EDUCAUSE Annual Conference 2025

Visits to
Vanderbilt University
Arizona State University

#EDU25frjp

French & Japanese Delegations Joint Report

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Forewords

From the French Delegation

For twelve years now, the French EDUCAUSE Delegation has offered the French Higher Education community an international perspective on digital issues, bringing together complementary profiles capable of assessing key trends and major prospects. This approach has taken the form of continuous participation in the EDUCAUSE Annual Conferences since 2013, which has been significantly enriched over the years. From an initial philosophy of simple participation, the members of this Delegation have gradually become involved at different levels of EDUCAUSE, both within the conferences and beyond (see infographic below).

We now have twenty-four presentations that have been selected on a range of topical issues. Several of our members are also involved each year as proposal reviewers for the EDUCAUSE Annual Conference, as well as members of the respective Program Committees (in 2019, 2023, and 2026). Finally, some of us are part of the Expert Panels involved in the EDUCAUSE Horizon Report and the annual Top 10 Issues, are active in various 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 more than thirty on-site visits that have been conducted since 2013 before or after the EDUCAUSE Annual Conferences, which, beyond the remarkable welcome we have always received, have provided us with invaluable insight into the field through high-quality exchanges.

Recognizing these different levels of involvement has enabled us to forge special ties 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 academic community and beyond, leading to the creation of formal collaborations, some of which are long-term. Several sessions have been given at various editions of the conference with American, Belgian, Japanese, and Australian colleagues, on-going cooperation throughout the year has been established with several international universities, and a partnership is in place with AXIES, sister association of CSIESR which manages the Japanese EDUCAUSE Delegation, through joint on-site visits and actions based on our report.

This report is enjoys an ever-growing international audience, thanks in particular to an English translation that we put into place from the outset, to which a Japanese version has been added since 2023, produced and

translated in partnership with our friends at AXIES. Since 2014, including this year's edition, twenty-six editions of our report have been published, totaling more than 1,700 pages.

These various actions contribute to the achievement of our fundamental objectives: to exchange, raise awareness, inform, inspire, and share in order to support the development of Digital Technology in French Higher Education.

Our traditional restitution to the community event embodies this commitment each year and has set itself as a major annual event, which we know is greatly appreciated. The following pages are a follow-up to the restitution held in Paris on March 6, 2026. They cover the various workshops attended at the 2025 edition held in October in Nashville, and the two visits that were conducted to Vanderbilt University and Arizona State University.

We hope you find this reading enjoyable and informative.

The EDUCAUSE French Delegation Steering Committee

John Augeri, Laurent Flory, Thierry Koscielniak, and Bruno Urbero

From the Japanese Delegation

The Academic eXchange for Information Environment and Strategy (AXIES) has been organizing receptions and seminars at the EDUCAUSE Annual Conference, providing opportunities for Japanese participants to exchange views with EDUCAUSE leadership and interact with EDUCAUSE-like organizations from other countries. Since FY2022, AXIES has implemented the "EDUCAUSE Conference Delegation Program" with the aim of globalizing AXIES's human network by fostering internationally-minded successors for the post-COVID era, sharing knowledge gained through the EDUCAUSE Annual Conference, and strengthening collaboration with organizations promoting ICT utilization in higher education.

Since FY2023, we have begun collaborating with the French Delegation, which has long participated in the EDUCAUSE Annual Conference, building a sustained partnership through joint on-site university visits timed to the conference and co-authorship of the EDUCAUSE Annual Conference report. All arrangements for the university visits are made by the French Delegation, with the Japanese Delegation joining as guests. This year, we accompanied the French Delegation on their visits to Vanderbilt University and Arizona State University (ASU), and added a Japanese-language edition to the English and French versions that the French Delegation has published annually, releasing this report as a bilingual English-Japanese edition.

The French Delegation operates with the support of the French Ministry of Higher Education and Research, and far surpasses the Japanese Delegation in both scale and quality. The Japanese Delegation participated in this year's EDUCAUSE Annual Conference (held in Nashville) together with Takuto Matsuhashi (University of Electro-Communications), selected through open recruitment, along with several other members. In preparing this report, the French Delegation's English report was used as the basis for the Japanese translation, to which Takuto Matsuhashi and Shoji Kajita (Nagoya University) contributed additional content. We are deeply grateful to the members of the French Delegation for providing us with this opportunity, as we have relied on them for the editing and much of the content.

We would like to express our special gratitude to Dr. John Augeri for his role as liaison with the French Delegation, including arranging the university visits, coordinating the compilation of this report, and contributing to the planning session at the AXIES Annual Conference.

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Introduction & Trends in Higher Education in the US

Laurent Flory - French Delegation

US Higher Education and Research Under Strain: forced ideological alignment and academic resistance, haste and uncertainty, the shock of the Trump 2.0 administration

Introduction: 2025, a Break With The Past

If 2024 was marked by a wait-and-see mood (linked to the approaching elections), 2025 will be remembered as a year of political and economic rupture for U.S. Higher Education (HE). Right after the November 2024 election and the January 2025 inauguration, the Trump administration quickly rolled out the measures recommended by the Heritage Foundation in "Project 2025"[1].

In the previous decade, EDUCAUSE editions focused on technology buzz—moving to the cloud, cybersecurity, student success, digital transformation, HyFlex, and the AI boom—while this year confirms that this economic sector, which represents 2.3% of the GDP, has entered a crisis phase[2].

The 2025 EDUCAUSE edition focused on a far more existential issue: the economic viability of the HE industry, in a difficult demographic and economic context and under strong political constraints. The conference opened just as Moody's had downgraded, in March 2025, the outlook for the higher education sector to "negative"[3], explicitly citing political and financial risks.

Political protests—especially around Israel's actions in Palestine—and their impact on campuses also shook HE hard and put its relationship with society, policymakers, and the Trump 2 administration under severe stress.

For the French Delegation to EDUCAUSE, analyzing this context is a prerequisite. Behind the social debates (or their absence), HE has been deeply affected. Information systems sit on the front line of these changes: HR data compliance, the drying up of research funding flows, and adjustments to recruiting algorithms. Institutions are making this shift in a climate of acceleration and legislative uncertainty.

This introduction aims to set the framework needed to read the report, from our French point of view. The historic model of university autonomy now faces direct challenges after half a century of growth, as a more interventionist federal vision takes hold. Some academic leaders are trying to preserve their prerogatives, while others—more ideologically aligned with the administration—are implementing executive orders without delay. In a society where "equity" has become a political battlefield, digital innovation has become a condition for institutional resilience. Welcome to our 2025 report in an era of a strained America, or Year One of the Trump 2.0 administration.

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[1] https://en.wikipedia.org/wiki/Project_2025

[2] "Education at a Glance 2024" (Indicator C2: Expenditure on educational institutions as a percentage of GDP).https://www.oecd.org/content/dam/oecd/fr/publications/reports/2024/09/education-at-a-glance-2024_5ea68448/1aabb39d-fr.pdf (vs. 1.6% of GDP for France)

[3] Moody's Downgrades Sector Outlook to Negative

The Trump Administration vs. the “Ivory Tower”

The January 2025 political shift did not simply hand over power; it accelerated sector-wide change. In U.S. Higher Education and Research, it hit like a shock and widened fractures. The Trump 2 administration launched a systemic transformation that seeks to redefine the mission, funding, and even the infrastructure of American universities. The Hechinger Report analysis[4] describes a plan to dismantle Washington’s administrative apparatus, privatize education finance mechanisms, and enforce ideological conformity through data and funding. This strategy rests on a utilitarian view of knowledge: the university no longer functions as a sanctuary for critical thought; it has become a node that produces immediately usable skills, strictly aligned with national or local interests defined by executives.

The End of the Department of Education ? Not yet, but…

A flagship campaign promise targeted the dismantling of the Department of Education (DoE). Because Congress still blocks an outright abolition, the administration chose a strategy of suffocation and transfer of authority.

When Linda McMahon became Secretary of Education, she signaled the end of “benevolent” federal interventionism. Her explicit “final mission” is to close the Department of Education. Yet even before any hypothetical legislative dissolution, the administration acts through attrition of human and technical resources.

Collapse of data-processing capacity (FSA et IES)

March 11th, 2025, became a turning point: the Department of Education announced layoffs of nearly 1,300 employees, cutting its workforce in half compared with January 2025, despite unsuccessful attempts to block the move by federal or state judges. This purge did not strike blindly; it surgically targeted the department’s vital data-management organs[5], undermining its ability to carry out historic missions.

Example: Federal Student Aid (FSA). The Office of Federal Student Aid manages a $1.6 trillion portfolio and processes sensitive financial data for tens of millions of students and families through the FAFSA form (Free Application for Federal Student Aid). The layoffs hit a significant share of FSA technical staff and supervisors.

A Government Accountability Office (GAO) report published in September 2025 had already raised alarms: FSA faced critical failure risks in its FAFSA processing system (the FPS—FAFSA Processing System) because it lacked qualified staff to oversee complex technology contracts with private providers.

By laying off that supervisory staff, the Trump administration deliberately weakened the digital security chain. The risk goes beyond administration (processing delays); it becomes a cyber risk. Less oversight increases exposure to cyberattacks, data leaks, and large-scale fraud. The government now struggles to audit its own systems, creating a financial “black box” where billions of dollars move without adequate control.

Statistical blindness: the steep cuts to NCES teams. The National Center for Education Statistics (NCES) also saw deep staffing cuts. NCES collects and analyzes longitudinal data that lets the country assess the performance of the U.S. education system (such as the Nation’s Report Card).

When the administration breaks the continuity of statistical data, it blocks any fact-based evaluation of public policy. By stopping the measurement of inequality or performance by detailed cohorts, the administration makes the consequences of its reforms invisible. This is censorship (as described by the Democrats) through missing data: what no one counts does not exist.

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[4] https://hechingerreport.org/how-education-changed-in-one-year-under-trump/

[5] https://www.epi.org/policywatch/department-of-education-reduces-workforce-by-half/ and https://www.edweek.org/policy-politics/trump-admin-can-proceed-with-ed-dept-layoffs-supreme-court-rules/2025/07

Closure of regional offices of the Office for Civil Rights (OCR)

The OCR underwent drastic restructuring, with seven of its twelve regional offices shut down. This change affects oversight for nearly 60,000 public schools and 30 million students. The decision also creates direct consequences for universities' digital compliance.

The OCR plays a central role in enforcing anti-discrimination standards[6]. As new Department of Justice requirements take effect for accessibility of university web content, institutions face strict legal obligations—but they no longer have a regulator that can support them or process complaints. OCR's complaint backlog, which already exceeded 12,000 cases[7], has become unmanageable. This creates a zone of digital impunity: algorithmic discrimination, online harassment on education platforms, or inaccessible online courses for visually impaired learners may no longer trigger any effective federal investigation.

The Missouri model and the merger of DoE systems with the Department of Labor (DoL)

Missouri already merged its Higher Education Department with its Workforce Development Division. The Trump 2 administration wants to replicate this model at the federal level by transferring DoE responsibilities to the Department of Labor (DoL). According to the Secretary of Education, this reorganization would reduce administrative duplication, improve efficiency, and fight waste of federal funds. She argues that similar programs in two separate departments create "an inefficient system where each one ignores what the other does." Even though the law still assigns program funding to DoE, some staff already worked under DoL supervision, giving the project symbolic weight for critics.

However, two leaders of this new department —Bennett Boggs (commissioner) and Leroy Wade (deputy commissioner)— say[8] the merger (completed in 7 months on the legislative side and 2 years on the operational side) did not so much eliminate duplication as coordinate actors who previously worked in isolation: universities, local employers, and regional agencies. They point to especially strong synergies in developing registered apprenticeships, not only in technical trades but also in education, healthcare, and other sectors.

In November 2025, six inter-agency agreements (IAA) transferred management of major DoE programs to DoL, HHS (health), and other agencies. From an IT standpoint, this transfer raises many integration problems. DoE and DoL information systems rely on different architectures, data taxonomies, and security protocols. Migration can compromise data integrity. This merger also cements a purely economic view of education: the student stops being a citizen in training and becomes a future worker whose path must align strictly with immediate labor-market needs, as DoL data drives it[9].

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[6] For higher education, these missions cover compliance with: Title VI (race, color, national origin); Title IX (sex); Section 504 and Title II of the Age Discrimination Act.(ADA on disability and age).

[7] https://democrats-edworkforce.house.gov/imo/media/doc/scott_letter_to_department_of_education_re_ocr_case_backlog.pdf

[8] What Missouri Can Teach Trump About Merging ED and Labor

[9] https://educationcounsel.com/our_work/e-updates/all/e-update-for-december-8-2025

Towards a New University Paradigm

The administration does more than shrink bureaucracy; it uses regulatory power to rewrite the ideological "code" of universities. This culture war creates immediate technical consequences in Student Information Systems (SIS) and Learning Management Systems (LMS).

Overturning Title IX: forced binary categories in databases

One of the administration's first moves supported the rollback of Biden-era Title IX rules that included gender identity in anti-discrimination protections. In January 2025, federal judge Danny Reeves struck down the rule and called the expanded definition of sex "arbitrary and capricious"[10].

This legal decision forced universities to execute a complex technical rollback. Complaint management systems (Case Management Systems) that had been configured to meet Biden-era procedures (deadlines, definitions, admissible evidence) had to be urgently reprogrammed to match 2020 standards.

More fundamentally, the administration's requirement to define sex[11] "based on reproductive function and biological processes" directly clashes with existing inclusive digital infrastructures. Many universities had adapted student information systems to allow chosen pronouns and non-binary gender identities. Those database fields now become toxic liabilities that can threaten the release of public funds.

Web scrubbing

Executive Order 14173[12] of January 22, 2025, which bans "illegal DEI," triggered digital panic on campuses. Fearing the loss of federal funding or Department of Justice investigations, universities launched large-scale efforts to scrub their online presence.

The *New York Times*[13] and Harvard's School of Public Health[14] reported that institutions removed more than 8,000 web pages from institutional sites as early as February 2025. This "scrubbing" does not happen by hand; it relies on automated content-audit tools, often AI-based, that scan terabytes of university server data for newly banned keywords: "white privilege," "racial equity," "social justice."

This looks like preventive "algorithmic self-censorship." Institutions purge research archives, online course syllabi, and teaching resources. Chief Diversity Officers (CDO), whose budgets drop to zero and whose offices get dismantled, lose their digital tools. Bias-reporting platforms and diversity tracking dashboards go offline, erasing the institutional memory of inclusion efforts.

In Republican states (Florida, Texas, and now at the federal level), institutions quickly eliminated or reclassified thousands of administrative jobs. CIOs had to "clean" institutional websites and HR databases of any mention related to diversity to avoid losing accreditation or funds. By contrast, in "blue belt" states[15], some institutions have tried to reduce the impact of executive orders by rewriting and "reorienting" language rather than deleting content outright—hiding, if not removing, these actions and materials.

Note that in 2025, EDUCAUSE did not award its "DEI Leadership Award"[16], but it did run sessions on this topic during the conference.

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[10] https://www.hmbr.com/news-insight/federal-court-vacates-2024-title-ix-regulations-whats-next-for-educational-institutions/

[11] Federal Register :: Defending Women From Gender Ideology Extremism and Restoring Biological Truth to the Federal Government

[12] https://www.federalregister.gov/documents/2025/01/31/2025-02097/ending-illegal-discrimination-and-restoring-merit-based-opportunity

[13] CDC Web Pages and Data Vanish Following Trump's DEI and Gender Orders - The New York Times

[14] As health data disappear from government websites, experts push back | Harvard T.H. Chan School of Public Health

[15] Blue belt = a geographic area that regularly votes for Democrats known as "blue states"

[16] https://www.EDUCAUSE.edu/careers/awards-program/archived-awards/dei-leadership-award-recipients

The “Compact for Academic Excellence” : a contract for ideological alignment

In October 2025, the administration formalized its vision through the “Compact for Academic Excellence in Higher Education”[17]. It first offered the Compact to nine elite universities (Ivy League +) and then extended it to the whole sector. The document proposes an explicit trade: preferred access to research funds and visas in exchange for full ideological compliance.

The Compact’s digital implications are heavy, including the following:

Monitoring international students. The Compact requires signatories to provide the Department of Homeland Security (DHS) with “all known information on international students,” including disciplinary records. This requirement implies APIs (application programming interfaces) or automated data flows between university disciplinary systems and immigration databases (SEVIS). Such integration would turn universities into direct extensions of the policing surveillance apparatus, potentially violating the spirit—if not the letter—of student privacy laws (FERPA, and potentially the GDPR for students or staff with European nationality).

Tuition freeze and profitability data. The Compact imposes a five-year tuition freeze and requires publication of graduate earnings statistics by program. This requirement calls for a business intelligence infrastructure that can link academic data to future tax data. Many institutions still do not fully have that capability.

Although 7 institutions[18] - including MIT[19], Brown[20] and Harvard - rejected the Compact in the name of academic autonomy, other institutions, financially weaker or (already) politically aligned[21] (such as New College of Florida or Valley Forge Military College), expressed interest.

The US university landscape now fragments into two distinct networks: one “free” but financially besieged, the other “compliant” and digitally integrated into the federal state.

Research Infrastructures on a Starvation Diet: Cuts, Freezes, and Data Rescue

Culture-war headlines dominate, but the economic tradeoffs proposed for university research may matter more in the long run. The Trump administration has identified some research universities as political adversaries and uses the budget as leverage to weaken them structurally.

A Collapsing Budget[22] and the End of “Woke” Science

The presidential budget proposal released in May 2025 for fiscal year 2026 (FY26)[23] included cuts on a scale not seen in recent history.

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[17] Compact for Academic Excellence in Higher Education - Wikipedia

[18] These are the colleges rejecting the Trump administration's funding compact

[19] MITCAF Statement on the "Compact for Academic Excellence in Higher Education" - MIT Faculty Newsletter

[20] brown-response-federal-compact-10-15-2025.pdf

[21] https://www.steptoe.com/en/news-publications/update-on-the-compact-for-academic-excellence-in-higher-education.html

[22] The elements discussed here are only based on the Trump 2 administration’s proposal, which the chambers later amended, but it reflects the context while attending EDUCAUSE

[23] https://www.whitehouse.gov/omb/information-resources/budget/the-presidents-fy-2026-discretionary-budget-request/

- National Science Foundation (NSF): a proposed 56% reduction (about $5.16 billion less). The administration explicitly targets social, behavioral, and economic sciences, as well as programs linked to climate change and equity,
- National Institutes of Health (NIH) : a 44% cut (about $21 billion less),
- NASA Science: a 24% decrease (about $6.1 billion less), with all missions down—especially Earth observation missions run by universities—while human space exploration increases by $647 million.

The impact on high-performance computing (HPC) infrastructure is immediate. These budgets fund not only researchers, but also supercomputers, data centers, and very high-speed networks (such as Internet2[24]) that modern science requires. By cutting these credits, the administration accelerates obsolescence of U.S. research infrastructure (especially against China).

Capping indirect costs (overhead): the "fatal weapon"

The most technical—and most dangerous—measure caps indirect costs (Facilities and Administrative costs —F&A) at 15% for NIH grants[25] in February 2025, quickly followed by DOE (April 2025) and NSF and DOD (May 2025), in some cases with retroactive effect. Negotiated operating rates usually range from 50% to 60%. These funds pay for server electricity, lab cooling, software licenses, cybersecurity, and technical administrative staff. Without them, universities cannot maintain their digital research infrastructure. "Dry" labs (computing, modeling), which depend almost entirely on overhead for their IT equipment, get hit first.

Data Rescue: digital resistance

Facing the administration's hostility toward climate science and social data, the academic community revived "Data Rescue" networks[26] born in 2017—but now at industrial scale. University librarians, archivists, and data scientists launched massive cloning operations to copy federal public databases (NOAA, EPA, DOE) onto secure university or private servers[27]. They respond to the scrubbing and deletion of websites and databases that the administration carried out or ordered.

Punitive funding freezes (Funding Freeze)

The administration innovated by using targeted funding suspensions against institutions that do not align politically. In March 2025, it froze $400 million in grants for Columbia University, then froze billions for Harvard and UCLA, among others, citing alleged mismanagement of antisemitism or noncompliance with new directives. These freezes inject radical uncertainty into research management. University grant management systems flash red. Institutions cannot hire post-docs, place equipment orders, or pay cloud computing bills when funds can disappear arbitrarily overnight.

In this context, only large public systems—especially those in the "Blue Belt" (University of California, SUNY in New York)—and the Ivy League (Harvard, Yale, Princeton) seem able to push back and resist pressure. With enormous internal funds (*Endowments*[28]) or local state support, they can (temporarily) offset the loss of federal subsidies. The University of California system, for example, declared its campuses "data sanctuaries." It refused to hand federal authorities lists of students or researchers working on climate or gender topics, citing privacy protection and academic freedom.

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[24] The delegation visited Internet2 in 2022; see the 2022 report. Internet2 provides services comparable to Renater's or GÉANT's, but at U.S. scale.

[25] https://grants.nih.gov/grants/guide/notice-files/NOT-OD-25-068.html

[26] https://www.datarescueproject.org/current-efforts/

[27] https://envirodatagov.org/

[28] The eight Ivy League universities hold $191 billion in invested funds (including $53 billion for Harvard and $41 billion for Yale) according to Forbes: https://www.forbes.com/sites/michaeltnietzel/2025/11/02/several-major-universities-post-double-digit-endowment-gains-in-fy-2025/

Student Debt

2025: debt rises again

By the end of 2025, total outstanding student debt crossed historic thresholds and reached $1.832 trillion[29]. While 2024 had brought debt stagnation and early declines after Biden administration measures, the abrupt stop to those measures - framed as ensuring equality for all[30] - produced a return to growth, including the reintroduction of unpaid interest[31].

The federal government still funds the portfolio overwhelmingly, a U.S. specificity that puts credit risk directly on the sovereign balance sheet and keeps private banking risk to a strict minimum.

Federal debt: it represents about 92% of the total, roughly $1.69 trillion. The Department of Education (ED) manages this portfolio through contractors (servicers). It consists mostly of direct loans; FFEL-guaranteed loans (Federal Family Education Loan) account for less than 10% of the total.

Private debt: this segment remains smaller (about 8%) but follows its own dynamics. Outstanding balances are estimated between $130 and $145 billion. Unlike federal loans, these loans react to market interest rates and often require solvent co-signers. In 2025, 89.9% of private loan balances funded undergraduate studies, showing that gaps in federal financing mainly hit undergraduates.

After the demographic cliff: the default cliff, or the wall of payment defaults

Analysts labeled 2025 the “Default Cliff.” After five years of effective suspension of defaults (since March 2020), the collections machine restarted with systemic rigor.

In the first quarter of 2025, leading indicators turned red. Delinquencies—kept off credit reports from Q2 2020 to Q4 2024 under pandemic protections—suddenly reappeared on credit files.

- Serious delinquency rate (90+ days): in Q1 2025, 7.74% of aggregated student debt was reported as more than 90 days delinquent, versus under 1% the previous quarter. This surge did not come from a sudden collapse in household finances; it exposed a financial reality that had remained hidden for a long time[32],
- Worsening during the year: in April 2025, TransUnion[33] reported that 31.0% of federal borrowers with a payment due were more than 90 days late. That figure represents a 50% increase compared with February 2025, signaling a structural inability to pay for nearly one-third of active borrowers.

The return of repayment defaults as a material fact

A federal loan enters technical default after 270 days of non payment. Because the on-ramp[34] ended in October 2024, the wave of defaults began to surge starting in Q3 2025.

- Default volumes: between January and the end of 2025, about 3.6 million borrowers shifted into default status.
- Total stock: by the end of 2025, the total number of borrowers in default (old and new defaults combined) approached 9 million people (mostly older and of African-American origin[35]), for total defaulted debt exceeding $208 billion.

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[29] https://www.fool.com/research/student-loan-debt-statistics/

[30] See the 2024 edition of this report

[31] Millions of student loan borrowers will see interest restart

[32] https://www.newyorkfed.org/newsevents/news/research/2025/20250513

[33] https://newsroom.transunion.com/june-2025-student-loan-update/

[34] The on-ramp was a temporary transition program set up by the Biden administration from October 2023 to September 2024 to help borrowers restart payments after three years of COVID-related pause.

[35] A Black person is 5 times more likely to be in default than a white person in the US: https://sdvoice.info/coalition-calls-for-halt-to-wage-garnishment-on-defaulted-student-loans/

- Speed of the crisis: data indicates that in 2025, the system recorded a new default every nine seconds, a pace three times higher than in 2019, before the pandemic.

Financializing debt: turning the student into a financial asset

Under Nicholas Kent[36], the new Under Secretary of Education and a former lobbyist for for-profit universities, the Trump administration launched a full redesign of the student-debt economy.

The death of SAVE and the birth of OBBBA. The administration dismantled the Biden administration's SAVE repayment plan (Saving on a Valuable Education), judged too costly, and replaced it with mechanisms in the One Big Beautiful Bill Act (OBBBA). The administration stopped SAVE abruptly, froze enrollments, and moved borrowers to temporary repayment forbearance[37]. Operationally, this created IT chaos. Loan-servicer (private companies that manage loans for the state) algorithms must be fully rewritten to calculate new monthly payments under complex and shifting rules.

The return of the for-profit sector and an accreditation revolution. The $2.5 million fine imposed on Baker College in January 2025 for deceptive marketing now looks like an anomaly, a last tremor of the old regulatory regime. The Kent administration's real direction is deregulation and promotion of alternatives to the traditional degree.

During EDUCAUSE 2025, Nicholas Kent openly called for an "accreditation revolution"[38]. The goal is to break the monopoly of regional accrediting agencies (seen as too "woke" and too tolerent with traditional universities) and authorize new accreditors, potentially aligned with administration priorities or run by Republican states[39]. This opens federal funding (Pell Grants) to nontraditional actors: coding bootcamps, short training programs, and EdTech platforms. The accreditation of OpenClassrooms (a French company) as a U.S. university able to grant recognized degrees sends a strong signal of this opening. The administration favors "asset-light," fully digital models that compete head-on with traditional universities on cost and flexibility, while remaining less likely to become centers of political protest.

Academic Isolationism and its Impact on HE

The "America First" policy also applies to the global talent market, threatening U.S. technological leadership, which has historically relied on attracting the world's top minds.

The $100,000 barrier and brain drain

The administration created a new $100,000 fee for H-1B work visas[40], which universities rely on to recruit foreign faculty and researchers in STEM fields. Even though universities can theoretically get exemptions if the hire serves the "national interest," administrative ambiguity creates a massive deterrent effect. Universities, already financially strained, cannot absorb the extra cost. The result: a 40% drop in interest among international graduate students (Master's/PhD) in the first quarter of 2025. Indian and Chinese talent has turned away from the US[41] toward the United Kingdom, Canada, or Australia.

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[36] https://www.ed.gov/about/news/press-release/nicholas-kent-sworn-15th-under-secretary-of-education

[37] https://www.nerdwallet.com/student-loans/learn/trump-student-loans

[38] Trump Higher Education Crackdown Targets Accreditation - Bloomberg

[39] Trump Wants an Accreditation Revolution. These Emails Reveal the Players Behind It.

[40] Out of 304,000 H-1B visas, 16,733 (5.5%) work in HE versus 129,007 (42.4%) in scientific and technical services.

[41] https://studyportals.com/articles/enrolment-challenges-in-2025-data-you-cant-miss/

The return of the travel ban and tighter rules for other "student" visas

A new decree (June 2025) restricts or suspends entry for nationals of nearly 20 countries (including Afghanistan, Iran, Venezuela, Syria, etc.); this is the travel ban. For some countries, the suspension explicitly includes student visas (F, M, J).

At the same time, the Trump 2 administration proposed limiting F and J visa duration to a fixed period (often 4 years), ending the rule that allowed students to remain as long as they stayed enrolled.

In parallel, the administration strengthened pre-issuance screening, including systematic analysis of social media. In May 2025, consular interviews were even temporarily frozen while the government put these new verification protocols in place.

Finally, after rising China–U.S. tensions, Chinese students[42] and researchers[43] face increased scrutiny, with more frequent visa revocations for those linked to institutions Washington considers "strategic."

As a consequence, an Institute of International Education study[44] reports a 17% drop in new international student enrollments, with visas cited as the main cause (96% of respondents) and travel bans also cited (68% of respondents).

Conclusion

In 2025, the whole world faced constant breaking news about the United States and the decisions, announcements, and executive orders of the (45th and) 47th president of the United States.

EDUCAUSE 2025 took place in this new environment full of uncertainty, where the only clear trend is an administration that does not merely seek to reform higher education, but to redefine it structurally and align it with its political and social goals.

Universities therefore face a triple existential threat:

- Administrative: they lose federal counterparts, national data systems degrade, and regulatory insecurity grows—from announcements, executive orders, then delays or gaps in operational implementation—without the support of a Department of Education in crisis.
- Financial: research funds dry up, the domestic demographic decline deepens, and international student numbers fall, while tuition hikes have become unsustainable.
- Ideological : the administration imposes political control through coercive contracts (the Compact) and digital surveillance.

For US Higher Education, 2025 marks the end of innocence. The university no longer serves as a sanctuary; it has become a political battlefield. The entire French delegation to EDUCAUSE wishes you a happy reading.

Methodology Note: This article is based on professional monitoring conducted by the author. The research was synthesized and organized using Gemini Pro and Copilot; these AI tools were also utilized to assist with the drafting, refining, and proofreading of the final content.

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[42] Chinese students are the second-largest international student population after Indians, with 22.6% of international students and 6% of total students in the U.S. IIE Open Doors / International Students.

[43] International scholars represent 21% of foreign scholars in the U.S. (ahead of India at 16%) IIE Open Doors / International Scholars

[44] IIE_Fall-2025-Snapshot_Full-Report.pdf

Visit to Vanderbilt University

Frédéric Habert - French Delegation

General Overview of the Institution

Founded in 1873, Vanderbilt University is one of the leading private research universities in the United States. It currently comprises eleven schools and colleges spanning a broad range of disciplines, including management, engineering, medicine, and law.

Renowned for the excellence of its research, Vanderbilt consistently ranks among the top 25 private research universities. This standing is supported by a strong academic community of 1,841 faculty members, including seven Nobel Prize laureates. Its alumni include internationally recognized figures such as Al Gore and Muhammad Yunus.

