READY Education

Navigating the Digital Landscape:

a Comprehensive Guide to Overcoming the Top IT Challenges in Higher Education

Outline

Introduction

In today's rapidly evolving digital era, the higher education industry is tapping into the technological revolution, **transforming how students learn, how professors teach and how institutions operate.**

As technology becomes increasingly integral to the academic journey, institutions must embrace **digital transformation** to enhance teaching and learning, streamline operations, and deliver a **total student experience.** However, along with the advantages come significant challenges.

From cyber security threats and data governance to funding, budget constraints and staffing, higher education IT departments must handle a multitude of issues to ensure smooth processes and optimal outcomes.

> **In this guide, we'll take a closer look at some of these challenges and explore how institutions should address them.**

What are the top IT issues higher ed institutions are facing today?

2020 was a milestone year. It marked the moment when we had to find new ways to connect and collaborate online. It especially highlighted technology needs across higher education. As the global pandemic swept the world, institutions had to figure out how to support new online learning requirements as well as increased demands for mobile access to university resources as quickly as possible.

> A few years later, a McKinsey study[1] shows **"students and faculty are eager to continue using new classroom learning technologies adopted during the pandemic".** But institutions don't always have the resources they need. According to our research[2], here are the main IT challenges schools have to overcome today.

1. *How technology is shaping learning in higher education*
2. *Inside Higher Ed / Educause / Buchanan Technologies*

1. Cyber Security, Privacy Awareness and Training

Cyber security is the practice of defending computers, servers, mobile devices, electronic systems, networks, and data from malicious attacks. Increasing online activity means you may be experiencing an increase in cyber security threats.

Securing your institution's data as well as your supply-chain integrity involves implementing processes and controls, protecting institutional infrastructure and increasing workforce skills.

IT security poses a **major challenge because of the time, money and resources required to enhance network security**. Research shows[3] that the average cost of a data breach in education was $4.35 million in 2022. Student information, social security numbers, and bank account data are all at risk.

> **The challenge lies in keeping up with ever-evolving cyber threats and allocating adequate resources to maintain a strong security posture**
>
> **MAXIME RENAULT,**
> *Product Specialist, Ready Education*

3. *Cost of Data Breach Report 2022*

So, what can you do?

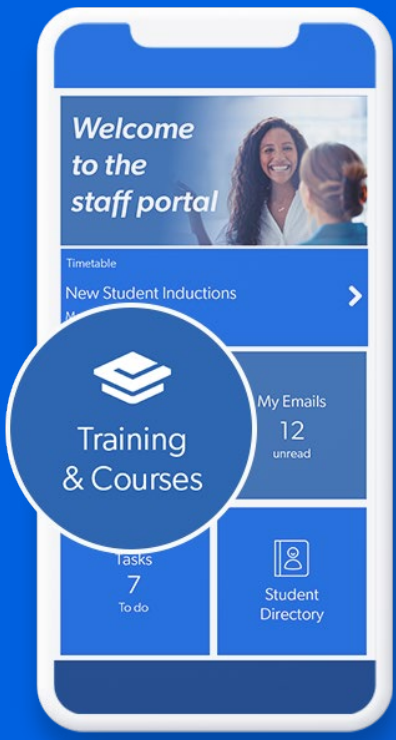
Update privacy and cyber security awareness

Institutions need to update their cyber security and privacy awareness and training. Especially given that their community members often entrust their information without deeply understanding how important it is or will be in the future.

Best Practices

- **Training faculty, staff and students to understand vulnerabilities, how common cyber attacks work, and how to prevent such attacks** is fundamental to creating a more secure and financially stable future for higher education. Ensure this information is accessible and can easily be re-visited, **signposting information is critical to your institution's success.**

- **Deploy instrumental cyber security strategies** to mitigate cyber attacks. They should serve as a foundation for your mitigation plan and strengthen your security protocols. Ensure you are applying all software updates where applicable, that access is controlled and limited, regularly scan and take inventory of your network devices and software, and segregate critical networks and services and deploy network defences to block improper traffic and restrict content.



- **Employ a strong, steady team of experts** in the field. Having access to a skilled team who understand what your needs are and hope to address them will ensure preventative measures are in place.
- **Implement Multi-factor Authentication (MFA):** enforce the use of MFA for all critical systems and accounts. MFA adds an extra layer of security by requiring users to provide additional verification (e.g., a one-time code sent to their phone) in addition to their password.
- **Data Encryption and Secure Data Storage:** encrypt sensitive data both in transit and at rest to prevent unauthorised access. Ensure data storage and backups are secure, and use encryption to protect data integrity.

