Jody Couch framed AI as a tool that could alleviate routine administrative burdens, allowing CIOs to focus on high-level strategy. He compared the advent of AI to previous technological milestones like the emergence of email and cloud computing, emphasizing that while these tools revolutionized operations, they didn't replace human leadership. Similarly, AI was seen as an augmentation rather than a replacement.

The Potential of AI in IT Leadership. Peter Angelos presented an optimistic perspective on AI's potential in enhancing CIO capabilities. AI could streamline decision-making, predict system failures, and optimize resource allocation with unparalleled speed and precision. For example, AI-driven predictive analytics could identify infrastructure vulnerabilities before they lead to failures, reducing downtime and improving system reliability. Similarly, AI could dynamically adjust IT budgets, allocating resources where they are most needed based on real-time data.
Lindsay Sill expanded on these points, highlighting AI's ability to improve cybersecurity. By analyzing network traffic and detecting anomalies, AI systems could thwart cyberattacks in real time. However, she noted that such advancements would require careful oversight to avoid over-reliance on algorithms, especially when human judgment is necessary.

Ethical and Operational Challenges. The discussion also delved into the ethical challenges posed by AI. Peter Angelos raised concerns about bias in AI decision-making processes, particularly in contexts involving resource allocation or hiring decisions. He noted that biased data inputs could perpetuate inequalities, emphasizing the need for transparency and oversight in AI systems.
Sandeep Sidhu addressed the operational risks associated with implementing AI, including the potential loss of human oversight and the energy-intensive nature of AI systems. She underscored the importance of ensuring

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[110] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/the-future-of-it-leadership-ai-as-chief-information-officer

that AI aligns with institutional values, particularly in areas such as data sovereignty, privacy, and accessibility. Sidhu also noted that while AI could automate many tasks, the relational aspects of the CIO role—building trust, managing teams, and fostering innovation—remain uniquely human.

Audience Engagement and Practical Insights. The session encouraged active participation from the audience, who posed questions about the practical implications of AI in higher education. Many attendees expressed concerns about the cultural implications of introducing AI into decision-making processes, particularly in institutions with diverse stakeholders. The panelists acknowledged these concerns, suggesting that the introduction of AI should be accompanied by robust training programs for staff and faculty to ensure alignment with institutional goals. Practical examples highlighted by the panel included the use of AI to preserve indigenous languages through advanced translation tools and the application of generative AI in creating educational content. These case studies illustrated both the opportunities and challenges of integrating AI into academic settings, demonstrating its potential to enhance inclusivity and learning outcomes.

Conclusion : Human Leadership in an AI-Enhanced World. The panel concluded with a consensus that while AI has the potential to transform IT leadership, it cannot replace the human elements that define the CIO role. Lindsay Sill emphasized that effective leadership requires empathy, intuition, and the ability to navigate complex organizational dynamics—qualities that AI cannot replicate. Jody Couch added that AI should be seen as a collaborator, freeing CIOs from routine tasks and enabling them to focus on strategic vision and innovation.

AI and Institution-Wide Policy: Finding the Margins for AI Assisted Learning[111]

The presentation *AI and Institution-Wide Policy: Finding the Margins for AI-Assisted Learning*, delivered by Susan Adams, Associate Director of Teaching and Learning at Achieving the Dream, Van Davis, Chief Strategy Officer at WCET, and K.C. Williams, Executive Director of Teaching and Learning at Achieving the Dream, provided a detailed exploration of how institutions can develop comprehensive policies to integrate Artificial Intelligence in higher education responsibly. The session was designed as an interactive workshop, enabling participants to engage with key concepts and draft initial frameworks for ethical AI use in their institutions.

The presenters began by situating AI as a transformative force in education, capable of reshaping teaching, learning, and administrative processes. However, they also acknowledged significant challenges, including equity concerns, algorithmic bias, ethical dilemmas, and the risk of over-reliance on AI. To address these complexities, they introduced the WCET AI Policy and Practice Framework[112],which provides a structured approach to designing institution-wide strategies for AI implementation. This framework emphasizes governance, operations, pedagogy, and ethical considerations as foundational elements.

One central theme of the presentation was the importance of intentional governance in managing AI. The presenters advocated for creating institutional task forces composed of diverse stakeholders, including faculty, students, administrators, and IT professionals, to ensure broad representation and accountability. Governance structures should include mechanisms for continuous evaluation of AI tools and their alignment with institutional goals. This approach also requires establishing clear data governance policies to safeguard privacy and ensure transparency in how AI systems operate and make decisions.

From an operational perspective, the session highlighted the need for institutions to prioritize equitable access to AI tools and resources. The presenters noted that disparities in access could exacerbate existing inequities, particularly for underserved student populations. They suggested investing in infrastructure, training, and support systems to ensure all students and faculty can leverage AI effectively. Additionally, they addressed the importance of fostering a culture of innovation while maintaining robust security protocols to protect institutional and personal data.

Pedagogically, the session explored the potential of AI to enhance the learning experience through personalization and efficiency. AI tools, such as adaptive learning platforms, can provide tailored content and feedback, allowing students to learn at their own pace. Generative AI tools, like ChatGPT, were highlighted as resources for brainstorming, drafting, and revising assignments. However, the presenters cautioned against the potential risks of over-dependence on AI, emphasizing the importance of maintaining academic integrity and promoting student agency. They recommended designing assignments and assessments that integrate AI in

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[111] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/ai-and-institution-wide-policy-finding-the-margins-for-ai-assisted-learning

[112] https://wcet.wiche.edu/resources/ai-education-policy-practice-ecosystem-framework/

ways that encourage critical thinking and creativity, rather than substituting the cognitive effort required for meaningful learning.

To help institutions navigate these opportunities and challenges, the session included an interactive component where participants drafted preliminary AI policies. These policies addressed key areas such as ethical implementation, accessibility, academic integrity, and professional development. Attendees were encouraged to consider their institutional contexts, identifying high-impact areas where AI could deliver value while mitigating potential risks. The presenters provided examples of successful policies and frameworks, illustrating how institutions can balance innovation with responsibility.

The session concluded with a discussion of the importance of adaptability in AI policy development. As AI technologies evolve rapidly, institutions must remain flexible, revisiting and revising their policies regularly to address new challenges and opportunities. The presenters also emphasized the value of collaboration, both within and across institutions, to share best practices and collectively advance the responsible use of AI in higher education.

AI Ethics and Literacy: Insights and Resources from the EDUCAUSE-HP Community of Practice[113]

The presentation *AI Ethics and Literacy : Insights and Resources from the EDUCAUSE-HP Community of Practice*, led by Kathe Pelletier (Senior Director, Community Programs, EDUCAUSE), Jeff Chen (AI Technologist for Education, HP Inc.), Elana Altman (Sr. Associate Director, UX and Academic Technologies, Barnard College), Maya Georgieva (Senior Director, Innovation Center at The New School), Michelle Kassorla (Tenured Associate Professor of English, Georgia State University), and John Stuart (Distinguished University Professor of Architecture, Florida International University), explored how a collaborative community of practice (COP) can advance AI literacy and ethical adoption in higher education.

The EDUCAUSE-HP Community of Practice was established to address the rapid emergence of AI technologies in education. The COP brought together interdisciplinary leaders and practitioners to collaboratively develop actionable resources and strategies for integrating AI responsibly into institutional teaching, learning, and operations. The presenters highlighted how the COP's regular discussions, project-based working groups, and resource-sharing platforms allowed participants to explore the opportunities and challenges of AI in a supportive and innovative environment.

Central to the session were two resources developed by the COP: the AI Literacy Framework and the Ethical Framework. These tools were designed to support institutions in fostering a culture of responsible and informed AI use across faculty, staff, and student populations.

The AI Literacy Framework outlined four key domains: technical, evaluative, practical, and ethical. The technical domain focused on building foundational knowledge about how AI systems work, such as understanding algorithms and machine learning principles. The evaluative domain emphasized critical skills like identifying bias, assessing the reliability of AI outputs, and recognizing misuse. The practical domain addressed the application of AI tools in teaching, administration, and learning processes, encouraging creative and productive integration of technology. Lastly, the ethical domain highlighted the importance of understanding AI's societal impacts, ensuring its use aligns with institutional values and broader ethical considerations.

The Ethical Framework introduced during the session established core principles to guide AI adoption, including transparency, accountability, non-discrimination, and privacy. It encouraged institutions to take a balanced approach to leveraging AI, ensuring the technology's benefits do not come at the expense of fairness or equity. For example, transparency involves making AI processes understandable to users, while accountability requires institutions to take responsibility for the outcomes of AI-driven decisions. The framework also stressed the importance of privacy in protecting student and faculty data while implementing AI technologies.

The presenters shared examples of how these frameworks could be applied in various institutional contexts. For instance, in faculty development, the AI Literacy Framework could be used to design workshops that build educators' confidence in integrating AI tools into their teaching practices. In governance, the Ethical Framework could inform the creation of AI policies that address risks such as algorithmic bias and data breaches while promoting responsible innovation.

Participants were invited to engage in an interactive exercise to begin drafting plans for applying these frameworks to their institutions. This activity underscored the need for flexibility and context-specific adaptations, as institutions vary widely in their resources, priorities, and levels of AI adoption. Attendees also discussed the importance of sustained dialogue and collaboration among stakeholders to ensure policies and practices remain relevant as AI technologies evolve.

The session concluded with a call to action for institutions to prioritize AI literacy and ethical governance as foundational components of their AI strategies. The presenters emphasized that a proactive approach to AI integration can not only enhance institutional capabilities but also safeguard the values of equity, transparency, and accountability that define higher education.

Avoiding AI Chaos: How Lightweight Guardrails Enable University-Wide Innovation[114]

The poster *Avoiding AI Chaos : How Lightweight Guardrails Enable University-Wide Innovation*, presented by Mojgan Amini, Sr. Director of Process Management and Continuous Improvement at the University of California San Diego (UCSD), detailed the institution's strategic approach to fostering responsible AI adoption across campus. The presentation emphasized the creation of an inclusive governance framework that balances innovation with risk management, ensuring AI tools and applications align with institutional goals while addressing potential challenges.

UCSD established the AI in Administration Workgroup, a collaborative body sponsored by the CFO and CIO, composed of 20 leaders from various departments. The workgroup's primary aim is to provide a unified platform for evaluating, prioritizing, and implementing AI initiatives across the university. This governance model relies on "lightweight guardrails" rather than restrictive policies, enabling departments to explore AI applications with flexibility and adaptability. The framework incorporates prioritization processes, ethical principles, and continuous feedback loops to ensure initiatives are both impactful and aligned with institutional values.

The governance framework allows faculty and staff to submit AI ideas through an open, transparent process. These ideas are reviewed by the workgroup, and selected projects are developed into proofs of concept before broader implementation. Key successes from this model include TritonGPT, a secure AI assistant built using Llama2, which supports various campus operations while ensuring data privacy. Additional examples include tools such as the Job Description Helper and Fund Manager Coach, which enhance administrative workflows and improve efficiency.

Ethical considerations play a central role in the framework. The workgroup evaluates each project for compliance with principles of transparency, equity, and accountability. Feedback loops allow the framework to remain adaptive, incorporating lessons learned from ongoing projects to refine processes and policies.

HiTA: A Controllable and Trustworthy AI Platform for Educational Institutions[115]

The poster *HiTA : A Controllable and Trustworthy AI Platform for Educational Institutions*, presented by Bo Wu, Associate Professor at Colorado School of Mines and CEO of HiTA AI Inc.; Rene Kizilcec, Associate Professor at Cornell University and Chief Scientist of HiTA AI Inc.; and Janet McIllece, Principal Advisor at World Wide Technology, introduced a generative AI-powered virtual teaching assistant (HiTA). This innovative platform aims to enhance learning experiences while addressing the critical challenges of data security, instructor control, and alignment with institutional goals.

HiTA leverages advanced large-language models (LLMs) trained specifically on institutional knowledge bases, course materials, and curated content. This tailored approach ensures that the virtual teaching assistant aligns with the pedagogical objectives of individual courses, guiding students through learning and problem-solving processes rather than simply delivering answers. The platform empowers instructors to define how HiTA interacts with students, ensuring its behavior complements their teaching philosophy. Additionally, HiTA provides

[114] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/avoiding-ai-chaos-how-lightweight-guardrails-enable-universitywide-innovation

[115] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/generative-aibased-teaching-assistants-create-classroom-momentum-for-instructors-and-students

analytics that enable instructors to monitor student queries and identify areas where learners struggle, allowing for real-time adjustments to instructional strategies and materials.

The platform has been piloted successfully at institutions such as the Colorado School of Mines and Cornell University. Early results indicate significant benefits for both students and faculty. Students reported a 20% improvement in engagement and understanding, particularly in challenging STEM disciplines. They highlighted the platform's availability for on-demand assistance as a critical advantage. Faculty noted a reduction in repetitive queries and observed increased focus on higher-order problem-solving among students, freeing educators to concentrate on refining their teaching strategies.

The presenters emphasized foundational considerations in implementing HiTA. Data protection and user privacy are core to the system's design, ensuring compliance with institutional and legal requirements. Additionally, iterative testing and stakeholder feedback were identified as critical components of refining HiTA's functionality and impact.

Disclaimer on the poster : "WWT[116] and HiTA AI Inc.[117] are not co-developing or officially partnering but are committed to practical, responsible AI and its impact in higher education « .

Virtual International Education for a New Society with AI[118]

The poster *Virtual International Education for a New Society with AI*, presented by Yuko Murakami from Hiroshima University and John Anderson from the University of Texas at Austin, explored a novel educational model that leverages generative AI (GAI) to foster international collaboration and intercultural dialogue. This initiative aims to prepare students for a globalized society where advanced technology, respect for human rights, and cultural understanding are critical.

The model employs a multilingual discussion platform called HiGPT, which utilizes GAI to overcome language barriers and facilitate meaningful exchanges between students from different countries and cultural backgrounds. HiGPT not only translates input into multiple languages but also summarizes discussions and offers suggestions, enhancing communication efficiency and engagement. The platform integrates voice input and time management tools to support instructors in moderating discussions and ensuring active participation.

Collaborations between Hiroshima University and the University of Texas at Austin demonstrated the model's potential through joint virtual sessions conducted in early 2024. Students engaged in group discussions using Zoom and HiGPT, addressing topics that highlighted cultural differences and the benefits and risks of AI. Preliminary activities included training on GAI use and its ethical implications.

Sessions Gems

The EDUCAUSE 2024 annual conference featured a wide range of sessions that not only enhanced understanding in familiar areas, but also offered transformative perspectives in disciplines outside the author's core expertise in EdTech. Among the standout sessions were four that exemplified innovative thinking and interdisciplinary relevance: "Open Source in Higher Education: A Community Report," which explored the opportunities and challenges of open-source software in academia; "Scam School: They Learn to Scam, You Learn to Avoid It," a creative approach to cybersecurity education through humorous mockumentary-style videos; "You Dream It, We Print It: 3D Printing for the Greater Good," which showcased the remarkable applications of 3D printing technology at New York University's LaGuardia Studio; and "Building Blocks of Innovation: A Multi-Technology Approach at Georgia Tech," which demonstrated how the integration of automation, data services, and artificial intelligence transformed institutional operations. These sessions, while

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[116] https://www.wwt.com/category/ai-and-data/overview

[117] https://www.hita.ai/

[118] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/virtual-international-education-for-a-new-society-with-ai

diverse in their focus, shared a common thread of forward-thinking strategies and practical applications, providing invaluable insights for leveraging technology to drive progress and innovation across higher education.

The first session is close to the author's heart as a member of the Apereo Foundation Board of Directors of the Apereo Foundation[119].

Open Source In Higher Education: A Community Report[120]

The presentation *Open Source In Higher Education: A Community Report*, delivered by Patrick Masson, Executive Director of the Apereo Foundation, provided an extensive examination of the current state, challenges, and opportunities of open-source software (OSS) in higher education. The session drew from a collaborative community report that investigated the prevalence, perceptions, and institutional engagement with OSS, offering a comprehensive analysis of its role within academic institutions.

Masson began by contextualizing the importance of OSS, highlighting its near-universal adoption across industries. Recent studies indicate that 90% of IT leaders use enterprise OSS, and nearly all edtech software contains OSS components. Despite its prevalence, higher education institutions often lag in effectively managing open-source portfolios or understanding their full potential. The report aimed to address this gap by examining four critical dimensions: the current context and perceptions of OSS among IT leaders, its prevalence in academic enterprises, the extent of OSS development within institutions, and the essential IT skills required to support OSS.

A key finding of the report revealed that while OSS adoption is widespread—approximately 89% of .edu domains utilize OSS—the strategic integration and governance of these tools remain inconsistent. Many institutions lack formal IT strategies for deploying or developing OSS, leading to missed opportunities for innovation and cost savings. Masson emphasized the need for clearer frameworks to assess and manage OSS sustainability, including the cultivation of internal expertise and the alignment of OSS initiatives with institutional priorities.

The session also explored how OSS supports open science and research, with universities contributing significantly to OSS development. For instance, the University of California system alone has over 30,000 public repositories on GitHub. These contributions highlight the dual role of higher education as both a consumer and producer of OSS, underscoring its potential to drive innovation in research and teaching. However, Masson noted that these contributions often lack visibility and quantifiable metrics to demonstrate their value to institutional leadership.

Masson addressed critical challenges in the OSS ecosystem, including regulatory compliance, security risks, and the sustainability of projects. He pointed to increasing regulations such as the Software Bill of Materials (SBOM) requirements and the European Union's Cyber Resilience Act, which demand greater transparency in software composition and usage. Institutions must be proactive in adapting to these changes to ensure compliance and mitigate risks.

The session underscored the growing demand for OSS-related skills among IT professionals. Survey data showed that 93% of hiring managers find it increasingly difficult to recruit open-source talent. Masson urged institutions to prioritize the development of academic programs that teach OSS skills, not only to support their internal operations but also to prepare students for the workforce. This aligns with broader trends in workforce development, as OSS skills are becoming critical across industries.

Masson concluded with a call for collaboration within the higher education community to enhance the visibility and governance of OSS initiatives. The Apereo Foundation, in partnership with EDUCAUSE, aims to foster a culture of openness and innovation by providing resources, facilitating discussions, and promoting best practices for OSS adoption and management.

Scam School: They Learn to Scam, You Learn to Avoid It[121]

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[119] https://www.apereo.org/about/board-directors

[120] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/open-source-in-higher-education-a-community-report

[121] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/scam-school-they-learn-to-scam-you-learn-to-avoid-it

The poster *Scam School: They Learn to Scam, You Learn to Avoid It*, presented by Krista Moats, Manager of IT Marketing and Communications at the University of Notre Dame, showcased an innovative approach to raising cybersecurity awareness among students and staff. The project, developed by Notre Dame's Office of Information Technology (OIT), featured a series of six short mockumentary-style videos designed to educate the campus community on identifying and avoiding common cyber scams[122].