The university enrolls approximately 13,500 students in a highly selective academic environment that emphasizes innovation, interdisciplinary research, and societal impact. Annual tuition fees amount to $71,226. The average starting salary of graduates reaches $85,000, significantly above the national average of approximately $62,000.

The Live Innovation Incubator and its Ecosystem

The Live Innovation Incubator is a center dedicated to the development of educational technologies based on artificial intelligence. Its mission is to foster interdisciplinary collaboration among the learning sciences, computer science, and psychology in order to design innovative learning environments. It plays a structuring role within the university by stimulating pedagogical and scientific innovation while providing faculty and students with appropriate technical, human, and methodological resources.

Since its creation in 2022, the center has experienced rapid growth driven by a strategy focused on building a dynamic interdisciplinary ecosystem. This strategy relies on the regular engagement of the academic community through seminars, student forums, data science challenges, and internal funding programs such as the Spark and Ignite grants. These initiatives combine financial support with technical guidance, enabling project leaders to transform exploratory ideas into operational prototypes.

The Live Innovation Incubator also places strong emphasis on the transfer of research outcomes into applications with societal and economic impact. Roundtables bringing together industry partners and initiatives dedicated to social entrepreneurship help situate academic work within concrete perspectives. This dynamic is further supported by the “Hub for Mindful AI Innovation,” an online platform showcasing student-developed AI projects and encouraging critical reflection on the ethical and social implications of these technologies.

Innovation is further enabled through access to cutting-edge research infrastructure. The center provides specialized laboratories and advanced equipment, lowering barriers to experimentation and fostering the emergence of new pedagogical approaches. Facilities such as the Classroom of the Future and the Immersive VR Cave form a technological foundation for exploring, testing, and prototyping innovative learning solutions.

Overall, the Live Innovation Incubator serves as the central engine for the development of educational technologies, combining community engagement, material resources, and a strategic vision of interdisciplinary innovation.

The Classroom of the Future and Embodied Learning

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The “Classroom of the Future,” developed by the Open-Ended Learning Environments Lab, is an experimental environment dedicated to the fine-grained analysis of learning processes in science, technology, engineering, and computing. It relies on the use of multimodal data and artificial intelligence to better understand both individual and collaborative learning dynamics.

At the core of this initiative is the C2STEM environment, standing for Collaborative Computational STEM, which is based on a block-based visual programming language. This approach allows students to model complex scientific phenomena, particularly in physics, while promoting collaboration. The space is equipped with a variety of sensors, including cameras, microphones, and interactive displays, designed to collect rich data on learners’ activities.

The collected data include action logs, verbal exchanges, social interactions, video recordings, and indicators related to emotional states. These data are integrated into a multimodal timeline that provides a comprehensive view of the learning process. This tool enables instructors to more precisely identify key moments requiring pedagogical intervention and to adapt their support accordingly.

Two major AI-driven research directions structure this environment. The first focuses on COPA, a collaborative agent designed to support students’ understanding of the links between scientific concepts and their computational representations. COPA adopts a Socratic approach, favoring questioning and reflective prompts over the direct provision of answers.

The second direction concerns embodied learning, which leverages mixed-reality environments in which students physically embody scientific processes. Through motion sensors and bodily interactions, learners construct knowledge through action, movement, and speech. The analysis of these complex learning situations relies on a human-in-the-loop approach that combines human expertise with the power of AI models capable of processing large volumes of multimodal data.

The Classroom of the Future thus exemplifies an integrated conception of educational technologies, in which AI acts as a partner in the pedagogical process, supporting a deep and nuanced understanding of learning.

The Immersive VR Cave and Neuroscience Research

The Immersive VR Cave is an advanced research infrastructure dedicated to the study of brain mechanisms involved in multisensory integration. Research conducted in this laboratory focuses in particular on how the brain—especially in children—learns to combine information from vision, audition, and touch throughout development.

The core system is based on a CAVE (Cave Automatic Virtual Environment) composed of three walls and a floor serving as high-definition 3D projection surfaces. This infrastructure is distinguished by its ability to combine visual immersion with high-definition spatial audio, allowing sound sources to be precisely positioned within the virtual space. Together, these features provide extremely fine-grained control over the sensory stimuli presented to participants.

The technical capabilities are further enhanced through the integration of haptic devices developed in collaboration with roboticists, enabling tactile feedback and the simulation of virtual object perception. A comprehensive motion-tracking system records eye, head, and body movements, while electroencephalography (EEG) devices measure brain activity to identify neural networks involved in sensory integration and cognitive maturation.

A central research focus concerns individual differences and neurodiversity, particularly in studies related to autism and ADHD, which are often described as involving atypical multisensory processing. The highly controlled CAVE environment enables rigorous analysis of variations in sensory perception and integration.

These research efforts are also embedded in a multi-site collaboration involving several institutions equipped with identical infrastructures. This approach makes it possible to assemble large samples exceeding one thousand children and to conduct robust longitudinal studies on developmental trajectories. The Immersive VR Cave thus represents a major strategic investment in understanding the neurocognitive foundations of learning.

Pedagogical Integration of Virtual Reality

In parallel, the university has developed a pragmatic approach to integrating virtual reality into everyday teaching practices. This strategy aims to establish VR as a genuine pedagogical tool rather than a purely attractive technological device, by offering flexible adoption models tailored to instructors' needs.

Several modes of integration have been implemented, ranging from occasional uses to longer-term pedagogical projects. Some approaches rely on single immersive experiences embedded within course sessions, while others allow students to use VR autonomously as part of assessed coursework. More intensive integrations place VR at the core of a course over an entire semester, particularly to promote equity between in-person and remote students and to strengthen collaborative engagement.

Faculty adoption represents a central challenge within this strategy. To address it, the university draws on evidence from international research demonstrating the effectiveness of VR in terms of learning outcomes, knowledge retention, and sustained student engagement. Institutional events and experimental spaces help demystify the technology and highlight feedback from early-adopting instructors.

This momentum is supported by the creation of a cross-functional community of practice bringing together IT services, the library, and instructional designers. This organization facilitates skill sharing, technical support, and strategic alignment, ensuring that technological innovation remains closely connected to the improvement of learning outcomes.

Data Strategy and the Role of the Chief Data Officer

The university's data strategy is led by a Chief Data Officer (CDO), a role created to make data usage more strategic and coherent at the institutional level. This initiative seeks to transform a historically fragmented data landscape into an integrated, value-generating ecosystem.

The initial phase of the strategy focused on establishing solid technical and organizational foundations. Data that had previously been siloed across distinct transactional systems were integrated into a centralized data repository through a technological partnership with Snowflake. This work made it possible to move beyond manual consolidations and to establish a single source of truth, supported by robust governance ensuring data quality and reliability.

Beyond infrastructure, the adopted strategy is explicitly people-centered. The CDO's office operates according to a model of close collaboration with IT services and the university's various units. "Data partners" work directly with institutional leaders to translate operational needs into actionable analyses.

This approach follows a progressive maturity model, ranging from data used as a basic reporting utility, to its integration into operational processes, and ultimately to its mobilization in support of major strategic decisions. This vision constitutes an essential foundation for the responsible and effective deployment of artificial intelligence across the university.

The Generative AI Platform 'Amplify'

Amplify is a generative AI platform developed in-house by the university and made available to the academic community under an open-source license. Designed with agility and cost control in mind, it reflects the institution's ambition to position itself as a leading actor in the field of generative AI.

Initially developed in a very short time frame on an open-source foundation, the platform quickly demonstrated its economic viability, with an average per-user cost significantly lower than that of commercial solutions. This success led to campus-wide deployment, offering unified access to several major AI models through a single interface. A carefully curated selection of models balances ease of use with advanced customization options.

Amplify stands out through a set of features designed to enhance user autonomy. These include mechanisms for optimizing conversations to reduce costs, automated prompt enhancement tools, and the ability to create customized assistants connected to internal or external data sources. The platform also supports the design of agent-based workflows capable of executing complex tasks, with full traceability ensuring transparency of use.

The decision to release Amplify as open source reflects a commitment to academic leadership and collaboration. A growing user community has formed around the platform, and partnerships now support its deployment at other institutions. Amplify thus exemplifies a strategic approach to generative AI grounded in innovation, resource stewardship, and knowledge sharing.

Visit to Arizona State University (ASU)

Frédéric Habert - French Delegation

General Overview

Arizona State University (ASU) is a public American university founded in 1885, widely recognized for its strong commitment to innovation, research, and access to higher education.

The university employs approximately 5,600 faculty members and is supported by a distinguished academic community, including five Nobel Prize winners and ten Pulitzer Prize winners. ASU also ranks among the top five universities nationally in research expenditures.

With a student population of 158,000, including 80,000 enrolled in online programs, ASU is one of the largest universities in the United States. Reflecting its commitment to educational equity, more than one in three undergraduate students is the first in their family to attend university.

The university is organized into 16 colleges and numerous research institutes, covering a wide range of academic disciplines. Through ASU Online, it offers more than 150 undergraduate and graduate degree programs delivered via a digital platform. ASU ranks among the top five U.S. universities for its online bachelor's degree programs.

ASU's Strategy for AI and Data Analysis

ASU's AI Strategy and the Create AI Platform

ASU is guided by a founding charter that defines the university as one that is "measured not by whom it excludes, but by whom it includes and how they succeed." Within this framework, AI is viewed not as a disruptive threat, but as a powerful lever for inclusion, personalized learning, and advances in research.

As a public university, ASU considers it a responsibility to promote the use of AI in the public interest, rather than solely for commercial purposes. This vision is reflected in several guiding principles: innovating ethically, ensuring equitable and broad access to AI tools, and building a sustainable infrastructure that is not dependent on any single vendor.

To implement this strategy, ASU rapidly established a dedicated AI acceleration team. This cross-functional group is responsible for developing institutional platforms, designing products, and establishing governance frameworks. Rather than waiting for the full development of formal policies, the university chose to act quickly, allowing governance to emerge progressively from the team's expertise and its institutional network.

A central component of this strategy is the creation of a community of practice. The AI Innovation Challenge program was highlighted as a particularly effective initiative, enabling faculty and staff to propose experiments and gain access to advanced tools. This program has played a key role in building AI culture and literacy across the university.

Managing the inherent risks of AI—such as bias, hallucinations, and the lack of security guarantees from certain providers—is a critical priority. To address these challenges, ASU's Applied Data Science team developed a proprietary ethical AI engine.

This evaluation framework operates in a manner analogous to software unit testing, assessing AI models against a set of criteria related to fairness, accuracy, security, and bias mitigation. All models—whether from OpenAI, Google Gemini, or open-source solutions—must be validated by this engine before being made available to the university community.

The technological cornerstone of ASU's AI strategy is the Create AI platform. It functions as an internal API layer built on more than fifty language models from multiple providers, offering a single, consistent access point for all AI-powered applications developed across the university.

This architecture ensures data control, ethical evaluation of models, vendor independence, and broad access to AI tools. By prioritizing a usage-based billing model rather than individual licenses, ASU is able to equip its entire community in a financially sustainable manner.

A concrete application of this strategy was presented through the development of an AI-powered patient simulator for ASU Health, the university's new medical school designed with an "AI-first" approach. This tool enables students to practice conducting medical interviews with interactive virtual patients in a low-stakes environment.

The interactions are recorded and evaluated using a structured assessment rubric, providing detailed feedback on student performance. The simulator is intended to complement traditional training methods while reducing costs and logistical constraints. A functional prototype is planned for March, with full integration scheduled for the program's launch the following fall.

Data Analytics in Support of Student Success

The data analytics team, composed of approximately thirty professionals, supports a broader community of more than 300 analysts across the university. Its primary role is not to produce all analyses centrally, but to provide data, tools, and guidance that enable other units to conduct their own analyses. The infrastructure relies primarily on AWS, with Redshift serving as the data warehouse, SnapLogic for data ingestion, and Tableau for visualization.

At the core of ASU's data strategy is a unified data warehouse, developed and enriched over several decades. It aggregates data from multiple sources, including student information systems, the Canvas learning platform, financial and HR systems, as well as technical data such as Wi-Fi connection logs.

This holistic approach enables powerful cross-cutting analyses and provides a comprehensive view of the situations being studied, which is essential for understanding complex issues.

Academic coaching dashboards, developed in Tableau, are among the primary tools used to leverage these data. Designed for Success Coaches, they provide real-time visibility into student engagement and performance, including login frequency, time spent in courses, and assessment results, benchmarked against class averages.

These insights allow coaches to quickly identify emerging difficulties and implement targeted interventions tailored to individual student needs.

ASU has also developed a predictive model to identify students at risk of not re-enrolling in the following semester. The model is based on approximately 200 variables, including financial status, course load, academic performance, and level of engagement on the learning platform.

For ethical reasons, these predictions are not communicated directly to students, in order to avoid self-fulfilling effects. Instead, they are shared with student support teams, who can intervene proactively and supportively.

Finally, the team is exploring the development of an interface that would allow users to query the data warehouse using natural language. The goal is to enable non-specialist users to ask simple questions and receive immediate answers, without requiring technical expertise in SQL or reporting tools.

This project aims to democratize access to data, reduce reliance on specialized analysts for routine queries, and strengthen evidence-based decision-making across the university.

Integration of Technology and AI at ASU

Overview of ASU's Technological and Pedagogical Support Ecosystem

ASU's technological and pedagogical support ecosystem is coordinated by an entity known as Learning Experience, which is structured into several specialized teams. One team is dedicated to physical learning environments and is responsible for managing audiovisual equipment and network infrastructure across more than one thousand classrooms. Another team provides highly responsive technical support for faculty, with the objective of resolving incidents within minutes. A third team oversees the university's digital platforms, including the large-scale deployment of Canvas, which serves as the central entry point for the vast majority of courses.

Finally, a team specializing in learning experience design works closely with faculty and students to explore new pedagogical approaches and support professional development. This integrated organization is essential both for ensuring the day-to-day operation of the university and for driving new innovative initiatives. It also enables the rapid mobilization of resources to support the adoption of emerging technologies and the development of strategic partnerships.

Faculty Professional Development and Adoption of AI

One of the structuring principles of this approach is the entirely voluntary nature of the training initiatives offered. Faculty members are not required to participate, but are drawn in by the diversity and relevance of the programs available, which include workshops, on-demand video resources, toolkits, and individualized support. Participation levels are particularly high, with approximately 3,000 faculty and staff members trained in AI each semester.

The partnership with OpenAI was cited as a flagship example of the university's ability to rapidly support the adoption of a new technology. As soon as the partnership was established, resources were developed to help faculty—many of whom were new to generative AI—understand the tools and integrate them meaningfully into their teaching practices. This mobilization met with notable success, rarely observed in optional professional development initiatives aimed at faculty.

The approach remains firmly human-centered. In particular, teams actively encourage more hesitant faculty members to engage in dialogue and offer personalized support to address specific concerns. The objective is

to ensure that AI adoption is a thoughtful, reflective process grounded in human needs rather than driven solely by technological performance.

Hybrid Teaching Model and Classroom Technologies (ASU Sync)

Initially developed in response to the public health crisis, this model has gradually become a durable strategic pillar of the university's academic offering.

The ASU Sync model has proven effective in attracting and supporting audiences that were previously more difficult to reach, particularly international students. It has enabled the creation of fully degree-granting programs delivered entirely through this modality. This success is based on substantial and structurally transformative investment in classroom technology, with nearly all teaching spaces designed to support hybrid and flexible delivery. This standardization provides faculty with significant pedagogical freedom, whether to accommodate remote students or to invite external speakers via videoconference.

The intensive use of these technologies, with Zoom serving as the central digital infrastructure, has made ASU one of the largest global users of the platform. This strategic choice reflects the university's commitment to building a resilient learning environment capable of adapting to diverse contexts and pedagogical needs.

Strategic Approach to AI Policy, Ethics, and Training Programs

The challenges raised by generative AI are complex, particularly with regard to ethics, academic integrity, and faculty concerns. These include student use of AI to reduce academic effort, fears of faculty replacement by technology, and issues related to digital sovereignty.

In response, the university chose not to develop a new, overarching institutional AI policy, considering that existing academic integrity rules remain fully applicable. AI is therefore not viewed as a phenomenon requiring a comprehensive overhaul of regulatory frameworks.

Instead, ASU has entrusted faculty members and academic departments with the responsibility of defining authorized or expected uses of AI within their courses, based on pedagogical objectives and disciplinary specificities. This approach requires clear articulation of expectations in course syllabi and encourages faculty to actively engage with the technology rather than avoid it.

To support this strategy, the university has made significant investments in faculty development, notably through the creation of interdisciplinary working groups tasked with defining ethical principles and the development of diverse training pathways. These initiatives have evolved over time, shifting from an initial focus on preventing academic dishonesty to more advanced uses of AI, such as supporting creativity, accessibility, and the design of authentic assessments. The central idea is that the most effective response to the challenges posed by AI lies in more inventive, more personalized, and more demanding forms of education.

The Evolving Impact of AI on Research and the Labor Market

AI is having a transformative impact beyond teaching, particularly in academic research and the labor market. It is fundamentally reshaping research practices, especially in data-intensive disciplines such as bioinformatics.

A major challenge identified is the lack of advanced programming skills among many researchers. To address this, ASU is developing tools that enable the use of AI on datasets without requiring the development of complex applications. This approach aims to accelerate scientific discovery by allowing researchers to more rapidly identify the most relevant questions on which to focus their efforts.

AI is also influencing graduate employability. While the situation remains dynamic and difficult to assess in isolation, ASU observes, as a major employer, that AI tends to transform jobs rather than eliminate them, even though certain roles—such as those in call centers—are evolving significantly.

Innovative Educational Initiatives in Support of Student Success

The Dreamscape Learn Immersive Virtual Reality Initiative

Dreamscape Learn is an innovative initiative that leverages immersive virtual reality to transform teaching and learning practices. The program was designed to address major challenges related to student persistence, particularly in science and technology disciplines, by offering learning experiences that are both highly engaging and pedagogically effective. Its core objective is to move beyond traditional instructional methods and equip students with essential, transferable skills for the twenty-first century.

Dreamscape Learn originated from a partnership between Arizona State University and Dreamscape Immersive, a virtual reality company founded by film producer Walter Parks. ASU's president quickly recognized the potential of this technology to shift from entertainment-focused applications to educational uses.

This reflection led to the creation of a learning platform grounded in narrative storytelling. The team developed an original pedagogical model based on a three-act structure inspired by cinema and theater. In the first act, students enter a shared virtual environment and encounter a novel problem. They then continue their work outside of virtual reality by analyzing data and formulating hypotheses. In the second act, students return to the immersive environment to test their hypotheses, often encountering an unexpected element. Finally, after a further phase of analysis, the third act consists of deploying a solution within a strong, narrative-driven conclusion.

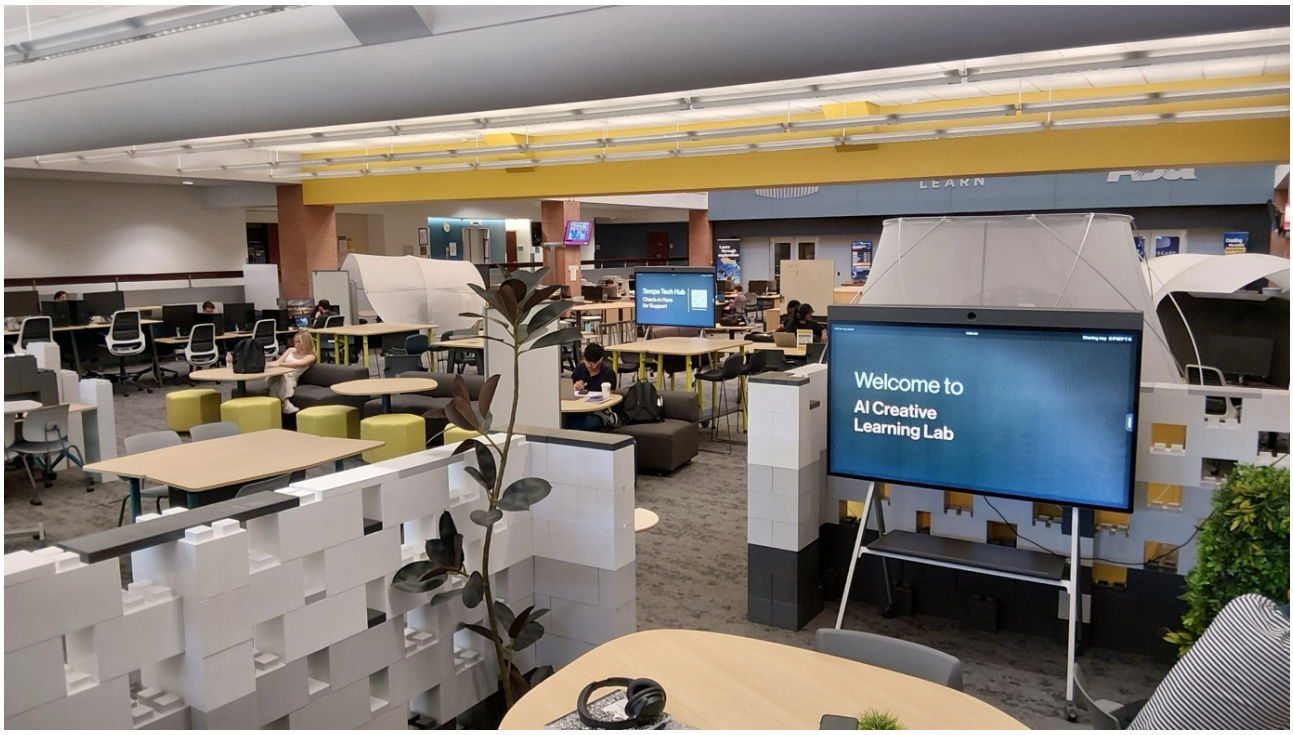
This structure is designed to foster skills such as metacognition, quantitative reasoning, and modeling.

A central focus of the presentation was the measurable impact of the Dreamscape Learn program. A randomized controlled study conducted with biology students demonstrated exceptionally high levels of engagement, with average ratings ranging from 4.5 to 4.6 out of 5. More significantly, students who participated in the Dreamscape Learn curriculum were 1.7 times more likely to earn the highest grade, corresponding to an improvement of nearly a full letter grade.

The most striking impact, however, concerns equity. The data show that performance gains are consistent across all student profiles, making socio-economic or demographic background a non-predictive factor in academic success. This finding validated the approach and accelerated the program's expansion.

Following these results, the university chose to structure Dreamscape Learn as a commercial entity in order to offer its content to other institutions. The program has since expanded into new disciplines, including chemistry, astronomy, and supply chain management, and now counts approximately twenty partner institutions, ranging from primary education to universities.

Student-Centered Technology Hubs and Creative Spaces



Student success is also shaped by the physical spaces on campus and by how the university designs and operates its learning environments. ASU's approach is guided by the removal of barriers, the support of creativity, and the co-design of services with students.

Tech Hub is the university's in-person IT support service. It was created in response to a concerning finding: one in five students encounters technological difficulties that may jeopardize their continuation of studies. Tech Hub provides accessible and welcoming spaces on each campus where students can receive assistance with issues ranging from account access to hardware and software problems.

A cross-cutting principle across these spaces is continuous adaptation based on usage data and user feedback. Decisions are made in collaboration with students, following a logic of on-going experimentation. This approach led, in particular, to the creation of a professional podcasting studio after observing exceptionally high demand for a simpler pilot installation.

This attentiveness to user needs also extends to faculty, with the creation of dedicated spaces where instructors can explore AI-related topics in a supportive and confidential environment.

The technology hubs rely heavily on student employment. More than fifty students work in these spaces as technology consultants, audiovisual specialists, or AI creators. This model both ensures the effective operation of the facilities and serves as a structured pathway for professional development, grounded in mentorship and the acquisition of skills that are in high demand in the labor market.

The outcomes are strong, with high post-graduation employment rates and valuable networking opportunities with leading industry partners.

Finally, the university has made a strategic decision to develop its own technological platforms, particularly for portfolios, media management, and skills credentialing. This choice reflects both the scale of the institution and a commitment to building a lifelong learning ecosystem in which a student's achievements can follow them from secondary education through their professional career.

ASU Partnership: Innovation Labs and Student-Led Solutions

Cloud Innovation Center

ASU and Amazon Web Services collaborate through the Cloud Innovation Center (CIC). This center operates as a public–private partnership that leverages student expertise to design and deliver technological prototypes within short timeframes, addressing the needs of public-sector organizations. The CIC works with government agencies, non-profit organizations, and educational institutions, offering innovative solutions developed at no direct cost to partner organizations.

This model is built on a dual ambition. On the one hand, it enables the rapid development of concrete, operational solutions for stakeholders facing complex challenges. On the other hand, it serves as a powerful mechanism for student training and professionalization. Students are hired as paid employees and gain substantial professional experience throughout their academic journey. This approach significantly enhances employability, with many students receiving job offers even before completing their degrees. The CIC operates according to principles of rapid execution, continuous iteration, and a pragmatic mindset that combines ambitious vision with the delivery of targeted prototypes, typically completed within ten to twelve weeks.

The Cloud Innovation Center is strongly committed to open-source principles. Solutions developed by student teams are systematically released for broad sharing and reuse. The objective is to solve a problem once and enable multiple organizations to adopt, adapt, and maintain the tools according to their specific needs. Several projects have already been delivered, including an agentic AI solution for university admissions, designed to improve the applicant experience through a conversational agent capable of answering questions, guiding decision-making, and facilitating contact with advisors. Another notable project involved a career support platform that identifies job opportunities genuinely aligned with student profiles by analyzing their skills, preferences, and academic pathways.

Learning Futures Collaboratives

The Learning Futures Collaboratives (LFC) is another flagship ASU initiative centered on student-driven innovation. LFC focuses on developing proofs of concept and minimum viable products in emerging technological domains such as virtual and augmented reality, game technologies, and artificial intelligence. The lab collaborates with major external partners, including Meta, as well as multiple internal ASU entities, to design innovative educational, scientific, and professional experiences.

LFC operates with a multidisciplinary team of approximately thirty students from diverse fields, including computer science, animation, architecture, and the arts. Students are organized into “guilds” aligned with their areas of expertise, fostering knowledge sharing and peer-to-peer learning. A distinctive feature of the model is that a significant portion of students’ paid working time is dedicated to self-directed learning and experimentation within these guilds. This structure creates a virtuous balance between individual skill development and collective project contribution, while preparing students for complex, collaborative professional environments.

The outputs of the Learning Futures Collaboratives demonstrate the lab’s expertise across three major areas: spatial computing, game-based technologies, and artificial intelligence. Among the projects presented were several digital twins, including urban simulations designed to support planning initiatives, a comprehensive digital twin of the ASU campus, and a highly realistic human digital twin developed for medical education. The latter enables the simulation of complex clinical scenarios—such as diagnosing a stroke—within immersive environments that closely replicate real-world conditions.

Additional projects highlighted the potential of gamified learning, including experiences that use real scientific data to immerse learners in exploratory environments, as well as educational games aimed at raising awareness of science and technology careers among younger audiences. Finally, a flagship offline educational AI project, developed in partnership with SolarSPELL (an ASU initiative focused on online education), illustrated LFC’s strong commitment to inclusion and social impact. By integrating a small

language model into a solar-powered digital library, the solution enables populations without Internet access to interact with educational resources through a conversational interface. A related use case, developed with the Hopi Tribe, focuses on providing a culturally adapted conversational agent to support access to sensitive health-related information.

The University as an Enterprise: Strategic Design at Arizona State University

Shoji Kajita, PhD - Japanese Delegation

Introduction

After visiting Arizona State University (ASU), arranged by the French Delegation in conjunction with the EDUCAUSE Annual Conference, I came across a podcast through a LinkedIn post by Michael Crow himself: Episode 172 of “People I (Mostly) Admire”, hosted by Steve Levitt of Freakonomics fame, titled “A New Kind of University}” (December 2025). Levitt tells Crow that every school seems to be playing the same game, and that ASU is the obvious exception. What different game has Crow designed? This essay attempts to read ASU as a deliberately constructed enterprise, weaving together what I observed during the visit with Steve Levitt's dialogue with Michael Crow in the podcast.

A Prototype of the “Fifth Wave”

In the podcast, Crow maps American higher education across five waves: the colonial colleges of the first wave; the proliferation of private colleges after independence; the land-grant universities of the third wave; the great public research universities of the twentieth century; and the fifth wave now underway. ASU positions itself as the prototype of that fifth wave, namely institutions that are “large, highly innovative, scalable, directly engaged” in social transformation.

This self-positioning rests on Crow's own diagnosis: traditional research universities are captive to design constraints built up over centuries, and ASU was deliberately designed to shed them.

In a corridor of the “Office of the Executive Vice President, Knowledge Enterprise” that we visited, hung a framed plaque titled “A New American University” (see Figure 1). The nine principles inscribed there --- Leverage Our Place, Transform Society, Value Entrepreneurship, Conduct Use-Inspired Research, Enable Student Success, Fuse Intellectual Disciplines, Engage Globally, Be Socially Embedded, and Practice Principled Innovation --- represent ASU's institutional mission codified as design principles.

Inverting the Competitive Logic

One formulation was repeated throughout our visit: the university's founding charter states that ASU is “measured not by whom it excludes, but by whom it includes and how they succeed.” Kyle Bowen, who led the AI session, opened with a slide titled “AI Supporting The ASU Charter,” displaying the full charter text “ASU is a comprehensive public university, measured not by whom it excludes, but by whom it includes and how they succeed; advancing research and discovery of public value; and assuming fundamental responsibility for the economic, social, cultural and overall health of the communities it serves.” as the explicit

justification for every aspect of ASU's AI strategy. The first time I heard it, I took it for an appealing slogan. As the visit progressed, it became evident that it functions as a genuine decision criterion.

In the podcast, Crow articulates the logic behind this inversion with clarity. American higher education has bifurcated into two dysfunctional models: “excellence only” institutions, such as Harvard and Stanford, that derive competitive advantage from selectivity; and “access only” institutions that open their doors broadly but lack research capacity. This bifurcation, Crow argues, is the root cause of the system's dysfunction. ASU's “New American University” model attempts to integrate both.