2. Data Governance and Compliance

A data-driven organisation develops and implements policies, processes and procedures to ensure the availability, integrity, usability and security of data. Data governance encompasses defining data ownership, roles and responsibilities, as well as establishing standards and guidelines for data quality, metadata management, data classification and data lifecycle management.

> As an institution, it's your responsibility to **ensure compliance with data protection regulations (such as GDPR)** while effectively managing and using student and institutional data for research, analytics and customised services.

How can you capture and analyse data in a strategic way, to improve your organisation and operations?

Leverage data across the whole institution's structure and processes

In 2020, 1.7MB of data per second for 8 billion people was created in the world. Institutions that don't make use of their data are missing out on a huge opportunity to identify problems and enact positive change.

"For every year we fail to use data effectively to improve operations or to make better financial and business decisions, we threaten the financial sustainability of our institutions", (Association for Institutional Research, Educause and the National Association of College and University Business Officers)[5].

5. Joint Statement

Best Practices

- **Appoint dedicated personnel** for data management.
- **Segregate data sets** by their relative importance.
- **Ensure compliance** with data protection regulations (such as GDPR).
- Manage and use student and institutional data for **research, analytics and personalised services.**

3. Digital Integration and Access

We talk about digital integration and access when institutions incorporate and use digital technologies for teaching, learning, research, administration, student support, etc. to improve the student experience and engagement levels.

IT efficiency relies on smooth integration, interoperability and coordination across all teaching and learning applications.

The growing challenge for **IT systems is how to become less monolithic and more personalised and direct across products and services**. IT departments also need to **achieve full, equitable digital access for students.**

How do you create an all-inclusive environment?

Develop a learning-first strategy, regardless of modality

For many universities, the pandemic served as a crash course in tech tools to support teaching. At the same time, EdTech companies and institutions have innovated and developed products to support new ways of teaching and learning - a trend to be continued to improve student learning.

4. Inclusive Higher Education project

Best Practices

- **Invest in connectivity, tools and skills** to ensure full and equitable access to all students.
- Leverage technology to **develop new ways of teaching .**
- **Use tech tools to design courses** that allow students to achieve their learning objectives better and quicker.
- **Implement flexible, interoperable options** to reduce barriers and improve student engagement.
- Support faculty efforts to **access tools, experiment with them and implement new practices.**

4. Digital Transformation Projects

Digital transformation is defined as a process using digital technologies to change and enhance various aspects of an organisation, including its operations, processes, services and user interactions. It involves the adoption and integration of digital tools and strategies to drive innovation, improve efficiency and deliver value in a rapidly evolving digital landscape.

Applied to higher education, accelerating digital transformation improves operational efficiency, agility and institutional workforce development.

This is an increasing area of focus for many universities with individuals being given role titles and the responsibility to head up 'transformational' projects. The challenge being set is to **implement inclusive digital strategies and transform traditional systems and processes into more efficient and technology-driven models.**

So, how can you ensure this is a success?

Ensure IT leadership is a full strategic partner

CIOs need a seat at the leadership table to "**facilitate a dialogue between institutional aspiration and digital possibilities**", says Susan Grajek, Vice President at Educause for partnerships, communities and research.

Involving IT leaders in decision-making from the start helps **guide digital transformation.** It's also a good way for them to better understand the institution's mission, operations and culture - and be more equipped to support this transformation.

Best Practices

- **Establish IT governance structures:** create formal IT governance committees or structures that include IT leaders as key stakeholders.
- **Make collaborative decisions:** encourage cross-functional collaboration by involving IT leaders in decision-making processes across different departments and initiatives.
- **Engage IT leaders in the strategic planning process:** include them in identifying technology priorities, defining goals and aligning IT strategies with the broader institutional vision.
- **Invest in IT leaders' professional development:** provide them with opportunities to go to conferences, take workshops and training programs to help them stay aware of emerging technologies, industry best practices and innovative solutions.

5. Offering a Hybrid Campus

A hybrid campus accommodates digital and physical work and learning spaces. Its learning environment combines both traditional face-to-face, on-campus activities with equally engaging, remote, online components. It seamlessly blends in-person instruction and interactions with accessible digital technologies and online platforms to offer a flexible and dynamic educational experience.

The COVID-19 pandemic accelerated students' demands for the hybrid learning environment. IT departments are now challenged to **build and deliver sophisticated online learning environments, virtual classrooms and advanced remote collaboration tools to facilitate flexible and high quality education.** With limited resources and time available against growing expectations this is becoming a priority.

