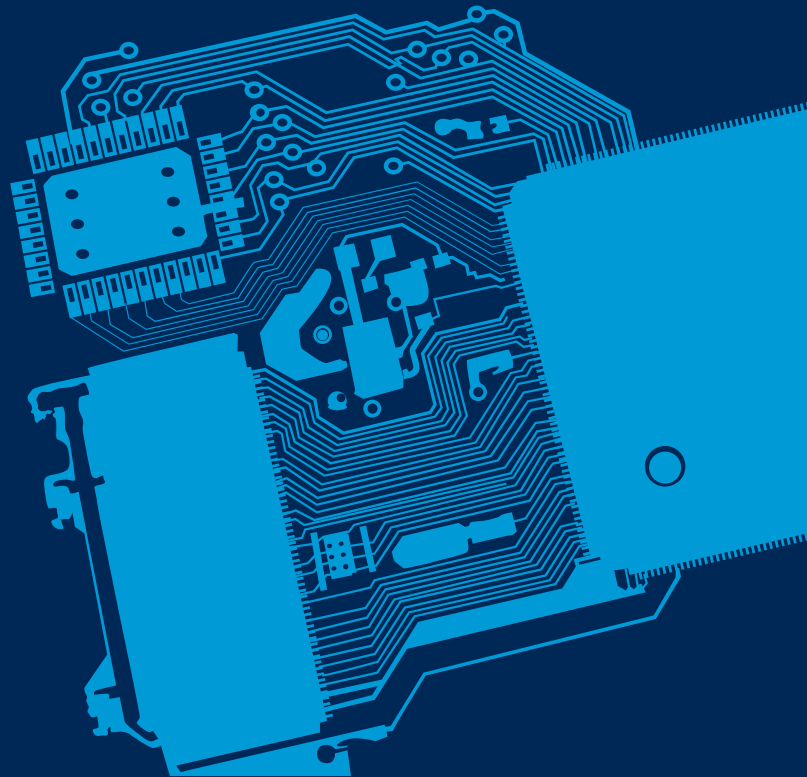


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# Education Technology Optimization and Modernization Primer for 2020



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Initiatives: Education Technology Optimization and Modernization

Education CIOs face evolving future technology and changing demands on their administrative and learning environments. Our research helps CIOs modernize and optimize their systems to increase efficiency and improve outcomes.

## Scope

This research provides strategies to modernize learning environments and administrative systems to achieve an optimal student experience, while complementing enterprise business capabilities.

Topics within this initiative include:

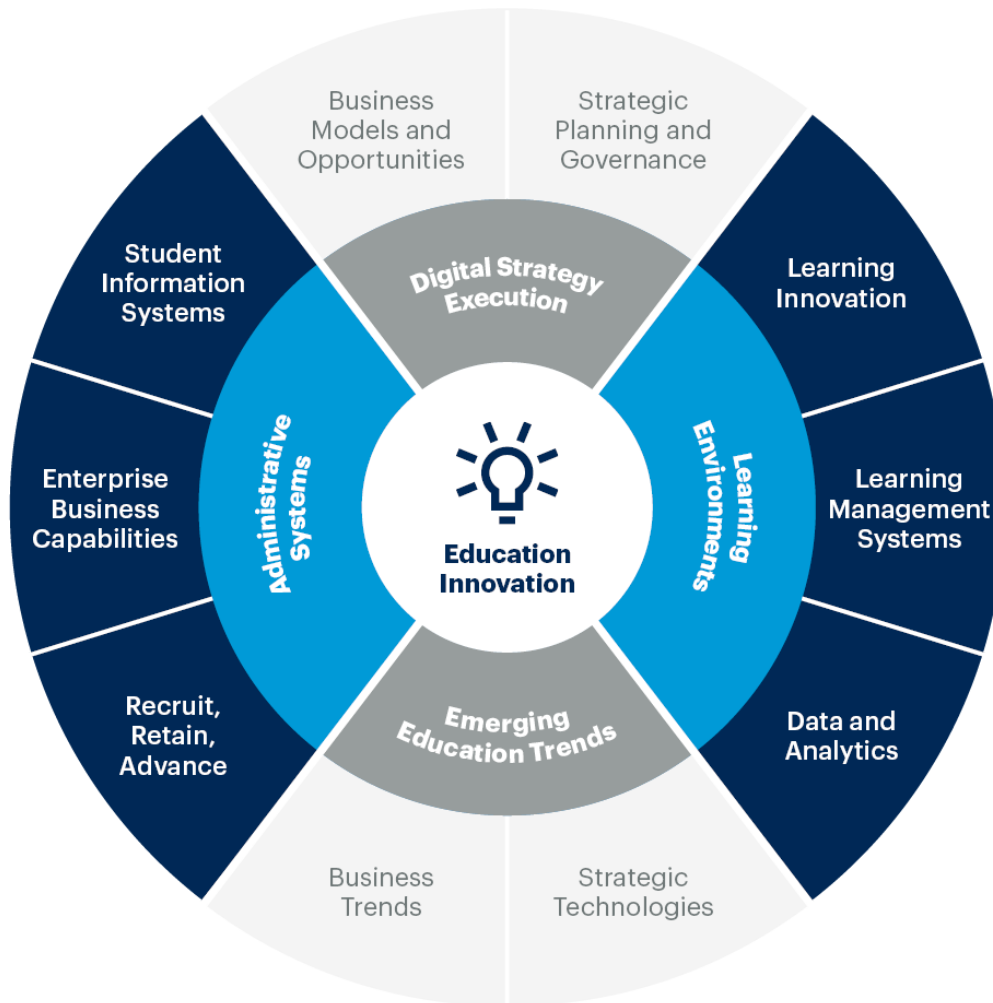
- **Administrative systems:** This topic helps education institutions innovate administrative systems to achieve the modernization and system agility necessary to develop an enterprise education technology platform.
- **Learning environments:** This topic focuses on the strategic and tactical guidance for building innovative personalized and scalable learning frameworks to deliver on the broader institutional achievement objectives.

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## Analysis

**Figure 1. Education Technology Optimization and Modernization Overview**

## Education Technology Optimization and Modernization



Source: Gartner  
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The future of technology in education is evolving. Many of today's technologies can no longer support the modern K-12 or university experience. Others cannot be optimized, modernized or even transformed appropriately for a modern technology environment. Education must adapt. Current learning technologies, administrative systems and operating models lack the capabilities and capacity to address changes that result from new technologies. Mergers, acquisitions and school closures are on the rise in higher education. Market competition is creating new options and pathways for students. Resources and budgets continue to be impacted by changing demographics and economic and social turmoil. These factors are forcing education institutions to reevaluate their current strategies and delivery models to ensure a sustainable future.

CIOs must evolve their administrative and academic systems to attain the optimization and transformation that institution officials seek. In higher education, past practices can no longer support changing university business models. In K-12, past practices are failing to support new demands for greater digitalization of schools.

In response, education organizations are adapting at multiple operational levels and positioning themselves to introduce and support innovative enterprise capabilities enterprisewide. New technologies are permeating K-12 schools, universities and campuses globally, including cross-life-cycle CRM, digital credentials, artificial intelligence, advanced analytics, immersive technologies and configurable SaaS solutions. Developing a digital framework to support these technologies will be a critical step in organizational transformation.

Gartner's 2020 research will provide CIOs with actionable advice to determine the institution's path to build a modern and optimized education technology platform. The research also outlines the environment for digital business transformation that can enable the outcomes and business capabilities of the institution. Gartner's education research will primarily target higher education. Where appropriate, we will contextualize relevant research for K-12 CIOs.

## Topics

With Gartner's guidance, education CIOs can become enablers of student outcomes and help the education organization achieve its broader institutional mission. This evolution is requiring a shift in administrative and educational technologies to support new and evolving ways of doing business. These systems will no longer focus on enterprise back-office aspects of the organization, but rather, will provide the link to improve the organization's enterprise business capabilities.