A student population of 158,000 coexists with research expenditure in the national top five. More than one in three undergraduates is the first in their family to attend university, yet the institution sustains five Nobel laureates and ten Pulitzer Prize winners on its faculty. The impression formed during the visit --- that inclusion was embedded in institutional design rather than merely proclaimed --- proves to be the logical consequence of this integrative model. Turning inclusion into competitive advantage is the most fundamental expression of the different game Crow has chosen to play.

A New American University - Design Aspirations for a New American University

Managing AI as an Enterprise

The most substantive portion of our visit was devoted to AI. What was presented was not a collection of AI tools, but a system for managing AI as enterprise-wide infrastructure.

The starting point was the “Guiding AI Tenets,” five principles governing ASU's approach to AI:

1. AI is an enduring part of the innovation landscape for the foreseeable future.
   AI is a powerful technology that will occupy a sustained position in the innovation landscape for the foreseeable future.
2. Harnessing the power of AI brings the responsibility to innovate in a principled way.
   This responsibility centers the university's charter and its values of inclusion and access.
3. AI can support human intelligence and capabilities, rather than replace them.
   AI functions as a complement to human creativity, promoting equal access and amplifying potential.
4. We have a responsibility to our community to keep pace with the rapid progression of AI.
   Keeping pace with AI's rapid development is positioned as an institutional obligation to the community.
5. This technology must be easily accessible to people from diverse backgrounds.
   The aim is to bridge accessibility gaps so that people of all backgrounds can benefit from AI.

Each tenet connects directly to ASU's ninth design aspiration: Principled Innovation.

The organizational expression of these tenets is the “AI Acceleration” team, described in the session as “the first of its kind AI fusion team dedicated to scaling and transforming higher education.” Its mandate has two components: building enterprise platforms, and developing products.

The technical centerpiece is the CreateAI Platform. “With generative AI, the only constant is change, and the CreateAI Platform is built for constant change.” Using a modularized architecture, the platform allows components, from vector databases to guardrail approaches to generative AI models, to be swapped in and out as new technologies emerge. The platform operates entirely within the “ASU garden wall,” providing a private and secure environment. Its layered architecture integrates 20+ large language models, an Ethical AI Engine, multiple vector databases, Single Sign-On, access control and audit logs, and high-speed AI cloud service capabilities.

During the visit, ASU demonstrated CreateAI Compare, a live interface in which a single query was sent simultaneously to Claude 3.5 Sonnet (Anthropic), GPT-4o and GPT-4o Mini (OpenAI), Llama3 405B (Meta), Mistral Large, and Nova Pro (Amazon), with responses displayed side by side. The design principle of vendor independence was made literally visible on screen.

AI governance is implemented through three technical systems: the EthicalAI Engine for pre-deployment evaluation; GUARD for real-time detection and classification of high-stake interactions; and SAFER for comprehensive monitoring and analytics. Implementing governance as technical infrastructure rather than policy documentation is the institutional expression of Principled Innovation.

The AI session also cited Anthropic co-founder Chris Olah and CEO Dario Amodei on the urgency of AI interpretability: “Generative AI systems are grown more than they are built --- their internal mechanisms are emergent rather than directly designed” (Chris Olah); “People outside the field are often surprised and alarmed to learn that we do not understand how our own AI creations work. They are right to be concerned: this lack of understanding is essentially unprecedented in the history of technology” (Dario Amodei). Proceeding with implementation while acknowledging these limits reflects a form of institutional honesty worth noting.

Enterprise-wide AI collaboration is organized across three layers: AI Communities of Practice (Teaching & Learning, Digital Trust & AI, AI Upskilling, AI Product Development); Committees and Councils (Working Group AI, AI Advisory Team, Faculty Ethics Committee on AI Technology, and others); and ET AI Product Management --- a structure designed to circulate knowledge across the entire university.

Managing Data as an Enterprise

The latter part of the afternoon was led by Mike Sharkey, Executive Director of Data & Analysis at ASU Enterprise Technology, under the title “Data Analytics in the Cloud.”

ASU's data strategy is characterized by comprehensiveness combined with distributed operation. The philosophy, as Sharkey put it directly, is to collect “whatever we can get our hands on”: from core systems such as PeopleSoft/Oracle, Workday, Salesforce, Canvas (the LMS), and My ASU, to Wi-Fi network logs, library usage, facilities, residential life, orientation, and training data. Each data source is ingested via SnapLogic into Amazon S3 and aggregated in the Amazon Redshift Enterprise Data Warehouse (EDW). The EDW has grown from approximately 6TB in July 2021 to approximately 28TB in July 2025, more than a fourfold increase, reflecting the acceleration of AI-related demand on data infrastructure.

The analytics team is organized into seven “Chapters”: Data Analysis/Viz, Systems Analysis, Data Success, Data Management (DBA and DW), Architecture, and Governance. It sits within the Enterprise Technology organization reporting to CIO Lev Gonick.

The front-line application of this data infrastructure is the Canvas Coach Dashboard, which provides advisors and success coaches with real-time visibility into individual students' login frequency, click activity, time-on-task, and course grades. This is not a surveillance tool but an intervention support system designed so that coaches can identify difficulties before they become irreversible.

The “Persistence Outlook” model predicts students' risk of not re-enrolling in the following semester based on four factors: the percentage of attendance costs covered by gift aid; number of credits currently enrolled (part-time or full-time); course performance (grade and GPA); and course activity and engagement. Predictions are shared only with student support staff, not communicated directly to students, in order to avoid self-fulfilling effects --- an ethical constraint built directly into the system design. Looking ahead, ASU is also developing a Natural Language Querying interface that would allow any member of the university community to query the data warehouse in plain language, without expertise in SQL.

A Name That Reflects What Something Is

Before drawing broader conclusions, I want to pause on a detail that struck me repeatedly throughout the visit: the word “Enterprise” embedded in the names of ASU's organizational units. The AI session was led by the “AI Acceleration” team; the data session by a team within “Enterprise Technology”; and the building we visited houses the “Office of the Executive Vice President, Knowledge Enterprise.” This naming is not incidental.

For anyone familiar with enterprise architecture frameworks such as TOGAF, ASU's design feels immediately recognizable. Just as TOGAF defines an “enterprise” as any collection of organizations sharing a common set of goals and calls for the integrated management of business, data, application, and technology architectures, ASU designs and operates the entire university as a single integrated enterprise. Rather than treating research, education, partnerships, data, and AI as separate silos, it aligns them under a single institutional charter. This is enterprise architecture in practice

There is a saying that a name reflects what something truly is. Placing “Enterprise” in a university's organizational titles is something one rarely encounters in Japanese higher education culture. Yet when ASU calls itself “Enterprise Technology” and “Knowledge Enterprise,” it is making a deliberate institutional declaration: we function as an enterprise, not merely as a university. It is a quiet but unmistakable signal of the institution's design philosophy. Reflecting on this alongside the TOGAF-based practices I encountered at UTSA and reported in last year's report, I was struck again by how deeply enterprise architecture thinking has taken root in America's most forward-looking universities.

Implications for Japanese Universities

In the podcast, Crow speaks with candor: “Most students who start college in the United States do not graduate. Our scale is inferior to other countries.” The decline in graduation rates and the challenge of educational scale are not uniquely American problems; Japan faces them as well. As demographic decline accelerates, the search for a third path beyond the old binary of “excellence only” or “access only” is becoming an unavoidable question.

The design philosophy ASU embodies offers a framework worth serious engagement regardless of differences in institutional purpose or scale. Placing “whom we include and how they succeed”at the center of institutional mission, rather than “whom we exclude,” represents a fundamental challenge to Japanese higher education culture, where prestige continues to be measured largely by selectivity and deviation scores.

As a concrete methodology for advancing this, I propose the application of Enterprise Architecture (EA). ASU's design feels coherent precisely because all four architecture domains defined by TOGAF --- institutional mission (business architecture), data strategy (data architecture), AI platform (application architecture), and cloud infrastructure (technology architecture) --- are aligned under a single institutional charter. Japanese universities, where individual DX initiatives too often exist as disconnected silos, stand to benefit from an EA lens: viewing the entire university as “one enterprise” and systematically aligning each initiative with institutional mission. ASU's placement of “Enterprise” in its organizational titles is a quiet institutional declaration of precisely this EA-grounded design philosophy. EA is not the exclusive domain of corporate IT departments; it is a powerful framework for the integrated design and transformation of complex organizations like universities.

More concretely, ASU's approach to implementing AI governance as technical infrastructure (EthicalAI Engine, GUARD, and SAFER), its comprehensive yet ethically constrained data strategy, and its conception of students as enterprise participants rather than service recipients all offer transferable insights. What matters most, however, is not to import specific tools or programs, but to engage with ASU's institutional logic within an EA framework at the level of design philosophy --- precisely the kind of exchange that AXIES's ongoing dialogue with the EDUCAUSE community makes possible.

Conclusion

Because I heard the podcast after the visit, Crow's words arrived not as explanation but as interpretation of experience. “We compressed a couple hundred years of university evolution into 20 years” proved to be a precise description of what I had sensed on the ground. The nine design aspirations inscribed on the corridor wall and the ASU Charter displayed at the center of every AI presentation were all evidence that the disruption from the core had reached the institution's every corner.

ASU presents a powerful answer to the question of what a university is for: not the manufacture of scarcity through selectivity, but the creation of social value through inclusion and deliberate institutional design. The Fifth Wave is an ongoing project, not a completed model. But the clarity of its institutional logic and the coherence of its implementation offer an important benchmark for higher education globally.

Methodology note: In writing this article, the author used Claude by Anthropic (claude.ai) to assist in drafting the full text and in organizing the structure and content of the article.

EDUCAUSE Top-10 Issues 2026

Laurent Flory - French Delegation

This year, 2026 EDUCAUSE top 10 were presented by EDUCAUSE's new Vice President for Research, Dr. Krista Copp. She introduced this Top 10 (which by the way have been rebranded from top 10 IT issues to top 10) by emphasizing how difficult it has become to write about the future of higher education in a global context marked by political violence, tensions around freedom of expression, increased ideological polarization, and the financial fragility of many institutions—particularly Minority Serving Institutions affected by declining federal support. These developments, already visible in recent weeks, reflect a challenging year for the sector.

Regarding this instability, one principle is placed at the forefront: nurturing human connection within the academic community. The challenges facing higher education are fundamentally human in nature, and the solutions must be as well.

For this reason, the group of roughly fifty experts and institutional leaders structured the ten priorities around the theme *Making Connections*. The priorities are no longer conceived as technological silos but as levers for connecting people, data, and processes.

Since the original content is in English, no detailed presentation will be provided in this report as it can be fully accessed on EDUCAUSE website[45].

The comparative analysis of the priorities identified by EDUCAUSE in 2025 and 2026 highlights a profound transformation of the digital function within higher education and research. This evolution is not a simple rebalancing of priorities; it reflects a major conceptual shift. The academic digital ecosystem is moving from a logic of stabilization and risk control toward a dynamic centered on connection, collaboration, and organizational resilience.

In 2025, institutions were engaged in a phase of reconstruction and consolidation, seeking to restore trust, clarify their data governance, and harmonize their infrastructures. In 2026, the focus shifts to the integration of actors, the circulation of knowledge, and the development of a shared digital culture. Technology is no longer viewed as an isolated objective but as a vector of interaction and a catalyst for collective capacity-building.

1. A shift in strategic posture

The move from the paradigm of "what" (owning, organizing, securing) to that of "how" (coordinating, sharing, connecting) is one of the key insights of the 2026 Top 10. The emphasis is no longer on producing technological assets but on orchestrating human, informational, and organizational relationships grounded in trust, transparency, and interoperability.

2. Three structural transformations

Cybersecurity as a shared responsibility. Although cybersecurity remains a recurring priority—and returns to the top position in 2026—its meaning evolves. Once a predominantly technical concern, it now becomes a cultural component involving all stakeholders. Security no longer depends solely on infrastructure protection; it relies on user engagement, awareness, and shared accountability. It is now a fundamental condition for sustaining institutional trust.

[45] 2026 EDUCAUSE Top 10: Making Connections | EDUCAUSE Review

Artificial intelligence oriented toward knowledge management. AI, which appears in several positions in the 2026 ranking, reflects the increasing maturity of digital practices in higher education. It spans a continuum from operational efficiency to strategic analysis, including the structuring of institutional knowledge. Developing digital literacy—among students, staff, and institutional leaders—becomes essential to leveraging these technologies effectively.

Data as a tool for anticipation and strategic steering. While data governance was a central priority in 2025, predictive capability—emerging progressively over the past three years—occupies a central place in 2026. The emphasis on advanced analytics demonstrates a desire to equip institutions to anticipate demographic, financial, and organizational developments in a context of significant budgetary constraints. Data thus emerges as a strategic lever for institutional sustainability.

3. The emergence of "Return on Value"

In a highly constrained financial environment, the question of value becomes decisive. Digital initiatives can no longer be assessed solely through technical performance or efficiency gains. They must demonstrate their contribution to the academic mission: student success, strengthened learning communities, improved services, and the development of key competencies for the 21st century. This broader understanding of return on investment reshapes how to evaluate digital projects.

From our point of view, key insights from the 2026 priorities are:

- The human dimension is the critical success factor. Skills, institutional culture, collaboration, and change management are essential determinants.
- Cybersecurity becomes a collective good. Protecting systems and data now depends on shared engagement rather than strictly technical mechanisms.
- Artificial intelligence requires a systemic approach. It demands robust information infrastructures, well-governed knowledge management, and widespread capacity-building.
- A data culture is indispensable for effective steering. Institutions must move beyond data collection to become truly data-informed and capable of proactive planning.
- Strategic technology management is essential. Institutions must rigorously assess innovations, integrate digital skills into curricula, and develop coherent approaches to investment.

In conclusion, while 2025 strengthened the foundations of digital transformation in higher education, 2026 focuses on expanding its connective and human dimensions. Digital transformation cannot succeed without strong articulation between technologies, practices, competencies, and communities. The digital professional thus becomes a strategic mediator—responsible not only for architecting and for securing systems but also for facilitating relationships, practices, and knowledge flows across the institution.

Together We Thrive : Exploring Community, Connection, Belonging, and Inclusion in HE

Erica Dumont - French Delegation

"Technology, for instance, has become a kind of imposter for connection, making us believe we're connected when we're really not - at least not in the ways we need to be. In our technology-crazed world, we've confused being communicative with feeling connected. Just because we're plugged in, doesn't mean we feel seen and heard."

Brené Brown, *The Gifts of Imperfection: Let go of Who you think you're supposed to be and embrace Who you are*

Introduction

The EDUCAUSE 2025 conference in Nashville, Tennessee, focused as usual on the role of technology, and particularly generative artificial intelligence (genAI), in higher education, and its potential to transform educational landscapes across the globe. However, the undeniable emphasis on the human experience behind these developments particularly resonated this year. As we move further into an age increasingly defined by digital interactions, the human characteristics of community, connection, belonging, and inclusion have emerged as integral attributes of the future of education and both individual and collective well-being.

Modern technologies have significantly reshaped how we interact with one another. The growth of instant messaging, social media, and video calls has allowed people to communicate over vast distances in real time, making it easier to maintain friendships and family ties. However, these conveniences can also lead to superficial connections, as many interactions occur through screens rather than face-to-face. This paradox leaves us feeling more connected yet increasingly alone. As the American sociologist Sherry Turkle argues in her 2011 book Alone Together: Why We Expect More from Technology and Less from Each Other, "we seem determined to give human qualities to objects and content to treat each other as things. … Our networked life allows us to hide from each other, even as we are tethered to each other."[46] While digital connections may provide a semblance of companionship, they often lack the emotional depth of true friendships.

These dynamics underscore the importance of community, where genuine connections foster a sense of belonging and inclusion. Prioritizing real relationships over superficial digital interactions can help combat loneliness and create environments where everyone feels valued. By focusing on authentic connections, society can build supportive communities that fulfill our human need for interaction, instead of relying solely on technological convenience.

Throughout the EDUCAUSE 2025 conference and our 2025 on-site visits, it was the human qualities of community, connection, belonging, and inclusion that stood out as a focal point, much more so than any innovative technologies. Despite – or maybe due to – the current political climate in the United States, higher education appears to be making concerted efforts to prioritize these values. The different examples that will be presented in this report illustrate a commitment to fostering environments where people – students,

[46] Turkle, Sherry. (2011). *Alone Together: Why We Expect More From Technology and Less From Each Other*. New York: Basic Books: (pp. iv, 1).

teachers, administrators, and administrative staff – feel supported and engaged. By highlighting these initiatives, we can observe how universities are working diligently to reinforce community bonds in a rapidly evolving social context.

Community

Each year, the EDUCAUSE conference brings together dynamic mix of individuals passionate about the intersection of higher education and technology—educators, IT specialists, instructional technologists, and industry leaders. This yearly gathering and the on-going online interactions between members throughout the year are not just opportunities to exchange innovative ideas and best practices, they also serve as a catalyst for collaboration and community-building. The real value of EDUCAUSE lies in the emphasis on working together to tackle the often complex and constantly evolving challenges faced today by institutions of higher education.

EDUCAUSE President John O'Brien, in his opening remarks of the 2025 conference, highlighted the importance of community when he stated, "We are all part of something larger." Behind these words is the idea that we are all individuals who belong to different groups – attendees at the EDUCAUSE conference, our individual institutions of higher education, or our teaching or edtech departments within those institutions – but that by joining forces, we can collaborate on current issues in higher education.

The essential role of community was emphasized by several EDUCAUSE award recipients. During the EDUCAUSE Recognition Ceremony the night before the official opening of the EDUCAUSE conference, Liv Sjestang, the 2025 Organizational Culture Award Recipient, encouraged participants to welcome newcomers to the conference and to embrace them as part of the community. Given the title of her award, it is not surprising that her EDUCAUSE biography stresses the importance of community: "Her leadership blends vision with empathy, building cultures of trust, collaboration and meaningful impact."[47]

When he was presented with his award during the opening remarks of the conference, the 2025 Rising Star Award recipient, Michael McGarry, focused on the crucial role of community in fostering collaboration and support in higher education. His biography on the EDUCAUSE website underlines his "enduring commitment to creating programs and solutions that benefit all members of the communities he serves."[48]

Throughout the conference, EDUCAUSE offers multiple community-building initiatives such as the Young Professionals Hub, where young professionals are encouraged to connect and network with their peers, and members of the EDUCAUSE community are invited to stop by. For the 2025 conference, the EDUCAUSE website described the Young Professionals Hub as "conference home base for networking, collaboration, and community. Designed for young professionals and their supporters, this dynamic space offers a welcoming lounge environment curated for fostering connections and relaxing."[49]

EDUCAUSE organizers also propose the Executive Leaders Experience, which allows "executive and senior leaders from all types of institutions convene to learn from each other and expand their network."[50] Similar to the Young Professionals Hub, there is a dedicated physical space, the Executive Lounge, where people can network or simply grab a snack or check email.

Having just discussed the various ways community was emphasized at the conference, let us now explore how the concepts of connection, belonging, and inclusion were actively illustrated in both the conference sessions and during our on-site visits, providing concrete examples of their significance in higher education.

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[47] https://www.EDUCAUSE.edu/careers/awards-program/organizational-culture-award/organizational-culture-award-recipients/2025-organizational-culture-award-recipient

[48] https://www.EDUCAUSE.edu/careers/awards-program/rising-star-award/rising-star-award-recipients/2025-rising-star-award-recipient

[49] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/young-professionals-hub

[50] https://events.EDUCAUSE.edu/annual-conference/experiences/executive-leaders-experience

Connection

Despite being primarily focused on the roles of technology in higher education, EDUCAUSE also emphasizes the critical importance of human connection. This connection encompasses the relationships formed between individuals, facilitating communication, shared experiences, and mutual support through empathy and engagement. In professional settings, these interpersonal connections not only promote collaboration and innovation but also offer emotional support during challenging times, helping to alleviate stress and anxiety. One of the most rewarding aspects of attending EDUCAUSE has been the opportunity to connect with people from around the world.

The importance of creating and maintaining connections was not new at the 2025 EDUCAUSE conference. At the 2024 conference in San Antonio, vulnerability and shame researcher Brené Brown emphasized that "everyone is trying to love, to be loved, to feel safe, and to make a contribution" during her fireside chat with EDUCAUSE President John O'Brien. These ideas are at the heart of connection: humans want to feel like they are a part of something bigger.

Various interventions at the 2025 EDUCAUSE conference also emphasized connection. During the opening remarks of the 2025 conference, Liv Sjestang, the 2025 Organizational Culture Award recipient, stressed that "now more than ever we need connection." The political context in the United States in 2025 was marked by significant divisions and social challenges, making it necessary to foster connections in order to bridge divides and cultivate an environment of inclusivity. By prioritizing connection, we can work towards a less divisive society where everyone feels valued.

John O'Brien introduced the 2026 EDUCAUSE Top 10 presentation by stating, "Our connections with one another could very well be the way through," referencing the divisive political context and its impact on higher education. To further highlight the significance of connection, the 2026 EDUCAUSE Top 10 list is entitled, "Making Connections", and the EDUCAUSE website asserts that "[t]he 2026 EDUCAUSE Top 10 tells a decidedly human story about what higher education technology leaders will be focused on in the year ahead. Alongside their on-going nurturing of institutions' technologies and data, technology leaders will also be nurturing connections among and between the people at their institutions—their senior leaders, staff, faculty, and students."[51]

Our on-site visit at Arizona State University (ASU) demonstrated another means of fostering interpersonal connections. Our guide told us about an intergenerational project called Mirabella at ASU, a collaboration between ASU and Pacific Retirement Services to implement a retirement community on campus, offering residents access to university life[52]. Intergenerational connections enrich the educational experience, allowing younger individuals to gain insights from the life experiences of older generations, while also providing a sense of belonging and purpose to older adults through engagement with vibrant campus life. The ASU webpage advertising this program affirms that "[w]hen you make Mirabella at ASU your place, you'll join a community fueled by the Arizona State University campus," further emphasizing the role of connections in creating a feeling of community.

[51] https://www.EDUCAUSE.edu/research-and-publications/research/top-10-it-issues-technologies-and-trends/2026

[52] https://www.mirabellaasu.org/

Belonging

Belonging is another vital component in building a strong sense of community, as it ensures individuals feel accepted, valued, and part of the collective experience. In his 1943 model of the hierarchy of needs, Psychologist Abraham Maslow affirmed that after physiological and safety needs are met, the need for love and belonging becomes primary[53]. Social psychologists Roy F. Baumeister and Mark R. Leary, in a 1995 paper, agreed that belonging is a fundamental human need and motivation[54]. When people experience a strong sense of belonging, they are more likely to engage, contribute, and thrive in their environments.

At this year's EDUCAUSE conference, international attendees were invited to a welcome breakfast, where EDUCAUSE President John O'Brien welcomed the representatives of the different international delegations to the conference and suggested a group photo. It was motivating for the members of the French delegation to meet other international participants from a wide variety of countries, and it helped reduce the feeling of being an outsider at the conference.

The concept of belonging was also discussed during the conference sessions. Dr. Keith McIntosh, Vice President & Chief Information Officer at the University of Richmond, presented two sessions in which he focused on belonging: a panel session on October 29th entitled, "Building Belonging & Cultivating Culture: Strategies and steps for teams anywhere and everywhere" and then an individual presentation on October 30th entitled, "The Belonging Imperative: A New Agenda for Leadership."

It was interesting to notice that Dr. McIntosh does not just talk about the importance of belonging, he also puts it into action. Before the start of his presentation on October 30th, he took the time to walk around the room and greet individuals in the audience, shaking hands and welcoming us to the session. Dr. McIntosh explained during his presentation that as a leader in his institution, he considers it his responsibility to foster a sense of belonging in his team, which he initiates by starting all his meetings with check-ins to see how everyone is doing.

To illustrate the importance of belonging in personal well-being, Dr. McIntosh asked the audience to reflect on a time in our lives when we felt like we truly belonged and to call to mind the associated feelings. He then asked us to think about a time in our lives when we felt like we did not belong and to summon the associated feelings. The former, he explained, evokes positive, encouraging emotions whereas the latter leads to more negative, undesirable feelings. A sense of belonging thus triggers enhanced emotional well-being, improved mental health, and ultimately a greater sense of purpose. During his October 29th panel session, Dr. McIntosh asserted that in an academic context, belonging can enhance academic success, boost motivation, and promote overall mental health.

Creating a sense of belonging is not a foreign concept for American universities, and our on-site visits at Vanderbilt University and Arizona State University were no exception. Most American universities have a school mascot who attends important sporting events and often has a storied past: Vanderbilt has Mr. Commodore (see photo) and ASU has Sparky the Sun Devil (see photo), to foster school pride amongst the student body. The campus bookstore offers a multitude of items with the name of the university and representations of the mascot so that students (and often parents and extended family) can demonstrate their school pride, which helps to create a sense of belonging.

At Vanderbilt, fostering a sense of belonging was not just limited to the school mascot and the campus bookstore. One of their policies to encourage interpersonal connections is that all students are required to live on campus, in dorms, and that the first-year students are assigned dorms together, in a separate part of campus, in order to create a feeling of belonging. A faculty member lives there alongside the students to provide additional support for these new students.

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[53] Maslow, A. H. (1943). A theory of human motivation. Psychological Review, 50(4), 370–396. https:// https://doi.org/10.1037/h0054346

[54] Baumeister, R. F., & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. Psychological Bulletin, 117(3), 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Inclusion

To foster a genuine sense of belonging, it is essential to cultivate an environment where individuals feel included and valued. EDUCAUSE 2025 and our on-site visits exemplified inclusion through a number of different initiatives.

Language Inclusion

Language inclusion is a critical aspect of creating an accessible environment, particularly in settings like EDUCAUSE where participants attend from all over the world. Ensuring that all participants can fully engage with the content, regardless of their primary language, is essential for fostering a truly inclusive atmosphere.

To allow non-native English speakers improved access to the content of sessions, EDUCAUSE 2025 offered access to Wordly[55], an AI-powered tool that provides a live written translation of the presentations. Various members of the French delegation used this tool, for example, because it can be extremely tiring for their brains to listen and speak English all day long, even if their English is excellent. Being able to read real-time captions in French as they listened to presentations let them have complete access to what was being said, and it ultimately made them feel more included.

Given that inclusion is such an essential part of creating a sense of belonging, it is not surprising that two American Sign Language (ASL) interpreters attended Dr. McIntosh's October 30th presentation on belonging in order to interpret for a fellow conference attendee. While it is unclear whether the ASL interpreters were provided by the conference or if they were brought in by specific participants, their presence significantly enhanced accessibility for attendees who rely on sign language, demonstrating a commitment to inclusivity. Ultimately, making content accessible to non-English speakers reflects an effort to promote equity and inclusion within the community.

Inclusion through Digital Accessibility

One of the major topics of discussion at the conference was digital accessibility, which The Times Higher Education defines as "the practice of ensuring that digital content and technologies are usable by all, inclusive of disabled people, who face barriers and exclusion when digital environments fail to accommodate diverse ways of perceiving, navigating and interacting with information[56]". Digital accessibility is becoming a key standard for higher education worldwide, as this concept is increasingly recognized as an essential component of inclusion, ensuring equitable access to information and services. As awareness grows, new laws are being developed across the globe to enhance accessibility standards and create digital environments that welcome all users.

In the United States, most institutions of higher education are facing new requirements (Title II of the Americans with Disabilities Act [ADA]) "to create accessible websites, mobile applications, and digital content for both the public and internal users", with a "compliance deadline of April 24, 2026[57]". By improving digital accessibility for their students, universities will foster a sense of inclusion, but this process will require on-going commitment and resources to effectively implement the necessary changes and ensure that all digital content is user-friendly for everyone.

Digital accessibility has also been a topic of discussion in the European Union (EU) for many years. The EU adopted the Directive on the accessibility of the websites and mobile applications of public sector bodies, whose objective was to ensure digital accessibility to public sector organizations for all people with

[55] https://www.wordly.ai/

[56] https://www.timeshighereducation.com/campus/why-digital-accessibility-now-leadership-issue-universities (accessed Feb 3, 2026)

[57] https://onlinelearningconsortium.org/olc-insights/2025/09/federal-digital-a11y-requirements/

disabilities, in 2016[58]. The European Accessibility Act (EAA), which expanded the 2016 directive to include the private sector, took effect in April 2019 in the EU, with a compliance deadline of June 28, 2025[59]. Institutions of higher education in the EU are working to ensure compliance with these new regulations and therefore working to make their digital environments more inclusive.

These regulations underscore the importance of creating inclusive digital environments, and at the EDUCAUSE conference this year, with the US compliance deadline looming, the discussions during the Teaching and Learning session on October 28 focused on the importance of digital accessibility and inclusion but also on the obstacles to getting to full compliance, such as training instructional designers and teachers.

Conclusion

In conclusion, the insights gained from the conference and on-site visits underscore the vital importance of community, connection, belonging, and inclusion in enriching the educational experience within higher education. As institutions work to cultivate environments where all individuals feel valued and engaged, it is crucial to implement tailored strategies that address their unique contexts.

The importance of mental health has become increasingly apparent, particularly in the wake of the COVID-19 pandemic. Students are navigating a challenging landscape, and part of our role in higher education is to help them recognize the significance of building interpersonal networks for support in times of need. By fostering a sense of community, we can enable students to develop strong connections that bolster their resilience and well-being. While technology plays an essential role in facilitating communication, students increasingly seek authentic relationships that go beyond digital interactions. It is therefore suggested that universities leverage technology as a tool to enhance, not replace, these meaningful face-to-face engagements, thereby nurturing the emotional and social well-being of our students.

Methodology Note: The information gathered was summarized and structured with the help of the Duck.ai tool, which was also used to assist with the writing and final editing of the text.

[58] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32016L2102

[59] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32019L0882

Learning Spaces & Learning Environments

John Augeri, PhD - French Delegation

The topic of Learning Spaces, and more broadly the evolution of Learning Environments, has been discussed in this report for many years. Like other innovative educational initiatives, these spaces have undergone several phases during this period, which previous editions have had the opportunity to address.

The 2010s saw a proliferation of these spaces in terms of both quantity (number of spaces installed) and quality (variety of typologies). This proliferation was accompanied by growing awareness of their potential among stakeholders, without necessarily enabling them to overcome the experimental stage. This challenge was one of the reasons for the development of management and evaluation tools, such as the *FLEXspace*[60] database and the *Learning Space Rating System*[61], which have been mentioned several times in previous editions of this report over the years.