The videos, created in observance of National Cybersecurity Awareness Month in October 2023, addressed various types of scams, including job scams, multi-factor authentication (MFA) fatigue attacks, fake receipts, impersonation schemes, unreal extortion, and phony tech support. By using humor and an engaging narrative style, the series portrayed scammers attempting to execute fraudulent schemes but failing due to identifiable flaws. This approach effectively blended entertainment with education, making the content more relatable and memorable for viewers.

The campaign was supported by a comprehensive marketing strategy. The videos were hosted on the Scam School website, which featured a central landing page and subpages providing detailed information about each scam type. Promotional efforts included social media ads on platforms such as Snapchat, Instagram, and Facebook, along with email newsletters, digital signs, and printed materials distributed across campus. The project also leveraged in-person events to maximize engagement and foster discussions about cybersecurity practices.

The results of the campaign demonstrated its impact. Over the course of the initiative, the Scam School website received 5,594 visits, and the videos achieved a total of 14,000 plays with 1,237 views tracked on YouTube. Advertising efforts on social media reached tens of thousands of accounts, with the Snapchat campaign alone achieving 47,783 impressions. The Instagram campaign's boosted reels garnered notable engagement, highlighting the effectiveness of multi-platform strategies in reaching diverse audiences.

The educational value of the project was underscored by its focus on practical tips and real-world scenarios. For example, the MFA fatigue video showed viewers how to respond safely when repeatedly prompted for authentication, while the impersonation and fake receipt videos provided actionable advice on recognizing fraudulent communications. These resources aimed to build digital literacy among participants, empowering them to navigate cybersecurity threats confidently.

One of the unique aspects of the campaign was its accessibility and inclusivity. While primarily targeted at students and staff, the materials were also shared with the local community, expanding their reach and emphasizing Notre Dame's commitment to fostering broader awareness of cybersecurity issues. The campaign was entirely developed and executed by OIT staff, showcasing the institution's internal capabilities and creativity in addressing pressing IT challenges.

You Dream It, We Print It: 3D Printing for the Greater Good. Hearts, Robots, Shark's Teeth, and More[123]

The presentation entitled *You Dream It, We Print It: 3D Printing for the Greater Good. Hearts, Robots, Shark's Teeth, and More*, delivered by Jennifer Sparrow, Shelly J. Smith, and Andrew Buckland from New York University (NYU), highlighted the transformative impact of 3D printing through the university's LaGuardia Studio (LGS). Established as a comprehensive facility for additive manufacturing (AM) and related technologies, LGS supports diverse disciplines in teaching, research, and clinical practice by offering advanced 3D printing, scanning, and immersive services.

The mission of LGS is rooted in providing equitable access to cutting-edge technologies for all academic disciplines. The studio has become a vital resource for NYU students, faculty, researchers, and staff, enabling them to incorporate 3D printing into projects that range from academic exploration to high-stakes clinical applications. With over 19 years of operation, LGS supports approximately 4,000 clients annually, including 650 researchers and faculty members, and facilitates the production of more than 12,000 printed parts per year.

The presenters shared numerous impactful case studies demonstrating the studio's capabilities. In the medical field, LGS has collaborated with NYU Langone Health to produce 3D-printed heart models for surgical planning

[122] https://oit.nd.edu/initiatives/scam-school/

[123] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/you-dream-it-we-print-it3d-printing-for-the-greater-good-hearts-robots-sharks-teeth-and-more

and stroke detection units, as well as surgical guides for knee replacement procedures currently in human trials for FDA approval. These innovations underscore the studio's role in advancing healthcare technologies and improving patient outcomes. Additionally, the studio contributed to groundbreaking face transplant surgeries by producing donor masks and surgical components, showcasing the seamless integration of art, technology, and medicine.

LGS's contributions also extend to the sciences, arts, and engineering. Examples include the development of robotic biomedical sensors, wearable medical devices, and artificial dura for animal surgeries. The anthropology department leveraged 3D printing to replicate fossils and artifacts for research, while the chemistry department created custom quantum microscopes to study atomic movements within solid substrates. These diverse projects reflect the studio's adaptability and the breadth of its impact across academic fields.

The operational strategy of LGS is underpinned by a robust service portfolio and advanced technical infrastructure. The studio offers a wide range of material types, including thermoplastics, photopolymers, and metals, supported by state-of-the-art 3D printer technologies such as PolyJet, Multi Jet Fusion (MJF), Stereolithography (SLA), and Direct Metal Laser Sintering (DMLS). The presenters highlighted the importance of ongoing maintenance and staff expertise in ensuring the consistent delivery of high-quality services. With a dedicated team of six full-time employees and four student assistants, LGS maintains an impressive operational uptime of over 21,000 hours annually for 3D printing.

The presentation also addressed the evolution of LGS and its commitment to fostering innovation. The studio's growth trajectory has included the addition of new facilities, equipment, and services, reflecting its responsiveness to the changing needs of the university community. The presenters emphasized the importance of stakeholder engagement in shaping the studio's offerings, noting that regular consultations with faculty and researchers ensure alignment with institutional priorities.

The session concluded with insights into the strategic vision for LGS. The presenters outlined plans to expand the studio's impact by integrating emerging technologies such as artificial intelligence and advanced modeling software. They also discussed the potential for partnerships with external organizations to scale the studio's capabilities and contribute to broader societal challenges.

Building Blocks of Innovation: A Multi-Technology Approach at Georgia Tech[124]

The poster *Building Blocks of Innovation: A Multi-Technology Approach at Georgia Tech*, presented by Katie Crawford, Executive Director of Enterprise Applications and Data Services, and Brent O'Guin, Technology Strategist and Architect, highlighted a transformative initiative aimed at improving administrative efficiency and decision-making across the institution. By integrating diverse technologies, Georgia Tech has optimized operations, achieving over $1 million in savings and reducing manual processes by 30%.

The presenters detailed the strategic collaboration between Georgia Tech's technology teams and various business units to develop dynamic, tailored solutions using a robust toolkit. This toolkit encompasses business process automation (BPA), robotic process automation (RPA), data services, and augmented intelligence (AI). Each component plays a distinct role in creating an efficient and proactive environment for operational success.

BPA initiatives involved digitizing traditional, paper-based processes into streamlined, digital workflows. This transformation has enabled faster and more reliable task completion, document management, and form processing. RPA, another cornerstone of the project, focused on automating repetitive tasks such as data extraction, entry, and transaction processing, which were traditionally handled manually. The implementation of these "robots" not only reduced human effort but also minimized errors and improved overall accuracy in operational workflows.

AI was a critical component in enhancing the decision-making capabilities of Georgia Tech's systems. Predictive analytics and generative AI tools allowed for the development of intelligent productivity assistants and chatbots, facilitating more responsive communication and improved user experiences. The integration of AI technologies also enabled the institution to harness data-driven insights through advanced reporting and dashboards, enhancing the governance and utility of institutional data.

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124 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/building-blocks-of-innovation-a-multitechnology-approach-at-georgia-tech

One of the session's highlights was the discussion of specific case studies demonstrating the practical application of these technologies. For example, the presenters described a project involving the automation of student financial aid processing. By digitizing and automating workflows, the institution reduced the turnaround time for applications, improved compliance with regulatory standards, and freed up staff to focus on more strategic initiatives. Similarly, in facilities management, automated systems were introduced to streamline inventory tracking and work order management, yielding significant efficiency gains.

The presenters emphasized that the initiative's success stemmed from a culture of collaboration and continuous improvement. The technology teams worked closely with business units to identify pain points and develop solutions aligned with institutional goals. Regular feedback loops allowed for iterative improvements, ensuring that the technologies remained responsive to changing needs and priorities.

Interactive elements of the poster encouraged attendees to engage with the tools and strategies presented. Participants explored real-time demonstrations of workflows and automation tools, gaining actionable insights into how similar approaches could be implemented in their own institutions. The presenters also offered guidance on best practices for fostering a culture of innovation, such as prioritizing cross-departmental collaboration, investing in staff training, and maintaining a focus on measurable outcomes.

In conclusion, the "Building Blocks of Innovation" initiative at Georgia Tech serves as a model for leveraging multi-technology approaches to enhance institutional operations. By integrating BPA, RPA, data services, and AI, Georgia Tech has achieved significant efficiencies and cost savings while fostering a culture of innovation.

Generative AI: Ethics, Accessibility and Inclusion

Nina Reignier-Tayar, PhD

Around fifty presentations (round tables, posters, breakout sessions, community of practice, sessions with vendors, etc.) took place over the course of the face-to-face conference. Overall, the same reservations and concerns about AI can be observed in American and French higher education. This article focuses on several angles relating to AI that were addressed during the conference.

Ethical stance and framework

Community of Practice EDUCAUSE/HP

Several universities have announced that they are setting up a Community of Practice to help them make progress on the GenAI issue. Several of these Communities of Practices have not been successful for various reasons: unclear order, how to set up the community and choose its members, vast subject, where to start....

One successful example is EDUCAUSE and HP. They have joined forces to organize a Community of Practices for leaders and practitioners who are innovating in their use of AI for teaching and learning. They have set themselves two objectives:

- To develop a framework for the mastery of AI that can be applied to the training of teachers, staff or students;
- To develop an ethical framework that can be used to guide campus policy and practice.

For this Community of Practices, the key to success is to respect the six following steps, illustrated in the diagram below:

1. Decide on the structure of the Community of Practices;
2. Outreach the potential participants;
3. Shape the sessions;
4. Hone in one collective goals;
5. Organize hand-on projects;
6. Gather feedback.

The second of these six steps involves raising awareness and identifying potential participants with high added-value. Stage 4 involves drawing up and clarifying the collective objectives, listing all the subjects to be deal with and prioritizing the most important ones, which will represent the CP deliverable. To do this, you need to take the institutional context into account and ask the right questions:

- What impact or potential benefits do you want to create through AI?
- What is your mission?
- Who are your students?
- Is your institution ready for AI?
- Strategy and alignment
- AI literacy
- Ethical frameworks
- Quality and availability of your data

- Do you offer ongoing training?

The last of the six steps, getting feedback, is often neglected in this type of exercise, but the challenge is not to get the wrong deliverable and to get organized and constructive feedback to feed the discussions.

Setting up the Community of Practices: A Recipe for Success[125]

Examples of deliverables[126]

GenAI literacy/mastery program:

Technical: technical understanding of how AI works;
Evaluative: critically assessing the applications and results of AI tools, with a focus on developing robust tools for evaluating the impact of AI;
Practical: applying, integrating and managing AI tools effectively in teaching, research and administration;
Ethical: formulating and applying institutional strategies to guard against prejudice and the misuse or misapplication of AI technologies.

Ethical guidelines:

Benevolence: ensuring that AI is used for the benefit of all students and teachers;
Justice: promoting fairness in AI applications for all user groups;
Respecting autonomy: respecting the right of individuals to make informed decisions regarding interactions with AI;
Transparency and explanation: providing clear and understandable information on how GenAI works;
Accountability and responsibility: holding individual users responsible for the AI results they share;
Data protection and privacy: protecting personal information against unauthorized access and breaches;
Non-discrimination and equity: recognizing biases in AI results that could lead to discriminatory outcomes;
Assessing the risks and benefits: weighing up the potential impacts of AI technologies in order to balance the benefits against the risks.

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[125] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/ai-ethics-and-literacy-insights-and-resources-from-the-EDUCAUSEhp-community-of-practice

[126] https://www.EDUCAUSE.edu/content/2024/ai-literacy-in-teaching-and-learning/executive-summary

Exploring the potential of AI to improve accessibility and inclusion

In a world increasingly reliant on technology, the question arises: Can artificial intelligence (AI) improve accessibility for all our students?

This article looks at the transformative power through Generative AI (GenAI), and how AI, when guided by human insight, can become an essential ally in making our world more inclusive, ensuring equality of educational opportunity.

Technological advances with AI offer disabled people more equitable access to the same educational services and resources as non-disabled students.

Ironically, disabled students, who have the most to gain from GenAI's tools and resources, are often the most disadvantaged or least able to use them[127].

What is even more worrying is that few people from the disabled community have been asked for their views on the development of these products. A 2023 survey of users of assistive technology found that less than 7% of disabled respondents felt their community was sufficiently represented in the development of AI products, although 87% would be willing to provide end-user feedback to developers[128].

Many in higher education are understandably cautious about the use of AI. However, many products and services that promise greater equity and inclusion for people with disabilities are currently available or under development. Some of these products and services are described below. Although this list is not exhaustive, it includes capabilities that were thought impossible only a short time ago.

Support for people with cognitive and physical disabilities

Goodwin University in Connecticut is experimenting with artificial intelligence products to help neurodivergent students. For example, the university recommends GitMind for assisted note-taking, mind mapping and brainstorming. Goodwin's approach to learning goes hand in hand with the Universal Design for Learning (UDL) way.
UDL[129] is the design of lessons, programs and learning experiences with built-in accommodations and modifications. It helps teachers proactively adapt courses to their students. If courses are designed to be universally accessible, teachers do not need to make as many adjustments.

Audio description generation

WPP[130], a UK-based company, is working with Microsoft to develop advanced audio description tools based on GPT4. This technology generates enhanced audio descriptions of videos and images uploaded by users.

The company is also working with the RijksMuseum, the national museum of the Netherlands, to provide enhanced audio descriptions for its collection of almost one million works of art, opening the door to libraries with large special collections. This tool should be available shortly.

Automated image descriptions

For screen readers to accurately decipher the content of images and diagrams, content authors need to add descriptions, labels or alternative text. With the advances in LLM, AI technologies can automatically generate these descriptions. Several tools that generate image descriptions are currently being developed and published.

For example, Arizona State University (ASU) recently launched a new AI image description utility that uses ChatGPT4 to analyze user-uploaded images and produce robust alternative text descriptions. The tool can also analyze and extract embedded text (i.e. text that is not machine-readable) from slides and images.

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[127] https://medium.com/ai-first-design/ai-for-accessible-design-bbcf4dc57171

[128] https://makeitfable.com/article/insights-ai-and-accessibility/

[129] https://www.goodwin.edu/enews/artificial-intelligence-and-accessibility/

[130] https://www.youtube.com/watch?v=ry3FznHZ4t8

Cameron Cundiff, accessibility advocate and developer, has created an NVDA (Non-Visual Desktop Access) add-on that provides semantically rich image descriptions of any website, software product or desktop icon. This tool uses the vision capabilities of the Google Gemini API to analyze and generate robust image descriptions that can be read back via NVDA's speech synthesizer.

Users can download complex images and Astica.ai[131] (via its VISION API technology) will automatically analyze and identify the elements and generate detailed alternative text descriptions.

Another example: MIT researchers have developed VisText[132] to help people generate legends and descriptions for complex graphs and diagrams[133].

Supporting inclusive design

GPT Accessibility CoPilot, developed by Joe Devon, co-founder of Global Accessibility Awareness Day (GAAD) and chairman of the GAAD Foundation, is a tool that helps content developers and educational designers by analyzing the code structure of web pages and their content and comparing it with the WCAG 2.2 success criteria. If the code does not meet the criteria, Accessibility CoPilot provides suggestions for improvement.

Ask Microsoft Accessibility[134] is a free tool that can be used by teachers and students to develop accessible course content. Users can enter a question such as 'How can I make Excel files more inclusive?' and the AI assistant provides several solutions in near real time. This product is in a preliminary version.

Procter & Gamble is using an AI-assisted QR Code technology called Navilens[135] to help people who are blind or visually impaired. Navilens can be used to locate products among dense shelves and read the instructions for use or the list of ingredients. The technology is also available for sign-reading locations. Navilens can be downloaded and used free of charge, and the company is currently offering its proprietary codes to schools. The company has teamed up with Microsoft to offer greater autonomy to users of a specialized headset developed by ARxVision.12

Assistance with coding and development

GitHub recently launched Copilot, a semi-automated code entry tool developed in collaboration with Microsoft and OpenAI. GitHub Copilot Chat is a complementary chat interface that can help programmers learn more about accessibility and improve the accessibility of their code[136].

Translation, subtitling, lip-reading and speech recognition

LLMs have made possible a variety of new translation, subtitling, lip-reading and speech recognition tools. For example, Microsoft Copilot+ PCs include live translation in almost every language. Previously, this technology was only available in certain productivity products, such as PowerPoint; it is now ready to be widely available in various Microsoft productivity products.

SRAVI (Speech Recognition App for the Voice Impaired) is an AI-based lip-reading application developed by Fabian Campbell-West, co-founder and CTO of Liopa, a software development company in Belfast, Ireland. SRAVI was originally developed to help patients in intensive care units who have lost the ability to speak to communicate more effectively with their families and healthcare providers. Liopa is a spin-out from Queen's University Belfast and its Centre for Safety Technology. Although the company was wound up earlier this year, the SRAVI application is still available to download[137].

AVA is a mobile application that enables people who are deaf or hard of hearing to take part in group conversations in English, Dutch, French, German, Italian or Spanish. The application offers limited conversational support for twenty spoken languages. People engaged in a conversation can open Ava on their phone, then

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[131] https://astica.ai/

[132] https://vis.csail.mit.edu/vistext/

[133] https://vis.mit.edu/pubs/vistext.pdf

[134] https://askma.microsoft.com/

[135] https://www.navilens.com/accessibleqrcode/

[136] https://github.blog/developer-skills/github/prompting-github-copilot-chat-to-become-your-personal-ai-assistant-for-accessibility/

[137] https://www.irishnews.com/news/business/liquidator-appointed-to-belfast-lip-reading-technology-firm-liopa-WT4PUOU4VZBl3HSYDODEC3AOPU/

speak while the application listens. Ava converts spoken words into text in near real time, rendering each speaker's words in a different color to help those who need to read to follow the conversation.

Governing change: Strategies for sustainable leadership

Emmanuelle Vivier

EDUCAUSE offers a variety of **Community Groups and Working Groups** for higher education professionals wishing to collaborate, share knowledge **,** and develop resources on specific topics. The CIO Group is a community dedicated to those responsible for information technology in higher education. The group focuses on challenges, strategies and solutions relating to technology infrastructure management, digital transformation**,** and strategic leadership.

On the first day of the conference, the group featured a presentation by Deloitte Consulting on trends in higher education in 2024, following a meeting of college and university presidents held in December 2023 at Deloitte University (Westlake, Texas).

The context of higher education in the United States is changing rapidly, and 2023 was a tumultuous year. The Deloitte presentation highlights several noteworthy elements that will be addressed in the various presentations and posters featured under the "Leadership" theme, or that will illustrate the topics discussed.

