EDUCAUSE 2018 Top 10 Strategic Technologies

The EDUCAUSE 2018 Top 10 Strategic Technology lists reflect the level of attention that the higher education technology community is giving to various existing and emerging technologies. Based on survey responses, EDUCAUSE has identified the top 10 strategic technologies for higher education. By our definition, strategic technologies are those relatively new technologies that institutions will be spending the most time implementing, planning, and tracking in 2018. This year, 310 U.S. and 56 non-U.S. EDUCAUSE CIOs and IT leaders shared their current practices and intended deployment plans for 73 different technologies. The number of respondents rating individual technologies ranged from 248 to 298. Sample sizes presented in the following lists represent the fewest respondents for any technology within each list.

This almanac depicts four ways to view the top 10 strategic technologies: by all U.S. institutions (overall rank order), by Carnegie Classification, by technology approach (early, mid, and late adopters), and by institution size (as measured by student FTE). These views can help personalize the top 10 strategic technology experience and compare your institution’s status to your peers’. View additional resources, including an interactive strategic technologies graphic, on the research hub.

All U.S. Respondents (n = 248)

1. Uses of APIs
2. Active learning classrooms
3. Incorporation of mobile devices in teaching and learning
4. Mobile apps for enterprise applications
5. Technologies for improving analysis of student data
6. Technologies for planning and mapping student educational plans
7. Blended data center (on premises and cloud based)
8. Predictive analytics for student success (institutional level)
9. Database encryption
10. Student success planning systems
11. IT asset management tools (e.g., CMDB)
By Carnegie Classification

**Associate’s Institutions** *(n = 33)*

1. Uses of APIs
2. Open educational resources *
3. Incorporation of mobile devices in teaching and learning
4. E-signature technologies (e.g., DocuSign, Adobe Sign, and SignNow) *
5. Predictive analytics for student success (institutional level)
6. Technologies for planning and mapping student educational plans
7. IT accessibility assessment tools *
8. Technologies for offering self-service resources that reduce advisor workloads *
9. Active learning classrooms
9. DDoS prevention products and services *
9. Student success planning systems
9. Technologies for improving analysis of student data

* Not part of the overall top 10
**Bachelor’s Institutions**  
\(n = 39\)

1. Uses of APIs
2. Incorporation of mobile devices in teaching and learning
3. Active learning classrooms
3. Blended data center (on premises and cloud based)
5. Mobile apps for enterprise applications
6. Database encryption
6. Mobile device management*
6. Technologies for planning and mapping student educational plans
9. IT asset management tools (e.g., CMDB)
9. Student success planning systems

*Not part of the overall top 10*
1. Technologies for improving analysis of student data
2. Active learning classrooms
3. Technologies for planning and mapping student educational plans
4. Blended data center (on premises and cloud based)
4. Incorporation of mobile devices in teaching and learning
4. IT asset management tools (e.g., CMDB)
4. Uses of APIs
8. Predictive analytics for student success (institutional level)
9. Cloud-based security services (e.g., Duo, Qualys ThreatPROTECT, and cloud-based e-mail security solutions)*
9. Technologies for offering self-service resources that reduce advisor workloads*

* Not part of the overall top 10
Master’s Institutions, Private (n = 30)

1. Uses of APIs
2. Active learning classrooms
2. Mobile apps for enterprise applications
4. Database encryption
5. Incorporation of mobile devices in teaching and learning
5. Predictive analytics for student success (institutional level)
5. Technologies for improving analysis of student data
5. Technologies for planning and mapping student educational plans
9. Next-generation LMS/digital learning environment*
9. Service-level reporting tools*

* Not part of the overall top 10
Doctoral Institutions, Public \((n = 51)\)

1. Active learning classrooms
2. Uses of APIs
3. Incorporation of mobile devices in teaching and learning
3. Mobile apps for enterprise applications
3. Technologies for improving analysis of student data
3. Technologies for offering self-service resources that reduce advisor workloads*
7. Database encryption
7. Institutional repositories for research data*
7. Mobile app development*
7. Student success planning systems

* Not part of the overall top 10
Doctoral Institutions, Private (n = 25)

1. Uses of APIs
2. IT asset management tools (e.g., CMDB)
3. Active learning classrooms
3. Cloud-based identity services (e.g., Duo, OneLogin, and PortalGuard)*
3. Mobile apps for enterprise applications
6. Cloud-based security services (e.g., Duo, Qualys ThreatPROTECT, and cloud-based e-mail security solutions)*
6. Mobile app development*
8. Database encryption
8. Federated identity technologies*
8. Technologies for improving analysis of student data
8. Tools to support cross-institutional and international collaborations*