The COVID pandemic, whose impact on face-to-face teaching needs no reminder, ushered in a new phase for Learning Spaces. While the implementation of distance learning, then hybrid and HyFlex configurations, was clearly a matter of urgency at the time, these configurations have nevertheless integrated the mind of many stakeholders for the medium and long term, often with a perspective to adapting to new and pressing needs and to societal considerations that are also evolving. Contrary to what might at first glance be interpreted as a challenge, physical spaces find in these perspectives a new opportunity for legitimisation and added value, alongside – rather than in competition with – distance learning modalities. Various studies, in particular the 2023[62] and 2025[63] editions of EDUCAUSE's *Students and Technology Reports*, have shown that while potentially flexible multimodality is particularly popular with students, face-to-face learning remains the preferred method for a significant proportion of learning activities.

More than purely practical or technological considerations, the discussions held during the latest editions of the Annual Conference reflected a holistic approach to extended learning environments[64]. The 2024 conference in San Antonio focused in particular on change management and analytics issues, with, it should be noted, a generally less prominent presence of the topic of Learning Spaces in the conference programme. This trend continued at the 2025 edition in Nashville, with Learning Spaces absent from the 2026 Top 10 Issues and a relatively small number of sessions dealing with Learning Spaces. These sessions focused in particular on management processes and integration into multimodal configurations.

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[60] https://flexspace.org/

[61] https://www.EDUCAUSE.edu/focus-areas-and-initiatives/teaching-and-learning-program/initiatives/learning-space-rating-system

[62] https://www.EDUCAUSE.edu/ecar/research-publications/2023/students-and-technology-report-flexibility-choice-and-equity-in-the-student-experience/introduction-and-key-findings (accès réservé aux membres d'EDUCAUSE)

[63] https://www.EDUCAUSE.edu/content/2025/students-and-technology-report (accès réservé aux membres d'EDUCAUSE)

[64] See the article *Learning Environments: Change Management, Hybridizations & HyFlex* in the 2024 edition of this report

Meetings of the Learning Space Design Community Group

Each year, the Annual Conference hosts meetings of several EDUCAUSE *Community Groups*. Among these, the *Learning Space Design Community Group*[65] held its traditional meeting, but for the first time it was organized in two parts on the same day: a formal meeting on Hot Topics in the morning, followed by a more informal Meetup at the EDUCAUSE Commons a few hours later.

These meetings provided an opportunity to highlight the various means and events that foster exchanges within the community. The EDUCAUSE Connect Platform[66] brings together numerous discussion threads (covering topics such as equipment, usage, job offers, announcements of themed conferences, and feedback) on a wide variety of topics. It continues to show regular activity and is positioned as a central element of this community dynamic.

The session *Learning Space Design Community Hot Topics*[67], as its title suggests, focused on identifying topics that participants considered to be particularly relevant to Learning Spaces:

- Converting spaces to hybrid models: the perspective of widespread hybrid and HyFlex models requires a redesign that incorporates digital and A/V equipment enabling interactions between students attending face-to-face and those attending remotely in real time, as well as the recording of lectures for asynchronous remote access.
- Standardisation of equipment: the proliferation of spaces within a department or institution must reflect a centralized and coordinated approach to equipment, which translates in particular into standardisation, enabling their use to be streamlined and optimized, particularly by Faculty.
- Digital and A/V equipment: related to the previous point, the reality and updating of the technological component of spaces remains an important issue, with the fundamental question of teacher training.
- Inclusion in spaces: beyond ADA standards, inclusive design must take cultural dimensions into account.

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

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

[67] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/learning-space-design-community-hot-topics

The Challenge of Project Management

The 2024 conference had already placed a particular focus on change management issues related to the creation or transformation of spaces[68]. Continuing this trend, the 2025 edition addressed project management issues, particularly through two sessions on feedback and experiences.

Room for Everyone: A Blueprint for Inclusive and Transparent Learning Space Planning[69]

Denison University, represented by Joseph Leija (Associate Director of Media Technology Services) and Lori Kumler (Associate Director of Educational Technology Services), addressed the issue of processes put in place for updating and maintaining Learning Spaces, and, prior to that, identifying needs and decision-making procedures.

They recalled how Denison University began addressing learning space issues before the 2000s, notably through an ad hoc operational committee that was active from 2000 to 2016. The university now has a significant number of spaces installed[70]. From 2023 onwards, the focus has been on SWOT analyses and regular surveys, which aim in particular to understand users' experiences in the spaces, identify areas for improvement, and guide future planning.

This survey, the 2025 edition of which was to be launched a few weeks after the Nashville conference, includes questions about the physical environment and the technology integrated into the spaces, with open fields for suggestions for improvement. The quantitative and qualitative data collected in this way will help to inform future directions. The presenters mentioned the standardisation of equipment and spatial organisations as a key topic.

In parallel with this survey, the presenters also mentioned the existence of a ticketing system specific to Learning Spaces.

Voices that Shape the Classroom: A Campus-Wide Redesign Grounded in Faculty and Student Data[71]

Indiana University, an institution with a long history of engagement in Learning Space issues, particularly through the Mosaic initiative (already mentioned in previous editions of this report)[72], offered a session devoted to redesigning spaces based on feedback from teachers and students. Stacy Morrone (Dean Emeritus of the School of Education and Professor of Learning Sciences), Anne Leftwich (Associate Vice President of Learning Technologies and Barbara B. Jacos (Chair in Education and Technology), and James McGookey (Director of Learning Spaces UITS) began their presentation by pointing out that 83% of classrooms at the Bloomington site had been renovated since 2010. They also discussed a strategic plan for 2030, for which a working group was formed at the request of the governing body to consider the future of Learning Environments. This group focused on three fundamental aspects: space capacity (taking into account enrollment trends), educational uses (in relation to the possibilities offered by the spaces), and the number and distribution of rooms. This approach was based on extensive data collection through focus groups with teachers, surveys of teachers and students, and a review of the spaces.

The feedback identified the following needs:

- For Faculty: visibility and mobility, content sharing and ease of use of technological equipment, workspace and whiteboards, and integration into hybrid configurations. The barriers most frequently mentioned relate less to technology than to furnishings.

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[68] see the 2024 edition of this report: https://unif.fr/wp-content/uploads/EDU24-Rapport-FR.pdf

[69] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/room-for-everyone-a-blueprint-for-inclusive-and-transparent-learning-space-planning

[70] https://denison.edu/campus/technology/technology-enabled-spaces

[71] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/voices-that-shape-the-classroom-a-campuswide-redesign-grounded-in-faculty-and-student-data

[72] https://uits.iu.edu/initiatives/teaching-and-learning/mosaic/index.html

- For students (whose general sentiment was summarized as ‘we need more space, better lighting, and electrical sockets’): the ability to see the teacher and content, workspace, comfortable seating, reliable technology, access to power, and overall renovated spaces

This approach is part of a roadmap aimed at ‘harmonizing Learning Spaces with Faculty' pedagogical approaches’, based on:

- A 10-year master plan for classrooms
- A target of 50% ALC-certified classrooms by 2030 (see below)
- Funding for technology lifecycles (8 years of upgrades covered)
- A Teaching & Learning Spaces committee

Capitalizing once again on its long-standing experience, the institution has committed to standardizing its rooms based on two levels of certification:

- ALC (Active Learning Classrooms) certified rooms, which meet the basic requirements for flexible and collaborative learning
- Mosaic certified rooms, benchmark spaces offering comprehensive support for Active Teaching methods

Finally, the presentation emphasized the importance of supporting teaching teams, which is taken into account through an ecosystem of programs such as *Mosaic Fellows, ALCOVE Fellows, Digital Gardeners*, and *XRI Fellows*, as well as the application of UDL (Universal Design for Learning) principles.

In conclusion, the presenters listed three fundamental principles around which Indiana University structures its actions in favor of Learning Spaces: spaces matter, support matters, and collaboration and equity matter.

Impact of Hybridizations and HyFlex on Learning Spaces

The trends observed around hybrid and HyFlex configurations, already mentioned in the 2022, 2023 and 2024 editions of this report, have a direct impact on Learning Spaces and, more broadly, on Learning Environments. It should be noted that, beyond the conference itself and the session described below, this same issue was raised during the on-site visits and is therefore discussed in the corresponding articles in this report.

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 session at the EDUCAUSE Annual Conference Online in November on implementing a strategic plan for integrating learning spaces into hybrid and HyFlex configurations across a campus. This session followed a Virtual Poster presentation on the same topic at the 2024 Online Conference.

This session was divided into two parts, beginning with a presentation of the major post-COVID trends around hybridization and HyFlex, and the perspective of redefining Learning Environments in the medium/long term based on three pillars: the expansion and diversification of Learning Spaces on and beyond campuses, the widespread adoption of Multimodality in Teaching and Learning practices, and a technological ecosystem capable of supporting these developments. The master plan implemented by Thomas More University[74] was then presented as an example of institutional integration of hybrid and HyFlex trends at the institutional level, and its application to Learning Spaces. The university implemented an iterative approach to converting classrooms, based on standardized models (Hybrid Pro and Hybrid Advanced, the latter representing an evolution of the former, designed on the basis of surveys and feedback). This approach was based on ten

[73] https://events.EDUCAUSE.edu/annual-conference/2025-online/agenda/learning-spaces-in-redefined-learning-territories-developing-a-vision-for-a-futureproof-campus

[74] also presented at the EDUCAUSE Annual Conference 2022, and discussed in the corresponding report

fundamental principles that were listed following preparatory work involving a wide range of stakeholders across the campus.

Conclusion

It is undeniable that, once again this year, Learning Spaces received less exposure in the conference program than they have historically enjoyed. However, it is interesting to note that in the sessions that concerned them, the topics covered reflected a growing awareness of their challenges and prospects. Indeed, rather than material, furnishing and technological considerations, the sessions at the latest editions of the conference focused on aspects such as evaluation, project management and integration into academic strategies.

This trend tends to show that Learning Spaces, after several years of proliferation in their implementations and diversification in their types, have entered a phase of maturity, marked once again by consideration of their medium/long-term perspective and the place they can occupy in educational models, the restructuring of which may become the norm, as illustrated in particular by trends around hybrid and HyFlex configurations.

XR at Scale — From Hype to Campus-Wide Practice

Thierry Koscielniak, PhD - French Delegation

Introduction

This chapter is the tenth in a series of articles begun in 2016 in the delegation's previous reports[75]:

- 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 (Immersive Learning: 2020 vintage - Reduced production and excellent quality - no English translation)
- 2021 - Using immersive technologies to teach - page 38
- 2022 - Immersive Learning: XR Station, a demonstration dedicated space - page 75
- 2023 - XR Session - page 49
- 2024 – Immersive Technologies - XR - page 75

Since 2016, this annual chapter has tracked how immersive technologies move from experimentation to institutional practice across higher education. This tenth edition focuses on 2025 EDUCAUSE Annual Conference and visits of two campuses, Vanderbilt University and Arizona State University. It highlights how extended reality (XR), digital twins, location-based simulation, immersive caves, and AI-enabled simulation are being adopted through communities of practice, student-led development models, and evidence-driven instructional design.

Drawing on all XR related sessions, posters, and campus visits, this chapter synthesizes practical lessons on scaling XR under real constraints — devices, support models, accessibility, and sustainability — while showing how institutions are aligning immersive experiences with learning outcomes, workforce readiness, and new forms of engagement in libraries and classrooms.

XR's footprint at the EDUCAUSE Annual Conference is also clearly expanding: from 2024's 3 breakout sessions and 5 posters to 2025's dedicated public meet-up, 3 breakout sessions, 1 Industry Insights session, and 6 posters.

On the EDUCAUSE online library, a page of summary documents provides a starting point for discovering XR and their educational applications[76].

[75] http://tinyurl.com/delegation-Fr-EDUCAUSE

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

Sessions

Bridging Realities: Extended Reality (XR) Community Group Meetup[77]

Presenter: Sean Hauze[78]

The *XR Community Group*[79] Meetup at the 2025 EDUCAUSE Annual Conference provided a robust platform for educators and technologists to discuss the expanding role of extended reality (XR) in higher education. Moderated by Sean Hauze, Senior Director of Instructional Technology at San Diego State University, the session highlighted both the opportunities and challenges faced by institutions integrating XR into their educational practices.

Keeping It (Virtually) Real: XR Project Management in the Classroom[80]

Presenters: Sean Hauze[81], Thierry Koscielniak[82]

This meet-up session, led by Sean Hauze (San Diego State University / SDSU) and Thierry Koscielniak (Arts et Métiers / ENSAM & France Immersive Learning), focused on the practical reality of running XR student projects in classroom settings, and how to scale them sustainably without losing innovation.

A first thread was scalability under constraints. SDSU shared how they scaled from a single headset to broad adoption by using structured rotations (students in triads, timed slots, librarian partnership) and by treating XR as a continuum of modalities rather than "one device." ENSAM shared the importance of doing a hardware/software inventory across campuses, creating accessible "immersive corners" (often in Learning Centers) with trained student demonstrators, and involving IT early—especially around mobile device management, which becomes a gating factor for headset fleets.

A second thread was project management culture. Participants emphasized "fail forward" and distinguishing reversible experiments from high-stakes decisions, to reduce fear of failure and keep faculty engaged in innovation. Another participant described a three-pronged campus model: a production arm partnering with faculty, a management/governance arm, and a community-building arm to share what works across courses.

The speakers then shared an experience-based SWOT view. Key strengths included proactive expert support, cross-disciplinary collaboration (e.g., media/storytelling partnering with domain faculty), and fundraising capacity. Key weaknesses and threats included sustainability and knowledge continuity when people move on, infrastructure and device-management gaps, and the volatility of hardware/software roadmaps plus "walled garden" ecosystems (with concerns about expensive legacy headsets and uncertain vendor directions). Industry signals discussed included interest in open standards for 3D assets and avoiding lock-in.

The session converged on four "secret sauce" recommendations: empower students (clubs, hackathon-style engagement, real projects), hire/retain academic media professionals for storytelling and impact, embed Scholarship of Teaching and Learning to measure what works (including negative results), and build partnerships and open collaboration to avoid reinventing the wheel. Concrete resources shared included the *EDUCAUSE XR Community Group*[83], the *Open Education XR Library*[84] and a SDSU related survey/review

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[77] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/bridging-realities-extended-reality-xr-community-group-meetup

[78] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60437643

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

[80] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/keeping-it-virtually-real-xr-project-management-in-the-classroom

[81] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60437643

[82] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60149887

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

[84] https://oexrlibrary.org/

resource site[85]. Koscielniak also mentioned France Immersive Learning guidance work[86] and a future emerging ethical and operational guidelines for safe demo practice with headsets[87].

The closing discussion captured actionable takeaways: start small (e.g., 360 capture as an entry step), build faculty sponsorship and champions (especially via new-faculty orientation and departmental meetings), and use the community network to share evidence and resources rather than searching alone.

Enabling Student Success with Extended Reality[88]

Presenters: Amanda Cowell[89], Samba Diop[90], Warren Goetzel[91]

The panel compared two campus models for using XR to enable student success: student-driven prototyping at Georgia Tech and faculty co-design at the University of Michigan.

Georgia Tech described employing undergraduate assistants over multiple semesters to build reusable templates and documentation that faculty can pick up quickly. Students gained industry-relevant practice with tools like Unity/Unreal, while proposing their own project ideas drawn from courses they had taken. The team began with 360 capture and lightweight demos, then pivoted as tools changed, moving towards WebXR prototypes and browser-based access. A recurring theme was access: many students do not own headsets, so WebXR/AR and multi-device delivery can widen participation. They shared an example “Math Canvas” prototype and experiments using AI-assisted coding to accelerate content creation. Challenges included limited staffing, summer funding gaps, onboarding new student developers, and transferring projects to faculty/TAs for classroom-scale use.

Michigan presented a research- and evidence-driven approach: XR projects are pursued when there is a clear rationale, defined learning outcomes, and scalability plans. They emphasized accessible formats such as 360 experiences that work on tablets, phones, computers, and headsets to meet diverse needs. A case study used a low-code platform (Tailspin) to help students practice ethical arts leadership scenarios across devices. Another project used immersive techniques to reduce performance anxiety by practicing in a virtual version of an iconic campus venue. Michigan also described an AR design toolkit and an 8th Wall workflow to support on-the-go, outcome-aligned experiences. Sustainability was framed as designing for what persists: repeatable toolkits, web delivery, and “virtual studio/virtual production” workflows where video remains durable.

In Q&A, participants raised accessibility concerns (e.g., headset-triggered discomfort) and the practical interchangeability between headset VR and browser experiences. The session closed on the “real work” of adoption: partnerships (often with libraries), stakeholder buy-in, and community-of-practice structures that keep momentum.

The JENII Project: Integrating Immersive and Interactive Virtual Environments into Hybrid Learning[92]

Presenters: Thierry Koscielniak[93], Lionel Roucoules[94]

This oral session presented JENII (Jumeaux d’enseignement numériques immersifs et interactifs), a four-year French national project (ANR-21-DMES-0006) funded under the PIA4 DemoES program and coordinated by Arts et Métiers Institute of Technology (ENSAM) with CESI, CNAM, and CEA. It positions immersive and interactive digital twins as a way to extend hybrid learning with realistic visualisation, physical behavior,

[85] https://oexr.sdsu.edu/

[86] https://www.fil-asso.fr/page/2452699-guide-immersive-learning

[87] E-Book to be published: www.fil-asso.fr

[88] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/enabling-student-success-with-extended-reality

[89] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60994815

[90] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60657280

[91] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60469307

[92] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/the-jenii-project-integrating-immersive-and-interactive-virtual-environments-into-hybrid-learning

[93] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60149887

[94] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61009490

interaction, and connectivity between real systems and their virtual counterparts. The pedagogical goal is to help learners understand complex phenomena and industrial systems, explore and manipulate production means, configure equipment, and verify product compliance. JENII targets both "teacher-side" capacity (scenario design, orchestration) and "learner-side" capacity (hands-on practice, conceptual understanding, procedures and soft skills) in a complementary continuum of learning modes.

The project's output is framed as a toolkit of demonstrators rather than a single application. Key deliverables include a digital twin design platform, a digital twin distribution platform, an immersive virtual campus, guides for creating educational scenarios, and an educational white paper[95]. Example use cases span multiple "twins" (e.g., flexible manufacturing system, casting, turbomachinery, machining/wood manufacturing, forging, EV, chemistry lab, light aviation, additive manufacturing, and nuclear facility construction/dismantling).

The session anchored the value proposition on VR and digital twins for increasing engagement and capability in engineering education while remaining integrated with, not replacing, existing hybrid teaching practices.

Immersive Intelligence: XR, AI, and the Future of Workforce Readiness[96]

Presenters: Eric Ellis[97], Jason McGuigan[98], Bharani Rajakumar[99], Kati Thomas Steele, Ph.D.[100]

As the author was unable to attend this session, the following paragraph is taken from the online description of the session[101].

As the demands of the modern workforce evolve, higher education is turning to immersive technologies like virtual and extended reality (VR/XR) combined with artificial intelligence to bridge the gap between classroom learning and real-world skills. This session explores how institutions are deploying AI-powered XR simulations to prepare students for complex, high-stakes environments ranging from health care and manufacturing to education and public service. By blending experiential learning with intelligent feedback, these technologies are making professional development more personalized, scalable, and accessible. Panelists will share real examples of XR and AI-driven career readiness initiatives and explore how immersive learning is shaping the next generation of workforce-aligned education.

The Future is Archived: Reimagining Library Collection Access and Engagement through Virtual Reality[102]

Presenter: Alison Valk[103]

This poster presented a student- and library-led undergraduate research initiative to preserve and open up archival collections through virtual reality. At a four-year public university, the team created an interactive "virtual archive" inspired by heritage-preservation efforts such as "Back Up Ukraine." Students selected artifacts from library archives, 3D-scanned them, and built an immersive environment in Unity to let users explore objects in situ. The work was structured as a library-led CURE course ("Empathy Bytes"), with sub-teams tackling different project goals and documentation for continuity. Tools referenced include photogrammetry, Blender, and LiDAR scanner apps, alongside VR development workflows. Reported outcomes include high student engagement, multimodal communication practice, and reduced "technology phobia" around VR. The poster highlights broader implications for digital preservation and "increasing discoverability" of archival resources through immersive storytelling. Key challenges noted were scanning reflective/delicate surfaces, processing time, file-size optimisation, texture mapping, accessibility, and knowledge transfer semester-to-semester. An institutional impact is building library expertise and

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[95] https://dp-www.s3.ensam.eu/public/2023-11/Livre_blanc%20_JENII_2023.pdf (in French)

[96] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/immersive-intelligence-xr-ai-and-the-future-of-workforce-readiness

[97] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60970672

[98] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61024285

[99] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61036826

[100] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61037599

[101] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/immersive-intelligence-xr-ai-and-the-future-of-workforce-readiness

[102] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/the-future-is-archived-reimagining-library-collection-access-and-engagement-through-virtual-reality

[103] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61009815

infrastructure to support other classes using VR (example cited: Hamlet analysis using a Shakespeare VR project).

Attendees were invited to brainstorm parallel uses of emerging tech to strengthen student engagement and access to collections at their own organisations.

From Ruins to Reality: Virtual Reality in Historical Visualization[104]

Presenters: Marisa Beard[105], Micah Heatwole[106]

This poster reported an experimental study on using VR to help students visualise historical/ancient sites, framed here around a Moses' Tabernacle walkthrough in introductory Old Testament courses at two Christian universities in Texas. Students either explored the site in VR (experimental group) or watched a video walkthrough (control group), with pre/post quizzes and a 2-week follow-up quiz. Sample sizes reported are 33 students completing quizzes in the video group and 22 in the VR quiz group; 46 students completed the VR perceptions survey. Self-reported perceptions increased after VR, including interest (+0.72), motivation (+0.85), and understanding of tabernacle layout (+1.28), all reported as significant. Both VR and video produced large, statistically significant immediate learning gains, with no significant difference between groups for immediate learning. On long-term retention, both groups retained knowledge after two weeks, but the VR group showed significant score decay ($d = -0.58$, $p = 0.012$) while the video group did not ($d = -0.16$, $p = .370$). So, the poster supported VR's impact on engagement and perceived understanding, but it did not show VR outperforming video on knowledge retention in this dataset.

The authors concluded VR can "revolutionize" pedagogy by improving engagement, visualisation, and retention, while noting VR may need extra reinforcement for long-term retention. They plan to scale "Immersive Bible VR" to other courses and expand VR research into additional disciplines (e.g., social work, psychology, architecture, biology).

Strategies for Building Interdisciplinary Communities to Support Faculty Innovation[107]

Presenters: Georgia Davis[108], Paul Marty[109]

This poster argued that interdisciplinary communities of practice around disruptive technologies (notably XR and generative AI) can improve communication, collaboration, and coordination of innovation and grant opportunities across campus. It framed the core challenge as breaking academic silos and spreading best practices for working with emerging technologies across departments and roles.

Case study 1 was the University of Arizona's "XR Collaborative," open to anyone interested in XR regardless of experience, meeting monthly around a member project showcase. A key design choice is prompting presenters to share both what they built and where they need help, creating concrete openings for collaboration. Reported outcomes include cross-disciplinary projects, new 3D capture spaces, resource sharing, new courses, grants, and an augmented reality mural. The collaborative also connects early XR adopters with "curious" instructors who lack equipment or know-how, lowering the barrier to entry.

Case study 2 was Florida State University's innovation ecosystem, including a Faculty Innovators program with weekly "Faculty Innovator Coffee Chats." These informal, recurring conversations focus on how disruptive innovations (explicitly generative AI) are reshaping higher education and help align responses

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[104] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/from-ruins-to-reality-virtual-reality-in-historical-visualization

[105] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60194672

[106] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60967703

[107] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/strategies-for-building-interdisciplinary-communities-to-support-faculty-innovation

[108] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60943086

[109] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60943916

across campus. The authors reported improved cross-campus communication and better coordination of innovation activities, positioning the community as a lightweight framework for future disruptions.

ICON: An Immersive Conversation Sim Utilizing AI in a Web-Based or Virtual Reality Environment[110]

Presenters: Tim Dodds[111], Graham Hannah[112], Brian Landrigan[113]

This poster showcased ICON, the University of New South Wales (Sydney) "Immersive AI Conversation Simulation," designed to let students practice realistic, discipline-specific conversations via web or VR in a 3D environment with AI agents. It uses a game-engine visualisation connected to specialized AI models to deliver real-time dialogue and responsive interaction. A core feature is an authoring tool that enables teachers to create and tailor scenarios for different learning goals and contexts. Sample use cases listed include journalism interview practice, parent–teacher interviews, medical patient consultations, AI fluency/debating, client interactions for engineering, language learning, law class participation, and business negotiation. The poster positions ICON as a scalable alternative/supplement to in-class role-play: repeatable, customizable, and accessible beyond the classroom. Included testimonials report perceived gains in critical thinking and debate skills, plus a strong sense of conversational realism and helpful feedback. ICON is presented as a "look into the future of education," where immersive environments and AI-supported interaction expand practice opportunities across disciplines.

The poster also noted external recognition, showing an "QS Reimagine Education Awards" silver winner badge for UNSW Sydney (Immersive & Experiential Learning category).

Building an XR Community: A Cross-Functional Approach[114]

Presenters: Samba Diop[115], Warren Goetzel[116]

This poster described how Georgia Tech is coordinating XR efforts across campus to improve teaching, learning, and research readiness. It positions XR as a strategic opportunity aligned with Georgia Tech's mission of technological innovation and educational excellence. The approach is a cross-functional team that brings together key stakeholders to avoid siloed initiatives and build a shared campus direction for XR. Their "How we work" model combines an integration strategy (thoughtful adoption in courses and research, with accessibility and inclusive design practices) and ecosystem building (meetups, demos, shared learning spaces, showcasing use cases across disciplines). Partnerships extend beyond campus, engaging external consultants, industry partners, and organisations such as the VR/AR Association (VRARA). A stated focus is connecting and supporting early adopters through "connect & explore" activities. Current focus areas include integration into academic and research environments, community development, and impact measurement. Emerging outcomes reported are stronger cross-unit coordination, expanded access to immersive learning opportunities, and increased campus visibility in spatial computing.

The poster explicitly offered re-usable artefacts for peers: a community-of-practice model, partnership playbook, evaluation criteria, and sample workflows.

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110 https://events.EDUCAUSE.edu/annual-conference/2025/agenda/icon--an-immersive-conversation-sim-utilising-ai-in-a-webbased-or-virtual-reality-environment

111 https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61009051

112 https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61009050

113 https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61009049

114 https://events.EDUCAUSE.edu/annual-conference/2025/agenda/building-an-xr-community-a-crossfunctional-approach

115 https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60657280

116 https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=60469307

Empathy in the Digital Age: Harnessing VR for Human-Centered Learning[117]

Presenter: Przemek Bosak[118]

This poster explained how the University of Illinois' Center for Innovation in Teaching & Learning uses VR to build human-centered learning and empathy through immersive, emotionally resonant experiences. It defines empathy as understanding and sharing others' feelings and perspectives, and frames VR as a step beyond "observing" by enabling learning-by-doing in realistic contexts. It distinguishes cognitive, emotional, and compassionate empathy, and notes additional emerging forms appearing through faculty collaborations. The CITL Innovation Studio hosts many course visits each semester, positioning VR empathy experiences as repeatable activities embedded in teaching practice. Examples span disciplines including social work, political science, business, fashion, food science/nutrition, and engineering, showing empathy as a cross-cutting learning outcome. Concrete classroom uses include racism and civil-rights focused VR narratives (e.g., 1000 Cut Journey, Traveling While Black, The Key) to prepare social work students for practice.

Another example is virtual exploration of U.S. National Parks to develop "environmental empathy," linked to subsequent field-based courses. Food culture empathy is illustrated through 360° VR footage (e.g., markets and kitchens abroad) to build cultural competence and an evolving archive of global experiences.

The poster also highlighted the Studio as an inclusive hub with VR headsets plus broader maker/AI resources, supporting both one-off visits and full-course integration.

It closed with an open invitation for faculty to partner with the Studio to design empathy-oriented VR activities and share practices across the institution.

XR during the visit to Vanderbilt University

During the LIVE Learning Innovation incubation program at Vanderbilt University, Professor Mark Wallace[119] situated immersive technology work in two complementary layers: a research-grade immersive facility (the *VR Cave*[120]) and pragmatic, classroom-ready VR integrations that can scale across disciplines.

The VR Cave itself is described as an immersive environment for testing sensory development in children, built as a CAVE-style space with four 4K projectors for high-resolution projection, spatial audio delivered through an ambisonics array of 25 speakers, and custom tactile/haptic stimulus devices. It also integrates an OptiTrack motion-tracking system for high-fidelity body capture and a 128-channel EEG system to measure brain activity, enabling studies of how children's responses to sensory stimuli change across development. Outside core research use, the environment is open to other projects exploring immersive environments.

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[117] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/empathy-in-the-digital-age-harnessing-vr-for-humancentered-learning

[118] https://events.EDUCAUSE.edu/annual-conference/2025/presenter-resources/presenter-directory?netForumRecordNumber=61007078

[119] https://lab.vanderbilt.edu/live/person/mark-wallace/

[120] https://lab.vanderbilt.edu/live/2024/06/12/creation-of-immersive-cave-environment-for-sensory-testing-in-children/

Vanderbilt Immersive Cave

In his talk, Wallace emphasized “flexible integration” as the main adoption lever: VR can be impactful as a single class session, as homework via a headset-lending model, as a three-week project, or as a recurring activity over a whole semester.

For one-session deployments, he highlighted hands-on conceptualisation (e.g., calculus students manipulating derivatives via CalcVR), lightweight 360 “field trips” (e.g., touring Google HQ with YouTube 360), and large-enrollment empathy activities (e.g., a 360 mall experience representing an autistic perspective).

For homework and skills practice, he described using VirtualSpeech for difficult professional conversations and speech rehearsal, leveraging its dashboard/recording features for feedback and quality control, and using structured student reflections when an instructor-facing dashboard was not available.

