

Online Education Technology

The University of Texas at Austin

September 2021



The University of Texas at Austin
Office of Internal Audits
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OFFICE OF INTERNAL AUDITS
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September 13, 2021

President Jay C. Hartzell
The University of Texas at Austin
Office of the President
P.O. Box T
Austin, Texas 78713

Dear President Hartzell,

We have completed our audit of Online Education Technology as part of our Fiscal Year 2021 Audit Plan. The objective of this audit was to assess the campus-wide strategy and governance structure around online education and learning. The report is attached for your review.

Select colleges, schools, and units (CSUs) have implemented processes and controls in the area of academic technology and online learning; however, there are opportunities for establishing an academic technology strategy, with centralized leadership and authority, at the campus level.

Please let me know if you have questions or comments regarding this audit.

Sincerely,

A handwritten signature in blue ink that reads "Sandy Jansen".

Sandy Jansen, CIA, CCSA, CRMA
Chief Audit Executive

cc: Mr. Darrell Bazzell, Senior Vice President and Chief Financial Officer
Mr. Cameron Beasley, Chief Information Security Officer
Ms. Monica Horvat, Director of Administration, Office of the President
Mr. Trice Humpert, Assistant VP for Information Technology Services
Ms. Melissa Loe, Interim Chief of Staff, Financial and Administrative Services
Dr. Art Markman, Vice Provost for Continuing and Professional Education and New Education Ventures
Dr. Larry Singell, Senior Vice Provost for Research Management
Dr. Catherine Stacy, Chief of Staff, Office of the Executive VP & Provost
Dr. Sharon Wood, Executive Vice President and Provost



Contents

Executive Summary	1
Audit Results	2
Observation #1 Academic Technology Management and Support.....	2
Observation #2 Academic Technology Purchases and Use	4
Observation #3 Digital Literacy/Technology Training for Faculty and Staff.....	5
Scope, Objectives, and Methodology.....	6
Observation Risk Ranking	7
Report Distribution.....	7



Executive Summary

Online Education Technology Audit

The University of Texas at Austin

Project Number: 21.003

Audit Objective

The objective of this audit was to assess the campus-wide strategy and governance structure around online education and learning.

Conclusion

The University of Texas at Austin (UT Austin) lacks campus-wide strategy and leadership related to online education technology. The lack of enforcement of defined processes pertaining to online education technology creates an inconsistent educational experience for end users (faculty, staff, and students), redundancy in technology spend, and data privacy risks.

Audit Observations¹

Recommendation	Risk Level	Estimated Implementation Date
Academic Technology Strategy	High	March 2022
Academic Technology Purchase and Use	High	March 2022
Digital Literacy/Technology Training	Medium	March 2022

Engagement Team²

- Mr. Jeff D. Bennett, CISA, CISSP, CCSFP, IT Audit Associate Director
- Mr. Paul Douglas, CISA, CCSFP, CDPSE, IT Audit Director
- Ms. Madelyne Puyau, CISA, IT Audit Senior
- Mr. Matthew Stewart, CISA, IT Audit Manager

¹ Each observation has been ranked according to The University of Texas System Administration (UT System) Audit Risk Ranking guidelines. Please see the last page of the report for ranking definitions.

² This project was co-sourced with Postlethwaite & Netterville, APAC (P&N).



Audit Results

UT Austin utilizes a decentralized approach to managing online education technology across campus. The approach allows colleges, schools, and units (CSUs) to operate autonomously so they can apply their own unique academic technology strategy and control framework. CSUs' IT operations are focused on the end user (faculty, staff, and students) experience and security; however, balancing security and privacy with end user priorities can be challenging. Factors, such as variable funding and staffing, increase the risks of inconsistent implementation and support of academic technology across campus.

While the audit highlights separate observations below, all areas share a common cause—the absence of strategic leadership and the authority to enforce defined processes.

The COVID-19 pandemic forced UT Austin to take swift action to transition course offerings, as well as administrative support services, to an online model to protect students, faculty, and staff.

During the transition back to in-person instruction, UT Austin should consider strategic implications around the growth and sustainability of remote offerings, and the possibility that the quality of the online educational experience could have a more weighted impact on the university's prestige and reputation.

Observation #1 Academic Technology Management and Support

UT Austin does not have a process for the management and support of academic technology across campus. Although campus-wide committees exist, these committees lack the appropriate authority to execute key initiatives. The absence of a leadership structure has resulted in inconsistent implementation and support of academic technology across CSUs, which can negatively impact the overall student and faculty experience.