So, how can this be achieved?

Leverage technology for frictionless student experiences

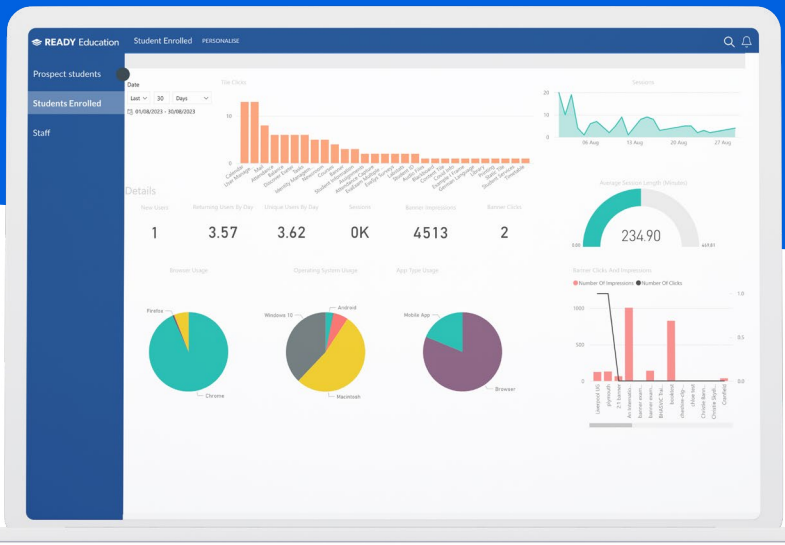
Your students need to access campus resources in a secure, private and intuitive environment.

This requires an investment in technology systems to ensure a frictionless experience when and where they need the services you are providing.

6. Eurostat

Best practices:

- **Gather all your resources, information and platforms in an easy-to-access centralised online location** to avoid endless maintenance activities with multiple systems.
- **Implement seamless communication channels** to facilitate easy and efficient communication between students, faculty, staff and administrators.
- **Personalise learning experiences:** use technology to adapt the experience to individual student needs and preferences.
- **Make data-driven decisions:** ensure you capture and analyse student data to identify areas of improvement, monitor student progress and implement proactive interventions.



6. Supporting Student Success

Student success is a reflection of the achievement, growth and overall well-being of students during their educational journey. It extends beyond academic performance and includes personal, social and career development.

The IT strategy is key to supporting student and staff success. It can often be a struggle to **provide an easy and intuitive way to access all the resources and tools that students and staff need.** Part of the challenge of delivering an exemplary student experience is **giving individuals tools and learning spaces that foster creative practices and collaboration** in order to prepare students for their future.

> **Ensuring equitable access to technology is crucial for students with disabilities or those from disadvantaged backgrounds**
>
> **MAXIME RENAULT,**
> *Product Specialist, Ready Education*

How do you address all support needed?

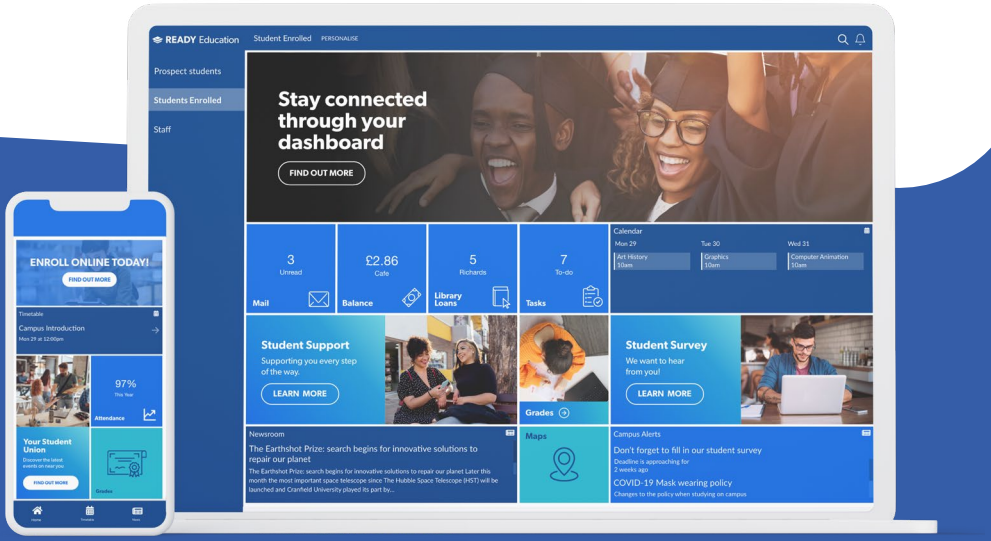
Include Student Support in your IT Strategies

In 2017, 74% of higher education institutions incorporated student success initiatives into their IT strategies[6]. Implementing these initiatives positively impacted their public profile, student outcome and academic success metrics. The IT strategy should be designed to support student and staff success.