For team-based work, Wallace presented a three-week group project in Meta Horizon Workrooms where students ran a supply-chain simulation (SAP Concur) in a “third space” that equalized hybrid cohorts (in-room and Zoom students). He reported markedly stronger perceived team engagement, belonging, and participation than a comparison group working only in-person, attributing this to sustained mutual gaze, spatial audio, and shared virtual work surfaces.

Operationally, he stressed that scaling depends less on “cool headsets” than on services: a lending program with 25 Meta Quest 3 devices stored and circulated by the library, backed by IT and instructional design support (account management, updates, resets, logistics) and funded via internal grants.

Then Elisabeth Park, Assistant Director of Instructional Design at the Office of Instructional Innovation, presented AdvancED[121] : The Institute for the Advancement of Higher Education in a presentation entitled “*Faculty Adoption of Emerging Technologies: Practical Approaches in Virtual Reality and Artificial Intelligence”.*

Faculty adoption is approached as an evidence-and-community challenge: first, present clear learning evidence that reassures research-oriented instructors that immersive activities can produce measurable gains (engagement, understanding, and, in some studies, improved retention or performance), and that these results can persist beyond a one-off novelty effect. Then, lower the perceived risk by creating a structured, campus-wide entry point: a dedicated immersive technology day that builds baseline literacy (AR vs VR vs 360). It offers hands-on try-it stations in an accessible central space (notably the library), and includes a

[121] https://www.vanderbilt.edu/advanced-institute/about/

faculty panel so peers can share practical implementation lessons, constraints, and “what I would do differently,” helping newcomers start with realistic, adoptable formats.

XR during the visit to Arizona State University

Next Lab

The Next Lab visit presented by Amanda Federico (Program Coordinator, Next Lab Studio), positioned the lab as a “student studio” that employs learners to explore emerging technologies, cultivate future skills, and deliver partner-funded prototypes with an explicit focus on healthy and ethical workforce development.

The core team is Dan Munnerley (Founder/Executive Director), Michael Blackledge (Next Lab Operations & Systems), Amanda Federico and Jesus Franco Yescas (Program Coordinator, Next Lab Studio). The operating model is comparable to an indie game/design studio: partners bring a problem, the lab scopes and budgets a collaboration agreement, and student guilds deliver milestones under project management and subject-matter supervision.

XR-oriented demonstrations and use cases highlighted in the slides include Career Xplorer, a VR career-exploration experience for K-12 (shown as running on Meta Quest and Chromebook). Digital-twin work was presented as a three-level design framework (Online, Online+3D, Immersive), combining ArcGIS (mapping/analysis), Cesium (large-scale 3D geospatial visualisation), and Unity/game engines (interactive immersive experiences). Concrete examples include the City of Surprise “Elm Street City Center” interactive 3D visualisation aimed at showcasing development potential, photogrammetry-based heritage twin modelling of the Gila Bend archaeological site using Cesium and Sketchfab, “contextual visualisation” placing CAD models into real-world 3D context, and an emergency-response proof of concept integrating active fire lines, 3D buildings, zoning and weather predictions.

Additional XR prototypes shown include an “ASU Virtual Campus & AI Avatars” environment (multi-user spaces, recordable presenter avatars, cross-device access) and an accessibility-driven “Digital Library” twin built with Matterport scanning, designed with customizable sensory settings and wheelchair-friendly navigation for neurodivergent and disabled users. The deck also presented skills training via a Microelectronics Cleanroom online immersive experience, and a “Digital Human Twin” with Mayo Clinic: a VR stroke-assessment training simulation using hyper-realistic patients, hand tracking and voice commands, aligned with the NIH Stroke Scale, and described as compatible with Meta Quest and Apple Vision Pro.

The Delegation at Next Lab

Dreamscape Learn

The visit introduced how Dreamscape Learn[122] at Arizona State University blends Hollywood-grade location-based VR with course design for large-enrollment science teaching, starting from a partnership with Dreamscape Immersive. Raeanne Fox (Ford Institute) and John Vanirich (ASU) explained the “shared-room” setup: motion capture lets groups move naturally as embodied avatars and interact with physical props, so the experience is collaborative rather than isolated. They credited the original creative concept to Walter Parkes, with the Alien Zoo premise also associated with Steven Spielberg, and described how ASU President Michael Crow pushed to repurpose this entertainment-grade platform for education. Pedagogically, the model is a three-act narrative: students enter VR to discover a problem, spend extended “out of headset” time analyzing data and building hypotheses, then return to VR to test and finally deploy a resolution with a designed emotional arc. The speaker reported outcome evidence from a randomized controlled trial (≈700 students): high student satisfaction across repeated sessions and improved performance, with Dreamscape Learn students reported as 1.7× more likely to earn an A (about a nine-point increase).

Two demonstrations were carried out in highly immersive environments with location based technology : HP Backpacks.

The “alien garden” aligns with the Alien Zoo / Intergalactic Wildlife Sanctuary setting that Dreamscape Learn explicitly builds on—an orbiting sanctuary where learners investigate alien ecosystems and species using scientific reasoning. The “blue under the ocean” aligns with *The Blu : Deep Rescue*[123], Dreamscape’s underwater experience centered on a mission involving blue whales, widely described as a group, location-based VR dive.

[122] https://dreamscapelearn.asu.edu/

[123] https://variety.com/2018/digital/news/wevr-dreamscape-immersive-the-blu-deep-rescue-1203089708/

HP Backpacks ready to be used

The Blu : Deep Rescue room

Methodology note: The author's notes were analyzed by Chat GTP 5.2 Thinking, Pro version.

Digital Technology in HE in the Age of AI: Transformations, Services, and Human Challenges

Emmanuelle Vivier - French Delegation

Introduction

At the 2025 edition of the EDUCAUSE conference, the theme “Leadership” once again featured sessions on management and leadership methods, which will not be addressed in this chapter. However, several sessions converged to outline a profound transformation of higher education: the integration of artificial intelligence as a cognitive environment, the evolution of digital service management toward a value-centered logic, the redefinition of the strategic role of IT leadership, and growing tensions around talent retention, particularly in technology-related professions.

Far from being independent topics, these developments form a coherent whole. They reflect a shift in the center of gravity of digital technology in higher education, moving from a logic focused on tools and infrastructure toward a logic grounded in culture, services, partnerships, and human sustainability.

This chapter offers a cross-cutting reading of these transformations, based on research and field feedback that highlight four structuring axes:

- The emergence of AI Literacy as an institutional culture rather than a simple technical skill,
- The transformation of IT Service Management toward a logic of value, experience, and service legibility,
- The redefinition of IT’s strategic role through institutional partnerships, illustrated by the case of Arizona State University,
- The challenges of retention, well-being, and sense of belonging among staff, with a particular focus on IT professions.

Taken together, these axes outline a new model of the digital university, in which technology is no longer merely a support function, but a structuring environment shaping practices, organizations, and professional identities.

From Literacy to Infrastructure: Rethinking the University in the Age of AI

Main sources

- AI Literacy in Teaching and Learning (Working Group Paper, EDUCAUSE, 2024–2025)[124]
- Augmented Intelligence: The Future of Generating AI and Computing (Vanderbilt University, Featured Session, EDUCAUSE 2025)[125]
- Building AI Literacy: Teaching Students to Critically Engage with Generative Technologies (Breakout Session, EDUCAUSE Annual Conference 2025)[126]
- Disciplinary Dialogues: Building Teaching-Focused AI Literacy Through Departmental Conversations (Conference Session, EDUCAUSE 2025)[127]
- Fear to Flourishing: Equipping Your Institution for Ethical and Effective AI Integration (Lipscomb University, poster presentation, EDUCAUSE 2025)[128]
- From Culture to Compute: Building an AI University at UF with HiPerGator (Florida University, Featured Session, EDUCAUSE 2025)[129]
- From Vision to Curriculum: Institutional Strategy for AI Integration in Higher Education (Tecnologico de Monterrey, Poster Session, EDUCAUSE 2025)[130]
- From Siloes to Strategy: Making AI Governance Work (Poster Session, EDUCAUSE 2025)[131]

In the age of artificial intelligence, the university ceases to be a simple place for transmitting knowledge. It becomes a living environment in which learning, creating, and reflecting unfold alongside intelligent systems. EDUCAUSE has laid the foundations for this transformation through AI Literacy—a form of literacy that goes beyond technical skills to encompass culture, ethics, and knowledge. Knowing how to use AI is first and foremost about knowing how to think with it, question it, assess its limits, and integrate it into the construction of knowledge.

Some universities have gone a step further: they no longer merely train people in AI, they reconfigure their infrastructures, learning pathways, and institutional cultures. Vanderbilt University, the University of Florida, Tecnológico de Monterrey, and Lipscomb University offer four complementary visions of this transformation.

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[124] https://www.EDUCAUSE.edu/content/2024/ai-literacy-in-teaching-and-learning/introduction

[125] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/featured-session-1

[126] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/building-ai-literacy-teaching-students-to-critically-engage-with-generative-technologies?utm_source=chatgpt.com

[127] https://events.EDUCAUSE.edu/annual-conference/2025-online/agenda/disciplinary-dialogues---building-teachingfocused-ai-literacy-through-departmental-conversations?utm_source=chatgpt.com

[128] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/fear-to-flourishing-equipping-your-institution-for-ethical-and-effective-ai-integration

[129] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/featured-session-4

[130] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/from-vision-to-curriculum-institutional-strategy-for-ai-integration-in-higher-education

[131] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/from-siloes-to-strategy-making-ai-governance-work

AI Literacy: a Foundational Conceptual Framework

EDUCAUSE defines AI Literacy through four key dimensions, each associated with specific competencies:

Dimension	Main Competencies
Understanding	Knowing what a model is, how training and prediction work; distinguishing between AI, machine learning, and generative AI; understanding that AI does not "think" but calculates probabilities.
Critical Evaluation	Assessing the reliability of outputs; identifying bias, hallucinations, and oversimplifications; understanding the influence of data and context.
Appropriate Use	Formulating effective prompts; integrating AI into reasoning, creation, and work; using AI as a cognitive tool rather than a substitute for thinking.
Ethical and Responsible Action	Respecting data and privacy; maintaining academic integrity; understanding social, cultural, and cognitive impacts.

This framework breaks with two common misconceptions:

- Technical: AI is not solely an engineering issue.
- Instrumental: AI is not merely a new tool.

For EDUCAUSE, AI is a new cognitive environment. Being "AI-literate" means thinking, learning, and acting with AI while maintaining intellectual autonomy.

These elements are illustrated in the Tecnológico de Monterrey poster:

However, a framework remains abstract as long as it is not embodied in concrete practices. This is precisely what the presentations and posters from the four institutions mentioned in the introduction demonstrate.

University of Florida: AI as Infrastructure

At the University of Florida, AI is treated as institutional infrastructure, comparable to the network, the library, the Learning Management System (LMS), or a supercomputer. With NaviGator AI, the university provides a complete AI stack:

- Access to multiple models (GPT, Claude, Gemini, Llama),
- Secure chat and customizable assistants,
- Pedagogical analytics tools and APIs for internal development,
- Integration with the HiPerGator supercomputer.

AI is integrated across all disciplines: the sciences, engineering, arts, health, agriculture, and more. Students explore models, tools, and data pipelines within their fields; faculty design AI-integrated learning activities; researchers develop discipline-specific tools. AI literacy thus becomes experiential and systemic, rather than an isolated module.

In summary, the University of Florida offers:

- A systemic and infrastructure-based approach,
- A complete AI stack: models, tools, APIs, supercomputing,
- Experiential AI literacy,
- AI competencies for all students.

Vanderbilt University: AI as a Cognitive Companion

Vanderbilt places emphasis on the human experience. With Amplify, students do not simply learn about AI—they learn with it. Writing, reflecting, planning, synthesizing: AI becomes a cognitive tool and thinking partner, but never an intellectual substitute.

Key initiatives include:

- Courses, seminars, and cross-cutting workshops covering theory, models, and practice,
- An AI Showcase for the development and discussion of applied projects,
- An AI Summer School focused on exploring frameworks and libraries (PyTorch, Python),
- Pedagogical resources, including toolkits, LLM analysis sessions, and AI system design methods.

In summary, Vanderbilt University offers:

- AI integrated into academic life,
- A cognitive and human-centered experience,
- AI co-thought with generative systems,
- Technical, ethical, and organizational training.

Tecnológico de Monterrey : From Vision to Curriculum

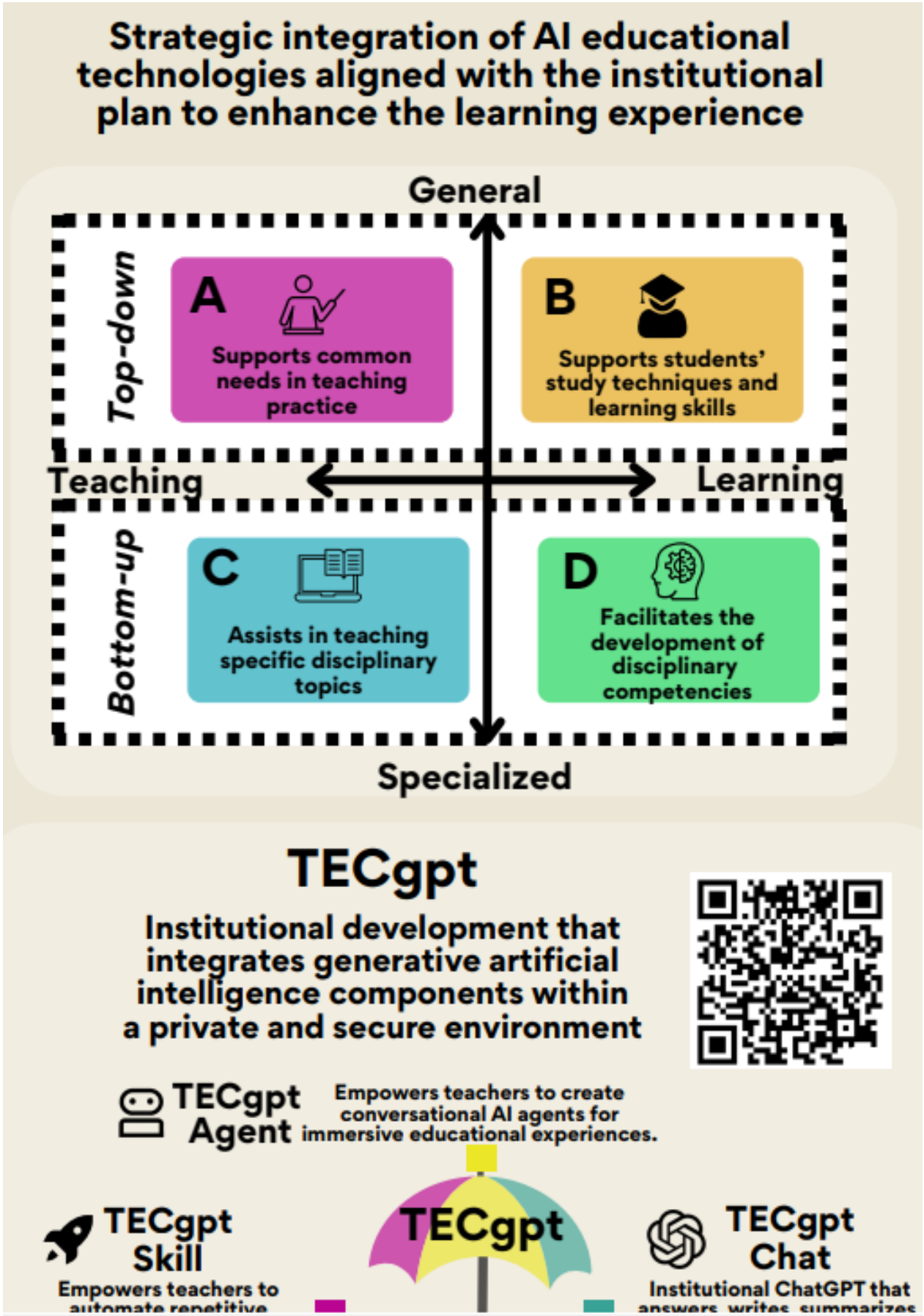
Tecnológico de Monterrey translates AI Literacy into a concrete curricular architecture built around four core competencies:

- Understanding AI,
- Ethics and responsibility,
- Applying AI in solution design,
- Effective use of AI.

Each faculty translates these competencies into its programs. Faculty members become pedagogical architects, and change agents are identified. TECgpt plays a role comparable to NaviGator or Amplify: as a tool, an experimentation space, and a strategic embodiment.

In summary, Tecnológico de Monterrey offers:

- AI literacy embedded in the curriculum,
- Pedagogical training and governance,
- An institutional practice space (“TECgpt”),
- AI as a structuring principle of the university.


Strategic integration of AI educational technologies aligned with the institutional plan to enhance the learning experience
General
Top-down
A
Supports common needs in teaching practice
B
Supports students' study techniques and learning skills
Teaching
Learning
Bottom-up
C
Assists in teaching specific disciplinary topics
D
Facilitates the development of disciplinary competencies
Specialized
TECgpt
Institutional development that integrates generative artificial intelligence components within a private and secure environment
TECgpt Agent
Empowers teachers to create conversational AI agents for immersive educational experiences.
TECgpt
TECgpt Skill
Empowers teachers to
TECgpt Chat
Institutional ChatGPT that

Lipscomb University: From Skills to Human Transformation

Lipscomb emphasizes the human and cultural dimension: no infrastructure or curriculum can function without human preparation.

The “Fear to Flourishing” framework, presented as a poster, is built around four pillars:

- Ethical reasoning: thinking before acting,
- Imagination: curiosity and creativity,
- Community: a climate of trust for learning,
- Vocation: connecting AI to meaning and personal missions.

Key conclusion: AI leadership is not just technical; it is formational. AI transforms not only practices, but also professional experience and identity.

In summary, Lipscomb University offers:

- Cultural and human preparation,
- Emotional management and identity reference points,
- Dialogue and pedagogical support,
- Conditions for the success of AI initiatives.

In Conclusion: Toward a New University Model

Traditional Model	Emerging Model
AI as a subject	AI as an environment
A single AI course	Institutional culture
External tool	Internal infrastructure
Individual use	Collective ecosystem
Technical Skill	Cultural Literacy

Taken together, these initiatives depict a university that learns with AI while preserving autonomy, creativity, and human meaning. EDUCAUSE provides the conceptual framework; Florida delivers the infrastructure; Vanderbilt focuses on human experience; Monterrey on curriculum; and Lipscomb on cultural transformation. Together, they outline a university capable of thinking, creating, and deciding with AI, making AI literacy an intellectual and human culture of the algorithmic age.

If artificial intelligence redefines cognitive environments, curricula, and institutional cultures, these transformations can only produce their full effects if the digital services that support them are themselves legible, accessible, and aligned with institutional priorities.

The question of AI Literacy thus naturally leads to a broader reflection on how IT services are designed, governed, and communicated. It is from this perspective that the EDUCAUSE 2025 work on IT Service Management provides complementary insights, showing how the value of digital technology now lies as much in the service experience as in the sophistication of the tools.

From Tool to Service: What Is the Future of ITSM and IT Service Communication?

Main sources :

- Marketing the Value of University IT and IT Services (Panel, EDUCAUSE 2025)[132]
- From Big Tool to Best Fit: A Tale of Right-Sizing ITSM (Poster, EDUCAUSE 2025)[133]
- Scaling Personalized Service with Contact Center Innovation (Poster, EDUCAUSE 2025)[134]
- Aligning Business Capabilities with IT Service Management in Higher Education (Breakout Session, EDUCAUSE 2025)[135]
- IT Service Management Hot Topics Discussion (Community Discussion, EDUCAUSE 2025)[136]
- The Essential Service Management Toolbox for ITSM/ESM (Preconference Workshop, EDUCAUSE 2025)[137]

Several EDUCAUSE 2025 presentations focused on ITSM (IT Service Management). Service management is clearly converging toward a significant evolution: the value of IT is no longer determined by the sophistication of tools, but by the clarity, adoption, and impact of the services offered.

Three structuring trends emerge:

- ITSM is becoming a lever for institutional alignment, rather than merely an operational framework,
- Institutions are favoring “right-sized” solutions, oriented toward use and experience,
- Communication about services is now recognized as an intrinsic component of the service itself.

Repositioning IT: From Service Delivery to Value Creation

The panel *Marketing the Value of University IT and IT Services* establishes a clear framework: IT must stop communicating primarily about what it does and instead explain what it enables.

The speakers explicitly distinguish between:

- Promoting services (catalogs, features, procedures),
- And communicating value (institutional impacts, outcomes, risks avoided).

This shift in posture is primarily aimed at decision-makers and institutional stakeholders, not only end users. It requires accessible language, stripped of technical jargon—formalized during the session through the “Aunt Mary / Uncle Marty test,” used as a readability test for messaging.

The “Aunt Mary (or Uncle Marty) test” is a simple rule mentioned during the Marketing the Value of University IT and IT Services session at EDUCAUSE 2025. The idea is as follows: if you cannot explain what IT or a digital service does to “Aunt Mary”—an intelligent but non-technical person—then your message is not ready.

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[132] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/marketing-the-value-of-university-it-support

[133] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/from-big-tool-to-best-fit-a-tale-of-rightsizing-itsm

[134] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/scaling-personalized-service-contact-center-innovation-at-three-institutions

[135] https://events.EDUCAUSE.edu/annual-conference/2025-online/agenda/aligning-business-capabilities-with-it-service-management-in-higher-education-strategies-and-tools

[136] https://events.EDUCAUSE.edu/annual-conference/2025-online/agenda/it-service-management-hot-topics-discussion?utm_source=chatgpt.com

[137] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/the-essential-service-management-toolbox-for-itsmesmnbspseparate-registration-is-required?utm_source=chatgpt.com

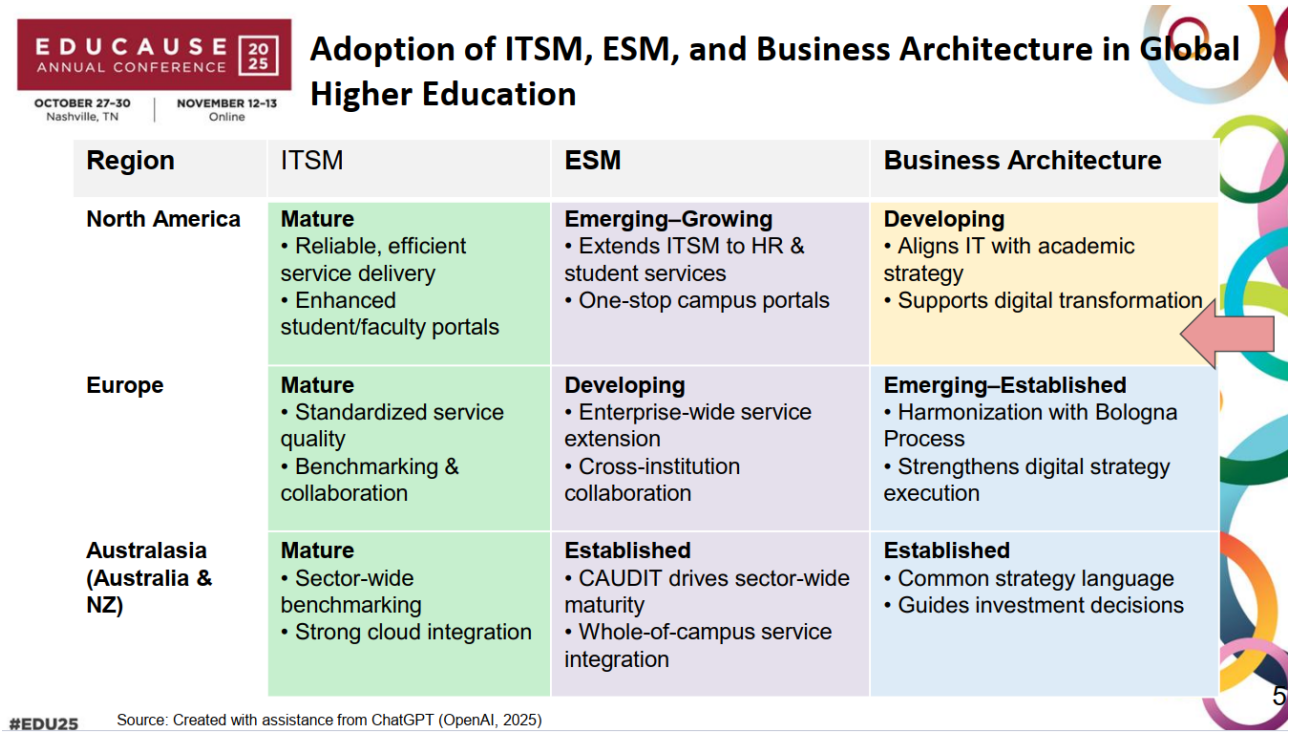
ITSM as Strategic Service Infrastructure

The session *Aligning Business Capabilities with IT Service Management in Higher Education* broadens the role of ITSM by explicitly linking it to an institution's business capabilities.

Rather than structuring ITSM around technical processes, this approach proposes to:

- Map organizational capabilities,
- Align service catalogs with institutional value streams,
- Use ITSM as a dialogue tool between IT, business units, and governance.

This perspective is echoed in the IT Service Management Hot Topics Discussion, where participants highlight the growing importance of Enterprise Service Management (ESM) and the need to move beyond a strictly IT-centered vision.



Right-sizing: When Simplicity Becomes a Strategic Choice

The poster *From Big Tool to Best Fit: A Tale of Right-Sizing ITSM* provides a concrete illustration of this evolution.

The institution describes a deliberate choice: abandoning a complex and costly ITSM platform in favor of a simpler tool, better aligned with actual usage. This decision is driven by:

- Limited adoption of advanced features,
- High costs hindering appropriation,
- A perceived rigidity of ITIL frameworks.

The project highlights principles that are now recurrent at EDUCAUSE:

- MVP (Minimum Viable Product) rather than exhaustive solutions,
- Progressive iterations,
- Priority given to agent and user experience,
- Small, autonomous project teams.

This case demonstrates that “right-sizing” is not a compromise downward, but a value optimization strategy.

User Experience and Services at Scale

The poster *Scaling Personalized Service with Contact Center Innovation* provides complementary insight from the “front office” perspective.

The cases presented (modernized university contact centers) show how cloud platforms and proactive mechanisms can:

- Dramatically reduce wait times,
- Increase service response rates,
- Improve the student experience while reducing costs.

Beyond technology, the message is clear: service performance depends on the legibility of the user journey—knowing where to ask for help, when a response can be expected, and how the institution anticipates needs.

Communication as a Component of the Service

A strong cross-cutting lesson—drawn in particular from *Marketing the Value of University IT* and the poster *From Big Tool to Best Fit*—is the explicit recognition of communication as an integral part of the service.

In the ITSM project presented, communication is designed as a continuum, intended to support users throughout the change process. The mechanisms implemented include:

- Sneak Peek: Early presentation of new features, to reduce anxiety ahead of deployment,
- Town Halls: General information meetings, to clarify the meaning and objectives of the change for all stakeholders,
- Office Hours: Open consultation hours, to offer personalized support and facilitate adoption of new practices,
- Surveys and visible feedback loops, strengthening trust through continuous and transparent feedback.

This approach reflects the principles of concise and targeted information discussed during the panel, favoring short, action-oriented, prioritized messages that respect users’ attention, thereby enabling more effective communication in organizational contexts.

Communication no longer aims merely to inform, but to:

- Make services understandable,
- Facilitate their adoption,
- Reinforce the perception of IT as a partner.

Implications for Institutions

Taken together, these works suggest several concrete implications:

- ITSM must be conceived as a system of understandable services, not merely as a set of processes,
- The service catalog becomes a strategic object of institutional communication,
- The success of an IT project depends as much on the adoption trajectory as on the technical quality of the solution,
- The value of IT is demonstrated through visible and measurable impacts, particularly on the experience of students and staff.

Conclusion

The presentations discussed outline a coherent evolution of IT in higher education: less focused on tools, more focused on services, experience, and institutional value.

From this perspective, IT gains strategic legitimacy when it is able to:

- Choose solutions that are appropriate rather than prestigious,
- Align its services with institutional priorities,
- Communicate with clarity, restraint, and intent.

It is under these conditions that ITSM becomes not only an operational framework, but a sustainable lever for institutional transformation.

The evolution of IT Service Management toward a logic of services, value, and institutional alignment is part of a broader movement: the redefinition of the very role of IT leadership within universities.

Beyond the optimization of processes and tools, several institutions are now exploring a posture in which IT becomes a strategic actor, engaged in the co-construction of partnerships, institutional projects, and transformation trajectories.

In this regard, the experience of Arizona State University offers an emblematic case of this evolution, illustrating how IT can position itself as an institutional platform for partnerships, innovation, and impact.

A Silent Redefinition of the Role of IT

Main sources:

- IT's New Lane: Leading with Partnerships, Innovation and Impact (Arizona State University, Presentation, EDUCAUSE 2025)[138]
- Visit of "Enterprise Technology" by the EDUCAUSE French Delegation to ASU

For several years, higher education IT organizations have faced a paradoxical mandate: maintaining increasingly critical infrastructures while actively contributing to institutional transformation. Few organizations manage to reconcile these two demands without tension.

The experience of Arizona State University (ASU) offers particularly instructive insight into this evolution. It does not describe a one-off innovation, but rather a structural shift in posture: IT is no longer merely a service provider, but a strategic actor engaged in building long-term partnerships in support of the university's mission.

An Institutional Context Conducive to Strategic Experimentation

ASU stands out both for its scale and for the clarity of its institutional project. The university currently serves more than 180,000 students annually, with projections approaching 194,000 students by fall 2025, distributed across physical campuses and online programs.

This growth is anchored in an explicitly inclusive mission:

- One-third of students are the first in their family to access higher education,
- More than 18,000 veteran or military-affiliated students are enrolled,
- More than 15,000 international students from 157 countries make ASU the leading U.S. public university by this measure.

[138] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/its-new-lane-leading-with-partnerships-innovation-and-impact

The university charter—"measured not by whom it excludes, but by whom it includes and how they succeed"—deeply structures its strategy. Within this framework, partnerships are not perceived as opportunistic ventures, but as instruments of institutional policy.