* Not part of the overall top 10
Early Adopters \((n = 108)\)

1. Uses of APIs
2. Incorporation of mobile devices in teaching and learning
3. Active learning classrooms
3. Mobile apps for enterprise applications
3. Technologies for improving analysis of student data
6. Predictive analytics for student success (institutional level)
7. Mobile app development*
7. Open educational resources*
9. Database encryption
9. IT asset management tools (e.g., CMDB)
9. Student success planning systems
9. Technologies for planning and mapping student educational plans

* Not part of the overall top 10
Mainstream Adopters (n = 124)

1. Uses of APIs
2. Active learning classrooms
3. Incorporation of mobile devices in teaching and learning
4. Mobile apps for enterprise applications
5. Blended data center (on premises and cloud based)
6. Federated identity technologies*
7. Technologies for improving analysis of student data
8. Predictive analytics for student success (institutional level)
9. Technologies for offering self-service resources that reduce advisor workloads*
10. Technologies for planning and mapping student educational plans

* Not part of the overall top 10
Late Adopters (n = 50)

1. Uses of APIs
2. Database encryption
3. Active learning classrooms
3. Blended data center (on premises and cloud based)
3. Incorporation of mobile devices in teaching and learning
6. Mobile device management*
6. Open educational resources*
6. Technologies for improving analysis of student data
6. Technologies for planning and mapping student educational plans
10. End-to-end communications encryption*
10. Student success planning systems
10. Threat intelligence technologies*

* Not part of the overall top 10
By Student FTE

Institutions with fewer than 2,000 student FTEs \((n = 30)\)

1. Uses of APIs
2. Incorporation of mobile devices in teaching and learning
3. Database encryption
3. Technologies for planning and mapping student educational plans
5. Blended data center (on premises and cloud based)
6. Active learning classrooms
6. Open educational resources*
6. Student success planning systems
9. Institutional support for public-cloud storage (e.g., Box)*
9. Mobile device management*
9. Next-generation LMS/digital learning environment*
9. Technologies for improving analysis of student data

* Not part of the overall top 10
Institutions with 2,000–3,999 student FTEs (n = 48)

1. Mobile apps for enterprise applications
2. Uses of APIs
3. Active learning classrooms
3. Incorporation of mobile devices in teaching and learning
3. Mobile device management*
6. Predictive analytics for student success (institutional level)
7. Technologies for planning and mapping student educational plans
8. Blended data center (on premises and cloud based)
8. Federated identity technologies*
8. Mobile app development*

* Not part of the overall top 10
Institutions with 4,000–7,999 student FTEs \((n = 51)\)

1. Active learning classrooms
2. Uses of APIs
3. Technologies for improving analysis of student data
4. Blended data center (on premises and cloud based)
4. Incorporation of mobile devices in teaching and learning
6. IT asset management tools (e.g., CMDB)
6. Technologies for planning and mapping student educational plans
8. Open educational resources*
8. Student success planning systems
10. Application performance monitoring*
10. Predictive analytics for student success (institutional level)
10. Technologies for offering self-service resources that reduce advisor workloads*

* Not part of the overall top 10
Institutions with 8,000–14,999 student FTEs (n = 46)

1. Uses of APIs
2. Mobile apps for enterprise applications
3. Cloud-based security services (e.g., Duo, Qualys ThreatPROTECT, and cloud-based e-mail security solutions)*
3. Database encryption
3. Incorporation of mobile devices in teaching and learning
3. Technologies for improving analysis of student data
7. Predictive analytics for student success (institutional level)
8. End-to-end communications encryption*
8. Technologies for offering self-service resources that reduce advisor workloads*
10. Student success planning systems

* Not part of the overall top 10
Institutions with 15,000+ student FTEs (n = 55)

1. Active learning classrooms
2. Uses of APIs
3. Incorporation of mobile devices in teaching and learning
4. Technologies for improving analysis of student data
5. Mobile apps for enterprise applications
5. Technologies for offering self-service resources that reduce advisor workloads*
7. Application performance monitoring*
7. IT accessibility assessment tools*
7. Mobile app development*
7. Open educational resources*

* Not part of the overall top 10