6. 7 technology and IT challenges in higher education

Best Practices

- **Provide comprehensive technical support services** to address issues and challenges faced by students and staff.
- **Develop extensive training programs** to equip students and staff with the necessary skills to use tech tools and platforms.
- **Implement collaboration tools and systems** that facilitate seamless communication and teamwork.
- **Engage in proactive technology planning** to anticipate future needs and align IT infrastructure with the evolving requirements of students and staff.
- **Define specific and actionable goals** that will enhance the overall student experience:
  - Streamline the enrolment process
  - Enable education goals
  - Reduce IT tickets rates
  - Solve IT issues faster
  - Help students prepare their professional future



7. IT Funding and Budget Constraints

When organisations are allocating resources for IT initiatives, projects and ongoing operations, there are financial considerations and limitations and this often results in IT funding and budget constraints. Factors such as limited funds, competing priorities, cost fluctuations and the need to balance IT investments with other needs all contribute to the growing concern.

The challenge in this area is to **secure the adequate financial resources to invest in the needed IT infrastructure, software, hardware and skilled personnel.**

How do you build a clear case?

Closely manage IT costs, risks and opportunities

Many institutions are facing technology maintenance problems. Technology systems are not simply about administrative efficiency. They can provide data to inform and impact the institution's missions and business. But to do so, "technology leaders need to help develop an institutional culture of 'here are all of the problems we need to address - let's find a good solution", Susan Grajek of Educause said.

Being able to clearly and effectively communicate all costs, risks and opportunities is crucial to ensuring efficient operations and strategic alignment. Institutions can adopt various practices to achieve this.

Best practices:

- **Develop and maintain a solid IT financial management framework:** establish clear budgeting processes, track expenses and conduct regular cost analysis to ensure optimal allocation of resources. Ongoing clarity and confidence in the information shared will build on trust and agreement.
- **Conduct regular risk assessments and mitigation** to identify potential IT vulnerabilities and implement measures to reduce risks. Early visibility of potential budget requirements may mean inclusion in budgeting priorities.
- **Implement effective IT asset management practices** to optimise the use of technology resources and reduce unnecessary expenses. Saving and removing costs will help offset any areas of increase.
- **Ensure IT initiatives align with the overall strategic goals and objectives** of the institution. Budgets are cascade down and objectives need to be aligned.

8. Data Analytics and Business Intelligence

Data analytics and business intelligence includes the processes and technologies used to gather, analyse and interpret data to derive insights, make informed decisions and drive strategic actions within an organisation.

Institutions are increasing their reliance on data and information for decision-making[7]. Hence their need to invest in business intelligence tools that offer basic analytics and reporting.

The main question here for IT departments is how to **leverage data analytics tools and techniques to gain insights, monitor performance, optimise operations and improve decision-making across all departments.**

How do you effectively utilise data?

Move from data insight to data action

It's only when the data analytics are converted into action plans that institutions are laying the foundation for enhancing operational efficiency and improving student success. To achieve this goal, leaders and stakeholders will need to work together and decide on a path forward.

7. International Journal of Advanced Computer Science and Applications (IJACSA), 2023

Best Practices

- **Change the focus of data analytics** from a historical approach of using data to understand what's happened, to a **future-oriented approach of using data to project where you're heading.**
- Clearly **define the objectives and desired outcomes** of data analysis initiatives.
- **Ensure that data from various sources** is integrated and accessible for analysis.
- **Use data visualisation techniques and reporting tools** to present data insights in a clear and compelling manner.
- **Foster collaboration and effective communication** between IT and other stakeholders within the institution.
- **Adopt an iterative and agile approach** to data analysis and action.

9. User Support and Training

User support and training refer to the actions implemented and resources provided to assist users in using and troubleshooting tech tools, systems and software within an organisation.

One of the most important missions of IT teams in higher education institutions is to **provide technical support and train students, faculty and staff to enhance their digital literacy skills and make good use of educational technologies and software.** Offering such support and training can be time consuming and often difficult to logistically deliver.