The Supreme Court has ruled that considering race in university admissions is unconstitutional for institutions receiving federal funds. Widespread protests across university campuses in response to the Israel-Hamas conflict have placed universities in the national spotlight. The arrival of generative artificial intelligence also poses both challenges and opportunities for many institutions, most of which are currently unprepared.

The higher education sector has been facing financial and demographic challenges for over a decade, with high school enrollments expected to peak as early as 2025.

Increased political attention and an erosion of trust in higher education institutions are likely to further accelerate the leadership crisis in the sector, as more and more presidents and chancellors consider stepping down while potential candidates hesitate to take on leadership roles.

Finally, the growing dependence of institutions on private partners is leading to renewed calls for transparency on costs and outcomes.

Given the convergence of factors affecting U.S. campuses and future needs, it is clear that the country is entering a new era for higher education, one that requires universities to fundamentally reorganize their structures and priorities

The sixty or so presentations on the theme of Leadership deal with topics related to this evolving context and have been grouped into six themes:

- Perspectives and Practices of Modern Leadership
- Inclusion, Diversity and Equity (ID&E)
- Learning Environments and Student Engagement
- Organizational Transformation
- Challenges and Opportunities in Higher Education
- Regulation and Safety.

Perspectives and Practices of Modern Leadership

Many of the presentations and posters raised questions about the qualities required of a good manager, but first let us take a look at the leadership crisis affecting university and college presidents in particular.
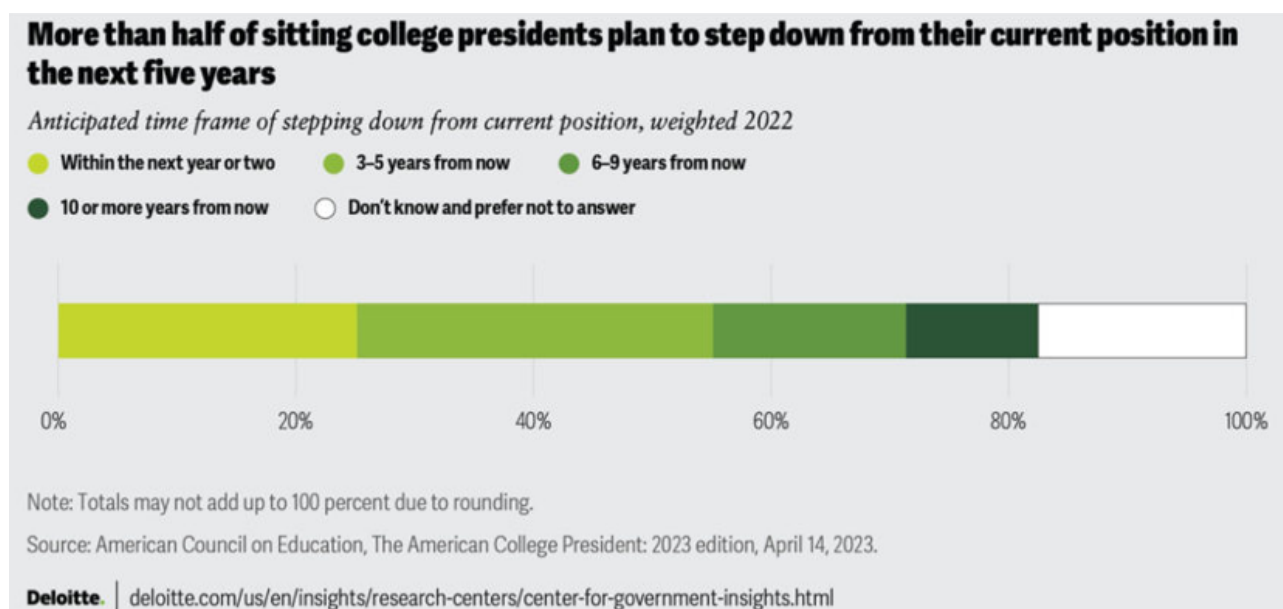
Who will be president ? The accelerating leadership crisis in higher education / *CIO Community Group Meeting*[138]

The talent crisis in the executive ranks is amplified by the multiple complexities of the university president's role, from managing growing financial stress to divergent visions on diversity initiatives, while responding to criticism of "student returns on investment" and pressures to respond to various national and geopolitical incidents.

These factors could lead to a talent crisis in higher education leadership positions, prompting some presidents to resign and discouraging potential leaders from taking on these roles. The average tenure of university presidents continues to decline: between 2006 and 2022, it fell from 8.5 years to 5.9 years. A recent study by the American Council on Education indicates that 55% of presidents plan to leave their post within the next five years.

The shortage of available talent for leadership positions impacts virtually every aspect of academic institutions. Inadequate succession planning and a lack of leadership training further reduce the pool of potential candidates. In 2023, the American Council on Education reported that 59% of presidents were not actively preparing a successor for their position. Less than 30% of institutions surveyed had a plan for future presidential searches, and only 14% had a temporary succession plan in place.

The same report indicates that 54% of university presidents come from an academic background. However, relatively few candidates with an academic background are fully prepared to face the political storms that accompany today's university presidency. Conversely, external candidates who have developed their leadership skills in business, politics or government may be ill-prepared to navigate the complex environment of faculty governance and accreditation.

More than half of sitting college presidents plan to step down from their current position in the next five years

Anticipated time frame of stepping down from current position, weighted 2022

- Within the next year or two
- 3–5 years from now
- 6–9 years from now
- 10 or more years from now
- Don't know and prefer not to answer

Note: Totals may not add up to 100 percent due to rounding.

Source: American Council on Education, The American College President: 2023 edition, April 14, 2023.

Deloitte. | deloitte.com/us/en/insights/research-centers/center-for-government-insights.html

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[138] Cole Clark, managing director for Higher Education, and Megan Cluver, principal, both of Deloitte Consulting: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/cio-community-group-meeting

Leadership matters[139]

In an ever-changing world, leadership is a key skill for guiding teams and maximizing their potential. Much more than simply managing resources, leadership is based on fundamental principles that combine the ability to inspire, transform and adapt to the needs of those you lead, while combining organizational performance with individual fulfillment.

- **Opportunity Leadership.** Good leadership relies on the ability to offer meaningful opportunities, allowing team members to try out new experiences to gain confidence while developing key skills, including leadership. Taking ownership of specific projects helps to build personal and professional pride. These opportunities can take the form of roles such as chairing committees, managing special projects or participating in professional development programs.

- **Leading yourself.** To excel in leading others, it is essential to master the art of leading yourself. This includes the use of personal rituals such as reflection or meditation, which help to stay centered and grounded. Investing in your own development, through training or by working with mentors, is a fundamental pillar of this approach. Asking introspective questions, such as "Am I in the right role?" or "How can I better support my boss or my team?", also encourages better self-assessment.

- **The "Four Good Decisions ».** Effective management is all about making the right decisions in terms of human resources and organization. It is about making sure that the right person does the right job, at the right time, in the right role. This approach requires a clear and shared understanding of responsibilities, both for the manager and their team, which contributes to the harmonious execution of objectives.

- **Perspectives and Openness.** Providing constructive perspectives in real time is an invaluable asset in helping others see what they cannot always see for themselves. This support, combined with a proactive approach to removing obstacles, facilitates the progress of employees and teams, while enhancing their effectiveness.

- **The Shockwaves of IT Projects.** When managing technology projects, each application or initiative has multiple repercussions: compatibility, integration with the information system, security, training and supplier relationship management. It is crucial to anticipate these cascading effects, often referred to as "ripple effects", to ensure overall project success and minimize unexpected risks.

- **Alignment through Mental Models.** Clear, aligned leadership often relies on the use of effective mental models, such as mantras or simple visuals. These tools help reinforce desired values and behaviors while keeping the team aligned with the organization's strategic objectives.

- **Change your mindset.** A change of perspective is sometimes necessary to avoid being perceived as "the department of no. Adopting a user-centric approach, and putting users' needs at the heart of priorities, helps to avoid management focused solely on internal processes.

- **Purpose and Impact.** Connecting day-to-day efforts to the end users, such as students in the educational context, gives deep meaning to the work accomplished. The underlying vision must be to be recognized as a strategic and innovative partner, contributing to an exceptional educational experience.

- **Personal reflection.** Finally, regular introspection ensures alignment between actions and professional goals. Some essential questions to ask yourself include: "What opportunities have I offered?", "Am I aligned with my goals?", "How am I facilitating the success of others?" and "How do I connect my work to the needs of those I serve?".

Leadership is not just about managing technology; it is also about guiding people to maximize their potential.

Key recommendations:

- Offer opportunities: Encourage team members to step out of their comfort zone and grow.
- Rethinking IT culture: moving from an "us-centric" to a "user-centric" approach.
- Invest alignment: Use simple strategies to keep teams focused strategic objectives.

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[139] David Weill, Vice-President IT & Analytics, Ithaca College: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/leadership-matters-and-other-lessons-i-learned-along-the-way

The CREATIVE Leader (Curious, Resilient, Empathetic, Authentic, Thoughtful, Inclusive, Vulnerable, Emotionally intelligent): a visionary approach / *The importance of Creative Leadership*[140]

This type of leader inspires their team to solve complex problems in a constantly changing world. They foster collaboration, break down organizational silos and stimulate risk-taking in inclusive, empathetic environments. These leaders cultivate qualities such as curiosity, resilience and emotional intelligence to reinforce a culture of creativity organizational[141].
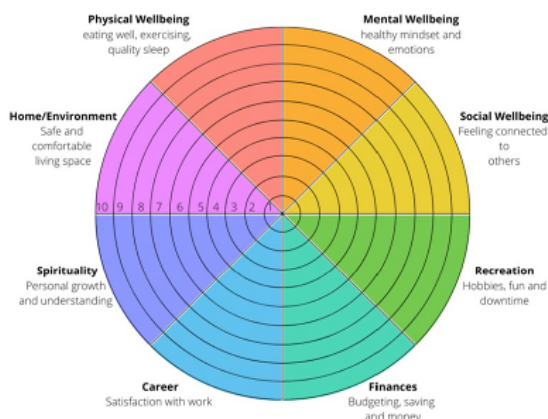
Authentic Leadership : Integrity and Transformation / *Leading Wholeheartedly: the Need for Authentic Leadership (poster)*[142]

In the face of today's technological challenges, authentic leadership plays a key role in creating trust and encouraging innovation. Essential practices include:

- Developing self-awareness and emotional intelligence.
- Promoting transparency and empathy for greater inclusion.
- Mentoring and professional growth opportunities.

The well-being wheel is a tool designed to help leaders assess their own well-being and that of their colleagues.

Research into the specific ways in which individuals naturally perceive, conceptualize and react to situations has led to the discovery of four fundamental behavioral styles. Leaders can discover their own style, and that of the people they work with, using DISC (personality assessment tool: Dominant, Influential, Stable, Cautious).

Instructions for filling in the grid: From left to right on each line, award 4 points to the feature that matches you most, 3 points to the one that comes next, then 2 points, and finally 1 point to the feature that matches you least.

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[140] North Carolina State University

[141] https://go.ncsu.edu/creativeleaders: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/the-importance-of-creative-leadership

[142] West Chester University: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/leading-wholeheartedly-the-need-for-authentic-leadership

Dominant		Influential		Stable		Cautious	
Self-Certain		Optimistic		Deliberate		Restrained	
Directing		Influencing		Steady		Cautious	
Adventurous		Enthusiastic		Predictable		Logical	
Decisive		Open		Patient		Analytical	
Daring		Impulsive		Stabilizing		Precise	
Restless		Emotional		Protective		Doubting	
Competitive		Persuading		Accommodating		Curious	
Assertive		Diplomatic		Modest		Tactful	
Experimenting		Charming		Easy-Going		Consistent	
Forceful		Sensitive		Sincere		Perfectionist	
TOTAL		TOTAL		TOTAL		TOTAL	

Add up the points in each of the four columns. Indicate the number for each column on the line TOTAL. The column with the highest number of points represents your dominant style (Dominant, Influential, Stable, Cautious).

Summary of styles and approaches

Aspect	Dominance	Influencing	Steadiness	Cautious
Value to Team	Takes initiative	Serves as a contact to people	Performs specialized follow-through	Concentrates on details
Major Strength	Strength of purpose ; goal-oriented, gets things done	Enthusiasm ; gets people motivated and involved	Good people skills ; good team player or leader	Thoroughness, accuracy in analyzing all the data
Major Weakness	Can be insensitive to feelings of others	Impulsiveness ; may not focus attention on details/facts	May sacrifice results for harmony ; reluctant to initiate	Overly cautious ; can be too thorough and lose sight of time
Motivated By	Results, challenge, actions	Recognition, approval, visibility	Relationships, appreciation	Being right, quality
Time management	Focus : now, efficient uses of time… likes to get to the point	Focus : future, tends to rush to the next exciting thing	Focus : present, spends time in personal interaction sometimes to the detriment of the task	Focus : past, works more slowly to ensure accuracy
Communication	One-way… not as good as listening, better at communicating	Enthusiastic, stimulating, often one-way, can inspire others	Two-way flow, a good listener	Good listener, especially in relation to the task
Decision making	Impulsive, always makes decisions with goal in mind	Intuitive, quick, lots of wins and losses	Relational, makes decisions more slowly, due to input from others	Reluctant, thorough, needs lots of evidence
Behavior under pressure	Autocratic	Attacks	Accomodates	Avoid conflict

Adapted from: DISC Model by William Moulton Marston

Remote Leadership : Opportunities and challenges / *Navigating remote leadership (poster)*[143]

Managing remote teams requires innovative strategies, such as :

- Efficient communication via technological tools adapted to each type of communication: Teams for instant messaging and file sharing, Zoom for videoconferencing, mail for formal communication and documentation, Monday.com for project management.
- Embracing creativity and adaptability to turn the challenges of remote working into opportunities. The poster highlights concrete solutions for maintaining collective performance in hybrid or fully remote work environments.

Psychological Safety: Key to Team building. Psychological safety is recognized as a cornerstone of transforming a group of individuals into a high-performing team. To achieve this, leaders must cultivate environments where every team member feels valued and empowered to share their ideas openly, without fear of judgment or reprisal.

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[143] Old Dominion University, Norfolk: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/navigating-remote-leadership-the-ups-downs-and-sideways

Continuous Learning: Lessons from the Higher Education Sector. The experience of leaders who have navigated between academia and industry highlights transferable practices, such as :

- The benefits and limitations of academic systems.
- Learning about innovative methods adopted outside higher education.

These courses offer insights into the evolution of the skills needed for leadership in this sector.

IT Leadership: Driving Change on Campus. The role of IT leaders has intensified in areas such as digital transformation and cybersecurity. They now play a strategic role in managing change and supporting students and teachers.

This theme highlights a diversity of perspectives and approaches to strengthening leadership in a variety of contexts, from organizational creativity to digital transformation.

Diversity, Equity and Inclusion (DEI)

Promoting change: Integrating more women into leadership roles / *The women's leadership journey (poster)*[144]

The figures speak for themselves: women are still under-represented in management positions, particularly in the technology sectors (only 14% of positions). The aim is to increase their presence to diversify strategic decision-making.

Often overqualified, they frequently begin their careers in roles that underutilize their skills. A mentor can play a crucial role in helping them embrace new challenges, as they often face self-imposed barriers before stepping into leadership positions. Despite their hard work, they sometimes struggle to gain recognition. Ultimately, their career aspiration is to become mentors themselves, guiding others along their own journeys.

As in previous EDUCAUSE sessions, mentoring continues to be a regularly discussed topic, and represents a particularly effective factor for inclusion. The presentation summarizes the key success factors of a voluntary and successful mentoring approach.

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[144] Jenzabar: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/the-only-woman-in-the-room

Intentional mentoring is a structured and thoughtful approach to guiding individuals in their personal and professional development. The benefits are the development of key competencies in mentees, improved talent retention and the creation of a culture of leadership and organizational commitment.

Mentoring is a strategic tool for strengthening talent retention, improving integration of new employees and meeting organizational skills needs. To ensure its effectiveness, it is essential to follow a structured approach and clarify the roles of the players involved.

How to develop a Mentoring program with the following main objectives :

- Program development. The first step is to build a solid business case, demonstrating the potential positive impact on employee performance and satisfaction. Once this foundation has been laid, it is time to design the program structure, defining a suitable schedule and effective exchange between mentors and mentees. Finally, the measurement of effectiveness relies on evaluation tools such as Kirkpatrick's four-level model[146], to identify successes and areas for improvement.

- The Key Roles of the Mentor. A mentor plays a fundamental role in the professional and personal development of their mentee. In terms of career support, the mentor acts as a coach, offering practical advice on professional skills. They also act as a sponsor, by facilitating career advancement; an investor, by creating opportunities for growth; and a networker, by establishing strategic connections.
  On a psychosocial level, the mentor acts as a role model by exemplifying valued norms and behaviors. They offer active support by validating their mentee's skills, and act as a confidant, providing attentive listening and personalized advice. Finally, as an ally, they are committed to providing ongoing support.

- Key steps to successful mentoring. There are several steps to a successful mentoring relationship. First, it is essential for the mentor to prepare by clarifying objectives and establishing a clear framework. A trusting relationship must then be built through a discussion of expectations, objectives and modes of communication. To define a clear direction, the use of SMART objectives (specific, measurable, achievable, relevant, time-bound) is recommended. The mentor must also diversify their approaches, encouraging the mentee to step out of their comfort zone while offering appropriate support. Finally, regular reviews help consolidate learning and ensure progress.

- Formal and informal mentoring. Two distinct approaches can be adopted: informal mentoring and formal mentoring. Informal mentoring is more flexible, based on personal relationships, but often lacks structure. Formal mentoring, on the other hand, is based on clear objectives and measurable results, offering a more systematic approach.

- Creating a Safe Environment. For mentoring to be effective, the mentee must evolve in an environment that is safe and conducive learning. This means providing emotional security through predictability and trust, respecting their autonomy by allowing them freedom of decision, ensuring fairness through total transparency and mutual respect, and fostering sense of belonging by recognizing their value and including them fully.

- Tools and resources. Use of appropriate tools enhances the effectiveness of mentoring. Templates such as agendas, development plans or progress charts can structure sessions. Digital resources, such as artificial intelligence solutions, can also be mobilized to personalize materials. Finally, regular evaluation of results will allow mentors to adjust strategies and optimize the benefits of the program.

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[145] Jay James, CISSP, PMP: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/intentional-mentorship-a-powerful-leadership-tool-in-higher-ed-tech

[146] https://www.kirkpatrickpartners.com/the-kirkpatrick-model/

This presentation highlights the importance of intentional mentoring as a leadership tool in higher education and technology. It aims to guide leaders in setting up structured mentoring programs tailored to organizational needs.