Enterprise Technology: Capacity, Legitimacy, and Repositioning

ASU Enterprise Technology is an internal organization dedicated to managing, supporting, and developing digital technologies that serve the entire university community—students, faculty, researchers, and staff. It oversees IT infrastructure, digital services (e.g., communication tools, learning platforms, IT security), technology projects, and digital transformation across the institution.

ASU's Enterprise Technology organization reflects a clearly stated ambition:

- Approximately 700 staff members, supplemented by 300 student employees,
- An annual budget of $135 million, representing 2–3% of the university's total budget,
- Nearly 50% of the institution's total IT spending,
- Approximately $40 million in annual expenditures on technologies, software, and services.

These figures alone do not explain the transformation underway. The tipping point lies in the political and organizational recognition of IT's strategic role, materialized in particular through the creation of executive positions explicitly dedicated to partnerships.

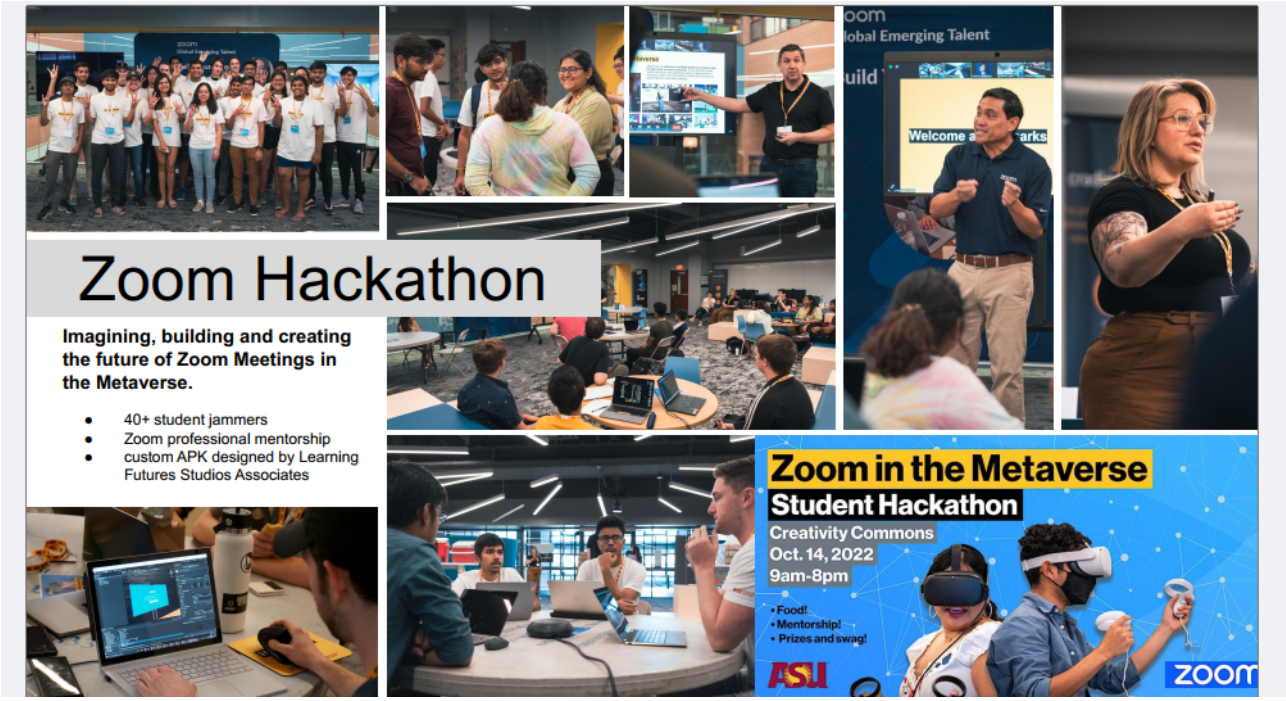
IT thus ceases to be merely a cost center or an internal provider. It becomes an institutional platform capable of connecting academic actors, industry partners, foundations, and local communities.

Partnership as a Strategic Mode of Action

As Rome and Wilde emphasize in IT's New Lane, the partnerships developed by ASU do not rely on a single model. They are grounded in a logic of differentiated co-creation, adapted to the objectives and capacities of each actor.

Collaborations with companies such as AWS, Apple, Zoom, or Arista illustrate this diversity:

- Co-located innovation centers on campus,
- Multi-year funding for students and faculty,
- Donations of equipment and technologies,
- Development of prototypes and experimental solutions,
- Organization of hackathons, conferences, and structuring events.



Enterprise Technology deliberately positions itself as a trusted third party, both technically competent and aligned with the university's public mission. This posture is presented as a key factor in partner attractiveness.

From Proliferation to Maturation of Partnerships

The rapid expansion of partnerships quickly raised a central question: how can institutional coherence be preserved while expanding the scope of collaborations?

ASU responded through a structured maturation phase:

- Creation of a dedicated IT partnerships working group,
- Clarification of a catalog of services and capabilities offered by IT,
- Strengthening of cross-functional communication,
- Adoption of results-oriented methodological frameworks, such as the "Working Backwards" model popularized by Amazon.

This structuring enables IT to demonstrate tangible impact. The university thus reports a cumulative eight-figure return over five years, integrating external funding, donations, equipment, programs, and indirect strategic value.

Tensions and Limits of an Ambitious Model

The model presented in IT's New Lane does not entirely sidestep certain tensions, even if they remain in the background of the narrative.

First, it relies on exceptional attractiveness linked to ASU's size, brand, and culture of innovation. This concentration of advantages raises questions about the transferability of the model.

Second, the centrality of major technology players raises issues of structural dependency, particularly regarding platform choices, skills orientation, and the long-term sustainability of the ecosystems put in place.

Finally, the success of the approach appears to be strongly tied to hybrid individual profiles capable of navigating technology, governance, partnerships, and institutional storytelling—an asset, but also a potential source of organizational fragility.

Conclusion – A Demanding Path for Higher Education IT

The ASU experience, as presented in *IT's New Lane: Leading with Partnerships, Innovation and Impact*, illustrates a profound evolution in the role of IT in higher education. It shows that IT can become a leading strategic actor, provided it has a clear mandate, appropriate governance, and strong alignment with the institutional mission.

This "new lane" is neither simple nor universal. It requires resources, organizational maturity, and the ability to arbitrate between opportunity and responsibility. Yet it opens an essential perspective: that of an IT organization that no longer merely supports transformation, but actively helps to design and carry it forward.

This rise in IT's strategic role does not come without trade-offs. It relies on organizations capable of attracting, mobilizing, and retaining highly qualified profiles, often courted by a highly competitive external market.

The transformations described through the ASU case thus implicitly highlight another critical dimension of digital sustainability in institutions: the ability to preserve engagement, well-being, and retention among teams —particularly within IT professions.

It is precisely this human dimension that the 2025 CUPA-HR survey brings into focus, offering a systemic analytical framework for understanding retention challenges in higher education.

Staff Retention in Higher Education: Insights from the CUPA-HR Survey and a Focus on IT Professions

Main sources:

- CUPA-HR, 2025 Higher Education Employee Retention Survey (ERS)[139]
- EDUCAUSE Annual Conference 2025: A Deeper Understanding of Employee Retention (CUPA-HR & EDUCAUSE)[140] / The Belonging Imperative: A New Agenda for Leadership[141]

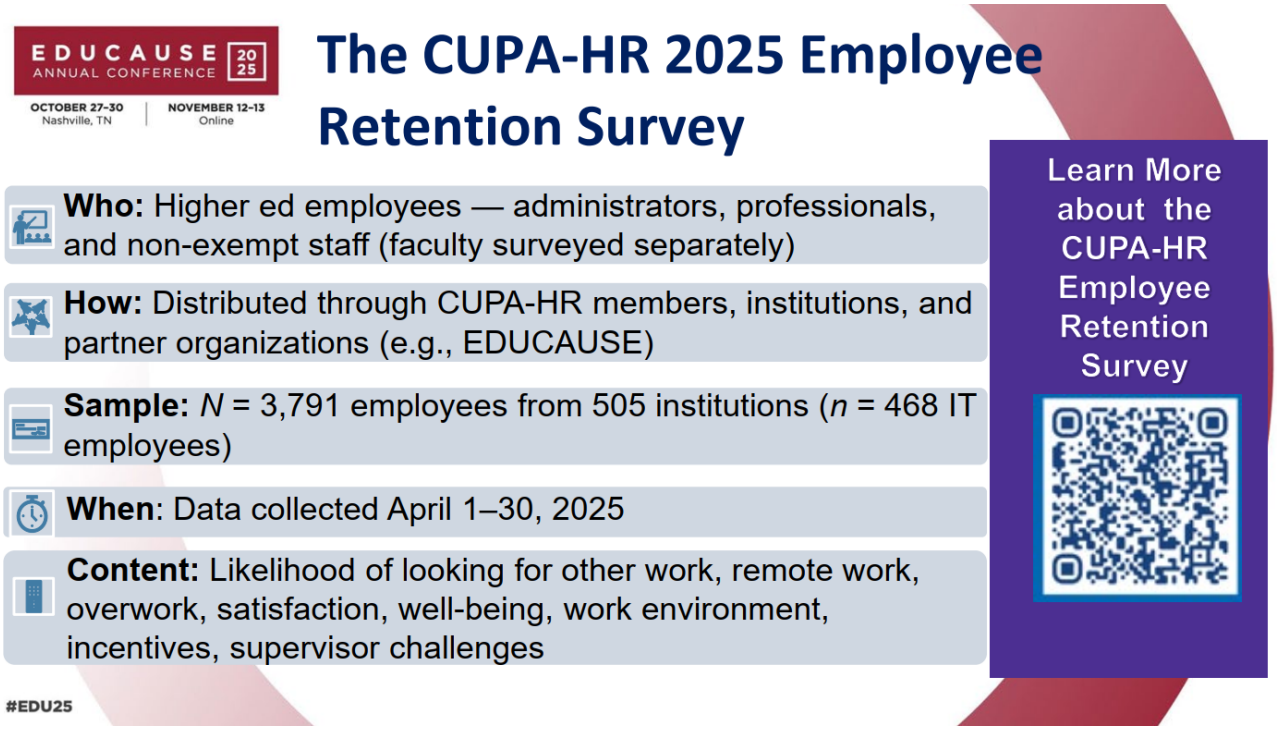
The 2025 Higher Education Employee Retention Survey conducted by CUPA-HR highlights a moderate improvement in staff retention across higher education since the post-pandemic period, while underscoring the persistence of structural vulnerabilities.
Among the most exposed functions are information technology (IT) roles, which combine operational pressure, strong attractiveness of the external job market, and an increasingly strategic role within institutions.

The survey's findings were widely discussed and contextualized at EDUCAUSE 2025, particularly in the sessions *A Deeper Understanding of Employee Retention* and *The Belonging Imperative: A New Agenda for Leadership*. Taken together, these contributions invite institutions to rethink their retention strategies in light of well-being, sense of belonging, and work sustainability—with specific implications for IT teams.

[139] https://www.cupahr.org/resource/higher-ed-employee-retention-survey-findings-september-2025/

[140] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/a-deeper-understanding-of-employee-retention

[141] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/featured-session-3



Context: Why Retention Has Become a Systemic Issue

For several years, higher education institutions have been operating in an environment characterized by:

- Persistent tension in the labor market,
- On-going budgetary constraints, and
- An acceleration of organizational and digital transformations.

In this context, retention is no longer solely a human resources issue. It has become a matter of institutional continuity, directly affecting service quality, system security, and institutions' capacity for transformation.

It is to shed light on these challenges that CUPA-HR regularly conducts national surveys, of which the 2025 Higher Education Employee Retention Survey (ERS) is the most recent edition.

The CUPA-HR Survey: Framework and Overall Findings

Methodology and Scope. The survey is based on responses from several thousand employees across hundreds of institutions, covering a wide range of administrative and support functions: finance, human resources, academic affairs, student services, libraries, and information technology.

Respondents were asked about:

- Their intention to stay in or leave their position,
- The factors influencing this intention,
- Their job satisfaction,
- Their workload and well-being,
- Their work arrangements (on-site, hybrid, remote).

A Relative Improvement, but Persistent Fragility. The results show a decrease in turnover intentions compared to the peaks observed between 2021 and 2023, but a significant proportion of employees still consider a change in the short or medium term.

This situation suggests that current tensions stem less from a temporary crisis than from a lasting shift in professional expectations within higher education.

What Retains - and What is No Longer Sufficient. While compensation remains the most frequently cited factor explaining intentions to leave, the survey confirms a central finding: job satisfaction, well-being, and sense of belonging are stronger predictors of actual retention than compensation alone.

Trust in leadership ethics also plays an increasingly important role, influenced both by how institutions manage crisis situations and by how they address issues of diversity.

This finding was central to the session *A Deeper Understanding of Employee Retention*, co-facilitated by CUPA-HR and EDUCAUSE at the EDUCAUSE Annual Conference 2025. The session emphasized the importance of a nuanced reading of data, distinguishing between stated motivations and actual departure behaviors.

The Key Role of a Sense of Belonging

A strong cross-cutting insight from the survey concerns institutional sense of belonging. Employees who feel recognized, supported, and aligned with their institution's mission exhibit:

- Higher levels of job satisfaction,
- A significantly lower likelihood of departure.

These results directly echo the session The Belonging Imperative: A New Agenda for Leadership, presented at EDUCAUSE 2025, which highlights the role of leadership in creating work environments that foster engagement, trust, and retention.

Why a Specific Focus on IT Professions?

While the preceding findings apply to staff overall, the CUPA-HR survey shows that IT professions accumulate several vulnerability factors:

- High operational pressure,
- Strong external employability, and
- An increasingly critical strategic role for institutions.

This combination justifies a dedicated analysis.

Focus on IT Staff: Key Findings

Higher-Than-Average Intentions to Leave. IT professionals are, on average, more likely to consider leaving than other staff categories. This trend reflects both:

- The attractiveness of the private sector job market, and
- Internal constraints related to workload and organizational structure.

Compensation: A Trigger, Not a Stand-Alone Solution. Perceived pay gaps with the private sector make compensation a particularly visible issue for IT staff. However, the survey shows that work environments perceived as sustainable and appreciative significantly mitigate the impact of these gaps.

Workload, Technical Debt, and Burnout. IT staff frequently report:

- Regular overtime,
- Simultaneous management of strategic projects and operational incidents,
- Increased exposure to burnout risks.

This situation is often exacerbated by technical and organizational debt (legacy systems, insufficient prioritization, limited resources).

Conference speakers emphasize the crucial role of leadership in managing these challenges. One essential idea is the need for leaders to determine what should be stopped, rather than continually adding new tasks that appear beneficial on paper but are unsustainable in practice. The ability to make choices, set realistic boundaries, and actively manage workload constitutes a powerful lever for preserving team balance.

This active management must be accompanied by simple, human initiatives to strengthen recognition: a word of thanks, a gesture of appreciation, visible presence during critical periods, or opening development opportunities for less visible employees.

Work Flexibility: A Major Lever. IT roles are particularly well suited to hybrid or remote work. When these arrangements are restricted without clear justification, the negative impact on satisfaction and retention is more pronounced than in other functions.

Recognition and Strategic Positioning. Finally, a sense of of belonging plays a decisive role for IT teams. Professionals who perceive themselves as strategic partners, involved in decision-making and recognized for their expertise, show significantly lower intentions to leave.

Implications for Governance and Leadership

The combined insights from the CUPA-HR survey and the analyses presented at EDUCAUSE 2025 lead to three major implications:

- Treat retention as a strategic issue, not merely an HR concern,
- Differentiate retention policies to account for the specific realities of IT professions,
- Invest in well-being, work sustainability, and a sense of belonging as key levers of long-term retention.

Conclusion

The 2025 CUPA-HR Survey confirms that staff retention has become a structural issue for higher education. The case of IT professions provides a particularly revealing illustration: where tensions are strongest, the risks to institutions' digital resilience are also the most critical.

In line with the work presented at the EDUCAUSE Annual Conference 2025, this analysis argues for data-informed retention strategies, differentiated by profession, and anchored in a renewed vision of leadership and belonging.

General Conclusion

The work presented at EDUCAUSE 2025 under the theme of Leadership converges toward a structuring observation: digital technology in higher education can no longer be conceived solely in terms of tools, infrastructure, or technical projects. It has become an institutional environment, shaping pedagogical practices, modes of governance, partnership relationships, and professional trajectories.

AI Literacy illustrates this evolution by repositioning artificial intelligence as a cognitive and cultural environment. Transformations in IT Service Management show, for their part, that the value of digital technology is built through service legibility, user experience, and alignment with institutional priorities. The case of Arizona State University highlights an IT organization capable of becoming a fully fledged strategic actor, through structuring partnerships and political recognition of its role. Finally, the results of the CUPA-HR survey remind us that these ambitions rest on a determining factor: the human sustainability of digital organizations.

Taken together, these insights outline a demanding trajectory for institutions—one of a digital ecosystem that is at once strategic, cultural, and deeply human. The success of this transformation depends not only on the quality of the technologies deployed, but on institutions' ability to articulate vision, services, governance, and attention to the women and men who carry these transformations on a daily basis.

From this perspective, digital technology no longer appears as a simple lever for modernization, but as a structuring factor of the university mission itself, calling for a renewal of governance frameworks, competencies, and professional cultures.

Student Success and AI: a Now-inseparable Duo

Bruno Urbero, PhD - French Delegation

All EDUCAUSE 2025 presentations dealing with student success address one facet or another of AI. The model associating a holistic understanding of the student with their success has long been validated—two years, which is an eternity for AI, whose history only truly began in 2022. During this EDUCAUSE sessions, the theme of student success has evolved: the focus is now on the contributions of AI to learning, as well as the risks associated with its use.

In just a few years, the Tinto model, which is about fifty years old (1975), has been validated thanks to AI: he theorized that retention is correlated with students' interactions with their ecosystem, with their engagement in university life, and with their sense of belonging. AI has made it possible not only to validate this proof of concept, but also to extend it by detecting early signs of dropout, initiating remediation, and offering a holistic view of the student.

Thus, student well-being, sense of belonging, positive student experience, and engagement all contribute to student success. Not only does this increase graduation rates, but it also improves future employability. As a consequence, the institution's reputation and economic model are strengthened.

The means implemented to achieve this are frequently found across institutions, and are even becoming standardized. At the pedagogical level, micro-learning, mentoring, semester-based adaptation of content, the use of multimodal materials, and content gamification are being deployed. For curriculum valorization, badges and micro-certifications are used. And for academic monitoring, early dropout detection and remediation—whether automated or conducted by advisors—are present. Training in digital literacy, individualized learning paths, and seamless access to data and services complete these measures.

AI, which until recently was used to optimize curricula and increase student success rates, is now also used for employee retention and is now accessible to everyone, including students. Its use is omnipresent: all students have access to ChatGPT, and some (30%) have paid access. This leads to changing student expectations and the necessity to transform pedagogical practices—it becomes essential to have analytical and evaluation methods that make this new context manageable.

After having generated hope —sometimes excessive— AI now generates concerns and even risks regarding students' well-being and, consequently, their academic success.

Student Success and Digital Literacy[142]

UC Irvine (University of California, Irvine) presents a pedagogical approach deeply influenced by cognitive sciences, notably through the structuring of modules whose function (objectives → content → summary → quiz) aims to facilitate learning, improve understanding, and strengthen memorization. The central idea is to structure knowledge in a clear and predictable way so that the learner can navigate more easily and progress without cognitive overload. This structure follows a natural progression: first defining the objectives to give clear direction, then developing the content that provides the necessary knowledge, followed by a summary to consolidate the essentials, and finally using a quiz to verify understanding and support memory retention. This cycle is designed to help learners retain information over the long term rather than forget it quickly.

[142] This chapter covers aspects especially discussed in the session *Analytics for All : Building et Data-Fluent Campus Culture for Student Success* -Astrud Reed - UC Irvine Compass Community of Practice Manager - University of California, Irvine

The development of this data-driven strategy takes into account the needs of companies, where digital literacy remains low: fewer than a quarter of them know how to extract and use data. This slows down many teams and hinders digital transformation.

Two projects—MAPSS (Metrics & Analytics Promoting Student Success) and DataGPS (based on Canvas; designed to build a data culture)—were implemented to address this need. They showed that campus-wide digital literacy is correlated with student success. The university established a shared data culture to make data use accessible, understandable, and responsible for all stakeholders, particularly in an institution serving Hispanic communities (46%) and with a high proportion of first-generation students (49%).

MAPSS defined a common vocabulary, an introduction to campus resources, and awareness training on potential biases that AI may introduce. The importance of questioning, verification, and academic rigor is emphasized. Rather than being a technological initiative, the project focuses on human-centered innovation by training staff so that they develop skills in data management and AI tools to improve the student experience.

This strategy is set within a context where time and attention constraints have become very strong. Professional days are fragmented, demands are constant, and attention is limited. To address these challenges, the program prioritizes micro-learning—short, targeted, flexible learning formats. Content is designed to be consumed in just a few minutes, without requiring long periods of concentration. This enables participants to learn regularly, in small increments, supporting continuous progress and avoiding the saturation effect often caused by long, dense training sessions. Flexibility also plays a key role: each person can move forward at their own pace, according to their availability and needs. These micro-learning activities increase attention and retention and are rewarded with badges that encourage engagement.

The content update cycle occurs every semester and allows rapid adaptation of evolving content such as that related to AI.

The training also stands out for its use of multimodal supports—a variety of formats that address different learning styles and maintain attention. Content may take the form of text, visual materials, audio elements, or interactive activities. This variety not only makes learning more engaging but also strengthens comprehension by drawing on multiple sensory channels. Visual approaches help with overall understanding, audio allows for mobile learning, interactive activities encourage active participation, and text provides a stable foundation for deeper exploration. The goal is not only to inform but also to engage learners and make them active participants in their own learning process.

The approach includes playful (gamification of content) and visual elements to make the learning experience more appealing, book clubs, presentations, and the promotion of existing resources (such as institutional subscriptions). All of these elements contribute both to engagement strategies and to student well-being.

The entire system is designed with empathy. Training designers try to put themselves in the learner's position: What are their needs? What are their difficulties? How can concepts be made accessible? How can apprehension about technical subjects be reduced? This attention to the user experience is reflected in clear language, limited jargon, gradual progression in complexity, and the use of concrete examples that give meaning to abstract concepts. Empathy also means that each learner should feel supported, not judged. The training is designed to encourage, reassure, acknowledge progress, and build confidence, particularly for those who feel distant from the world of data or digital technologies.

Thus, the training combines a rigorous pedagogical structure, a modern approach adapted to contemporary work rhythms, varied and engaging formats, and a strong commitment to accessibility. By connecting these elements, it creates a coherent, stimulating, and inclusive learning environment where everyone can progress according to their abilities and needs. This model fits within a broader vision of professional development: helping individuals grow, adapt to rapid changes in their environment, and acquire skills that strengthen their autonomy and confidence.

Evolution of Student Success Strategies[143]

The student experience within the California State University (CSU) system is undergoing a profound transformation, driven by evolving student expectations, academic success imperatives, and technological disruptions. Universities no longer focus solely on retention and degree completion: they now embrace a broader vision of success that includes equity, social mobility, well-being, and access to high-quality professional pathways. This evolution is largely encouraged by public pressure and demographic shifts, which push institutions to offer more holistic support, bridge programs, learning communities, peer mentoring, increased mental-health services, and career-oriented experiences such as internships or experiential learning. Effective use of data and stronger collaboration between academic and administrative teams are becoming essential levers in this new approach.

In this context, CSU has developed an ambitious strategic vision summarized in the “CSU Promise” initiative. It places the student experience at the heart of the educational model and aims to guarantee that every graduate secures their first job in their field of study or continues their education. This vision anticipates changes in the job market, particularly the impact of AI on required skills. Among its concrete responses, micro-internships hold a central place: short, paid experiences offered in partnership with major companies such as AWS, Google, or financial institutions, designed to make access to professional experience more equitable and more accessible than traditional internships, which are often highly competitive. These short, stackable projects allow students to enrich their resume and explore multiple professional pathways.

This dynamic of innovation is also reflected in CSU Chico’s technological modernization, as the campus serves as a pilot for the entire system. Its digital ecosystem has been completely redesigned to move away from siloed structures and adopt a unified architecture: deployment of Salesforce Education Cloud, integration with PeopleSoft, automation of admissions and enrollment processes, and creation of a single platform covering recruitment, enrollment, and student engagement tracking. These developments simplify administrative management, improve the fluidity of interactions, and reduce manual workload. An in-house chatbot integrated into the Canvas LMS provides continuous support and already handles more than half of student interactions, freeing up tens of thousands of work hours previously carried out by student services staff.

Beyond local initiatives, CSU is also working to strengthen internal coherence, a concept known as “systemness.” This systemic approach involves adopting a shared action plan for platform configuration and change management. In a system composed of 22 universities using diverse technological tools, the aim is to offer harmonized services and unified operational logic. Priorities include creating a shared academic advising reference system, developing a single degree-audit tool, using predictive analytics for course-planning data to anticipate needs, and modernizing credit-transfer processes—crucial in a context where more than half of students come from community colleges. Improving these tools will allow advisors to dedicate more time to deeper, more aspirational conversations with students, such as changes in academic pathway or exploration of new orientations.

The student experience, however, is not limited to academic support; it also relies on the quality and seamlessness of digital services. Students today expect instant and frictionless access to their tools, which requires real-time integrations and interconnected systems that are invisible to the user. A thorough understanding of student usage patterns is essential for designing truly tailored services. This technological requirement goes hand in hand with crucial issues of data governance and cybersecurity. With the emergence of generative AI, every use of data must be carefully documented, especially when it involves sensitive processes with a potentially significant impact on students.

Finally, CSU is developing innovative cybersecurity initiatives by directly integrating students into the operations of Security Operations Centers (SOCs). These centers, operated by students trained in IT security and risk management, offer them highly sought-after professional experience aligned with market needs. The

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[143] This chapter covers aspects especially discussed in the session *Enhancing the Student Experiences in the California State University System* – Josh Callahan – Chief Information Security Officer (Office of the Chancellor) – Ed Clarck – Chief Information Officer (Office of the Chancellor)– Liz Reed - Assistant Director – Enrollment Management Technology (Office of the Chancellor) - Jaime Russell – Senior Director of Entreprise Applications (Sonoma) – Monique Sendze – VP and CIO (Chico) – California State University Sytem – Chris Wessells - Unisys Higher Education Technology Strategist - Unisys Corporation

long-term objective is to extend these opportunities across the entire system and link these experiences to the broader concept of micro-internships.

To further this transformation, several priority areas have been defined: developing a unified system for academic support, launching new AI agents through partnerships with student services, expanding the micro-internship program starting the following semester, modernizing credit transfer management to eliminate administrative redundancies, and strengthening the technological skills of the future IT workforce. All of these areas converge toward a clear objective: building a coherent, efficient, and equitable educational system capable of supporting each student from recruitment to professional integration, while adapting to the challenges of AI, cybersecurity, and the rapid evolution of professions.

AI and Student Well-Being[144]

The rapid evolution of generative AI is profoundly transforming higher education, creating both unprecedented opportunities and growing concerns among students and faculty. A growing tension exists between enthusiasm for new tools and the confusion they generate when they are poorly understood, poorly regulated, or inconsistently integrated across institutions. This reality is illustrated through demonstrations of AI tools, surveys, course examples, and shared experiences.

One of the most striking aspects of this transition is the psychological impact of AI on student life. Many students feel increasing pressure, driven by the fear of being wrongly accused of using these tools, of misconduct, or even of academic fraud. Concrete cases show that automated detection systems often produce significant errors: for example, a fully human-written thesis was flagged as “98% AI-generated,” illustrating how unreliable detectors can create unjust and anxiety-provoking situations. Studies also show that humans correctly identify AI-generated text only about half the time, reinforcing the idea that no method can conclusively determine whether a student has cheated. This climate of uncertainty fuels a sense of insecurity, especially as online advice on how to “bypass detectors” demonstrates how easily these tools can be manipulated.

This sense of insecurity and stigmatization has negative consequences that undermine trust in the educational system, reduce engagement, and weaken students’ sense of belonging—thus becoming an obstacle to student success.

Of course, students also use AI to cheat. Therefore, what must be evaluated is not the final product itself, but the process that led to it.

Even faculty does not always share a common understanding of what constitutes acceptable AI use, which further complicates the situation: in a group of ten or so teachers, you often get almost as many different interpretations of what is allowed or not. Traditional pedagogical structures —based on a few major exams or long assignments— are increasingly misaligned with a world where access to tools like AI and the internet is constant. Courses must therefore be redesigned, rather than attempting to combat technology using unreliable technical barriers. Redefining academic tasks, integrating AI as a cognitive support, and encouraging students to document their work process represent more effective solutions than increased surveillance. AI can play a helpful role in generating ideas or organizing information when a student is stuck, without replacing personal work or compromising the authenticity of learning.

Students now place great importance on their institutions’ AI policies—so much so that they are becoming a key factor in choosing a university. They seek transparent institutions that articulate clearly their expectations and practices, and that avoid punitive measures or scandalous false accusations. An empathic approach is therefore essential. Speakers reminded the audience that students aged 18 to 25 have not yet completed the development of their prefrontal cortex, which affects impulsivity and their tendency to seek immediate

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144 This chapter covers aspects especially discussed in the session *AI and the Human Touch: Student Mental Health and Retention* – Cindy Blackwell – Director Academic Faculty Development – Texas A&M University – Ashley Dockens – Associate Provost of Academic Innovation and Digital Learning - Lamar University

solutions. This neurodevelopmental reality calls for guidance rather than punishment, acknowledging how difficult it can be to resist tools that offer instant answers in a demanding academic context.

Data also reveals that while 90% of students use AI in their work, only 40% believe it actually improves their understanding. This demonstrates frequent but sometimes superficial use, requiring structured training to develop genuine digital literacy and a more nuanced use of the tools. Beyond cognitive aspects, the speakers describe a learning ecosystem where conflicting expectations —for example, when a student must respond to the simultaneous demands of numerous supervisors— create stress and weaken the sense of control. Time management, presentation logistics, and collaboration around shared resources reinforce the idea that a coherent, fluid, and well-supported environment is essential to reduce anxiety and improve student retention.