The introduction and deployment of innovative enterprise business capabilities will change the role of technology, because it will encompass a broader multienvironment framework. Technology will focus on connecting environments and applications to support outcome-based objectives that are flexible, data-centric and stakeholder-driven.

Our research in this area addresses the following topics:

### Administrative Systems

Education institutions must devise a technology strategy to better support optimized workflows, enable effective integration, improve engagement and provide a satisfying digital business experience. Administrative systems that deliver in this fashion can assist with developing technology strategies and roadmaps as the systems team with stakeholders enterprisewide. Education institutions that focus on improving enterprise business capabilities will be recognized by stakeholders as innovative and even transformative. This technology change will support the business and impact institutional outcomes.

### Questions Your Peers Are Asking

- How do I select, modernize or replace the student information system (SIS) and other core systems of record?
- How do I select and deploy technologies to enable student recruitment, enrollment, retention and alumni advancement?

- How do I build a technology environment that supports a full complement of enterprise business capabilities?

## Recommended Content

🔑 Some recommended content may not be available as part of your current Gartner subscription.

- “Market Guide for Higher Education Student Information Systems”
- “Survey Analysis: Insight to Initiate Your Legacy Modernization in Higher Education”
- “The Digital University Requires a Fundamental Shift in the Approach to ERP”
- “2018 Strategic Roadmap for Higher Education Student Information Systems”
- “How to Overcome Three Higher Education CRM Myths”
- “Market Guide for University Alumni Advancement Systems”
- “Market Guide for Higher Education Catalog and Curriculum Management Solutions”

## Planned Research

- Continuing the publication of annual reports that include administrative system advice, such as the education Hype Cycle, education Predicts, the top 10 business and technology trends in higher education, and the top five trends in K-12 education
- Providing research to help the CIO modernize administrative systems for the future
- Providing a Toolkit to support an assessment of whether to renovate or replace the SIS
- Assessing the SIS market landscape for both higher education and K-12
- Updating our market overview for CRM and/or cross-life-cycle CRM solutions
- Developing research to help the CIO manage or identify best practices for a large SIS migration or deployment
- Guiding the CIO determine the impact of digital business on the SIS and other key administrative systems
- Assessing smart campus solutions

## Learning Environments

Education technology’s agenda should always originate from the institution’s mission before evaluating technological capabilities. Education institutions need the strategies and tactics that

will work in an education context to digitally optimize, modernize and even transform their learning environments. This includes understanding the context and drivers for changes in teaching and learning. It also involves understanding the key technologies, processes and support models required to support that change.

## Questions Your Peers Are Asking

- How do I innovate with learning environments?
- What factors and vendors should I consider when acquiring, reviewing, renovating or replacing my learning management system (LMS)?
- How do I implement analytics to improve outcomes and efficiencies?

## Recommended Content

🔑 Some recommended content may not be available as part of your current Gartner subscription.

- “The Future of Work Will Demand Changes to Higher Education”
- “Market Guide for Higher Education Learning Management Systems”
- “Toolkit: Visual Business Ecosystem Modeling With Higher Education Examples”
- “Migrating to a New Learning Management System in Education”
- “3 Priorities to Ensure Your Higher Education LMS Supports Digital Transformation”
- “Develop an Online Learning Strategy Before Launching Online Programs in Higher Education”
- “Toolkit: Higher Education Online Learning Budget Planning”

## Planned Research

- Continuing the publication of annual reports that include LMS advice, such as the education Hype Cycle, education Predicts, and top 10 business and technology trends in higher education and K-12
- Evaluating the marketplace and guiding CIOs looking to optimize or transform learning environments at their institutions
- Providing Toolkits and other resources for CIOs searching for and migrating to a new LMS that will best serve the institution’s evolving priorities
- Analyzing how higher education institutions are using data to improve outcomes and efficiencies and how this is likely to evolve and change in the future
- Providing the “Market Guide for Higher Education Learning Management Systems”

- Providing the “Market Guide for K-12 Education Learning Management Systems”