Key recommendations :

- Carefully prepare each mentoring relationship by setting clear expectations.
- Adopt a flexible yet structured approach to maximize impact on the mentee and the organization.
- Measure program effectiveness to ensure their success of mentoring programs and adapt them over time.

Diversifying leadership: Rethinking recruitment

There has been a concerted effort to integrate inclusive and equitable practices into the recruitment process, particularly in the IT sector. Strategies include transparency, trust and collaboration to transform recruitment practices and value diverse talent. The aim is to ensure an inclusive professional environment from the earliest stages of recruitment. Berkeley Executive Search at the University of California offers a detailed framework détaillé[147].

Develop inclusive job descriptions and a recruitment strategy :

- Advise hiring managers to consider transferable skills and non-traditional career paths, encouraging flexibility in the assessment of qualifications.
- Abolish rigid degree requirements and give priority to equivalent experience, focusing on skills, demonstrated progression and potential rather than the traditional length of positions held.
- Use inclusive language in job descriptions to avoid language that might discourage candidates from marginalized communities from applying.
- Replace specific experience requirements (e.g. "10 years' experience") with more flexible ranges or terms such as "in-depth experience", to promote inclusiveness and attract a wider range of candidates.
- Prioritize what is essential for success in the role, and be open to transferable skills from other functions or sectors.

Mobilize and align stakeholders :

- Promote diverse participation in the recruitment process to reduce implicit bias and ensure that multiple perspectives are taken into account in hiring decisions.
- Encourage alignment among stakeholders on key qualifications and openness to recruiting non- traditional candidates.
- Challenging biases about comparable organizations (e.g. public research universities) by encouraging stakeholders to focus on skills such as managing in decentralized environments or navigating resource constraints.

Candidate experience :

- Build genuine relationships with candidates by providing transparent information about the organization and the role, and "sell with honesty".
- Allow candidates to make their own decisions—do not assume someone wouldn't be interested due to reasons like, "our salary range is probably too low for them." Instead, present the opportunity and let them decide for themselves.
- Maintain consistent, clear communication throughout the process, ensuring that candidates feel supported and informed.
- Act as an advocate for the candidate experience, fostering a sense of belonging and providing constructive feedback to help them progress, whatever the outcome of the hire.

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[147] Strategies for diversifying leadership : weaving DEIB into recruitment:
https://events.EDUCAUSE.edu/annual-conference/2024/agenda/strategies-for-diversifying-leadership-weaving-deib-into-recruitment

- When possible, prepare/accompany the candidate through the various stages of the process. Interviewing is not the usual way a good worker operates; you can support fairness by offering coaching, whether candidates are used to this specific process or not.

Tips for candidates:

- Research the organization thoroughly and prepare thoughtful questions to show your commitment and interest.

- Use narratives in your interviews and documents to highlight how your skills and experience meet the needs of the position, particularly by emphasizing transferable skills. There are structured ways of presenting interview responses that help the committee (auditors) better understand the similarities and differences between your experience and theirs.

- Think of the interview process as a two-way conversation: evaluate the organization and its commitment to diversity, equity, inclusion and belonging (DEIB) as much as it evaluates you.

Managing bias in appraisals and interviews :

- Use diverse recruitment committees, well thought-out and aligned evaluation grids, and standardized tools to ensure fair and equitable evaluations.

- Regularly review the organization's acceptance of to non-traditional candidates to maintain alignment with objectives throughout the hiring process.

- Emphasize a holistic assessment of candidates, focusing on their demonstrated progress, growth potential and alignment with organizational values, rather than on traditional metrics such as years of experience, specific titles, particular technologies or specific types organization.

By putting diversity, equity and inclusion at the heart of the recruitment process, every step becomes an opportunity to build a more innovative, collaborative organizational culture that reflects the richness of human perspectives.

Investing in young professionals

Universities have a tremendous talent pool at their fingertips, yet their graduates dream of working other sectors that may seem more attractive. There are many possible reasons for this: the work culture, uncompetitive salaries, the slow pace of change.

We also need to take into account the barriers that young professionals can face, as they often confronted with imposter syndrom or isolation. They often feel that their full potential is not being realized in the workplace, which increasingly leads to burnout. Retention challenges must be addressed.

Investing in their talent and potential can not only help support and retain young talent, but also create a positive organizational culture that prioritizes innovation and a commitment to excellence. EDUCAUSE President and CEO John O'Brien and EDUCAUSE Program Manager Sophie White join the Young Professionals Advisory Board leadership team to explore how we can INVEST in emerging talent by Including, Nurturing, Valuing, Empowering, Strengthening and Transforming them.

EDUCAUSE's INVEST program[148] promotes approaches aimed at including, nurturing, enhancing and empowering young professionals. It fosters a dynamic organizational culture, focused on excellence and the retention of emerging talent, through collaborative and strategic initiatives.

These initiatives demonstrate the importance adopting inclusive and innovative practices in the higher education and technology sectors. Investing in diversity, inclusion and talent development build, high-performance and resilient professional communities.

Learning Environnements and Student Engagement[149]

Students Engagement and Learning Spaces / Space Matters: Leading Change with Physical and Digital Learning Environments[150]

Deep learning: Active engagement of students in learning environments, whether physical or digital, is crucial to sustainable and meaningful educational progress. An in-depth analysis of the innovations and disruptions of the last 25 years provides a better understanding of how these transformations have helped to improve teaching practices and learning experiences.

By combining deep learning with hindsight on learning environments, it is possible to identify effective strategies in order to maximize the impact of new pedagogical approaches in a variety of contexts.

A retrospective on changes in learning environments reveals how the integration of digital and physical elements can enrich the educational experience, fostering deep and lasting learning.

This presentation discusses the importance of learning environments as vectors of change in universities, focusing on both physical and digital spaces. These spaces must be designed to promote active, inclusive and collaborative learning, while taking account disruptions such as pandemics and AI.

Key recommendations :

- Develop a strategic and inclusive vision for educational spaces.
- Design flexible, integrated spaces that meet the diverse needs of   learners
- Use data to guide the management and optimization of educational infrastructures.

Learning environments, whether physical or digital, play a crucial role in shaping learners' expectations and behaviors. These spaces are more than just places to study; they also convey educational values that must be aligned with institutions' pedagogical objectives. Thoughtful design of these environments is essential to foster effective learning and engage students in enriching experiences.

The fundamental principles of learning space design are structured around several key areas. First and foremost, it is essential to meet academic challenges by providing appropriate infrastructures. This includes modern screens, ergonomic furniture and optimized acoustic solutions that encourage active interaction with educational content. Secondly, group learning must be facilitated with flexible, multi-purpose spaces that encourage collaboration between students. Furthermore, interactions between teachers and students can be enriched by accessible technologies and modular furniture, creating opportunities for more meaningful exchanges. Finally, spaces need to reflect the unique culture of each campus, while anticipating the future needs of learners and teachers.

Active learning, proven more effective in numerous studies, requires environments that foster engagement and collaboration. Practical examples include flexible rooms capable of adapting to various configurations, active

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148 https://events.EDUCAUSE.edu/annual-conference/2024/agenda/why-you-should-invest-in-young-professionals

149 Beyond the following lines, the reader is invited to refer to the *Learning Environments* article in this report

150 Adam Finkelstein, McGill University: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/space-matters-leading-change-with-physical-and-digital-learning-environments

laboratories that incorporate modern equipment, and increased use of digital technologies. These spaces support learner-centered pedagogies and stimulate active participation in educational processes.

Leadership is a key factor in initiating and managing these transformations. It is essential to adopt a collaborative vision and strategic planning that includes all stakeholders. Decisions must be based on sound educational principles, while taking diversity and inclusion into account. In addition, sustainable support, based on reliable data, is essential to ensure the longevity and effectiveness of the initiatives put in place.

Les Recent developments, most notably the COVID-19 pandemic, have accelerated the adoption of hybrid models such as HyFlex, which combines face-to-face and virtual learning . These approaches offer greater flexibility while increasing accessibility for a larger number learners. At the same time, the emergence of artificial intelligence (AI) education is opening up new perspectives for rethinking practices such as assessment, while posing ethical and organizational challenges.

Efficient management of learning spaces depends on an optimized use of data. Institutions need to analyze capacities, functionalities and costs to ensure an efficient allocation of resources. This transition involves moving from siloed systems to integrated, collaborative infrastructure management.

Best practice examples demonstrate the positive impact of innovation in space design. These include the creation of hybrid classrooms equipped for face-to-face and virtual learning, digital teaching laboratories for interactive experimentation, and collaborative spaces that support high-impact educational practices.

In conclusion, deep reflection on learning, supported by collaborative approaches and strategic planning, is essential to meet the evolving needs of learners and teachers in a world of constant transformation.

The future AI in higher education: disruptive innovation / *CIO Community Group Meeting*[151]

Artificial Intelligence has ushered in an era of upheaval that could rival the transformations brought about by the industrial revolution. Its impact could transform teaching methods, student learning experiences and administrative processes, redefining the traditional model of university education.

Higher education can adapt and use generative AI, as a complement to human judgment, across the entire academic enterprise, whether to shape curricula, transform core operations or perform administrative tasks more efficiently.
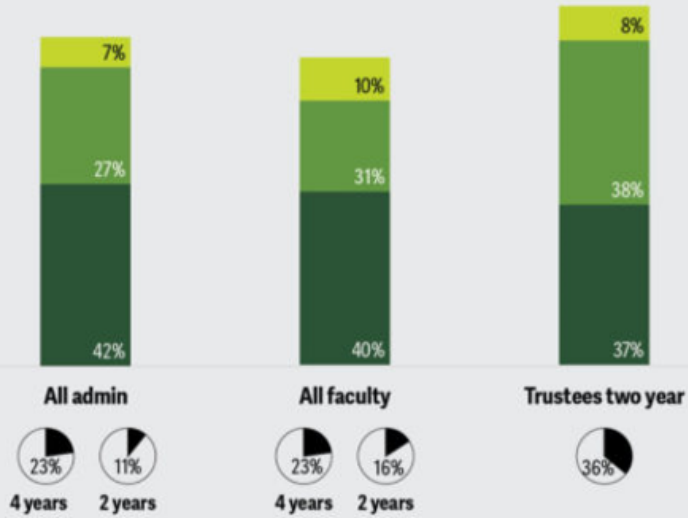
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[151] Cole Clark, managing director for Higher Education, and Megan Cluver, principal, both of Deloitte Consulting: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/cio-community-group-meeting

Although most faculty, administrators, and trustees expect AI to impact higher education in the next five years, very few believe their institution is ready for this shift

● A massive amount of change   ● Considerable change   ● A moderate amount of change

How much will AI tools change your institution over the next five years?

	All admin	All faculty	Trustees two year
A massive amount of change	7%	10%	8%
Considerable change	27%	31%	38%
A moderate amount of change	42%	40%	37%

Respondents who agreed that their institution is prepared for AI–related changes

All admin: 23% (4 years), 11% (2 years)
All faculty: 23% (4 years), 16% (2 years)
Trustees two year: 36%

Source: Cengage and Bay View Analytics, *2023-2024 Digital Learning Pulse Survey*, February 6, 2024.

Deloitte. | deloitte.com/us/en/insights/research-centers/center-for-government-insights.html

Leaders who are at the forefront of AI integration consider the impacts from three distinct angles :

- Curriculum evolution : As academic programs evolve, universities should consider how to prepare students to collaborate with AI, leveraging its strengths while critically assessing the relevance of its applications. This transition underscores the need for higher education to cultivate fundamental human skills, such as critical thinking, creative problem-solving and communication, which will be essential to complement the tasks performed by AI.

- Improved core operations : Integrating AI into core operations, such as teaching, learning and community service, will enable academic and administrative staff to strengthen their human interventions, offering students highly personalized and accessible assistance. AI will also enable the delivery of lessons and materials tailored to individual learning styles, responding to each student's unique needs and preferences.

- Simplifying routine tasks : By using AI to perform everyday tasks, institutions can reduce costs and increase efficiency. Rule-based and repetitive activities and processes are ideal for assistance from AI, enabling staff to devote more time to creative, specialized and personal tasks that positively impact the institution.

Effective governance will be crucial for the integration and management of generative AI. Robust governance structures are needed to ensure data integrity, guide AI development and deployment, and monitor risks.

Emphasis should be placed on the importance of ethical and transparent implementation.

Organizational Transformation

Two examples of organizational transformation

Several presentations dealt with significant reorganization issues, taking into account the impact on diversity, equity, inclusion and belonging (DEIB). Some universities combine central and distributed IT groups to better respond to strategic, cultural and political challenges.

The poster below from Miami University[152] highlights the importance of a collaborative approach, well-managed digital transformation and the right leadership to meet the demands of the constantly evolving educational landscape. It highlights the importance of unifying IT efforts in higher education to build more successful, resilient and inclusive institutions. By combining solid strategic frameworks, collaborative leadership and people-centered approaches, it becomes possible to transform today's challenges into opportunities for the educational future.
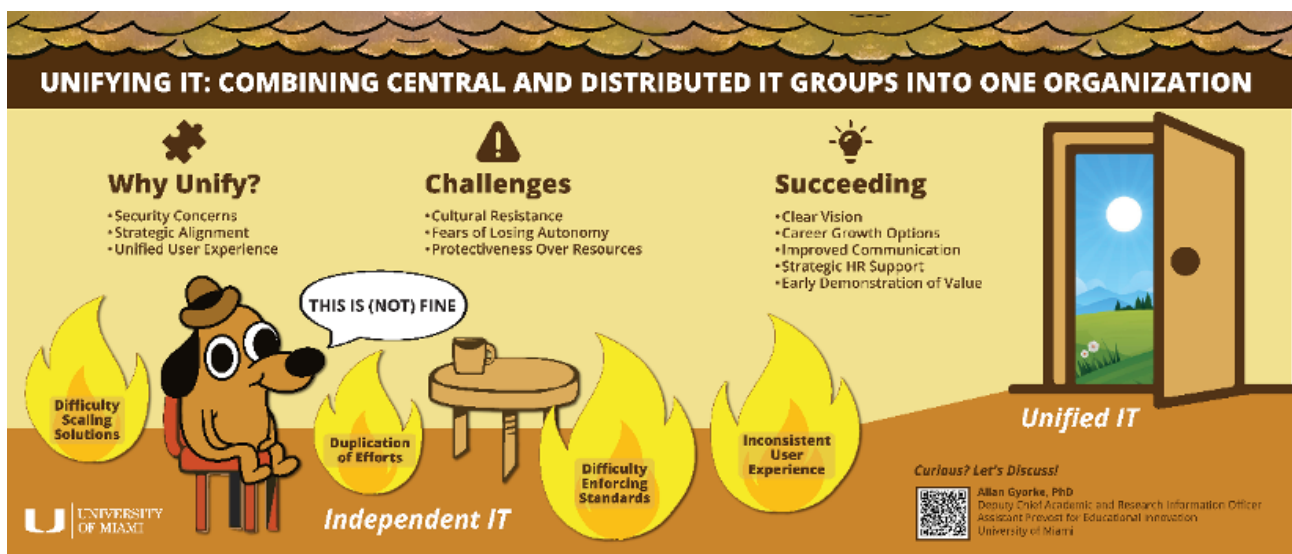
Another poster from New York University(NYU)[153] also presents an alternative IT operational model. This model aims to improve collaboration between distributed IT units, align IT services with the university's strategic needs, and reinforce accountability in management.

IT services at NYU are historically distributed between schools and units, their size depending on resources and the scale of the parent unit.

Two existing collaborative structures:

- UCIO Council : Monthly meetings focused on operational and strategic issues.
- Torch Tech : Open discussion forum for solving problems and sharing resources.

Gaps:

- Lack of a centralized governance structure, leading to a proliferation of products and services.
- Lack of clarity on roles and responsibilities between centralized and local management.
- No clearly defined expectations for business units in their IT service management.

Key recommendations:

- Reinforce the integration of IT services to avoid fragmentation and efficiency.
- Establish clear governance to align IT initiatives with the university's strategic objectives.
- Guarantee the transparency and accountability of IT units in their management of technology services.

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[152] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/unifying-it-combining-central-and-distributed-it-groups-into-one-organization

[153] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/federated-it-aligning-it-service-providers-across-campus-through-an-it-operating-model-1

NYU's federated IT operating model offers a structured approach to harmonizing IT efforts across the campus. By strengthening collaboration, accountability and consistency, this model improves the user experience while aligning IT initiatives with institutional priorities.

With different operational contexts, the two initiatives share a common vision of a more aligned, collaborative and strategically integrated IT within complex institutions.

Change management / *Building an effective change management culture*[154]

Texas A&M University highlighted the application of Prosci methodology to orchestrate system-wide and campus-wide change. The Prosci methodology is a structured, human-centered approach to managing organizational change. It is based on the ADKAR model, which details the steps required to help people adopt and internalize change:

> **A**wareness: Recognizing the need for change.
>
> **D**esire: To want to participate in and support change.
>
> **K**nowledge: Knowing how to change.
>
> **A**bility: Implementing change.
>
> **R**einforcement: Maintaining change over time.

The Prosci methodology is based on a structured approach to supporting organizations in their transformation processes. It is broken down into three key phases: preparation, management and reinforcement of change.

- Preparing for change. The first step is to define a clear change management strategy, tailored to the organization's specific needs. This includes a thorough assessment of the organization's capacity to absorb and integrate the planned transformations. It is also essential to identify key stakeholders and set measurable objectives, to ensure effective mobilization around the project.

- Managing change. Once the strategy has been defined, the change management phase focuses on developing specific plans to support employees in their transition. These plans include a communication plan, a training plan and a plan for managing potential resistance. These tools allow for the alignment of the actions required at each stage of the transformation, while guaranteeing constant support for the individuals impacted by the changes.

- Reinforcing change. The final phase aims to consolidate the achievements of the transformation. This involves evaluating the results achieved and the benefits generated as well as identifying and correcting any shortcomings. Finally, it is crucial to firmly embed new practices within the organizational culture to ensure their sustainability and long-term effectiveness.

Key points to remember:

- Adaptation to the academic context: Texas A&M University has demonstrated the flexibility of the Prosci methodology by adapting it to the specificities of higher education, while maintaining its fundamental principles.

- Leadership at all levels: Successful change requires the active, ongoing support of executives, middle managers and employees. The involvement of these different players is a decisive factor in overcoming obstacles and buy-in.

- Ongoing communication: Transparent, regular communication with all stakeholders is essential to minimize resistance and maintain positive momentum.