How can you effectively upskill your users?

Develop an IT support strategy that works in person and virtually

Nowadays, everyone - students, teachers, staff - work both from home and on campus. Such an environment warrants its own IT support strategy to optimise outcomes. To overcome challenges in developing a robust digital campus and manage **students' high expectations**, institutions need to change.

Best practices:

- **Create a productive and supportive hybrid culture** that supports members of all communities.
- **Invest in remote support tools and technologies** that enable IT personnel to troubleshoot and resolve issues remotely.
- **Develop a broad knowledge base and self-service resources** that address common IT issues and provide step-by-step guides for troubleshooting.
- **Establish multi-support channels** for IT assistance, catering to both in-person and virtual scenarios.
- **Provide ongoing training** to all people across your institution.

10. IT Staffing

IT staffing refers to the acquiring, managing and deployment of skilled professionals within an institution to fulfil information technology roles and responsibilities.

Today, most institutions face tech **hiring and retaining challenges.** And at the same time, they are receiving greater demands for IT staff than ever before[8]: Developers, Vendors, Service Managers, Business Analysts… The list goes on.

One of the main challenges regarding IT staffing is the increasing demand for skilled IT professionals. **There is a growing need for specialised IT expertise.** However, recruiting and retaining qualified IT staff is hard due to competition from other industries, limited budgets and the need for continuous professional development to keep up with evolving technologies.

How do you recruit and retain the staff you need?

Evolve and adapt or lose IT talent

According to the 2022 survey of campus chief technology/information officers conducted by Inside Higher Education[9], 62% of institutions are struggling to hire new technology employees and retain current ones. The main reasons are that technology employees find better salaries (99%) and more flexible remote work policies (53%) at other organisations.

Increasing salaries isn't always an option but providing a supportive hybrid environment is.

8. Buchanan Technologies
9. Inside Higher Ed

Best Practices

- **Offer compensation** that may not be in line with previous internal standards. This doesn't always need to be related to base salary. Are there other perks or incentives you can offer your staff?
- **Adapt your work culture** to build community among hybrid staff. Allowing a flexible working arrangement could be of benefit to both you and your staff.
- **Better accommodate employees' shifts** in personal and professional goals. Allowing flexibility gains respect and loyalty.
- **Foster a healthier work-life balance.** Having a healthy workforce is a happy workforce and one that will enjoy the environment you're providing.
- **Share resources, skills and practices** with institutions you partner with. Peer-to-peer collaboration will save you some time and make your life easier.

Overcome your Tech Challenges with Ready Education

Higher education CIOs have a key role in driving growth, as well as employee and student engagement. To achieve this goal, institutions need to:

- **Build a shared vision and strategy** to achieve a sustainable business model that **places students' success at the centre of it all.**
- Figure out how the **technologies can support people to have a better experience.**
- Empower their faculty and staff members to **create experiences that give students control of what they need, when they need it.**

How can we help you do this? →

- **Centralise campus resources:** Easily connect your LMS, SIS, and other student and organisational systems with our solution so that you can have a single view of all important systems.
- **Leverage Single Sign-On:** Ready Education has a number of authentication options available, allowing you to transparently authenticate users with a number of third-party applications.
- **Simplify access to IT services and support:** IT teams can provide real-time updates and critical information to students. This can include live availability of computer labs, self-help resources and troubleshooting guides.
- **Data confidentiality and security guaranteed**: Our solution is continuously maintained and updated to follow industry-leading security protocols.
- **Gain valuable insights:** IT teams can leverage data and feedback via analytics and surveys to gain insights into student needs, optimise services, and make data-driven decisions to improve the overall student experience and acceptance of digital initiatives.

The Ready Education Mobile Solution

At Ready Education, we have a powerful solution that will enable you to **provide the intuitive experience** your students expect and need to succeed.

Who are we?
Ready Education is the leading mobile student engagement platform provider on a mission to improve student success in higher education worldwide.

Trusted by 715+ institutions in more than 25 countries, we have developed a panel of solutions to build communities, drive retention and help students succeed.

READY Education

7M+ Students

715+ Insitutions

25 Countries

10 Years of Experience

Want to know more about our solutions?
Request a demo.

Ready Education empowers institutions worldwide to build and engage their campus community, improving communications and experiences that increase retention and drive student success.

READY Education

Find out more at:
readyeducation.com

Contact us at: **1 (877) 588-7508**
or email: **info@readyeducation.com**