## Suggested First Steps

- “Survey Analysis: Insight to Initiate Your Legacy Modernization in Higher Education”: Technical debt in higher education continues to grow and restrain institutions from achieving their digital ambition. Higher education CIOs must drive modernization to improve their enterprise business capabilities.
- “The Digital University Requires a Fundamental Shift in the Approach to ERP”: Leading higher education CIOs are spearheading the charge for business transformation. This research shows how postmodern ERP and higher education CIOs will play a role to facilitate their institutions’ digital transformation.
- “How to Overcome Three Higher Education CRM Myths”: Higher education CIOs consider CRM technologies critical for success. However, CRM initiatives are often plagued with three common myths. To overcome these myths, CIOs should design an architecture that enables integration.
- “The Future of Work Will Demand Changes to Higher Education”: Change in the workplace will demand changes in higher education, with two key trends indicating a shift toward skills development and lifelong learning. CIOs must build the infrastructure to support these trends to prepare for the future of learning and to remain relevant for the future of work.
- “Practical Business Analytics Strategy for Higher Education”: Higher education CIOs need to turn demand for data and analytics into tangible business outcomes. Gartner’s strategy compass will guide higher education CIOs to develop a comprehensive and agile business analytics strategy.
- “Toolkit: Visual Business Ecosystem Modeling With Higher Education Examples”: Business and civic ecosystems are becoming increasingly digital, changing how CIOs interact, communicate, provide value and compete. Modeling the market breadth and analog and digital depth of the higher education ecosystem identifies threats and opportunities.
- “Toolkit: Migrating to a New Learning Management System in Education”: This Toolkit is designed to help education CIOs migrate their institutions to a new LMS.

## Essential Reading

- “Top 10 Business Trends Impacting Higher Education in 2019”: Gartner evaluates the top 10 business trends that drive the global higher education industry, highlighting the impact on IT organizations.
- “Top 10 Strategic Technologies Impacting Higher Education in 2019”: Gartner identifies the top 10 strategic technologies relevant to the higher education industry and the impact on the IT industry.

- “Hype Cycle for Education, 2019”: This Hype Cycle focuses on enhanced enterprise business capabilities throughout the institution or school.
- “Predicts 2020: Education Needs to Brace for Changes to the World of Work”: Rapid changes to the world of work are reverberating throughout the education sector. Education CIOs must rapidly evolve their institutions’ traditional approaches to skills acquisition and learning, course creation and key support functions in response to these changes.
- “Putting Higher Education Administrative IT on a Diet”: Postmodern ERP transformation is critical to digital business transformation. CIOs should reduce the complexity of the administrative systems to optimize business processes, establish a network of digital transformers, eliminate customizations and improve operational efficiency.
- “How to Prepare for Student Information Systems Moving to the Cloud”: SIS providers are increasingly moving to SaaS models. Higher education CIOs must prepare their institutions for the inevitable move to the cloud to better support the core mission and functions.

## Tools and Toolkits

- “Toolkit: Strategic Roadmap for Higher Education Student Information Systems”: This Toolkit will help higher education CIOs plan their next steps in their journey toward a next-generation SIS.
- “Toolkit: RFP for Student Information Systems”: This Toolkit helps CIOs create a well-structured RFP or invitation to negotiate (ITN) for SIS applications and solutions, whether SaaS and cloud-hosted options or any type of SIS.
- “Toolkit: Migrating to a New Learning Management System in Education”: This Toolkit is designed to help education CIOs migrate their institutions to a new LMS.
- “Toolkit: Higher Education Online Learning Budget Planning”: As online learning programs grow in higher education, CIOs need to understand how to develop a budget that will meet institutional goals.

## Recommended For You

Survey Analysis: Insight to Initiate Your Legacy Modernization in Higher Education

Putting Higher Education Administrative IT on a Diet

Should You Replace or Renovate the SIS?

How to Overcome Three Higher Education CRM Myths

Market Guide for Higher Education Catalog and Curriculum Management Solutions



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## Additional research

Stay ahead of the pressing topics, technology and trends that impact your organization's growth and transformations.

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