- Training and skills development: Investing in targeted training programs builds confidence and skills, equipping individuals to successfully navigate the challenges of change.

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[154] Prosci, ATM: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/building-an-effective-change-management-culture

Jisc is a UK not-for-profit organization specializing in technology and digital support for the UK's education and research sectors.

The framework it proposes has been adopted and recognized internationally, influencing digital strategies in countries such as France, Vietnam and Finland. It aims to :

• Provide a strategic vision to guide digital transformation in institutions.

• Facilitate dialogue and collaboration between stakeholders.

• Propose solutions adapted to the specific challenges faced by higher education establishments.

The Digital Transformation Framework aims to provide a methodological framework for universities to effectively navigate the challenges of the digital age. By assessing their level of digital maturity, institutions can identify areas for improvement and design action plans tailored to their strategic priorities. These initiatives must be concrete, measurable and aligned with institutional needs, while taking into account the evolving requirements of the educational landscape.

The success of this transformation hinges on a number of key elements. Strong digital leadership is essential to guide efforts and ensure consistent adoption of new technologies. Processes and systems must be seamlessly integrated to avoid inefficiencies or redundancies, while particular attention must be paid to the inclusion of all stakeholders. Furthermore, sustainability must be at the heart of decision- making, ensuring a balanced approach between innovation and responsible resource management.

Digital transformation is not an end goal, but an ongoing process requiring constant adaptation. Institutions need to align their digital initiatives with their strategic objectives, drawing on common frameworks such as Jisc. These models establish a shared language between stakeholders, and facilitate the planning of necessary improvements.

To maximize the impact of transformation and minimize risks, it is crucial that digital activities are integrated into the overall organizational strategy. Each initiative must demonstrate its contribution to corporate objectives. Transformation frameworks offer an effective means of identifying specific needs, enabling establishments to focus their efforts on the most relevant priorities. In addition, the commitment of stakeholders at all levels fosters the inter-institutional collaboration essential to success.

Decisions must be based on reliable data, allowing progress to be measured and strategies adjusted . Building digital skills is also a central pillar of transformation: training students and staff in the use of new technologies ensures successful adoption. In addition, institutions must remain open to opportunities for change at different scales, while maintaining a balance between their limited resources and their strategic priorities. Finally, it is essential to regularly review and update the digital strategy to meet emerging needs and incorporate the latest innovations.

Success stories demonstrate the effectiveness of this framework. The Universities of Manchester, Exeter and Greenwich, for example, have aligned their digital initiatives with their strategic priorities, resulting in improved processes, financial savings and stronger digital skills in their communities.

Networking and collaborative learning also play a fundamental role in this process. Action Learning Sets (ALS), collaborative groups between institutions, facilitate the sharing experience and ideas, thereby strengthening professional relationships and organizational trust. These interactions provide a space for developping innovative and sustainable solutions.

Jisc highlights the essential foundations for supporting universities in their digital transition, emphasizing the importance a strategic, inclusive and evolutionary approach.
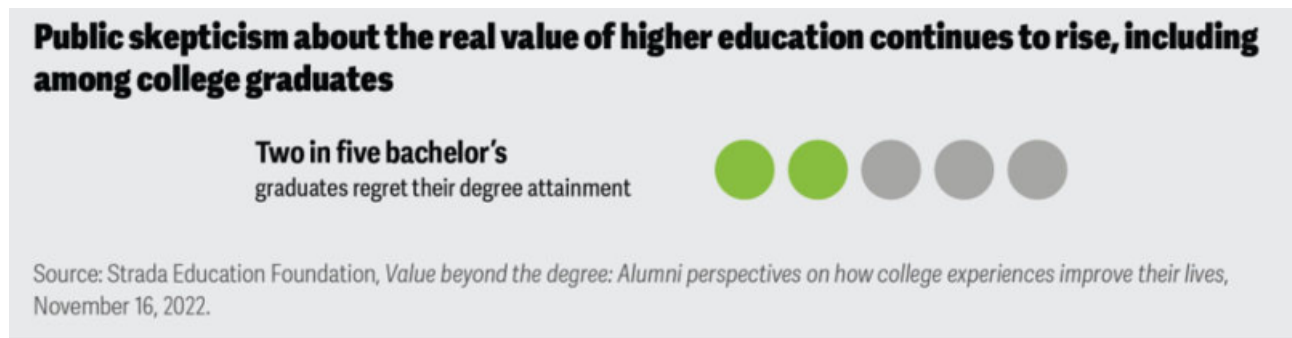
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[155] Liam Earney and Elizabeth Newall, JISC: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/navigating-digital-transformation-approaches-to-assessing-digital-maturity-in-higher-education

Key recommendations :

- Integrate digital initiatives into overall corporate strategy.
- Use tools like the Jisc framework to guide digital transformations.
- Actively engage stakeholders to ensure successful adoption and impact.

Challenges and Opportunities in Higher Education

The age of results: formulating a convincing proposal based on data / *CIO Community Group Meeting*[156]

Public skepticism about the real value of higher education continues to rise, including among college graduates

Two in five bachelor's
graduates regret their degree attainment

Source: Strada Education Foundation, *Value beyond the degree: Alumni perspectives on how college experiences improve their lives*, November 16, 2022.

Colleges and universities, once seen as engines of social mobility, are increasingly seen as vehicles for maintaining inequality, reflecting a decline in public confidence and posing a challenge for university leaders: to amplify the value of higher education and better meet the needs and expectations of students, families, employers and public officials.

What can be done to improve this situation ?

- Identify indicators focused on results and appreciated by stakeholders.
- Work with state legislatures to improve cost transparency.
- Aligning educational offering of the needs of the job market.
- Communicate successes, impacts and return on investment (ROI).

As an example, the North Carolina General Assembly asked the University of North Carolina system to study the return on investment (ROI) of its educational offerings for its graduates. This study, published in November 2023, revealed that 94% of the system's undergraduate programs and 91% of its graduate generated programs generated a return on investment for students. Publicly accessible dashboards offered by the system present ROI for students and for institutions according to the program.

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[156] Cole Clark, managing director for Higher Education, and Megan Cluver, principal, both of Deloitte Consulting: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/cio-community-group-meeting

Building strategic partnerships: empowering CDOs and CIOs to foster a data-informed culture on campus. In the ever-changing landscape of higher education, the roles of Chief Data Officers (CDOs) and Chief Information Officers (CIOs) have become essential to foster institutional resilience and promote a data- informed culture. This means forging strategic partnerships between CDOs and CIOs to break down functional silos, and leveraging data governance to improve decision-making and support student success in higher education.

In fact, this data is included in the first four questions of the EDUCAUSE Top 10, which aim to restore confidence in higher education[157] :

- The Data-Empowered Institution
- Administrative Simplification
- Smoothing the Student Journey
- A Matter of Trust.

At the academic heart: The growing influence and risks of public-private partnerships / *CIO Community Group Meeting*[158]

Public-private partnerships (PPPs) have revolutionized higher education, transforming the way institutions operate, innovate and create value. However, public-private partnerships also entail risks that require rigorous regulation and management, particularly when they affect the core mission of education.

These risks are mainly concentrated in three critical areas :

- Financial implications. Outsourcing or co-sourcing via PPPs can generate income and savings. However, these benefits are not always realized due to factors such as market fluctuations, cost variations, disadvantageous contractual terms or regulatory changes. Complex coordination between public and private entities can also lead to increased administrative costs, potentially offsetting anticipated savings.
  In addition, frequent changes in the leadership of higher education institutions can add an extra layer of complexity, bringing new priorities that may not align with existing contracts. These leadership transitions require a delicate balance between respecting existing commitments and orienting the organization towards new goals, a task that becomes even more complex when contracts affect day-to-day operations and strategic objectives.

- Reputational risk. If a public-private partnership fails to deliver a crucial service, it can cause major disruptions that affect students, teaching staff and institution as a whole. These disruptions can widely vary widely, from problems with e-learning platforms to malfunctions in campus services provided by the partners.
  There is also a risk of regulatory non-compliance if the partnership does not comply with applicable laws and standards. Any deviation from these standards can have serious consequences, including legal sanctions and loss of reputation. An educational institution's reputation is one of its most valuable assets, and any loss of trust among students, faculty and the wider community can be detrimental to its future growth and success.

- Quality education. Any failure by a private provider involved in the delivery of academic programs can compromise the institution's accreditation status, resulting in reduced student enrolment and ineligibility for federal financial aid. Institutions must ensure that their public-private partnerships meet the standards set by their accrediting bodies.

[157] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/building-strategic-partnerships-empowering-the-cdo-and-cio-to-foster-data-culture-on-campus

[158] Cole Clark, managing director for Higher Education, and Megan Cluver, principal, both of Deloitte Consulting: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/cio-community-group-meeting

Control and Safety

Digital accessibility and compliance / *Accessibility Passport: a Digital Accessibility Movement. Your Friends across the Pond need you !*[159]

In 2024, the Department of Justice issued new regulations for Title II of the Americans with Disabilities Act (ADA) technological and digital accessibility. These new rules apply to all public institutions of higher education. Most institutions will have less than two years to comply with the new regulations. These rules apply all course content, websites and applications, mobile apps, etc. For some campuses, following these new rules might seem like a continuation of ongoing accessibility efforts, with increased compliance challenges. For many institutions, especially those that have not invested in an accessibility, the coming years will require an amplified focus and effort.

- Background and objectives. The Accessibility Passport is an ambitious initiative designed to harmonize and simplify the creation of accessible digital experiences, while encouraging greater collaboration between players in the sector. Launched by accessibility experts, this initiative calls for a collective mobilization to improve digital accessibility and overcome remaining obstacles.

- Its main objectives are clear: to reduce the costs associated with developing accessible experiences, to avoid duplication of effort, and to promote best practice in accessibility. In addition, it aims to strengthen global coordination, paying particular attention to the procurement process as a strategic starting point.

- Call to Action: Towards a Common Contract. To make this vision a reality, the initiative proposes a standardized contract that sets out precise requirements for suppliers. Suppliers must guarantee strict compliance with WCAG (Web Content Accessibility Guidelines) standards and accessibility regulations. If full compliance is not immediately achievable, suppliers are required to provide a detailed roadmap specifying the steps needed to close the gaps.

- Accessibility applies to all aspects of services, from public interfaces to internal team tools and administrative platforms. Suppliers bear the full cost of compliance, and there are penalties for non- compliance. In particular, any delay of more than 20 working days after notification will result in service credits being allocated to the institution concerned for each day of non-compliance.

- Collaboration proposal. Several tools are available to encourage active participation by stakeholders. The standardized contract can be downloaded from the official website (makethingsaccessible.com/ap), and a dedicated mailing list is accessible[160].

Roadmap: Identified priorities. The movement is based on a structured roadmap, highlighting key priorities:

- Standardization of procurement guidelines and models to include accessibility from the earliest stages.

- Improving accessibility assurances by integrating them into procurement frameworks and processes.

- The development of self-assessment tools, in the form of practical kits, help institutions prioritize and assess their level of accessibility.

- The creation of a collaborative network that encourages the sharing of resources and the development of partnerships.

- Support for research and innovation, with a particular focus on assistive technologies and innovative methodologies.

- The introduction of a compliance label to recognize and promote accessible organizations.

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[159] Gareth Davies, Senior Relationship Manager, Royal National Institute of Blind people (RNIB). David Goddard, Digital Student Experience Product Owner, University College London. Ben Watson, Digital Accessibility, University College London: https://events.EDUCAUSE.edu/annual-conference/2024/agenda/accessibility-passport-a-digital-accessibility-movement-your-friends-across-the-pond-need-you

[160] accessibility-passport@jiscmail.ac.uk

The Accessibility Passport is part of a process aimed at transforming digital accessibility into a universal and essential standard. Based on global collaboration, this initiative aims to build a more inclusive digital ecosystem, guaranteeing everyone a respectful and adapted experience. Institutions, suppliers and end-users are called upon to join this movement and contribute to a positive and sustainable transformation.

Federal policies and impact on education

In addition to new regulations on digital accessibility, higher education institutions are now subject to strict federal regulations on reporting cyber incidents.

In 2022, legislation was passed requiring owners and operators critical infrastructure, including academic institutions, to report any "substantial" cybersecurity incident to the Cybersecurity and Infrastructure Security Agency (CISA) within 72 hours. In addition, any payments made following a ransomware attack must be reported within 24 hours[161].

In July 2023, the Securities and Exchange Commission (SEC) strengthened these requirements for traded companies, including certain public colleges and universities. These entities must now publicly disclose any cyber incident deemed material within four business days. This rule is intended to increase transparency to investors and the public, although some organizations fear that this will further expose them to cyberthreats[162].

These measures aim to strengthen national cybersecurity by ensuring rapid and transparent reporting of incidents, enabling a coordinated and effective response to emerging threats.

Succession and Leadership in Information Security

If the Chief Information Security Officer (CISO) - or any member of security team - decides to leave the institution, this creates challenges for maintaining stability and leadership. A focus on succession planning for CISO[163] and other leaders higher education is crucial to support institutional growth, and innovation, and to ensure seamless continuity in information security leadership within higher education.

Conclusion

Leadership in higher education and technology is at a crossroads where complex challenges and opportunities intertwine. Faced with pressing issues such as the integration of new technologies, the adoption of inclusive practices, and the transformation of learning , leaders must reinvent themselves to meet the expectations of a rapidly changing society.

From the perspectives explored, it is clear that the key to success lies in visionary, authentic and inclusive leadership, capable of promoting innovation innovation while adhering to ethical and strategic principles. Whether investing in emerging talent, maximizing the impact of educational environments or rethinking organizational structures, each initiative plays a vital role in building a sustainable, high-performance culture.

Ultimately, the future of leadership lies in its ability to seamlessly align strategic goals with the needs of individuals and communities, providing a model that both inspires and transforms higher education for generations to come.

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[161] https://www.developpez.net/forums/i2128750/systemes/securite/nouvelle-loi-americaine-cyberattaques-doivent-etre-signalees-72-heures/?utm_source=chatgpt.com

[162] https://siecledigital.fr/2023/07/28/la-sec-durcit-lencadrement-des-declaration-de-cyberincidents/?utm_source=chatgpt.com

[163] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/disaster-recovery-ciso-succession-planning

Improving competencies of Teachers in Higher Education to meet the needs of Gen Z

Erica Dumont

Education has never been, and will never be, one size fits all. Historically, learning methods often prioritized rote memorization and uniform curricula, overlooking individual needs. Since the beginning of the 21st century, with the arrival of smartphones and tablets, technology has become an integral part of everyday life, and it has had a significant impact on education. As each new generation arrives in higher education, educators are being confronted by changing learner needs which often vary drastically from their own experiences as learners. Generation Z (Gen Z), born approximately between 1997 and 2012, is the first generation to grow up entirely in the digital age. Due to increased consumption of digital media, they have shorter attention spans[164], and they are more anxious and they are dealing with more mental health struggles than previous generations[165]. Modern pedagogy has had to adapt to these changes, which may be difficult as educators often teach the way they were taught, drawing upon their own experiences as learners. One of the principal challenges in higher education today is how universities and administrators can help their educators update their teaching and technological competences in order to best support Gen Z students.

Discussions of Gen Z at Previous EDUCAUSE Conferences

Before examining the presentations focusing on Gen Z at EDUCAUSE 2024, it is important to note that the characteristics and behaviors of Gen Z have been discussed at previous EDUCAUSE conferences.

- In 2015, Jaime Casap's EDUCAUSE session entitled "The Digitally Native Generation Z Is Going to College: Are You Ready?" emphasized that higher education has been slow to adapt to the digitally connected, student-centric learning models familiar to Gen Z, leaving universities underprepared to attract and retain students[166].

- At EDUCAUSE 2017 in Philadelphia, Pennsylvania, Andrew Yu, Ryan Seilhamer, and Alan Wolf led a breakout session entitled "Keeping Up with Gen Z: A Mobile-Born Generation and What They Expect from You" in which they posited that Gen Z expects universities to engage them through connected, app-driven solutions to enhance communication and meet their digital expectations[167].

- During the 2019 edition of EDUCAUSE, David Stillman and Jonah Stillman's featured session entitled "Make Way for Gen Z" highlighted the difference between Gen Z and Millennials, with a particular focus on Gen

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[164] Mark, G. (2023). Attention Span: A Groundbreaking Way To Restore Balance, Happiness and Productivity. Harlequin.

[165] Haidt, J. (2024). The Anxious Generation: How The Great Rewiring Of Childhood Is Causing An Epidemic Of Mental Illness. Penguin Random House.

[166] https://events.EDUCAUSE.edu/annual-conference/2015/proceedings/the-digitally-native-generation-z-is-going-to-college-are-you-ready

[167] https://events.EDUCAUSE.edu/annual-conference/2017/agenda/keeping-up-with-the-gen-zs-a-mobile-born-generation-and-what-they-expect-from-you

Z in the workforce[168]. They also published a video on the same topic, "A Father-Son Team Offers 4 Tips for Working with Gen Z", in 2020[169].

- In 2023, Renee Robinson and Kate Sierra led a breakout session entitled "How Higher Education Can Prepare GenZ for the Changing World of Work."[170] In their presentation, they described Gen Z as digital natives who are anxious with mental health struggles and who need a sense of belonging.

Gen Z at EDUCAUSE 2024

At EDUCAUSE 2024, the unique demands of teaching Gen Z students were once again a point of consideration. Makhosazana Lunga and Sarah Denham, learning technologists from the University of Tennessee, animated a session at EDUCAUSE 2024 entitled "The Gen Z Effect: Rethinking Pedagogical Practices and Instructional Design Approaches."[171] They also focused on Gen Z's expectations in their poster entitled, "Educational Evolution: Meeting the Challenge of Gen Z's Expectations in Higher Ed"[172].

Lunga and Denham's session attracted a large number of attendees. During their session, they asked participants for their views on Gen Z learners, and the audience was quick to provide negative characteristics: lazy, entitled, short attention span. However, one audience member suggested that Gen Z is simply the first generation to vocalize what previous generations wish they had asked for, such as more practical learning and an improved focus on mental health.

Post-COVID expectations of Gen Z

The presentation focused primarily on three post-COVID expectations of Gen Z: flexibility, bridging the digital divide, and preparing for the world of work. Technological advancements have made it easier to provide increased flexibility in learning[173], which allows for improved accessibility and equity in education. Allowing for different learning modalities in the same learning environment can however be challenging for educators to manage.

Gen Z is concerned with closing the digital divide in education for similar reasons of accessibility and equity. Lunga and Denham emphasize that today's students are faced with digital inequalities such as not having access to computers and tablets and not having reliable internet access at home. These disparities create "digital minorities" and can negatively affect student success outcomes. "Digital education equity" has become a crucial issue since the COVID-19 pandemic in 2020 forced almost all education online.