This context explains why a clear institutional framework is necessary. The most effective AI policies rely on transparency, consistency across institutional, programmatic, and pedagogical levels, and explicit communication of teachers' own practices. Banning AI for students while secretly using it creates a climate of mistrust; explaining when, why, and how it is used, on the other hand, restores trust and fosters constructive dialogue. This transparency also involves a gradual phasing out of detection tools, which are considered not only unreliable but also potentially dangerous when they produce false positives or perpetuate biases. In the speakers' university, these tools were removed precisely to avoid unfair consequences and to encourage more ethical and responsible practices.

The goal is not only to prevent misuse, but also to offer an AI-enriched learning environment. Educational activities should be centered on authenticity and metacognition: co-creating classroom rules, demonstrating AI hallucinations, documenting the complete work process, assigning tasks grounded in realistic professional situations, and using spiral curricula to reinforce learning continuity. When misuse occurs, restorative approaches—reflective discussions, ethics training, and task revisions—are favored over immediate sanctions, in order to maintain an educational climate based on trust and support rather than fear.

The most effective AI policies rely neither on punishment nor automated detection, but on a holistic vision that views the student as a developing learner, influenced by their emotions, environment, and understanding of technology. By clarifying expectations, rethinking assessments, and integrating AI as a pedagogical tool rather than an adversary, institutions can create fairer, more engaging, and more contemporary learning environments. This renewed approach promotes retention, reduces stress, and strengthens trust among all stakeholders in higher education. It also prepares students to thrive in a world where AI will be ubiquitous, equipping them not only with the necessary technical skills but also with the ethical and reflective frameworks for its informed and responsible use.

Student Success Beyond the Diploma[145]

This session was organized jointly with the company Canva. As a result, there may be a bias—not regarding the importance of graphic tools in general, but concerning the choice of a particular editor. The session focused on the evolution of students' technological preferences and how these preferences influence decisions made by universities, particularly around the use of Canva in higher education. The panel, which included representatives from the company, Lipscomb University, and George Washington University, explored the complex balance between Generation Z's expectations, institutional imperatives, and the transformation of the academic digital landscape.

It is worth noting that Canva has become an omnipresent tool in the creation of visual content. With 260 million monthly users across 190 countries and availability in more than a hundred languages, the platform has established itself as a familiar, accessible, and inclusive environment for students. Its popularity

[145] This chapter covers aspects especially discussed in the session *Future-ready Campus : Bridging Student Tech Preferences with Workplace demands* – Nick Gyani – Head of Higher Ed – Canva Pty Ltd – Brett Hinson – CIO – Lipscomb University – Jared Johnson – AVP – Academic Technology & Customer Experience – The George Washington University

—illustrated by the creation of hundreds of designs per second—shows that it has already become a cultural standard for young people. This reality is naturally prompting institutions to reconsider their technological ecosystems in order to remain aligned with professional practices and employer expectations for future graduates.

Generation Z expresses a strong need for intuitive, fast, and efficient tools. This demand, shared by a very large majority of students (90%), reflects their desire for more effective and high-performing tools that can help them prepare for their future careers. A large majority of students feel that the tools currently provided on campus only partially meet their needs, creating everyday obstacles. They strongly associate visual mastery with their professional future, believing that clear, aesthetic, and rapid digital communication is now a key skill sought by employers. In this context, universities increasingly evaluate career readiness over extended time horizons—from one to ten years—and seek to identify the differentiating skills that will help their students stand out.

Campus feedback demonstrates rapid adoption that responds to real usage needs. At Lipscomb University, for example, 2,400 students adopted the tool in just eight weeks, and staff engagement grew quickly once appropriate support mechanisms were implemented. This kind of dynamic illustrates the positive impact of actively involving students in the selection and governance of digital solutions. When students are part of the decision-making process, the relevance of the chosen tools increases, as does their adoption rate.

However, this integration requires strong governance. Universities are implementing on-going consultation mechanisms, including student advisory committees and quarterly meetings, to analyze real usage, expectations, pain points, and necessary evolutions. License management, regular monitoring, and consolidated purchasing help rationalize expenditures (e.g., eliminating inactive licenses, renegotiating contracts near renewal dates). Institutions aim to maximize the pedagogical impact while maintaining financial balance.

On the institutional side, the importance of student voice is widely acknowledged, although feedback must be interpreted with caution, as some requests may be influenced by internal dynamics or minority user groups. The direct link between tools and employability is recognized as difficult to measure, but qualitative feedback and workforce needs confirm the importance of strengthening digital communication and visual literacy.

Digital inequality is also discussed: freemium models create disparities between students who can afford advanced features and those who cannot. Universities are therefore seeking more equitable partnerships with vendors, incorporating flexibility, transparency, usage data, and appropriate pedagogical support—especially through campus-wide offerings. The objective is to ensure that all students, regardless of background, have access to the same opportunities for development.

The discussion also fits into the broader context of digital literacy transformation. Digital literacy now goes far beyond tool proficiency—it encompasses ethics, confidentiality, intellectual property, understanding AI mechanisms, and the ability to produce relevant and responsible content. Panelists anticipate an evolution in AI use on campuses over the next three to four years: a shift from simple information search to content creation and the use of intelligent agents to assist with daily tasks.

Finally, participants emphasize that employers increasingly value proficiency with digital creation tools and the ability to convey ideas in a clear and visually compelling manner. Even though these skills are difficult to quantify through traditional academic indicators, they are emerging as essential components of modern employability. Universities must therefore adjust their technological strategies to support these needs, while ensuring a secure, coherent, and accessible environment.

Belonging: A Need That is Becoming Vital for Everyone[146]

A sense of belonging has become an essential need—both for individuals and for their environment and the proper functioning of that environment. It plays a role as important as well-being or motivation. When people feel integrated, they work better and are more motivated, more engaged, and more resilient in the face of challenges. Conversely, when this feeling is lacking, there is more burnout and discomfort. Learning to unlearn, to let go of certain habits and ways of thinking, opens new possibilities and fosters better relationships within teams. When people feel genuinely connected to others, they participate more and naturally become more involved. This issue concerns everyone: it is no longer only a matter for students but also a global challenge for staff and organizations.

Today, organizations are going through an especially difficult period: widespread fatigue, rapid changes, and increasing pressure to retain talent and maintain a positive team culture. In this context, creating a genuine sense of belonging has become a strategic objective. The pandemic, the multiplication of complex projects, and the sudden arrival of generative AI have led to staff fatigue and behaviors such as *quiet cracking*: employees do not resign, but they reduce their efforts to protect their mental health and avoid collapse.

Conforming is not belonging. *Conforming* means hiding part of oneself to be like others, to avoid being judged. It is exhausting and counterproductive. *Belonging* means being able to be oneself without fear. It strengthens loyalty, engagement, motivation, and resilience. Many studies show that this sense of belonging is one of the most powerful levers for retaining and engaging people.

A sense of belonging develops both at the local level (unit, department, etc.) and at the institutional level, and it begins on the very first days of a new employee's arrival. A human, warm, well-organized onboarding process creates a solid and lasting foundation.

Several concrete practices also help strengthen this sense of belonging. These include involving employees in decisions that concern them, starting meetings with a moment focused on the human dimension, conducting individual conversations to better understand staff members, organizing in-person moments for hybrid teams to reinforce cohesion, and maintaining rituals of connection —even remotely— to prevent individuals from feeling isolated.

For many, the transformation brought by AI represents both an opportunity and a source of concern. It is important to identify resistance and support employees with patience, transparency, and attentive listening. AI often disrupts deeply rooted habits, especially in conservative environments where performance pressure and the rapid pace of innovation can weaken team cohesion.

A sense of belonging is a daily choice. It consists in creating spaces where everyone can be authentic, without masks, in psychological safety. Belonging is not a "bonus" or something added when time allows. It is an essential element for resilience, performance, staff retention, and student success. It enables organizations to thrive by creating environments where people genuinely want to stay, grow, and contribute.

What Higher Education Will Look Like in 10 Years[147]

A panel of academics, educational technology specialists, data governance experts, and IT leaders explored what campuses, teaching practices, and organizational structures might look like by 2035. Higher education is undergoing a major transformation. Institutions must reinvent how they teach, learn, and operate in an

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[146] This chapter covers aspects especially discussed in the session *The Belonging Imperative : a New Agenda for Leardership* – Keith McIntosh – Vice President & Chief Information Officer – University of Richmond

[147] This chapter covers aspects especially discussed in the session *Higher Ed 2035 : Redesigning Work, Learning, and Teaching for Whart's Next* – Joanna Grama – Senior Principal – Vantage Technology Consulting Group – Sandeep Krishnamurthy – Singelyn Family Dean – California State Polytechnic University – Pomona – Asha Ramachandra – Director of IT Strategy - California State University – Channel Islands – David Seidl – Vice President for Information Technology and CIO – Miami University

environment marked by rapid technological acceleration, the rise of AI, and evolving expectations from both students and employers.

A central insight emerges: the use of AI is becoming unavoidable. While employers expect students to be proficient with several AI tools, campuses still adopt these technologies unevenly. To be prepared for professional reality, students must learn through practice —experimenting directly with systems, comparing models, solving concrete problems, and developing genuine digital agility. Learning is no longer just about mastering a technique but about understanding how to collaborate intelligently with AI, developing critical thinking, and learning to ask the right questions.

In this context, the role of faculty is undergoing a major transformation. Some instructors are not yet using AI; others are beginning to integrate it. But the most promising vision is that of the teacher “above the loop”: a guide capable of helping students use AI to solve complex problems. The goal is no longer direct content delivery but facilitating inquiry-based learning, designing challenges, encouraging exploration, experimentation, and constructive failure. The instructor becomes a facilitator, coach, and designer of learning experiences in which students develop adaptive skills.

This evolution comes with ethical, legal, and human challenges. Students want to retain control over their data: to know what is collected, how it is used, and to consent —or refuse— its use. Universities increasingly resemble “mini-cities” that manage massive volumes of sensitive data, while legal frameworks remain insufficient. Risks linked to opaque technology contracts, image rights captured by tools, and the use of institutional data to train AI systems without clear guarantees are growing concerns. The emergence of so-called “agentic” AI systems —capable of performing autonomous actions in the real world— introduces new legal dilemmas that remain poorly understood.

At the same time, campuses are grappling with genuine anxiety. AI, sometimes presented as an all-powerful tool, is creating concerns among staff: a loss of bearings, fear of devaluation, and cognitive overload. A human-centered work environment is becoming essential. AI is poised to become a permanent professional partner, capable of preserving an individual's work history over several years. This continuity brings new opportunities but also unprecedented pressures for teams.

Higher education could be profoundly disrupted by alternative models, where AI reduces the amount of formal teaching and frees up more time for independent exploration. Individualized learning becomes more effective, to the point of potentially competing with certain traditional institutional formats, particularly for students from disadvantaged backgrounds or those who have had a difficult relationship with school. Despite this, universities retain a major advantage: human connection, community, collaboration, and interaction.

To remain relevant, institutions must rethink their historical structures, such as the standard length of programs or the traditional organization of courses. They must also strengthen their cooperation with industry, as companies are now seeking "AI super natives," capable not only of using multiple systems but also of developing their own agents or micro-applications. This co-evolution between universities and the professional world is essential for aligning the skills actually required.

The key skills of tomorrow are no longer tied to a specific tool, but to cross-cutting practices: prompt engineering, the ability to validate and critique results, complex problem-solving, collaboration with multiple AI systems in parallel, and the agility needed to navigate a constantly evolving ecosystem of tools. Data governance must become a strategic pillar, placing the individual at the center and guaranteeing transparency, ethics, and choice. Finally, the adoption of AI must be accompanied by strong human support, acknowledging concerns, offering secure spaces for experimentation, and systematically reviewing contracts and terms of use for external technologies.

Thus emerges a future where higher education combines rapid innovation with deep values, technology with humanity, personalization with equity. The goal is no longer simply to transmit knowledge, but to train adaptive learners capable of evolving throughout their lives in a world where AI will be ubiquitous. By keeping humans “in the loop”, institutions can not only protect their mission, but also provide new generations with the tools to thrive in an uncertain future, rich in opportunities and challenges.

Conclusion

Higher education is undergoing a profound transformation in which artificial intelligence now occupies a central place —both in the student experience and in the evolution of pedagogical and organizational practices. The analyses presented show that AI confirms and amplifies established models, such as the links between engagement, belonging, and success, while also introducing unprecedented opportunities: early dropout detection, personalized learning, micro-certifications, multimodal learning environments, and assistance from intelligent agents.

But this rapid evolution comes with growing concerns: confusion about acceptable uses, risks of unjust accusations of cheating, cognitive overload associated with overly superficial reliance on the tools, and anxiety related to technological disruption. Institutions, instructors, and students must now navigate an ecosystem where technology can support success just as easily as it can undermine trust, equity, or pedagogical coherence.

The use of AI by students to generate assignments creates a risk of cognitive devolution. Learning, reasoning, and especially memorization can be durably weakened. On the other hand, the use of AI by students to build their reasoning, confront their ideas, or enrich their thinking is a powerful tool that is essential for their future employability.

AI gives “superpowers” to those who already know, but it does not turn learners into experts. A deep revision of the evaluation model is required to account for AI’s presence in the cognitive process. For students, it is the *process* —the reasoning— that must be evaluated, while the final output may be generated by AI. Theses, which are primarily extensive writing processes, must therefore be supervised throughout their development rather than checked only at the end to ensure original work.

Experiments conducted at several North American institutions demonstrate growing awareness: student success can no longer be considered solely from the perspective of academic performance. It depends equally on well-being, institutional transparency, inclusion, data literacy, and robust digital literacy. The importance of belonging —whether for students or staff— emerges as an essential lever in the face of fatigue, rapid change, and the risk of disengagement.

By 2035, campuses will need to integrate technology and humanity more closely. AI will become a daily partner, but it will not replace human support or the community logic that remains higher education’s true added value. To remain relevant, institutions must rethink their longstanding structures, strengthen data governance, develop flexible and ethical learning environments, and cultivate genuinely adaptive learners.

Thus, AI should not be seen as an end in itself, but as a catalyst —a powerful tool serving a renewed educational mission centered on trust, responsibility, and holistic student success. Institutions that manage to combine technological innovation with human care will offer new generations the necessary conditions to learn, thrive, and build solid professional futures in a world in constant transformation.

Preparing for AI Integration: Toward Trusted Data Foundations and a Culture of Utilization

Takuto Matsuhashi - Japanese Delegation

Introduction

According to a survey report by IDC (International Data Corporation)[148], the adoption rate of generative AI in the education sector is 86%, the highest among all industries. AI has already permeated every corner of higher education campuses.

However, what emerged through visits to U.S. universities and discussions at the EDUCAUSE 2025 conference was a more fundamental movement behind these surface-level numbers. It is the movement to position AI not merely as a new technological tool, but as the core of a "strategic transformation" that fundamentally reconsiders the entire institution's values, the nature of teaching and research, and organizational culture itself.

What emerged as a particularly important element in this strategic transformation is the construction of "trusted data foundations", which serves as the prerequisite for AI integration. No matter how sophisticated AI may be, its value cannot be fully realized when the underlying data is fragmented, untrustworthy, and unusable for on-the-ground decision-making. At U.S. universities, multiple elements —establishing a clear institutional vision, building robust data foundations, developing data literacy among faculty, staff, and students, and crafting human-centered policies— are being strategically integrated according to each institution's circumstances. All of these elements are interrelated as initiatives aimed at AI integration in higher education.

How, then, are U.S. universities working toward this goal —building trusted data foundations and cultivating a culture that can leverage them? This report organizes the practices of U.S. universities from four perspectives: "Vision," "Data Foundation," "Data Literacy and Organizational Collaboration," and "Human-Centered Policy."

Vision: A Compass for AI Adoption

The institutional charter of Arizona State University (ASU) is striking: "ASU is a comprehensive public research university, measured not by whom it excludes, but by whom it includes and how they succeed[149]." This charter is more than a mere slogan ——it functions as a criterion for decision-making in AI adoption.

According to Roger Kohler, AI Architect at ASU, "AI supports our charter". He explained that ASU positions AI not as a mere technological trend, but as a strategic means to fulfill the university's mission. Indeed, ASU positions itself as "The New American University is ASU's reconceptualization of 21st century higher education," and AI is being strategically utilized as one of the means to realize that vision[150].

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[148] IDC：「IDC's 2024 AI opportunity study: Education」

[149] Arizona State University：「The New American University」

[150] See the "Visit to Arizona State University (ASU)" section of this report for further details on the strategic utilization of AI.

The University of Florida has set forth an institution-wide vision called “AI Across the Curriculum[151]”. This is a declaration to teach AI across all schools and colleges, regardless of discipline, and as part of this initiative, the university has already implemented the strategic hiring of 100 AI-proficient faculty members across all 16 of its colleges. Through this initiative, students can learn AI within the context of their own field of expertise, and the University of Florida has sent a clear message that “AI is not just for information science departments.”

What both universities have in common is that they position AI not as a response to technological trends, but as a strategic means to realize the fundamental mission of the university ——student success and the redefinition of education. Because there is a clear vision, priorities and criteria for AI adoption are established, and the institution-wide effort remains unwavering.

Data Foundation: Building an Ecosystem

I would like to introduce the strategic data foundation initiatives at Vanderbilt University (VU). Olivia Kew-Fickus, Chief Data Officer at VU, articulated the vision of her office as follows: "What we want is everybody who works at Vanderbilt to be able to say this: I can access data, I trust that data, and I can use it to help me do my job and make decisions." This statement is positioned as the guiding principle for VU's entire data strategy.

Realizing reliable data accessibility for work and decision-making at the scale of an entire university is extremely difficult, and it is a challenge faced by many universities. Like many other universities, VU faced a situation where siloed systems—student information systems, financial and HR data, fundraising-related data, and more—proliferated by department, making data extraction and integration difficult. To address this, VU adopted Snowflake as its data warehouse platform and progressively integrated siloed data.

However, the essence of VU's data strategy goes beyond the construction of a technical platform. The university has deployed a team known as "Data Partners" that collaborates with leaders across departments, embedding themselves deeply within each unit to support data utilization on the ground. Through this approach, a culture in which data can actually be used is being permeated throughout the entire organization.

In this way, VU's data strategy forms an ecosystem in which the IT department, the data and strategic analytics office, and individual schools work in concert, all underpinned by a cultural foundation of "A Radical Collaboration." Realizing a mutually reinforcing data ecosystem that integrates technical platform × organizational structure × governance processes requires an organizational culture committed to persistently engaging in dialogue with those on the ground.

Data Literacy and Organizational Collaboration: Cultivating a Culture of Utilization

Equally important alongside the development of data infrastructure is cultivating personnel who can actually "use" data and fostering a culture of data utilization. In a session[152] at the University of California, Irvine (UCI), the learning program "UCI Compass"—targeting faculty, staff, students, and leadership—was reported. The program covers topics such as data analysis, AI utilization, and ethics. UCI Compass also serves as an information collection and analysis platform that provides a 360-degree view of students, with its primary aim being to support "Student Success" by responding instantly to student needs. Because faculty and staff need

[151] https://ai.ufl.edu/teaching-with-ai/ai-across-the-curriculum/

[152] https://events.educause.edu/annual-conference/2025/agenda/analytics-for-all-building-a-datafluent-campus-culture-for-student-success

to make data-driven decisions and provide appropriate interventions, the program incorporates gamification and microlearning elements, building a structure that allows participants to develop data literacy step by step while maintaining motivation.

As also noted in the case of VU above, at many universities, data is divided by department, and organizational silos pose a serious challenge. The approach UCI took toward realizing UCI Compass is a method called "People Map." Beyond mapping organizational units, this approach maps the stakeholders of data and identifies points of connection. Astrud Reed of UCI offered the following advice in the session: "Find out who are the actual people on the ground working with the data, start making connections, and start talking with people."

A key insight shared was that "organizations don't actually want to hoard data—they truly want to utilize it." In many cases, the lack of progress in data sharing is not due to malice or resistance, but rather to the fact that people don't know "who has what data" or "whom they should consult." People Map helps make these invisible walls visible and serves as a means to dissolve the inter-organizational silos that hinder data collaboration.

Human-Centered Policy: Establishing Trust

As the use of generative AI rapidly advances, discussions are progressing in educational settings about the need to adopt generative AI usage policies that are attentive to students. Dr. Ashley Dockens of Lamar University points out the ethical challenges in AI integration as follows: "AI offers powerful opportunities, and real anxieties."

In Dr. Dockens' session[153], it was reported that while generative AI brings great possibilities to educational settings, students hold various anxieties—such as excessive dependence on or avoidance of AI tools, and confusion regarding the acceptable scope of AI use. She also emphasized that the student brain is still developing, and that improper use of AI by students should be perceived not as a moral failure but as a developmental, psychological, and educational challenge.

Based on this understanding, higher education institutions need to adopt non-punitive policies and shift toward empathy-based educational design. As a concrete example of such a policy, it was reported that explicitly indicating the permissibility of AI use in syllabi is recommended. By clearly noting "permitted," "gray zone," and "prohibited" categories, ambiguity is eliminated and students' ethical judgment is supported. For students to use AI tools appropriately and deepen their learning through them, it is essential that a relationship of trust be established between faculty and students.

Policies, however, are not limited to students. At Arizona State University, an in-house framework called the "Ethical AI Engine" has been developed to continuously evaluate all available AI models for bias, fairness, robustness, and accuracy[154]. A policy is in operation whereby models that fail to meet the standards cannot be used within the community. An empathy-based, human-centered policy is the very key to realizing a healthy educational environment in the AI era.

Conclusion

This report has documented visits to multiple US universities engaged in efforts to build foundations for AI integration, and important insights have been gleaned from their diverse approaches. Arizona State University and the University of Florida demonstrated the importance of a clear vision; Vanderbilt University showed a

[153] https://events.educause.edu/annual-conference/2025/agenda/ai-and-the-human-touch-student-mental-health-and-retention

[154] https://ai.asu.edu/technical-foundation/articles-and-documentation/ai-integrity-asus-ai-acceleration-team-setting-new-standards-ethical-ai

robust data foundation and the organizational culture of "A Radical Collaboration"; the University of California, Irvine illustrated the cultivation of data literacy that crosses organizational silos; and Lamar University presented human-centered policy design.

What these leading examples commonly demonstrate is that AI integration is not merely a technology adoption project, but rather a journey of transformation that strategically advances multiple elements—a clear vision, a robust data foundation, faculty and student capacity development, and human-centered policies—according to each institution's circumstances.

What I felt most strongly through this visit is the importance of "trusted data foundations" as the starting point for AI integration. AI is, in the end, a tool that learns, infers, and judges based on data. When that data is fragmented across departments, when no one knows who holds what data, and when the people on the ground cannot trust it, no matter how advanced the AI introduced may be, it cannot generate sufficient value. In particular, the guiding principle expressed at Vanderbilt University—"I can access data, I trust that data, and I can use it..."—should serve as the starting point for every higher education institution aiming for AI integration. Furthermore, building a trusted data foundation cannot be achieved through the introduction of a technical platform alone. As "A Radical Collaboration" and "People Map" mentioned above demonstrate, building a community in which people connect across organizational silos and engage in sustained dialogue is indispensable. AI integration is not merely a matter of technology adoption, but also a matter of how to nurture an organizational culture capable of leveraging trusted data foundations. The cases from U.S. universities demonstrate that advancing the development of technical foundations and the cultivation of organizational culture in an integrated manner is precisely what forms the foundation for the sustainable evolution of higher education institutions in the AI era.

Infrastructure: General Trends and Specific Developments Related to AI

Olivier Wong-Hee-Kam - French Delegation

Collaboration Stakes

Higher education in the United States is "entering a dynamic era of opportunity", according to a panel gathered by Carahsoft[155], a provider of IT solutions to the public sector. During the session *Future-Ready Campuses: Addressing Today's Top Challenges through Collaboration*[156], the panel of speakers discussed issues and recommendations, highlighting the importance of collaboration and even pooling resources.

Carahsoft's partnerships with higher education and research communities in the United States

The economic model of higher education in the United States is suffering from a decline in student enrollment, which has been anticipated for several years. There are many reasons for this sharp drop in student numbers: low birth rates, reduced international mobility and a decline in inter-university transfers. In addition, the share of public funding is declining, both in terms of federal research grants and scholarship programs. During its EDUCAUSE opening conference, Gartner suggested that the return on investment in higher education could erode or even evaporate by 2030.

Regardless of the size of the institution, it is becoming extremely difficult, sometimes impossible, to maintain complete self-sufficiency in all areas of digital technology, while pressure continues to rise in areas such as cybersecurity, datacenters and AI. Discussions strongly emphasized the need for careful financial planning while promoting collective partnership initiatives based on cost sharing in order to stabilize supplier prices.

The panel concluded in a series of recommendations that could feed into a pragmatic roadmap for large-scale implementation. A brief comment was added to each recommendation to facilitate understanding for stakeholders in the French ecosystem even though, of course, no panel member commented on the situation in France during the session.

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[155] https://www.carahsoft.com/

[156] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/futureready-campuses-addressing-todays-top-challenges-through-collaboration

Promoting group purchasing through consortia. One of the panellists representing The Quilt[157] highlighted their initiative, which has been in place since 2015, to obtain volume-based commercial discounts for network, cloud, AI and cybersecurity services. Their approach creates a unified framework that standardizes pricing conditions for large and small organizations. In France, similar work carried out by the *Cellule Nationale Logicielle* and the *Groupe Logiciel* began in 1994 and is therefore a de facto precursor.

Investing in shared infrastructure. Pursuing joint projects for datacenters, high-performance computing, and renewable energy use, supported where possible by state or federal funding. In France, the strategy is similar, as illustrated by the emergence of regional datacenters financially supported and certified by the MESRE (French Ministry of Higher Education and Research and Space) or the Mesonet project, which brings together computing grids across the country.

Developing robust economic models for AI. Require transparent cost-benefit analyses before committing to AI solutions; consider federated AI platforms to reduce energy requirements, which are a global limiting factor, while network bandwidth requirements should be manageable with on-site data analysis. In France, since January 2025, the ILaaS project[158] supported by the French Ministry of Higher Education and Research has already tested such a strategy by establishing an operational federation of several regional datacenters offering, in particular, generative AI inference.

Strengthening regional structures. Enabling regional facilitators to capture and translate campus demand into coordinated collaborations and purchasing strategies, providing access to federal resources (e.g. FedRAMP contracts[159]). Specialized buyer profiles are recommended for negotiations with publishers. The challenges of regional collaboration around research needs are discussed in the following section. In France, regional structures are already well established, but an equivalent strategic vision at the European level has yet to be developed.

Aligning incentives between publishers and institutions. Encourage the emergence of intermediary organizations such as 'brokers'. Such organizations could change current ways of thinking, which block collaboration in an established status quo. Furthermore, a broker would be able to reconcile the need for stability among suppliers with the need for flexibility among institutions in order to remain competitive. An additional avenue would be to factor in the needs of the government and the education sector for the contractualisation of shared services. In France, the DINUM (*Direction Interministérielle du Numérique* - Interministerial Digital Service) has historically played this role of intermediary between industrial offerings (such as Resana, published by Interstis) and the aggregated needs of several ministries and state operators, including institutions of higher education.

DINUM's current strategy for La Suite Numérique, published under an open-source license and operated in a trusted cloud, is unique in that the panel has never mentioned open-source strategies. However, this uniqueness is well suited to the culture of sharing in France and more broadly in Europe around digital commons.

[157] https://www.thequilt.net/

[158] https://ilaas.fr/

[159] https://www.fedramp.gov/

Regional collaboration

The session *Teaming Up for Impact: Regional Collaborations for Research Computing and Data (RCD)*[160] focused on feedback from members of the CASC (the Coalition for Academic Scientific Computation[161]) working group. Since its creation in 1980, the CASC think tank has aimed to support the importance of high-performance computing (HPC) in the field of education and research through complementary missions: advocating for public and private investment in research computing and data services; advising federal agencies on relevant funding programs; engaging in policy discussions on research computing and data services; fostering a community of leaders in this field; providing a forum for sharing strategic ideas and best practices.

Geographical distribution of CASC members

This organization brings together 108 institutions including R1 and R2 universities (respectively 'Very High Research Spending and Doctorate Production' and 'High Research Spending and Doctorate Production') and 60% of the NSF (National Science Foundation) AI institutes. More generally, including other groups such as CaRCC (Campus Research Computing Consortium) and the EDUCAUSE RCD Community Group, the RCD community is estimated[162] at 5,000 people across the United States, often in small numbers per institution.

The panel identified several major challenges concerning the establishment of regional collaborations within the RCD community:

1. Limitations in terms of availability and administrative support
2. Cultural and organizational differences between partners
3. Complexity in terms of invoicing, costs and IT security
4. Uncertainty regarding data ownership and governance
5. Heterogeneous commitment and communication between institutions
6. Dependence on key individuals and insufficient support (financial, planning)

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[160] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/teaming-up-for-impact-regional-collaborations-for-research-computing-and-data-rcd

[161] https://casc.org/

[162] Estimation from a study of Maimone, C., Yockel, S., Middelkoop, T., Stauffer, A., & Reidy, C. (2022). Characterizing the US Research Computing and Data (RCD) Workforce. *Practice and Experience in Advanced Research Computing 2022: Revolutionary: Computing, Connections, You*. Presented at the Boston, MA, USA. doi:10.1145/3491418.3530289

Regional collaboration appears important for several reasons. First, pooling resources involves not only computing and storage equipment and software, but also the consolidation of geographically dispersed expertise in order to offer a higher level of training and support to scientific communities. The panel highlighted the diversity of profiles involved in such initiatives: research deans, administrators, librarians, etc., who began with informal 30-minute meetings that were almost like 'group therapy'.

Pooling resources at various levels enables member institutions to strengthen their capacity for innovation by promoting scientific discoveries, particularly for interdisciplinary projects. The regional service offering thus extends far beyond what each participant could afford individually.

Furthermore, regional collaboration proves to be efficient because it allows for a better utilisation rate of HPC clusters. This promotes economies of scale and enables more judicious concerted investments by avoiding unnecessary redundancies. Finally, collaboration opens up wider access to these resources for all scientific communities in the region.