Illustrative example 1: Liberal Arts Information Technology Services (LAITS) is structured as a support group for CSUs without the resources to manage and/or support academic technology. LAITS consists of approximately 100 individuals who provide academic technology support. In addition, the Office of the Executive Vice President and Provost (Provost's Office) funds LAITS to provide support services for academic technology. However, LAITS does not provide service to all CSUs and is not responsible for developing and implementing a campus-wide strategy for academic technology.

The current operating model may not be sustainable in the post-COVID learning environment. Furthermore, risks related to knowledge transfer and overall succession planning should be considered given the federated model.

The historical stigma related to the quality of online learning has begun to change because of the shift required by the COVID-19 pandemic. Prospective students now expect top institutions to provide robust and flexible learning options. A recent EDUCAUSE article suggests the following:



OFFICE OF INTERNAL AUDITS REPORT: ONLINE EDUCATION TECHNOLOGY

- “An institution's culture could be a determining factor in the value it places on encouraging and enabling innovations in teaching and learning, experimentation, and creativity. The acceptance and effective completion of educational innovations relies on a supportive key administrator who has the vision, drive, and commitment to forge collaborative partnerships among faculty, academic technology support units, faculty development offices, and other support personnel charged with managing online learning.³”

***Illustrative example 2:** Information Technology Services (ITS), part of Financial & Administrative Services (FAS), also offers software support for academic technology. Competing groups (LAITS and ITS) offering support for academic technology has led to inconsistent technology management and support practices across CSUs.*

***Illustrative example 3:** The Faculty Council, whose mission is to act as “a guardian to the academic principle of shared governance”, formed the C14 Technology-Enhanced Education Oversight Committee (C14 Committee) to address academic technology needs for the students, faculty, and staff. The C14 Committee drafted resolutions to address some of the strategic gaps within UT Austin’s academic technology. These resolutions were recently approved by the Provost’s Office; however, the implementation of these resolutions will require an individual (or group of individuals) who have the appropriate authority and responsibility to implement across all CSUs.*

Recommendation: Note: As of July 1, 2021, UT Austin appointed the newly created position of Vice Provost for Continuing and Professional Education and New Education Ventures. Although the full scope of responsibilities has not been finalized, it is understood that the Vice Provost will have ownership of certain aspects of academic technology.

Under the newly appointed Vice Provost’s direction, UT Austin is developing a strategic approach for managing academic technology across campus. Key factors to consider as part of this strategic plan include:

- Determine the stakeholders to define key objectives for the academic technology strategy
- Define what campus-wide support means for academic technology (commodity assets)
 - Budgeting/Funding
 - Approved Software
 - IT Support
 - Training
 - Minimum Standards for Security and Privacy
- Clearly define roles and responsibilities for those who manage academic technology
- Provide training to improve digital literacy (see Observation 3)

³ **Beyond COVID-19: What’s Next for Online Teaching and Learning in Higher Education?**

<https://er.educause.edu/articles/2021/5/beyond-covid-19-whats-next-for-online-teaching-and-learning-in-higher-education#fn6>



Management's Corrective Action Plan: Planning is currently underway to develop an organizational structure that supports innovative education programs for undergraduates, graduate students, and continuing and professional education programs. At present, the units that have those capacities are often in different organizations that can make it difficult for them to collaborate. In some cases, the incentives of the members of these groups are not aligned in a way that promotes collaboration. The objective of this organizational structure is to bring together several units under one portfolio and to have clear service-level agreements among units that have to collaborate on innovative projects. We are currently targeting Q1 of calendar year 2022 for the implementation of this structure.

Responsible Person: Vice Provost of Continuing and Professional Education and New Education Ventures

Planned Implementation Date: March 31, 2022

Observation #2 Academic Technology Purchases and Use

Within UT Austin's federated IT model, CSUs have the authority to purchase academic technology; however, they do not consistently follow the defined processes to ensure due diligence is performed on applications that may contain Confidential or Controlled data. The defined processes are designed to provide visibility into maintenance/support requirements, address privacy implications, and ensure compliance with the Information Security Office's (ISO) Minimum Security Standards. Additionally, UT Austin does not monitor the implementation of security and privacy standards for academic technology. Although minimum security standards have been documented by the ISO, the appropriate level of authority to enforce compliance with defined processes across campus has not been consistently applied. Internal Audits noted that CSUs have experienced challenges with faculty purchasing academic technology that is not properly vetted, thus increasing risk security risks to campus.

In addition, ad hoc purchases may have negative financial consequences, such as purchasing duplicate software licenses.