Gen Z learners view higher education as a means of preparing them for the professional world, with a strong desire to acquire practical skills that can be directly applied in their future careers. At the same time, Gen Z learners are not as willing to do homework compared to previous generations, often questioning whether such tasks offer genuine value or are merely busywork. Furthermore, Gen Z learners advocate for a shift away from the traditional lecture model, characterized by a "sage on the stage," in favor of a more interactive approach that emphasizes active learning and hands-on experiences.

Pedagogical and Instructional Design Recommendations

In order to better accommodate these expectations, the presenters offered some pedagogical and instructional design recommendations. Among their pedagogical suggestions was the importance of fostering a sense of community within the classroom, achieved through the integration of peer discussions and collaborative learning

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[168] https://events.EDUCAUSE.edu/annual-conference/2019/agenda/make-way-for-gen-z

[169] https://er.EDUCAUSE.edu/multimedia/2020/2/a-father-son-team-offers-4-tips-for-working-with-gen-z

[170] https://new.express.adobe.com/webpage/TGnjXB6Mf87xi

[171] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/the-gen-z-effect-rethinking-pedagogical-practices-and-instructional-design-approaches

[172] https://events.EDUCAUSE.edu/annual-conference/2024/agenda/educational-evolution-meeting-the-challenge-of-gen-zs-expectations-in-higher-ed-1 / https://files.abstractsonline.com/CTRL/F6/3/2CC/485/E12/42D/C94/681/B86/C7B/08B/71/a1678_1.pdf

[173] See the HyFlex related articles of this and previous editions of this report

groups into the curriculum. They also highlighted teaching strategies such as scaffolding and offering second chances to allow students to learn from their mistakes. Additionally, Lunga and Denham advocated for the incorporation of active learning techniques and the use of relatable materials to underscore the value of class attendance. Addressing recent developments in generative artificial intelligence (AI), they emphasized the need to enhance students' understanding of its implications by discussing AI responses to prompts, for example.

Building on these pedagogical suggestions, the presenters also offered a range of instructional design approaches to better support Gen Z. Streamlining communication, particularly through Learning Management System (LMS) tools, ensures a centralized platform for sharing information, which benefits all students by fostering clarity and consistency. Developing an online presence is equally critical, as it helps build relationships with students and creates a sense of connection. Embedding videos, such as "how-to" tutorials or assignments infused with humor, can further engage students and make course content more relatable. Additionally, utilizing LMS analytics allows instructors to monitor students' performance effectively, enabling them to identify areas where students may need additional support and tailor their guidance accordingly. Together, these strategies create a learning environment that better addresses the expectations of Gen Z learners.

Practical Strategies and Resources

The presentation concluded with Lunga and Denham sharing a few practical strategies and resources in order to implement the aforementioned suggestions. They proposed using a course map, a visual representation of the course structure, to align activities and assessments with learning objectives which ensures coherence and clarity throughout the learning process.

Additionally, they advocated for backward course design, which begins by identifying course goals and working backward to develop activities and assessments that align with those objectives. This approach encourages a more intentional and purposeful design of the course, ultimately leading to more effective learning outcomes.

Backward Course Design Model

What must students be able to think and do to successfully complete the assessment?

What do students need to complete the Student Learning Outcomes?

Course Goals — Final Assessment — Learning Outcomes — Lecture, Class Activities, Readings, Homework

Learning Outcomes — Lecture, Class Activities, Readings, Homework

Learning Outcomes — Lecture, Class Activities, Readings, Homework

Learning Outcomes — Lecture, Class Activities, Readings, Homework

How will my students be different?

How will I know they have changed?

https://citl.indiana.edu/teaching-resources/course-design/backward-course-design/index.html

This diagram is redrawn. It is licensed under CC BY-SA 4.0 by the Indiana University Course Development Institute (Kurz, L., Metzler, E., & Rehrey, G.)

THE UNIVERSITY OF TENNESSEE KNOXVILLE

The key takeaway from Lunga and Denham's presentation is that the expectations of Generation Z regarding higher education differ significantly from those of previous generations. As a result, it is essential for educators to adapt their teaching approaches by incorporating both pedagogical and instructional design strategies to effectively address these evolving needs and foster student success.

Educator and Staff Support - On-Site Visits

Supporting higher ed educators and staff in adapting to the needs and expectations of this digital generation has become an increasingly prominent focus in recent years. Our on-site campus visits to Texas A&M University (TAMU), San Antonio College (SAC), and the University of Texas at San Antonio (UTSA) offered valuable insights into the strategies these institutions are employing to address the evolving expectations of Gen Z learners[174].

Texas A&M University (TAMU)

Texas A&M University has implemented various initiatives to modernize pedagogy and align teaching practices with the evolving needs of contemporary learners. At the university level, the Center for Teaching Excellence[175] provides valuable pedagogical support for educators at Texas A&M University. However, its broad focus limits its applicability to specific disciplines. Within the Zachry Engineering Education Complex at TAMU, the Engineering Studio for Advanced Instruction & Learning (eSAIL)[176] addresses this gap through its Active Learning in Engineering Program (ALEP), which is specifically designed to meet the needs of engineering education.

In response to the evolving demands of higher education, ALEP has been equipping educators with tools and strategies to enhance student engagement and teaching effectiveness since its inception in 2017. The program's objective is to encourage educators to reconsider and refine their pedagogical approaches for in-person, online, and hybrid teaching formats. Conducted over three full-day workshops throughout the academic year, ALEP invites participants to implement one or two changes in their teaching practices and share the outcomes with their peers in subsequent workshops. While a condensed version of the program, comprising

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[174] For further insights, see the *Student Success* article of this report.

[175] https://cte.tamu.edu/

[176] https://esail.tamu.edu/

two half-day workshops in August, has recently been introduced, program directors have observed that educators gain greater confidence in their teaching methods after completing the full three-day series. To date, 243 educators have graduated from the ALEP program.

During the visit to the Zachry Engineering Education Complex, classrooms featuring advanced technological innovations were highlighted, such as desks with retractable screens, multiple wall-mounted displays, and centralized control systems managed by the instructor. These features demonstrate the potential of technology to support and enhance active learning pedagogy in engineering education.

For more information about our visit to TAMU, see the *On-Site Visits* article of this report.

San Antonio College [Alamo Colleges District] (SAC)

San Antonio College has also established a teacher training program to provide enhanced support for educators in their instructional practices. The Teaching and Learning Center at SAC[177] offers programs including an online teaching certification and an excellence institute for new faculty.

For more information about our visit to SAC, see the *On-Site Visits* article of this report.

University of Texas at San Antonio (UTSA)

The University of Texas at San Antonio's Academic Innovation Center[178] offers comprehensive training programs that integrate both technology and pedagogy, aiming to modernize educational practices. The center provides faculty with resources and support to incorporate digital tools and modern pedagogical strategies into their teaching practices. By promoting collaboration among educators and encouraging the development of innovative teaching methods, the center plays a crucial role in enhancing student engagement and improving learning outcomes. Additionally, it serves as a hub for exploring and implementing emerging technologies in the classroom. To further incentivize faculty participation, the institution offers financial incentives, motivating educators to engage with these initiatives and refine their instructional approaches.

> "Academic Innovation at UTSA brings together experts in teaching, technology, and virtual learning to champion innovative and transformational practices that enhance the academic experience of our students and faculty."

For more information about our visit to UTSA, see the *On-Site Visits* article of this report.

Conclusion

The recommendations presented by Lunga and Denham at EDUCAUSE 2024 regarding the modernization of pedagogy and the integration of technology to address the needs of Gen Z are already being implemented at a wide variety of universities in the United States. On-site visits to higher education institutions in Texas provided valuable insights into established programs and initiatives that align with these evolving expectations, offering educators support through targeted training and innovative technological tools. However, such initiatives do not yet appear to be a priority within the higher education landscape in France, where similar advancements have not yet gained widespread traction. It is recommended that French institutions consider adopting these practices in the future to better align with the evolving needs and expectations of the next generation of learners.

This article was produced with the assistance of the LLM ChatGPT, used to synthesize, analyze and structure the information gathered and the notes produced by the human authors.

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[177] https://www.alamo.edu/sac/academics/teaching-and-learning/

[178] https://provost.utsa.edu/academicinnovation/

AI: a Demanding Tool for optimizing Student Success

Bruno Urbero, PhD

Artificial intelligence (AI) has had a major impact on student success in a very short space of time. For around fifty years, models had been predicting that holistic knowledge of the student would make it possible to predict school drop-out rates and chances of success. Over the decades, huge volumes of data have been collected, but their analysis remained impossible due to a lack of appropriate resources, until the advent of AI.

Four years ago, AI made it possible to validate the relevance of these models and demonstrate the correlation between student commitment and their ability to succeed. This validation marked a decisive turning point, proving that precise data on engagement could be used to predict and improve academic results.

The following year, engagement monitoring and dropout remediation were integrated into educational solutions, which at the time were mainly university-based. These solutions made it possible to monitor student engagement closely and intervene quickly if there were any signs that students were dropping out.

A year later, the model was widely accepted in academic circles, leading to the disappearance of its theoretical presentation in favor of its practical application. Solutions based on this model have become predominantly commercial and have been standardized by many educational software publishers.

In the last year, these solutions have evolved to become proactive, aiming not only to improve the student experience and increase the sense of belonging, but also to optimise the student enrollment and retention processes. AI systems could now anticipate students' needs and propose personalized interventions to maximise their success.

This year, the momentum continues, aligning student expectations with the new possibilities offered by AI. These technological advances are creating new needs and opportunities for all stakeholders: teachers, students and recruiters. Teachers can adapt their teaching methods based on the data provided by AI, students benefit from personalized support, and recruiters can identify promising talent more easily.

Pragmatic and Demanding Students[179]

Generation Z (Gen Z) students are having a significant impact on pedagogical practices and approaches to course design, particularly following the COVID-19 pandemic which was a major trigger. Teachers and educational teams need to adapt their teaching and course design strategies to meet the educational expectations of students, with a focus on flexibility and accessibility of learning, as well as socio-economic challenges and the digital divide.

AI is enabling a rethink of pedagogical practices, and Gen Z is therefore expecting a change in pedagogical design approaches. Students' well-being and expectations concern a practical and targeted educational experience, as well as cost transparency: Gen Z is pragmatic and does not want to finance their studies without tangible results. They want to gain qualifications, not for the qualifications themselves, but to gain access to a

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[179] This chapter discusses matters especially addressed in the session *The Gen Z Effect: Rethinking Pedagogical Practices and Instructional Design Approaches* – Makhosazana Lunga, MS – Sarah Denham, EdS – The University of Tennessee – Knoxville, which the chapter *Improving competencies of Teachers in Higher Education to meet the needs of Gen Z* is also focusing on

job and a salary. Since the pandemic, they are looking for flexibility in their learning, alternating between the virtual and real worlds.

Gen Z is sensitive to issues of accessibility, equity in education and the digital divide (61% have already experienced difficulties accessing their courses for technical reasons). Technology in a flexible learning environment is therefore particularly important for this generation, and it must allow access to information on mobile devices.

Gen Z students prefer online courses and classroom activities. They want to be ready for the job market and are looking for opposable proof of their skills, beyond simple academic success. They are thus looking for practical, applicable education that prepares them for the challenges of the professional world. They want certificates and badges to prove their skills, and they would like to be able to start work even before they graduate.

One major observation is that Gen Z is not prepared to work as much as previous generations. Their work is not their life, and neither are their studies. Students often have jobs and other responsibilities alongside their studies and are looking to reconcile their studies with their personal lives, just as they will do later with their work.

They really want to learn in class, without going beyond what is necessary for their training, as this would be a waste of time and outside their objectives. They take a pragmatic approach, especially if they have jobs, with a desire to develop skills without experimental learning, even in their field, where they apply what they learn in real time.

As AI is an unavoidable trend, its integration into education must be done responsibly. Educational designers must incorporate AI in a way that enhances learning. Flexibility is expected in terms of timetables, deadlines for students and course content. Teachers therefore need to adapt, be flexible and continually redesign courses to meet expectations and make learning enjoyable and interactive for students. They need to give students a reason to come to class, encourage them to interact with each other and offer group work on subjects that give them a reason to be there.

For Faculty: Constantly Evolving Courses[180]

AI and its use in processing previously unmanageable volumes of student events not only makes it possible to validate and implement concepts, but also to develop teaching by highlighting what helps or hinders student success. To work effectively, AI requires a holistic understanding of the student, and the solutions proposed to cover both the administrative and formal aspects of student life, modifying the information system (IS) to prevent drop-out and offer remedies, as well as teaching content and methods.

AI has demonstrated its ability to improve student success by detecting and remedying drop-outs using administrative data in the student information system. In addition, it is now improving course content by providing data that can be used to optimise courses, the resources used and the formats (face-to-face, distance learning, hybrid).

Unizin, a not-for-profit consortium of 15 universities, analyses their data on a pooled basis to process information from a variety of sources and formats, transforming it into data that can be used by the institutions. This involves setting up web applications, dashboards and datamarts (specific databases that meet particular needs).

To respect students' privacy, Unizin has chosen to comply with the strictest legislation by using synthetic data for analysis. These data, although not nominative, remain statistically identical to the initial data without any loss of quality.

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[180] This chapter discusses matters especially addressed in the session *Threading the Needle: Empowering Faculty-Reflective Teaching While Preserving Student Data Privacy* – Heather Maness Assistant Director - Learning Analytics and Assessment University of Florida Information Technology   – Bart Pursel – CEO Unizin

AI makes it easier to understand ever larger volumes of data. In this example involving 15 institutions, 1.8 billion 'student events' were processed. This processing, while preserving students' privacy, makes it possible to create synthetic dashboards to support teachers in their reflective teaching practices and minimise bias.

The data model used has been standardized between these establishments, even if the operating solutions vary (Tableau, Power BI, Looker Studio, etc.). This common base (datamart) makes it possible to consolidate data beyond the capabilities of software such as Canvas, and it enables end users to extract the data to see what has worked and what has not.

With the volume of data constantly increasing, the aim is to simplify dashboards so that information is accessible at a glance. AI enables reflective learning, leading to course redesign: just like IT developments, courses are continually being integrated and deployed to improve the success of subsequent students. This continuous improvement is one of the expectations of generation Z students.

Feedback from students, teachers and assessments, as well as the number and frequency of courses, materials and resources used, are aggregated for processing. Improvements are proposed to increase the success of not only the next generation of students, but also the next training session, thanks to the AI feedback.

Course enrollment, consultation of course material, time between enrollment and consultation, student feedback, activity and resources used for the course are now parameters taken into account as factors in student success.

For students: new skills expected[181]

The omnipresence of artificial intelligence (AI) is having a considerable impact on the development of students. Not only does it guide them through their studies and help them to succeed, it also plays a crucial role in their future employability. During their studies, students benefit from the contributions of AI to their degrees. For their recruitment, their AI skills will be correlated with their employability.

With this in mind, the State Universities of Montana and Texas at San Antonio have added micro-certifications in AI to their curricula. These micro-credentials, based on Adobe's solutions, place particular emphasis on graphic creativity as an AI skill.

AI skills are in demand in all areas of the business: content writer, graphic designer, marketing manager, development and so on. Recruiters expect these skills more than candidates, and they need to be recognized through certification.

Digital skills are beginning to play a significant role in recruitment for all professions. They are essential, and their absence is a barrier to employability. Beyond the skills associated with a professional micro-certification, this demonstrates the employee's or candidate's willingness to acquire new skills, and in the event of retraining or upgrading, this will cost less to implement.

Due to the presence of AI in all professions, the World Economic Forum estimates that 44% of basic skills will change over the next five years. Recruiters are therefore looking for high-potential candidates who are able to evolve, demonstrate curiosity, resilience, flexibility, agility and show a commitment to personal development.

According to the Work Trend Index Annual Report - 2024 Microsoft/LinkedIn, two thirds of recruiters would not hire a candidate without AI skills, and almost three quarters would prefer a less experienced candidate with AI skills to an experienced candidate without AI skills. More generally, the absence of AI skills is now a barrier to recruitment.

Montana State University and UTSA have included micro-certifications (Adobe) in their curricula to make their students more competitive. The skill of creating visual content means that the creator is able to blend visual and

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[181] This chapter discusses matters especially addressed in the session *The Creative Edge: Championing Career Success for College Students in the Age of AI* – Adobe - Carina Beck – Vice Provost of Student Success – Montana State University – Bozeman – Claudia Arcolin – Director of Digital Learning – University of Texas at San Antonio (UTSA)

textual content in a way that is better understood and holds the attention of the target audience. These skills make it possible to think differently about a problem and generate new solutions.

AI qualifications in higher education and research are the most widely recognized and valued in the professional world. From this perspective, student success is seen as their ability to find a job. This is how generation Z students see it. They pursue their studies with the aim of obtaining a degree that will open up tangible, if not certain, employment opportunities.

AI benefits students by contributing to their success, well-being and completion of diploma requirements. It is now clear that AI is an indispensable tool that students need to know how to use.

The Benefits of a Proactive, Hyper-Personalized Portal[182]

CalPolyPomona (California State Polytechnic University, Pomona) highlights the importance of an effective communication strategy to make students aware of the support services available, to use data to improve these services, and to address the challenges of data access and quality. The role of advisers, guidance programmes and gender differences in student engagement are also crucial.

In the student success model, it has been shown that engagement and a sense of belonging can be enhanced by portals that offer a high level of personalization. CalPolyPomona has chosen to invest in the redesign of its most visited sites, enabling each student to access specific, personalized information rather than general information.

One example of the importance of a portal in creating a campus-wide student community is that of Chinese students in the UK. Their low English proficiency and preference for Chinese social platforms, such as WeChat and Little Red Book, rather than WhatsApp and Instagram, increase the likelihood of ethnic clustering.

Students do not always understand the organizational structure and how to access the different departments. They want information specific to their situation, more reminders to stay on track, as well as notifications of enrollment blocks and other important announcements.

A portal with a very high degree of personalization has been proposed, containing all personal information (name, ID number, photo, academic information, passport photo, pronunciation of name, class level, units completed and in progress), the contact of the dedicated education advisor, a personalized display of clubs and events in which the student is enrolled, a display of blocks and tasks to be completed, as well as financial information and support processes.

At the university level, the portal includes dedicated calendars with links to the campus map, important dates and deadlines, upcoming changes, grades, links to services, student feedback on designs and features, and formal surveys for ongoing feedback. The portal takes into account the increase in activity in order to smooth it out, alerting each student so that they can anticipate this workload as well as possible and sending them reminders.