Various modes of collaboration in research have been discussed:

- Research Cyberinfrastructure Partnerships
- Research & Education Networks (RENs)
- Science-Driven Collaboratives
- Opportunity and Entrepreneurial Initiatives

The panel helped define the key steps that contribute to building long-term collaboration:

- Align priorities: agree on specific areas among partners
- Mobilize stakeholders: bring together committed champions; define missions and visions
- Secure leadership: communicate value and objectives
- Start with precision: choose a rallying issue rather than actions that are too broad in scope
- Manage growth and sustainability: create a business model by building a community (which relies on regularl face-to-face meetings) and communicating clearly and transparently (via newsletters)

During the session, the panel also shared different points of view highlighting other important factors arising from practices in the field:

- Patience: some communities took four years to grow from five to 15 members.
- Commitment: regular physical presence and genuine active participation during meetings translates into the sharing of ideas and concrete actions.
- Sharing: in particular, the sharing of best practices regarding compliance with the NIST 800-171 cybersecurity standard[163]
- Scope: be close enough to occasionnally get together physically
- Integration: working closely with research teams before submitting the application to accurately identify computing and storage requirements
- Networking: connecting with other HPC communities, possibly internationally, such as ICHEC - Irish Centre for High-End Computing

[163] La norme NIST 800-171 est établie par le gouvernement américain et comprend les exigences pour protéger les informations sensibles non classifiées, communément appelées CUI - Controlled Unclassified Information, contre les menaces internes et externes cf. doi:10.6028/NIST.SP.800-171r3

HPC and AI

The HPC community is facing recent changes due to the popularity of generative AI and AI in general, which is having an impact on scientific activities. In 2024, in order to determine a national strategy, the NSF launched the NAIRR initiative (National Artificial Intelligence Research Resource[164][165]). The objective of the NAIRR pilot phase is to provide a national research infrastructure in the United States to facilitate access (computing, data, software, models, training content) by teachers and researchers to AI resources for the benefit of research, discovery and innovation.

Several stakeholders from NAIRR and the HPC community discussed the main lessons to be learned from this pilot during a session entitled *At the Intersection of AI and High-Performance Computing: Exploring the NAIRR Pilot User Experience*[166]*.*

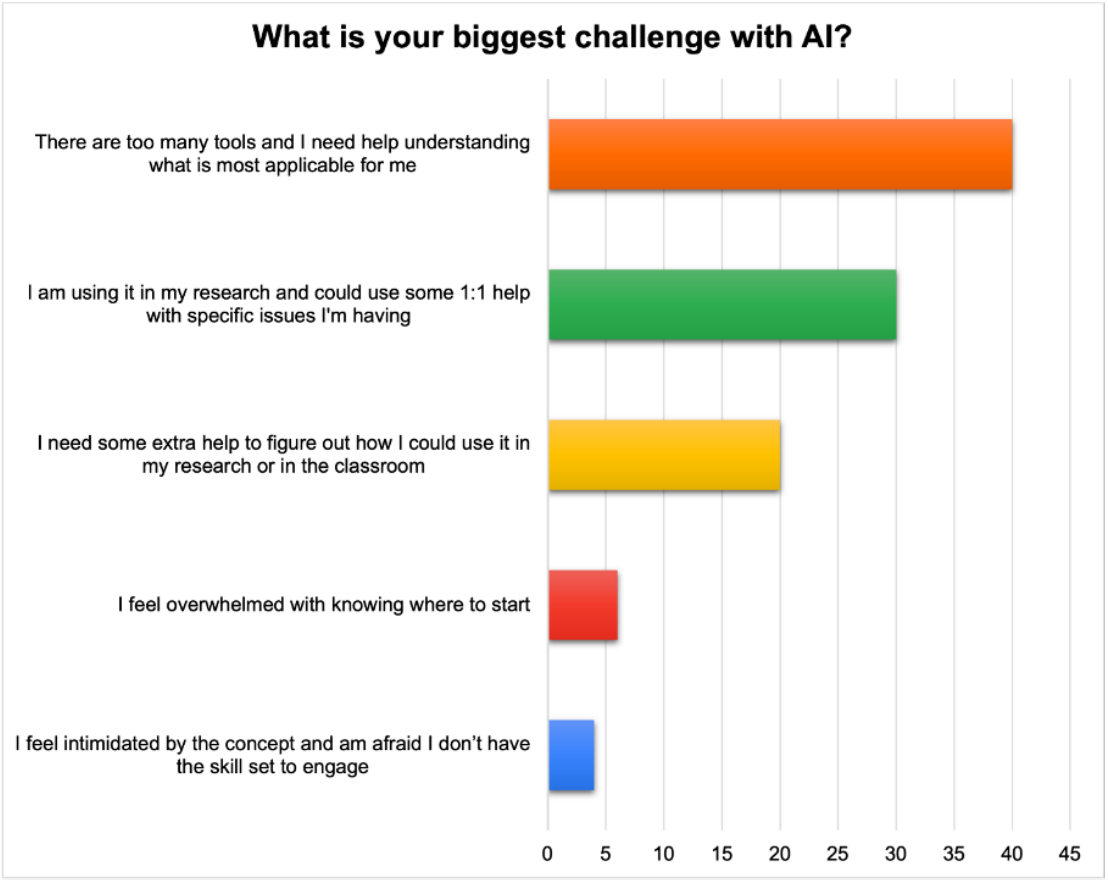
Unlike HPC, which traditionally targets specialists, AI attracts a wider and more diverse audience. One of the speakers pointed out that historically, the appeal of training courses in Python, a very popular language (described as the 'Taylor Swift of programming languages'), has now been eclipsed by demand for training in AI. The inclusion of the term 'AI' in a conference or workshop title generates massive participation, reflecting a growing demand for AI skills. A NAIRR survey provided insight into the scientific community's expectations regarding AI. The majority of respondents indicated that they were interested in discovering AI tools and how to use them for their activities, and wanted training on large language models (LLMs). The figures below are taken from a recent publication[167] about the progress of the NAIRR pilot.

[164] https://www.nsf.gov/focus-areas/ai/nairr

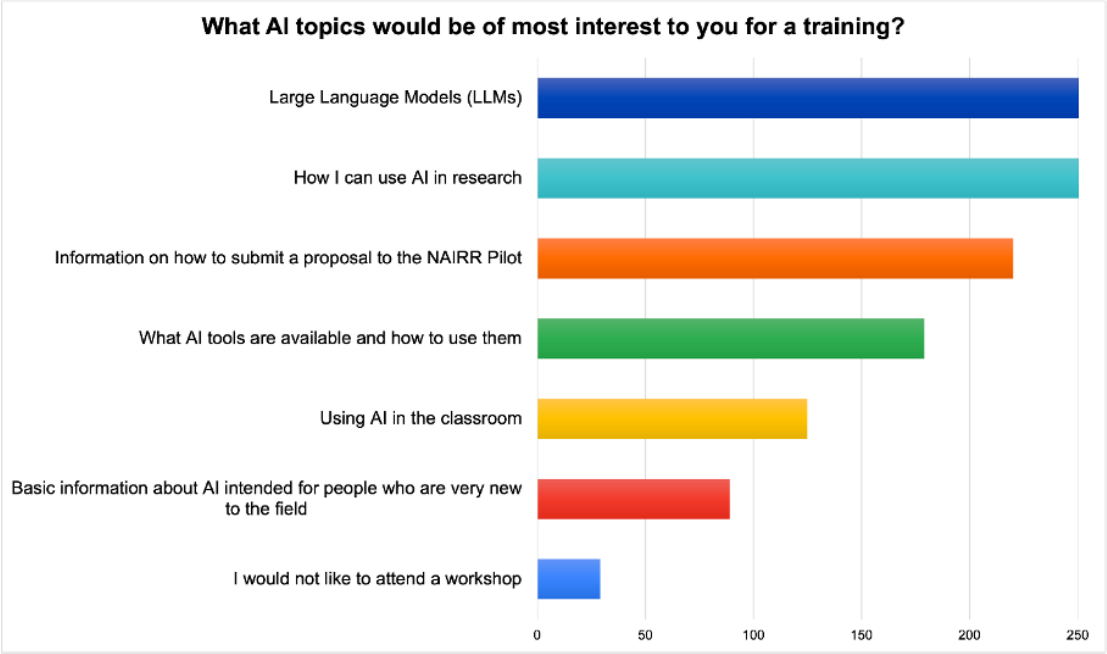
[165] https://nairrpilot.org/about/overview

[166] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/at-the-intersection-of-ai-and-highperformance-computing-exploring-the-nairr-pilot-user-experience

[167] Knuth, S., Romanella, A., Brazil, M., Sukhija, N., Freeborn, L., & Lee, R. (2025). Understanding AI Education Needs: Insights from the NAIRR Pilot. In *Practice and Experience in Advanced Research Computing 2025: The Power of Collaboration*. Association for Computing Machinery. doi:10.1145/3708035.3736079



Responses to a survey of potential NAIRR users regarding what their biggest challenges were with AI (by percent).



Responses to a survey of potential NAIRR users regarding what topics they would like to learn in an AI training. Respondents were allowed to choose multiple options.

The results of the study helped define the program for workshops dedicated to AI, such as the one organized in Denver in April 2025, 'AI Unlocked: Empowering Higher Ed through Research and Discovery'. The response was unprecedented: 768 applications for 217 places, with many requests received after registration closed. The workshop introduced AI and related concepts, along with methods and tools from the world of HPC, to participants who were generally new to the field. Feedback from registrants highlights a lack of prior knowledge of these tools, confirming that AI now serves as a gateway to the world of HPC. In this regard, the panel emphasized the importance of developing mediators capable of translating scientific needs into technical solutions. Such facilitators, with a solid background in computer science, are set to play a key role in helping users (both researchers and teachers) deals with HPC/AI infrastructures. Users express a need for training on existing tools, which are often perceived as too numerous and complex. Methodologies for accessing resources, although simplified, remain poorly understood.

The panel emphasized that the democratization of infrastructure must extend beyond research-intensive universities (R1) to include all higher education institutions, such as community colleges, where AI is increasingly being used for educational purposes. In their view, HPC platforms must evolve toward interfaces that are easier to access than the command line, using Jupyter notebooks or graphical environments (such as Open OnDemand – available inside a browser). Finally, the panel considered it important to offer cloud-based service integration (internal "on-premise" or external "as a service"), particularly for real-time inference solutions (generative AI) in order to meet the diverse needs of everyone from beginners to AI experts. The pooling of infrastructure between institutions, already discussed above, could optimize the use of resources: in particular, a detailed analysis of user needs would make it possible to avoid disproportionate investments (estimated at several billion dollars) in favor of configurations more suited to real needs, using mid-range graphics cards (GPUs) and less powerful networks.

Notably, throughout the EDUCAUSE conference, several posters were devoted to such approaches: Boise State University highlighted its boisestate.ai[168] platform, *A Cost-Effective, Secure, Campus-wide AI Platform on AWS* based on a cloud deployment of their own tools, offering access to numerous LLMs, avoiding heavy dependence on a single publisher, while aiming for a price of $3 per user per month (three times less than the industry average). During on-site universities visits organized this year in conjunction with the conference, we were able to learn more about similar operational deployments, first with Allen Karns, cloud architect and co-director of the amplifygenai.org[169] platform for Vanderbilt University and second with Roger Kohler, director of AI Solutions and Architecture at Arizona State University, about their own CreateAI Builder[170] platform. The latter is really promoted internally, although in its external communications Arizona State University is known as the first university to have signed a strategic agreement with OpenAI around their enterprise offering[171] in January 2024, followed by agreements around the educational offering and with other publishers.

The deployment of such services, similar to ChatGPT or more generally based on inference servers dedicated to generative AI, can be seen in institutions positioned in the HPC world. For example, in the United States, Purdue University's Rosen Center for Advanced Computing has implemented[172] AnvilGPT and Purdue GenAI Studio tools that offer open and closed commercial models, which are used in similar proportions by their users (see Figure 5 Models (LLM) use, Rosen Center for Advanced Computing, Purdue University).

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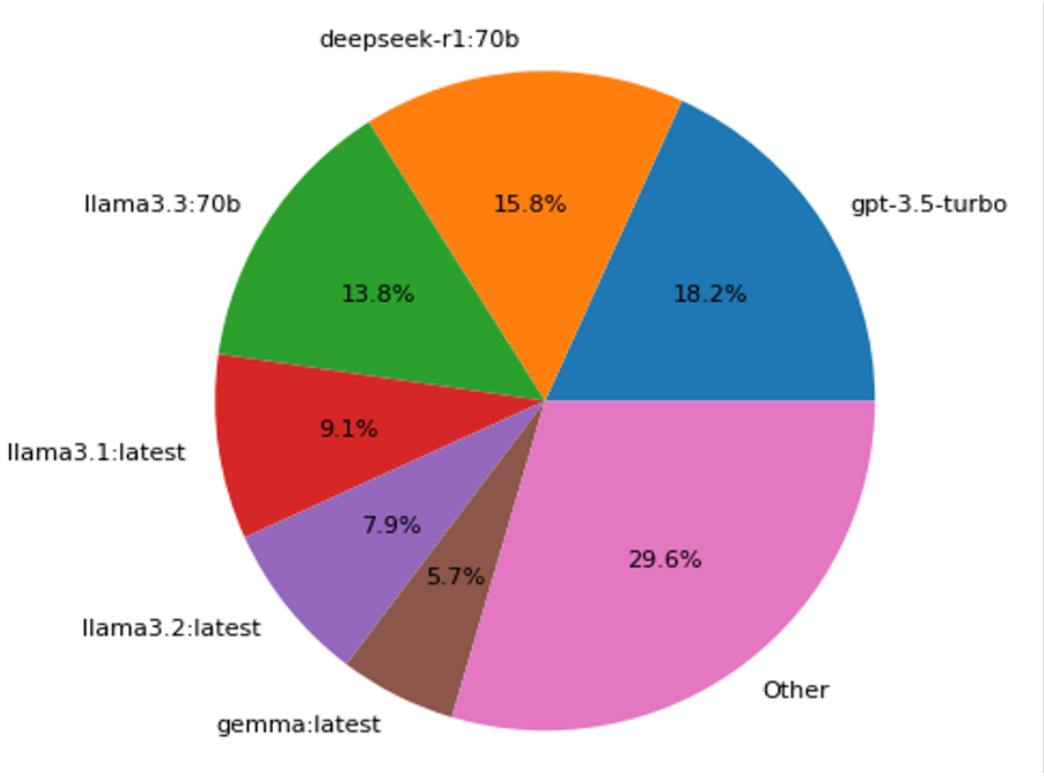
[168] https://boisestate.ai/

[169] https://www.amplifygenai.org/

[170] https://ai.asu.edu/technical-foundation/createai-builder

[171] https://newsroom.asu.edu/press-releases/arizona-state-university-collaboration-openai-charts-future-ai-higher-education

[172] Rodenbeck, S., Gough, E., Mohana Krishnan Sangeetha, A., Ashish, Ahlawat, M., Karunai Kiri Ragavan, V., Muthukumar, A., & Ahmad, A. (2025). Providing On-Prem GenAI Inference Services to a Campus Community. In *Practice and Experience in Advanced Research Computing 2025: The Power of Collaboration*. Association for Computing Machinery. doi:10.1145/3708035.3736039



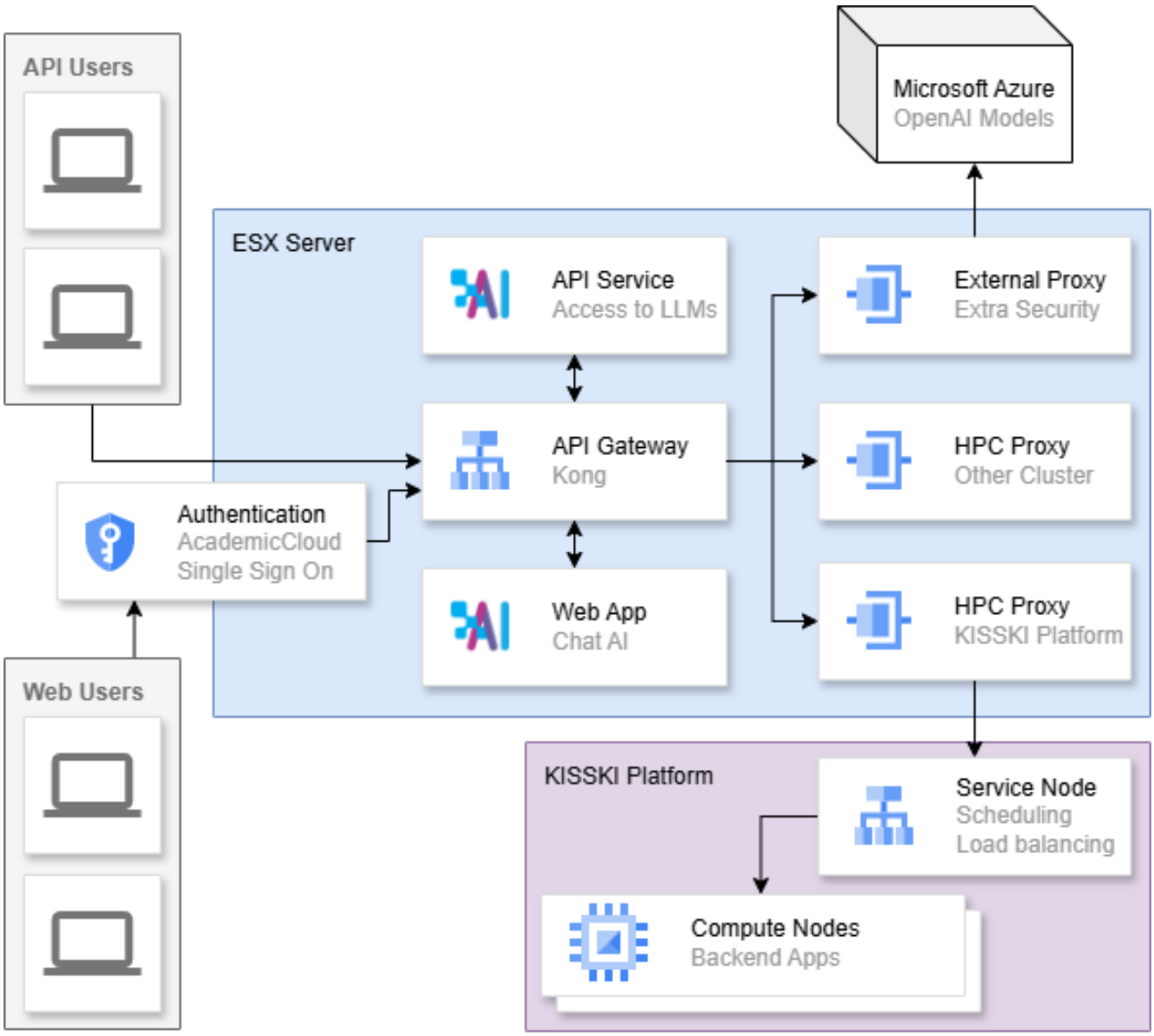
Models (LLM) use, Rosen Center for Advanced Computing, Purdue University

Their deployment leverages their HPC infrastructure using open-source components and is similar in many ways to the deployment of the RAGaRenn[173] platform, Rennes University (France).

During the same period in Europe, we can also highlight the deployment[174] of the Kisski platform in Germany, which is open to several universities and also relies on an HPC infrastructure on which a dedicated deployment enables efficient and secure operation in “service” mode (see Figure 6 Architecture of Chat AI, a generative AI web solution from the Georg-August-Universität Göttingen Institute of Computer Science).

[173] Beust, P. & Wong Hee Kam, O. (2025) Rubrique : Expériences et pratiques exemplaires DÉPLOYER UNE STRATÉGIE D'USAGE DES OUTILS D'IA GÉNÉRATIVE DANS UN ÉTABLISSEMENT. *Télescope : Stratégie, Management public et Performance des organisations de l'État [Anciennement : Revue d'analyse comparée en administration publique],* 2025, Dossier spécial, décembre 2025(22). hal-05453325 et https://telescope.enap.ca/Telescope/22/Index_des_numeros.enap (in French, accessed on February 1st 2026)

[174] Ali Doosthosseini, Jonathan Decker, Hendrik Nolte, & Julian M. Kunkel. (2024). Chat AI: A Seamless Slurm-Native Solution for HPC-Based Services. doi:10.48550/arXiv.2407.00110



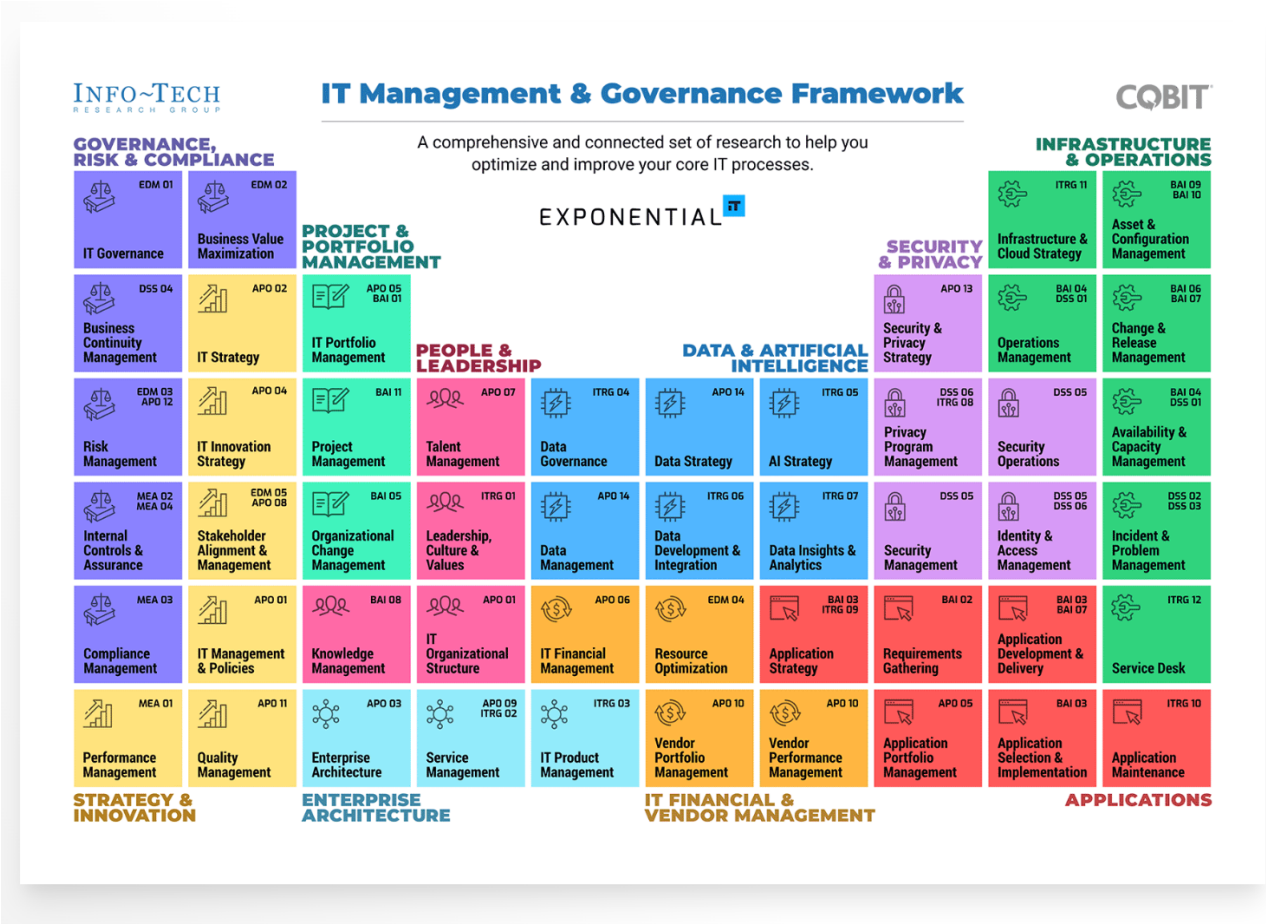
Architecture of Chat AI, a generative AI web solution from the Georg-August-Universität Göttingen Institute of Computer Science

These various testimonials show that AI-related needs are driving profound changes. The influx of users who are generally unfamiliar with HPC environments has prompted institutions to adapt their services toward a modular approach, combining HPC, cloud, and AI inference tools, which seems necessary to meet this diversity of needs. Such changes call into question funding models and are part of deeper trends in the field of research computing.

Research Computing

During the session *Current Trends in Research Computing in Higher Education*[175] two, speakers from *Info-Tech Research Group*[176] shared the external perspective of an industry player.

The first part of the presentation detailed a version adapted by Infotech of the COBIT (*Control Objectives for Information and Related Technology*) best practice framework for digital governance (cf. Figure below: COBIT framework from infotech[177]). The proposed version includes 79 questions designed to assess the maturity of digital-related processes using a structured approach. It enables visual representations to be created to analyze performance by process and allows prioritization according to the MoSCoW method (*Must, Should, Could, Won't Address)*.



COBIT framework from infotech

[175] https://events.EDUCAUSE.edu/annual-conference/2025/agenda/current-trends-in-research-computing-in-higher-education

[176] https://www.infotech.com/

[177] https://www.infotech.com/services

The second part of the presentation summarized the 10 major trends observed by the company in the world of research computing.

1. HPC et AI convergence

Universities are investing in very dense GPU systems, such as Frontera ($60 million) and Horizon ($457 million) at the University of Texas at Austin. Such AI-dedicated infrastructures require a specific strategy: institutions must allocate dedicated resources (energy, cooling, specialized personnel) and plan the life cycle of these AI platforms in the same way they would for a power plant or a biomedical research facility, rather than simply treating them as extensions of existing HPC centers dedicated to data processing.

2. Federated Research Infrastructure

Following the XSEDE project, the NSF successfully launched the national ACCESS[178] platform, which illustrates a transition in terms of funding from capital expenditure (CAPEX) to operating expenditure (OPEX). This approach democratizes access to high-performance HPC and AI resources, particularly for smaller institutions for which the initial investment level was unattainable. However, institutions must adapt their budgetary processes by incorporating standardized governance and metrics for controlling costs, performance, and data security in such cloud and hybrid environments.

3. Data-intensive storage strategies

The generation of petabyte-scale datasets from simulations or instruments (e.g. telescopes, microscopes, sensor networks) now results in storage expenses that exceed the cost of computation. It is becoming necessary to plan and manage storage as an independent investment, with dedicated lifecycle funding, periodic renewal, and architectures tiered according to need (hot, warm, cold storage). These storage-related expenses must be removed from traditional IT operating budgets and integrated into a long-term investment and renewal process, similar to the approach already in place for the systematic renewal of network infrastructure.

4. Compliance and Data Management

Compliance expectations have intensified, driven by funders who now require Data Management & Sharing (DMS) plans that comply with FAIR (Findable, Accessible, Interoperable, Reusable) principles. Non-compliance threatens both future funding and institutional reputation. It is becoming essential to operate centralized compliance services and shared data repository capabilities and manage them as strategic assets of institutions, with high-level oversight and sustained investment.

5. Network Research Infrastructure

The network infrastructure must not only support daily traffic on campuses, but above all must transfer data at 400 Gbps and above between instruments, laboratories, and remote sites. The Oregon University Alliance illustrates a model of scalable financing and governance structures at the state level in the United States for deploying a high-performance network dedicated to research. More than ever, the network must be considered critical infrastructure, with a multi-year investment and renewal strategy spanning 5 to 7 years, integrated into institutional policy.

[178] https://access-ci.org/

6. Research Software Engineering & Workforce Enablement

Any high-level IT infrastructure is ineffective without a skilled workforce. Engineers specializing in research software engineering (RSE) directly improve researcher productivity by making workflows reproducible through specific tools and containerized environments. Several institutions that have invested in building RSE teams, training programs, and support teams have demonstrated a real return on investment: higher success rates for obtaining subventions, increased publication output, and improved researcher satisfaction.

7. Cybersecurity et research data

The rise of human and clinical data sets has increased cybersecurity requirements: beyond purely IT concerns, institutions now face compliance and reputational risks. Federal funding agencies now require zero-trust architectures, secure enclaves, and controlled-access environments for sensitive research data. Cybersecurity risks must be integrated into the institutional risk register, with dedicated governance.

8. Datacenters sustainability

Research data centers remain the largest energy consumers on campus, requiring energy comparable to that of small towns. The environmental and budgetary sustainability of such infrastructure requires work on liquid cooling, workload optimization, and pooling within regional facilities. As such, institutions are required to integrate data center optimization into their environmental, social, and governance (ESG) commitments.

9. Edge Computing and Remote Instrumentation

Research activities take place in remote environments such as satellite platforms, sensor networks, and Internet of Things (IoT) devices. A comprehensive IoT strategy is needed to handle the continuous flow of data from these sources: the goal is to enable real-time analysis and large-scale interdisciplinary collaboration, compatible with external partnerships and promoting eligibility for major multi-partner grant programs.

10. Investment Models and ROI Frameworks

Contemporary investment models, as illustrated by Purdue University's Community-Cluster program, make it possible to link investment levels to measurable outcomes, such as grant funding, academic publications, and collaborative partnerships. These models aim to achieve high utilization rates for digital infrastructure while demonstrating a real return on investment.

Three complementary topics were developed during discussions with participants.

To minimize risks and obtain rapid compliance, it is advisable to outsource to specialized providers with established audit processes. However, speakers recommended using external providers on a transitional basis: institutions should use this outsourced engagement to develop internal policies and skills among permanent staff. The goal is to ensure long-term compliance and reduce long-term dependence on third parties. A more resilient approach is therefore to combine short-term, ad hoc external support with a long-term strategic plan to build internal capacity.

Fluctuating funding and the rising cost of infrastructure are challenging economic models with budgets historically focused primarily on capital expenditure (CAPEX). Several changes are anticipated by stakeholders: increased operating budgets (OPEX) for cloud or hybrid services depending on demand, regional consortia or groupings to share costs between institutions, and modular and flexible service levels adapted to variations in research activities. These changes require the implementation of responsive governance, integrating pooling of both procurement and infrastructure operation.

The digital services for research should be based on three pillars:

- A modular service offering: define clear levels (basic computing, advanced AI, secure enclaves) and transparent pricing
- Governance based on shared metrics: establish performance indicators (usage rates, publication impact, compliance audit scores)
- Iterative cycle: conduct an annual financial and technical review to adjust service levels and pricing based on metrics

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