***Illustrative example:** A faculty member utilized a free application to supplement classroom instruction; however, the use of this specific application was not properly vetted or approved. A different faculty member requested students to download or purchase certain academic technology tools, not included on the syllabus. Ad hoc technology-related decisions can put both students and university data at risk. Technology vendors have a history of privacy-related concerns, and technology utilized in the classroom should be properly vetted. Furthermore, a group of students collectively issued a resolution to ban the use of proctoring software due to privacy concerns.*

Recommendation: As UT Austin implements its approach for managing academic technology across campus, an appropriate authority should be designated to ensure that CSUs will follow consistent due diligence processes when making academic technology purchases. Consistent practices include the tracking and monitoring of technology inventory of all technologies to ensure risks related to security, privacy, and the faculty and student experience are managed.



Furthermore, current committees should have executive sponsors to empower decision-making authority.

Management's Corrective Action Plan: In order to avoid duplication of effort and/or cost, the aforementioned organization structure proposes that contracting and support for academic technologies will be handled by ITS, which will have a dotted line relationship to this new portfolio so that strategy and policy relating to academics resides in the provost's office, but contracting and support sits under the CFO. The timeline for implementation is noted in Observation #1.

Responsible Person: Vice Provost of Continuing and Professional Education and New Education Ventures

Planned Implementation Date: March 31, 2022

Observation #3 Digital Literacy/Technology Training for Faculty and Staff

UT Austin does not have an ongoing program for educating faculty, students, and staff on how to leverage technologies to enhance the overall learning experience. Resources and the level of support for academic technology varies across CSUs, and faculty are not consistently trained to use the technology and/or respond to student inquiries. These inconsistencies have a direct impact on the student and faculty experience and may increase the institution's exposure to compliance-related risks (e.g., accessibility).

Recommendation: As noted in the C14 Committee resolution (*excerpt below*), management should develop a program to educate faculty, students, and staff on the academic technology resources available and the appropriate way to utilize these resources to provide a consistent and equitable educational experience.

- *Creating an ongoing program for educating faculty, students, and staff on creative possibilities to enhance teaching and learning, with a special focus on understanding how technologies, and the activities they leverage, may further entrench or ameliorate systemic social inequalities and inequities. This includes an awareness of safe, legal, and ethical practices, the protection of intellectual rights and property, the communication of best pedagogical practices, and an understanding of how to use available resources in equitable ways in our communities.*

Management's Corrective Action Plan: See response to Observation #1. One component of the proposed structure is to bring the Faculty Innovation Center (FIC) into this new portfolio. We believe this will enable a tighter connection between our campus experts on education and the development and improvement of education programs. It will ensure that there is clear communication and education materials related to educational technology for students, faculty, and staff.

Responsible Person: Vice Provost of Continuing and Professional Education and New Education Ventures



Planned Implementation Date: March 31, 2022

Scope, Objectives, and Methodology

UT Austin approaches academic technology in a decentralized manner across campus. Individual units have the freedom to apply their own strategy and structure related to online education technology. The focus of this audit was around the effectiveness of controls and processes in place for managing academic technology across campus. The audit scope included the key areas below:

- Strategy and Governance
- Academic Technology Resources and Support
- Security and Privacy Considerations
- End User Experience (Faculty, Staff, and Students)

The original objective of this audit was to assess controls related to security and privacy for academic technology across campus. However, during the course of the project, we observed inconsistent technology practices across the CSUs. These inconsistencies are attributable to the absence of University strategy or leadership plan for academic technology. Therefore, we determined the most impactful focus for this engagement was to review UT Austin's mission and strategic goals and objectives around academic technology.

The following procedures were conducted:

- Reviewed the campus-wide risk assessment, applicable IT policies and procedures, and previous audit-related documents.
- Identified key areas of risk related to academic technology across campus
- Gained an understanding of the division of responsibilities and ownership between UT Austin and CSUs
- Conducted interviews with key members of management and IT stakeholders
- Performed design and implementation testing (if applicable) of key controls and processes



Observation Risk Ranking

Audit observations are ranked according to the following definitions, consistent with UT System Audit Office guidance.

Risk Level	Definition
Priority	If not addressed immediately, has a high probability to directly impact achievement of a strategic or important operational objective of UT Austin or the UT System as a whole.
High	Considered to have a medium to high probability of adverse effects to UT Austin either as a whole or to a significant college/school/unit level.
Medium	Considered to have a low to medium probability of adverse effects to UT Austin either as a whole or to a college/school/unit level.
Low	Considered to have minimal probability of adverse effects to UT Austin either as a whole or to a college/school/unit level.

In accordance with directives from UT System Board of Regents, Internal Audits will perform follow-up procedures to confirm that audit recommendations have been implemented.

Report Distribution

- The University of Texas at Austin Institutional Audit Committee
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 - Mr. Cameron Beasley, Chief Information Security Officer
 - Mr. James Davis, Vice President for Legal Affairs
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