The portal is compatible with all devices used (PCs, smartphones, tablets), is unique for students, staff and teachers, with personalized views for each group, and sends notifications by email and displays them in the dedicated portal.

With this level of customization, CalPolyPomona has succeeded in providing an excellent user experience for its students, with almost unanimous adoption. The university's services can be accessed via a single interface, simplified to the extreme according to the user's data.

Thanks to this tool, which is used by all students for all services, the university has strengthened the sense of belonging and cohesion of the student community, even among first-generation first-year students.

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[182] This chapter discusses matters especially addressed in the session *Turbocharge Student Engagement with Your Student Portal* - Ben Quillian – Deputy CIO & Sr AVP, IT & IP – Jinah Young – Director, Mobile & Web Applications – CalPolyPomona (California State Polytechnic University, Pomona)

The success of this redesign is due to the fact that feedback from students is continually taken into account and implemented in the solution. The portal is seen as a companion to student life, taking care of each student individually and providing proactive follow-up at the right time.

The success of a portal depends on the solutions, attitudes, behavioral practices, infrastructure policies and, of course, the tools that support student learning and success outside the classroom. All of this has been taken into account in the development of CalPolyPomona.

A development and integration management team made up of five to six people during the project, and two people for operational support, made this possible.

The Student Information System: Essential Access to Services[183]

The University of Pittsburgh, in collaboration with its consultants, highlights the importance of an effective communication strategy to raise student awareness of available support services, use data to improve these services, and address challenges related to data access and quality. The impact of the role of counsellors, guidance programmes and gender differences in student engagement is also assessed for access to these services.

A correlation was demonstrated between the number of services used and student retention in their course. Support services (educational advisers, accessibility service, library, tutoring, IT assistance, registration, careers advice, health and care, etc.) are used by 50% of students at best. For those following online courses, these resources are only used by 26% of them, increasing the risk of dropping out despite the large number of resources implemented by the university, but which remain constantly underused.

It is crucial to remind students of the support services available, but sending messages, even repeatedly, does nothing to change this. Student surveys have shown that the channels used by education advisers are not adapted to the needs of students, who expect proactive, personalized communication. This is particularly important for first-year students, where orientation programmes play a key role.

One barrier to the use of AI is insufficient data quality. In addition, only 8% of advisers have easy access to data. Advisers need to be trained to use the systems available, and these systems need to be interconnected for seamless access to information.

Campus showcase events and orientation programmes require significant investment. Some costs are passed on to students, which can be a barrier.

In short, portals that meet students' expectations are highly effective tools for generating commitment, particularly among first-year students and first-time applicants. This is achieved by surveying students throughout the life of the project, both before it is designed and during its development.

Educational advisers need to be trained to access the portal effectively and interact with students. Men are often less committed than women. Student success is built both inside and outside the classroom.

The consultants enabled the University of Pittsburgh to see how little use was made of the resources put in place. It will be interesting to follow this institution in the future to see how and at what pace remedial action will be taken to make better use of services and improve student success. This will also make it possible to assess whether the correction of the bias for distance learning only courses is effective. As it stands, the comparison with institutions that have overhauled their IS with massive recourse to AI highlights the fundamental contributions that AI can make to these systems.

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[183] This chapter discusses matters especially addressed in the session *Driving Learner Re-Enrollment: How to Design for Student Success in and Out of the Classroom* – April Belback – Student Success and Advising – Univ Pittsburgh – Ed Venit – Managing Director EAB – Emma Zone – Sr Director of Academic Affairs – D2L – Cathy Shaw – Tyton Partners

Initiatives to boost a community[184]

The University of Texas at San Antonio (UTSA) has implemented strategic initiatives to foster student success, academic innovation and the student experience. These initiatives are designed to cultivate a sense of belonging, promote a growth mindset and encourage learning attitudes to improve classroom performance and retention through graduation.

These initiatives involve both teachers, most of whom are supportive of the initiatives, and students. They take the form of collaboration between the university's different divisions (pedagogical innovation, student success and integration of technology into teaching), increased connections between students and faculties, as well as between students themselves, mentoring, and online sessions led by students which focus on their expectations. This real-time feedback enables faculties to adjust their courses and enter a cycle of continuous improvement throughout the semester.

Faculty participation brings many benefits, including better collaboration between professors, a deeper understanding of student needs, enrichment of the educational experience and faculty development, and the promotion of a community dedicated to growth and excellence.

New elements are being added to the curriculum to increase student engagement, adapting learning strategies to the needs of the world of work and encouraging students to be active creators.

Particularly strong support is given to first-year students through the introduction of mentorships. Mentors help their peers and get involved in faculty working groups. Student partners observe their mentees (those benefiting from the experience and knowledge of a mentor) and provide feedback. They play an active role in improving courses and the student experience. These mentorships are highly beneficial for the mentors, who gain the trust of their professors and improve their commitment and skills, for the mentees, who benefit from personalized support, and for the university, which sees its student success rate rise.

This mentoring, in addition to the student surveys, provides an additional and effective channel for students to express their wishes and expectations.

A range of teaching methods have been put in place to deliver the courses - asynchronous, hybrid and synchronous - and are available to lecturers.

The results are positive, creating a cohesive university community despite its great diversity: 44% of students are first generation, 43% receive a Pell grant, 65% are from minority backgrounds and almost 4 out of 5 students are employed. The average time to degree is 4.4 years.

The continuous improvement of courses by professors has a positive impact on student retention. It is the commitment of the majority of lecturers that has enabled this dynamic to be constructed. There is still a minority of teachers who are not involved in this initiative. However, the dynamics of the project and the financial incentives should bring them on board.

The initiatives proposed by UTSA demonstrate, if confirmation were needed, the validity of the model that correlates students' well-being and experience, their commitment and their sense of belonging to the success of their studies.

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[184] This chapter discusses matters especially addressed in the session *Designing a Faculty Community of Practice to Enhance the Student Experience* – Amy Buechler-Steubing – Associate Vice Provost for Strategic Initiatives & Learning Innovation – Melissa Vito - Vice Provost for Academic Innovation – Marcela Ramirez - Associate Vice Provost for Teaching & Digital Transformation – Tammy Wyatt - Senior Vice Provost for Student Success - University of Texas at San Antonio (UTSA)

IT, an Invisible Player in Student Success[185]

Information Technology (IT) services play a crucial role behind the scenes to ensure an optimal user experience. At UNLV, they contribute to this experience by implementing business processes, infrastructure and IT services for the campus community. They leverage their unique knowledge and expertise to drive improvements across the institution.

As with all IT services, there is always more work than time available. That is why it is essential to involve them in the choice of solutions deployed, to avoid home-made systems that may become obsolete after an upgrade, and to train and prepare users to use the new tools, in order to improve the user experience.

For students, IT services facilitate their success by putting in place the necessary infrastructures, which must function seamlessly for all their interactions. For this to work, IT departments need to understand all the businesses with which students interact, and provide integrated solutions. They must put themselves at the service of the students' education, and not see themselves as the most important thing in the school, even if their back-office operation is indispensable.

The presence of students on the development teams means that business needs and student expectations are better understood.

During the unexpected pandemic for which everyone was unprepared, IT departments came up with solutions to keep community life alive by moving online. This created new habits, which were seized upon by Generation Z, and individually changed the lives of students on campus.

Conclusion

The impact of artificial intelligence (AI) on student success is both major and lasting. The analysis of holistic data on all students has enabled many significant advances. The data model of student success has been validated, creating a virtuous circle of reciprocal benefits between the student and his or her institution. This model is now accepted and no longer the subject of debate or presentation. Commitment and a sense of belonging are closely associated with student success, while low activity on teaching tools or presence on the university network is often linked to dropping out.

All the data processed by AI also enables further optimizations of student success. After analyzing all the formal data, such as use of learning management systems, student interactions, academic results, etc., and making significant improvements, AI proposes substantive solutions. It suggests teaching evolution by measuring the correlation with success and engaging teachers in a process of continuous evolution of their courses. This includes adjustments to content, resources and teaching formats (face-to-face, distance learning, hybrid).

These new advances are not without consequences for students. They have specific expectations regarding their workload and the ability of their diploma to lead to employment. They want the teaching they receive to be relevant and adapted to the demands of the job market. In addition, they need to develop new AI skills, which are already in high demand by employers and will become essential in the near future.

AI also makes it possible to personalize students' educational experience. For example, it can identify areas where a student is struggling and suggest additional resources or targeted interventions to help them overcome these obstacles. It can also recommend personalized learning paths based on each student's interests and goals, thereby increasing their engagement and motivation.

AI also facilitates communication between students and teachers. It can automate the sending of reminders for important deadlines, provide instant feedback on submitted work, and even organize online tutoring sessions.

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[185] This chapter discusses matters especially addressed in the session *Back of House: How IT Sets the Stage for Student Success* – Kivanc Oner – Vice President for Digital Transformation & CIO - Bob Soulliere – AVP for Digital Services & Solutions – Carrie Trentham - AVP for Digital Enablement – UNVL Information Technology (University of Nevada, Las Vegas)

These features help create a more interactive and responsive learning environment, where students feel supported and encouraged.

Finally, AI plays a crucial role in the administrative management of educational institutions. It helps optimize registration, course planning and resource management processes, enabling institutions to operate more efficiently and focus more on improving the student experience.

In short, AI is profoundly transforming the educational landscape by improving student success, personalizing learning, facilitating communication and optimizing administrative management. Students need to adapt to these changes by developing new AI skills, which will be essential for their future careers.

Hey students! Want to up your success game? We got you covered

Bertrand Mocquet, PhD

Introduction

In an article from 2023, from the same French delegation at the EDUCAUSE annual conference, entitled "AI and student success: an ubiquitous presence" (p.89-96), Bruno Urbero testified to the emergence of AI in student success systems through the testimonials he collected. Beyond the arrival of AI technologies, he highlighted the importance of a holistic understanding of the student (with AI contributing to this better understanding through the processing of collected data), the creation of a student-centric ecosystem, the improvement of data (respecting confidentiality and consolidating their collection) and the involvement of students in the development of digital devices or solutions associated with everyday situations encountered by students.

It is on this last point, student involvement, particularly in co-design, that we have joined forces to bring a fresh perspective, in order in this article to identify and discuss, in a second phase, the different forms of student involvement.

Involvement and co-design context in the USA

By involvement, we are thinking like Alexander W. Astin[186] of an active term for students, containing the following verb forms: attach oneself to, commit oneself to, devote oneself to, engage in, go in for, incline toward, join in, partake of, participate in, plunge into, show enthusiasm for, tackle, take a fancy to, take an interest in, take on, take part in, take to, take up or undertake. In the United States, the integration of students in the co-design of digital educational devices is a trend that is becoming increasingly established, particularly under the influence of user-centered approaches and collaborative design methodologies. Contrary to what is often observed in France, American students are more frequently seen as active partners in the development of digital solutions: some might say "obviously, they are customers", but is that the only valid reason?

And not only that. Many American universities are adopting design thinking methodologies (a creative approach to understanding and solving complex problems in an empathetic and collaborative way) where stakeholders, including students, are involved from the earliest stages of developing educational tools and resources. This approach recognizes the importance of the student perspective in creating solutions that truly meet their needs.

Initiatives such as those of the EDUCAUSE Learning Initiative (ELI)[187], an EDUCAUSE program that focuses on innovation in digital learning, and encourages institutions to include students in the design process. ELI

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[186] Astin, A. W. (1998). Student involvement: *A developmental theory for higher education*. In College student development and academic life (pp. 251-262). Routledge.

[187] Recently renamed Teaching and Learning Program: https://www.EDUCAUSE.edu/focus-areas-and-initiatives/teaching-and-learning-program/initiatives/id2id/explore-eli

advocates the creation of learning environments where students are both users and co-creators of educational resources.

In addition, each year EDUCAUSE publishes a forward-looking report on student life, and the 2024 report dealt with "Teaching and Learning: Supporting Mental Health". The focus is on using technology to support student engagement and enhance their overall experience. The document thus explores how technology can foster a sense of belonging and connection within the university community.

Figure 1 : Mental Health and Wellness in the Horizon Report EDUCAUSE

The subject of student engagement is addressed. It emerges that students :

- want advisors to be more aware of individual needs, diverse backgrounds and identities, and challenges,
- find that advisors are overworked,
- want communication in an accessible language,
- from racial minorities and affected by poverty define good advising as an advisor's ability to understand their holistic situations and interests, guide them in their academic journeys, and help them eliminate academic and non-academic barriers.

In practice, in this American context, how are students solicited to get involved? through focus groups? surveys? collaborative projects? or hackathons? when improving the user interfaces of digital platforms? or when optimizing the services offered by universities?

This article examines initiatives presented at workshops and conferences focused on the student experience. We will explore how participatory approaches, such as co-design, could transform students' relationship with digital devices. The aim is twofold: to improve student satisfaction and to optimize the effectiveness of digital services offered by universities, by fully integrating students as actors of change rather than mere users.

The place of student involvement in this edition of the conference

On EDUCAUSE commons

Among the 371 exhibitors, we have identified a dozen companies whose communications are built around student success. Far from being an exhaustive list, they offer a glimpse into the use cases seen by EdTech companies:

- Anthology (Blackboard) – Known for solutions focused on student success and educational data.
- Civitas Learning Inc. – Specializes in data analysis to improve student results.
- Instructure (Canvas LMS) – Online learning platform with a focus on student success and engagement.
- Ellucian – Provides solutions for student experience and success.
- Education Advisory Board – Provides tools for recruiting and optimizing student engagement and success.
- Pathify – Platform that centralizes student resources to improve student success.
- Pearson – Offers e-textbooks and digital educational and support tools for students.
- Honorlock – Provides online exam proctoring solutions, supporting academic integrity and success.
- FeedbackFruits – Focuses on actively engaging students in their learning.
- HelioCampus – Specializes in data analytics to guide institutional decisions in support of student success.

In the communications

Every year, EDUCAUSE offers a range of trendy topics and tracks. This year, there were seven themes, "Cybersecurity, privacy and risk management", "Enterprise, strategy, data, infrastructure and support", "The future of work", "Innovations and emerging technologies", "Management" "Teaching and learning" and "Student experiences". We are interested in this last trend.

Studying the program in advance of our trip, we found that this last field concerns 43 of the 591 presentations this year. Of these 43, some were redundant (18 posters with two communication sessions), and in 25 presentations, students were involved in co-design 16 times.

This shows a tendency, in terms of the number of presentations (16 out of 25 on the subject of "Student Experience"), to include students in the co-design process.

Type of student involvement

By giving the titles and abstracts to a generative AI model[188], we can propose a categorization of the presentations, allowing us to better cover this conference.

Students are involved in a variety of ways, including participative projects, the development of e-learning materials, collaboration with professionals, the use of specific methodologies, training and professional development, and the integration of emerging educational technologies.

This diversity of involvement reflects a collaborative and integrative approach, with students playing an active role at every key stage of the co-design process.

Participatory projects: 2 cases	Development of e-learning material: 2 cases	Collaboration with professionals: 4 cases
Use of specific methodologies: 2 cases	Training and professional development: 3 cases	Integration of educational technologies: 3 cases

Figure 2: Communication categorization

Participatory projects

Students are actively involved in real-life projects, often as consultants or collaborators. This participation enables them to gain practical experience and contribute directly to specific initiatives.

Example initiatives:

- "Mentoring the Next Generation of Leaders": University of California students act as consultants on participatory projects examining career paths in computer science as part of summer internship programs.
- "Prospective Student STEM Program" : A program at the University of Arizona brings students together as a learning community. It serves Native American and first-generation students, supports student recruitment, and strives to contribute to the success of students at the university. It includes library workshops, computer prep workshops, and more.

In the development of e-learning materials

Students contribute to the creation of online educational resources, improving their access to education and supporting independent learning. They participate in the design and production of digital educational content.

Example initiatives:

- "Mentoring the Next Generation of Leaders": Again this experiment at the University of California, which proposes to develop an online educational resource to support writing instruction. Students involved in resource creation propose a resource adapted to other students like themselves.

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[188] OpenAI. (2024). ChatGPT [Large language model]. https://chat.openai.com/chat

- "Bridging the Gaps: Digital Literacy": At Roger Williams University, teachers have found that students overestimate their digital literacy skills, even though this is a prerequisite for learning online, or retrieving *.zip files in particular. Students are then involved in the training through a questionnaire survey, enabling the institution to improve the learning system.
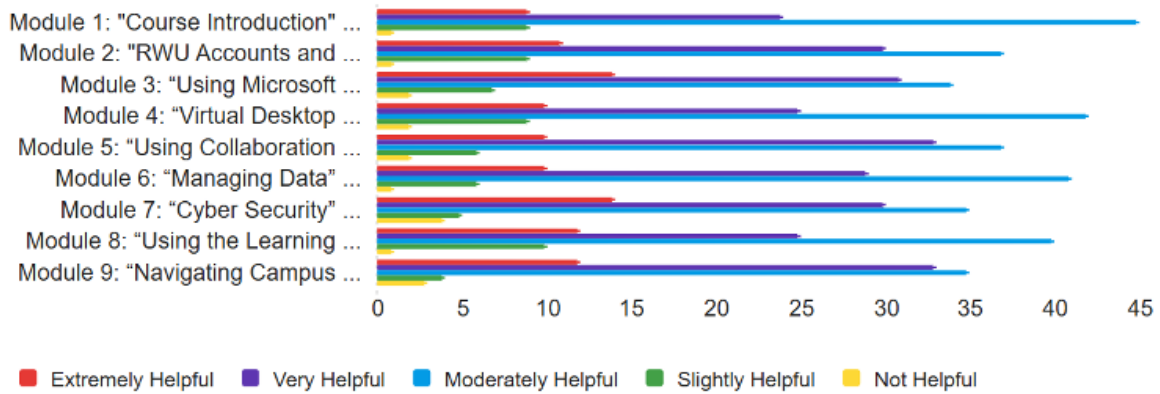
Figure 3 : Poster EDUCAUSE "Bridging the Gaps: Digital Literacy"

Collaboration with professionals (University members)

Students work alongside professionals, benefiting from their expertise while contributing their own needs. This collaboration enables an exchange of knowledge and co-creation of solutions, and engages students in their learning.

Example initiatives:

- "Gaming the Odds in Their Favor": This new community engagement, driven by gaming, is being analyzed at San Diego State University, which combines analysis of this activity with global health and well-being assessments, enabling gambling to be used as a potential means of increasing the chance of success. It is a testament to the close collaboration between students, academic services and ISD.

- "Personalizing the Student Experience": The implementation of emerging AI technologies in POCs required close collaboration between students, faculty, support services and technology developers regarding data quality at the University of Pennsylvania and North Carolina State University.

- "Access and Equity in the Age of Generative AI": California State University (CSU) and its 23 institutions propose the establishment of AI governance through system-wide committees to coordinate the responsible use of AI in order to ensure equitable access to generative AI and improve student outcomes..

The use of specific methodologies (Design Thinking, user videos, etc.)

Students take part in structured co-design processes, using specific methodologies such as design thinking or user testing to improve projects. These methodologies help to structure thinking and optimize results.

Example initiatives:

- "Got a Minute?" The Pop-Up Protocol": Using video interviews to co-design surveys at The University of Maryland to assess students' knowledge of AI before starting a training program.
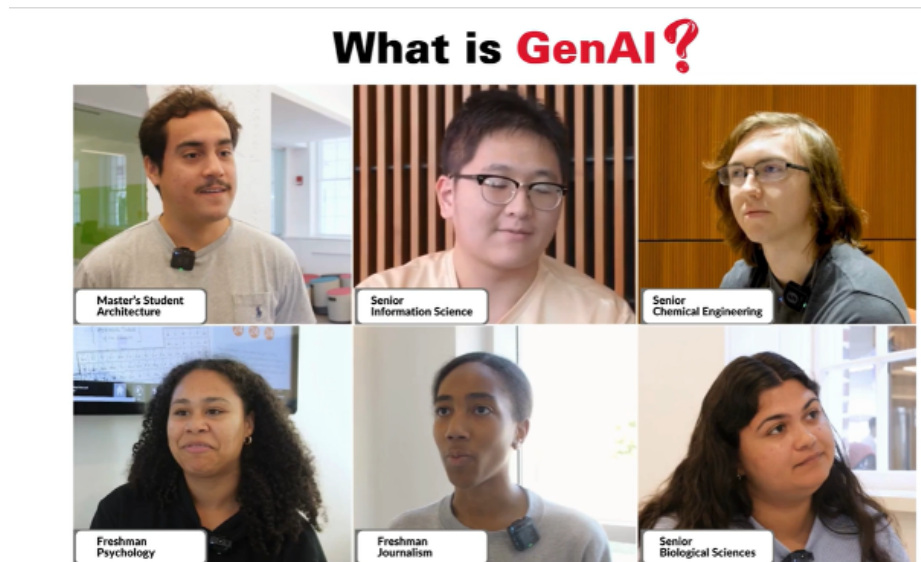
Figure 4 : Video "Got a Minute?" The Pop-Up Protocol"[189]

- "Don't Leave Data on the Table" : Surveys are essential for understanding the student experience, but their traditional analysis can miss important information and limit the participation of non-expert students. To address these challenges, the Academic Technology Experience (ATEX) team at the University of Maryland (UMD) has developed an internal analysis dashboard based on R Shiny, offering interactive and customizable exploration of survey data. The dashboard provides accessible visualization of frequencies, cross-analyses and benchmarks.

Training and professional development

Students receive ongoing training and participate in professional development programs to better prepare them for their careers. These initiatives aim to strengthen their skills and prepare them for the job market.

Example initiatives:

- "From Classroom to Career": the University of Wisconsin-Madison's Career Services play a key role in supporting students, whether redefining their career goals or overcoming obstacles along the way. With 15 offices across campus, these services offer advice, workshops, events and a support network essential to helping students succeed academically and professionally. Students take ownership of their professional development.
- "Digital Notes and Annotations" : The pedagogical approach presented by the Naval Postgraduate School, focuses on student-centered learning, combining face-to-face teaching, asynchronous and personalized discussions, and digital tools such as Microsoft Teams and OneNote, two software packages used in the professional world. Objectives include differentiated learning, and co-creation of content with immediate feedback. Teams promotes collaboration by bringing together discussions, files and recordings in one place, simplifying organization and group work. OneNote enhances content organization and serves as a

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[189] GO.UMD.EDU/GENAIVIDEO

repository for assignments and notes, while allowing teachers' explanations to be stored, providing significant support for learning.

Figure 5 : Presentation EDUCAUSE "Digital Notes and Annotations"

Integration of educational technologies

Students are involved in the integration and improvement of educational technologies, making their education more relevant and effective. They participate in choosing, implementing and optimizing the technological tools used in their learning.

According to the Mental Health and Wellness in the Horizon Report EDUCAUSE study, technology plays a part in student engagement and is seen as very important to success.
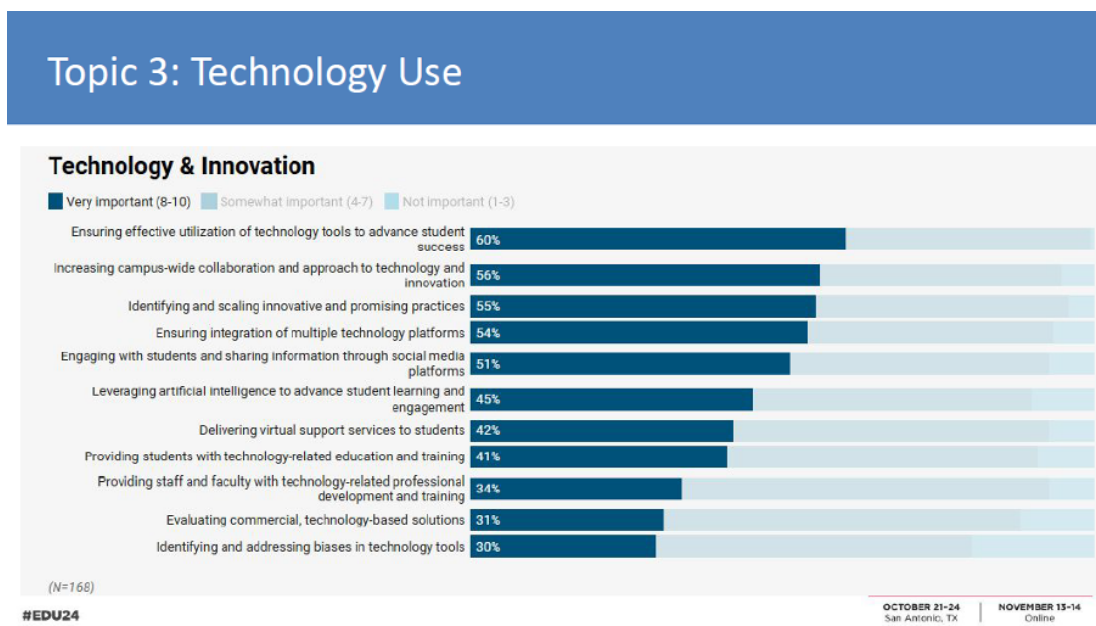
Figure 6 : Technology Use in Mental Health and Wellness in the Horizon Report EDUCAUSE

Example initiatives:

- "The Gen Z Effect": Integrating educational technologies to meet the needs of Generation Z students (people born between 1997 and 2010). Flexibility allows students to be involved in their choice of learning modalities and hybrid course models: according to the University of Tennessee, this choice is recognized as favorable for Gen Z.

Figure 7: Presentation EDUCAUSE "The Gen Z effect"

- "Access and Equity in the Age of Generative AI". At California State University (CSU), prospects for improving student success include a Student Companion (AI Chatbot) for Open Educational Resources (OER), a tool designed to help students master AI technologies.
- "Artificial Intelligence (AI) and Accessibility": At College of Coastal Georgia, students with disabilities are involved in the co-design of AI-based pedagogical tools to ensure the inclusivity and effectiveness of the training system.
- "Personalizing the Student Experience": The use of AI for two universities in POCs, which they have yet to generalize according to the CIOs is a complementary case. North Carolina State University is implementing statistical analysis of admissions data, improving its data and offering an improved response to students who no longer scroll through several web pages. At the University of Pennsylvania, recruitment and admissions are being explored, minimizing risk, and a chatbot is being set up for international students (or new employees) to personalize student paths.

Figure 8 : Vidéo replay EDUCAUSE "Personalizing the Student Experience: How AI Can Make a Difference"

- "Leveling Up: How Esports Can Transform Your Campus Experience": The emergence of e-sports as a sporting practice on par with US soccer or basketball has led to the creation of inter-university championships and associated scholarships. At San Antonio College, we were able to visit the student lounge where students compete in e-sport competitions, reinforcing the College's commitment to team spirit and community involvement around e-sports.

Figure 9: Presentation by CDW Education

Figure 10: E-sport room at San Antonio College - Délégation française 2024

- "Micro to Macro Scale Assessment Training" : Arapahoe Community College's DELTA program aims to strengthen student engagement and build a community of practice around data literacy. By training faculty and staff to analyze micro data and integrate student input, the project promotes assessment strategies aligned with institutional goals. Participants co-develop action plans to improve student retention and reduce inequalities. Transparency and collaboration between teaching and administrative teams break down organizational silos. This model reinforces a shared data culture, focused on student impact.
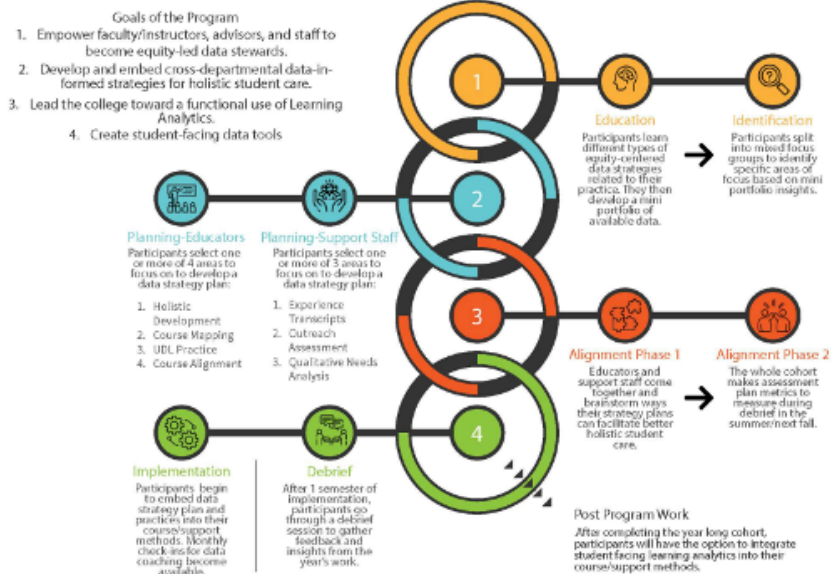
Figure 11: Poster EDUCAUSE "Micro to Macro Scale Assessment Training"

Student involvement and project phase

To analyze the moments of engagement mentioned in the 25 presentations, we followed the lifecycle of device creation: initial design (pre-build), development/prototyping (Build) and operation (Run).

Initial design

The initial design of educational projects is emerging as a crucial stage for integrating students' ideas and perspectives. This trend, mentioned in some twenty presentations, illustrates the importance of involving students from the outset. For example, in the "Mentoring the Next Generation of Leaders" approach, students are actively involved in shaping programs in connection with the University Library, while in "Got a Minute?" The Pop-Up Protocol", their input from the outset helps to personalize solutions based on artificial intelligence. These initiatives demonstrate how early collaboration can enrich processes and strengthen the match between learners' expectations and proposed solutions.

Development/Proof of concept

Development and POC are proving to be phases in which students play an active and significant role in the creation and improvement of educational projects. This trend, highlighted in eighteen presentations, illustrates how their involvement can enrich data culture, as shown by the "Micro to Macro Scale Assessment Training" program, which aims to integrate students into this process. Similarly, the "Don't Leave Data on the Table" initiative demonstrates the importance of their contribution to the creation of customized dashboards, ensuring that the tools developed really do meet their needs. By including students' perspectives at this stage, institutions can not only improve the quality of their projects, but also foster a sense of belonging and commitment within the educational community.

Post-launch evaluation

Post-launch evaluation is a stage in which students become actively involved in evaluating and improving projects once they have been implemented. Mentioned in twelve presentations, this trend illustrates the importance of gathering feedback to optimize initiatives. For example, "Top Trends in Advising Technology" focuses on the post-implementation evaluation of board redesign initiatives, while "Voices Shaping Tech" highlights student involvement in the ongoing evaluation of educational technologies. In this respect, The Pennsylvania State University's Technology Advisory Representatives play a vital role in providing students with a platform for expressing their opinions on the university's technology decisions. They provide feedback on Penn State IT and Teaching and Learning with Technology (TLT) initiatives, while preparing for careers in the digital field through their involvement in these discussions.
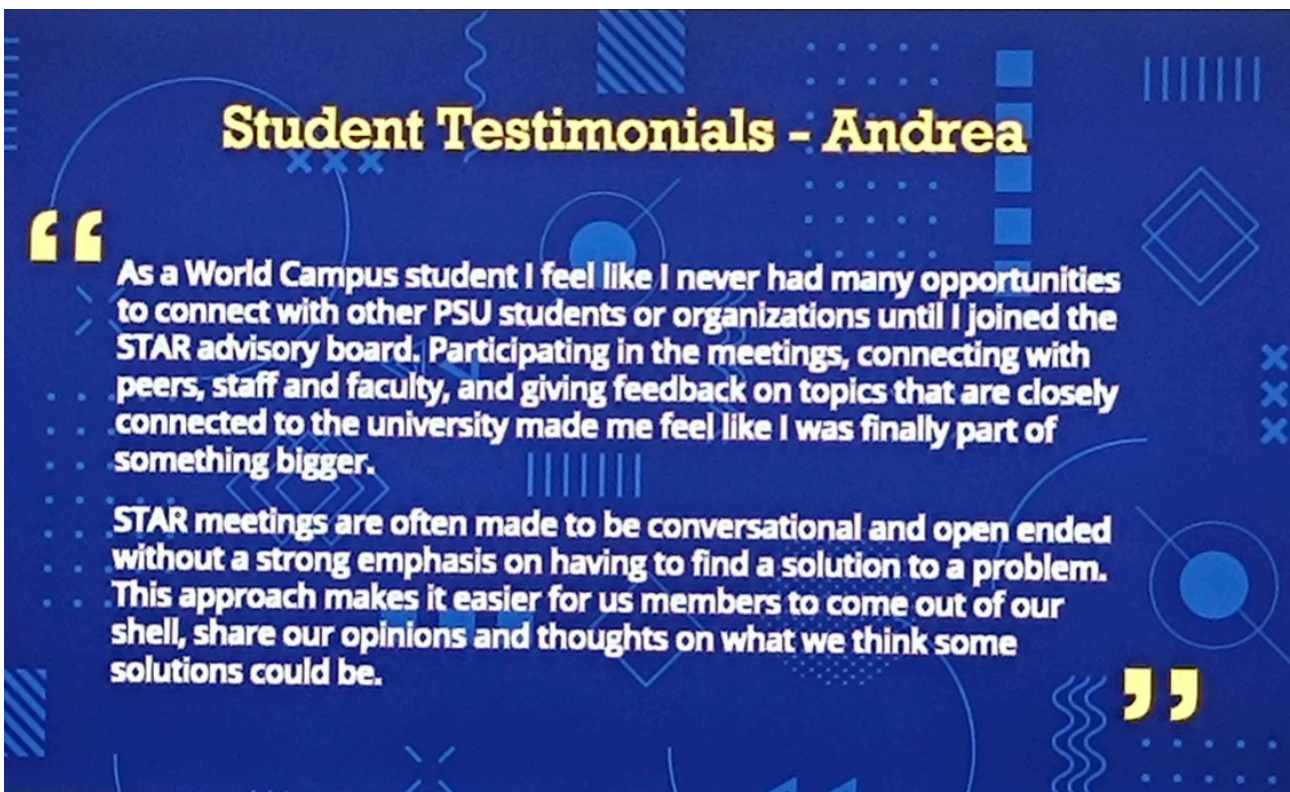

Figure 12: Poster EDUCAUSE "The Pennsylvania State University"

By integrating student perspectives at this stage, institutions can ensure that technologies and educational projects truly meet the needs of the community.

Towards transfer possibilities in the French university system[190]

In France, student involvement has evolved over the decades. The tradition of teacher-centered teaching, often perceived as magisterial and passive, has gradually given way to more participatory and interactive approaches to read the latest debate led since 2024 by Claire Peltier in the classified journal Distances et Médiations des Savoirs[191].

Educational reforms whose primary aim is to improve student success, whatever their original course of study or aspirations, such as the March 8, 2018 law on student orientation and success, known as the ORE law[192], have attempted to encourage greater student involvement in their learning and their choices of direction.

And yet, traditionally, French students are often more involved in the post-launch evaluation of existing pedagogical systems by the "conseils de perfectionnement" (evaluation of training by students at the end of the semester) than in their initial design, except in the case of experimental systems such as the Nouveaux Cursus Universitaires (NCU)[193]

To remedy this, it might be interesting to look at the different forms of involvement we report from this other university context. For example, involving students in the initial design of educational projects means that solutions can be adapted to learners' needs right from the start, while at the same time reinforcing their active involvement.

During the development and prototyping phase, student involvement in POCs also proves crucial. Initiatives cited here show how their participation can enrich data culture and ensure that the tools developed, such as customized dashboards, really meet their needs.

Finally, the post-launch evaluation phase offers an essential opportunity to improve projects thanks to student feedback, highlighting the importance of gathering their opinions to optimize initiatives, or illustrating how dedicated platforms foster their contribution to the evolution of digital technologies, such as AI.

As a complement to the classroom, these initiatives could also include the development of digital applications and tools involving the university's various stakeholders, whether students or staff, to meet the specific needs of the university community and encourage wider adoption of user-centered solutions.

Students could play an active role in more participative projects such as the development of e-learning materials, collaboration with professionals, and the adoption of specific methodologies. In addition, the integration of emerging digital technologies and the ongoing training of stakeholders would help build an innovative and adaptable university digital ecosystem.

This diversity of involvement demonstrates the importance of a collaborative and integrative approach, where students actively participate in every key stage of the co-design process: they are involved or engaged at every stage.

The experiences reported here show that new forms of commitment can be successful. But they still need to be adapted to the institutional culture of French higher education establishments. A new challenge for a new call for expressions of interest? To achieve this, we need to mobilize new approaches and raise awareness among stakeholders, while highlighting the positive impact of these approaches on the student experience. Targeted experimentation could demonstrate the feasibility and benefits of co-design in a variety of contexts, while creating a framework to facilitate the sustainability of successful initiatives.

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[190] This part, present in the original French version of this report, is proposed for information to the foreign readers

[191] Debate by Claire Peltier in Distances et Médiations des Savoirs – CNED, Issues 45, 46, 47 and 48 https://journals.openedition.org/dms/9952

[192] https://www.legifrance.gouv.fr/jorf/id/JORFTEXT000036683777

[193] https://anr.fr/en/call-for-proposals-details/call/nouveaux-cursus-a-luniversite-ncu-vague-2/

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