What Keeps CIOs and CTOs Up at Night

An Inside Higher Ed webcast
2022 Survey of Campus Chief Technology/Information Officers
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Presenters

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Methodology

• Questions prepared by *Inside Higher Ed*, in collaboration with Hanover Research.
• Polling conducted in August/September.
• Results from 175 chief technology/information officers (only one per institution); nationally representative.
• Complete anonymity for respondents, but answers coded to allow for breakdown by sector, etc.
Who Do CIOs/CTOs Report To?

- Executive Vice President/Chief Operating Officer/Chief Financial Officer: 45%
- President/Chancellor/Chief Executive Officer: 40%
- Provost/Chief Academic Officer: 10%
- I report to more than one of the roles above: 2%
- Other: 3%

Are you on the president’s/chancellor’s executive cabinet or council at your institution? (n=175)

- Yes: 64%
- No: 36%
Structural Differences at Doctoral Universities

• CIOs at 2- and 4-year non-doctoral institutions much likelier to oversee online education, media services, institutional research, teaching & learning centers than peers as doctoral universities.

• CTOs at public doctoral universities likelier than others to have chief officer responsible for online education (43% vs. 24% at community colleges and 29% at private 4-year colleges).

• 90% of public doctoral CIOs and 80% of private doctoral CIOs say institution has individual responsible for cybersecurity – 70% at public master’s institutions, 59% at community colleges, half of non-doctoral four-year private institutions.
Budgets

- 42% of CIOs said central IT budget was cut in AY 2021–22 (65% at public master’s universities, 57% private doctoral).
- A third of CTOs (31%) expect budget to grow in 2022-23; 22% expect decline. More CIOs at public master’s and private doctoral universities expect the reverse.
Where Do IT Employees Report?

How many employees are managed by your institution's central IT department (rather than by individual departments or schools)? (n=165)

- 1 to 5 employees: 5%
- 6 to 10 employees: 15%
- 11 to 20 employees: 17%
- 21 to 30 employees: 16%
- More than 30 employees: 47%

How many employees are managed by individual schools, academic departments, or administrative departments (rather than by the central IT department)? (n=164)

None - all IT employees are managed by the central IT department:
- 1 to 5 employees: 26%
- 6 to 10 employees: 11%
- 11 to 20 employees: 4%
- 21 to 30 employees: 2%
- More than 30 employees: 18%

Distribution of Technology Employees

<table>
<thead>
<tr>
<th>Description</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central IT has more employees</td>
<td>79%</td>
</tr>
<tr>
<td>Both central IT and individual schools/departments have more than 30 tech employees</td>
<td>17%</td>
</tr>
<tr>
<td>Central IT and individual schools/departments have same amount of employees (less than 30 employees)</td>
<td>3%</td>
</tr>
<tr>
<td>Individual schools/departments have more employees than central IT</td>
<td>1%</td>
</tr>
</tbody>
</table>
How Tech Leaders (and Others) View Their Role

To what extent do you agree or disagree with the following statements related to your institution’s central IT department:

- Senior administrators at my institution treat the central technology unit more like a utility than a strategic partner. (n=163)
  - Strongly disagree: 16%
  - Somewhat disagree: 23%
  - Neither agree nor disagree: 9%
  - Somewhat agree: 33%
  - Strongly agree: 19%

- The central technology unit at my institution behaves more like a utility than a strategic partner. (n=162)
  - Strongly disagree: 29%
  - Somewhat disagree: 28%
  - Neither agree nor disagree: 8%
  - Somewhat agree: 25%
  - Strongly agree: 9%
Digital Transformation

How important is digital transformation for leaders at your institution? (n=164)

- Not a priority: 4%
- Low priority: 12%
- Medium priority: 43%
- High priority: 32%
- Essential: 10%

How much of a priority are the following focal areas in terms of digital transformation efforts?

- Data/student success (n=162):
  - Strongly disagree: 2%
  - Somewhat disagree: 6%
  - Neither agree nor disagree: 32%
  - Somewhat agree: 32%
  - Strongly agree: 57%

- Leveraging student data for better learning or retention insights (n=164):
  - Strongly disagree: 1%
  - Somewhat disagree: 4%
  - Neither agree nor disagree: 9%
  - Somewhat agree: 34%
  - Strongly agree: 54%

- Administrative/business process (n=164):
  - Strongly disagree: 1%
  - Somewhat disagree: 2%
  - Neither agree nor disagree: 10%
  - Somewhat agree: 38%
  - Strongly agree: 48%

- Transitioning business processes (n=164):
  - Strongly disagree: 1%
  - Somewhat disagree: 4%
  - Neither agree nor disagree: 10%
  - Somewhat agree: 40%
  - Strongly agree: 45%

- Teaching and learning (n=163):
  - Strongly disagree: 4%
  - Somewhat disagree: 15%
  - Neither agree nor disagree: 47%
  - Somewhat agree: 47%
  - Strongly agree: 34%

- Moving to the cloud (n=164):
  - Strongly disagree: 6%
  - Somewhat disagree: 24%
  - Neither agree nor disagree: 31%
  - Somewhat agree: 31%
  - Strongly agree: 38%
Impediments to Digital Transformation

What are your institution's biggest challenges when it comes to achieving its digital goals? Please select up to three options. (n=60)

- Insufficient financial investment: 65%
- Resistance among staff and faculty: 60%
- Goals that are incomplete or ineffective: 33%
- Lack of centralized coordination: 30%
- Lack of senior administrative support: 10%
- Senior administration resistance: 10%
- Other: 3%
- My institution does not face any challenges in completing our digital goals: 18%
The State of Digital Learning

To what extent do you agree or disagree with the following statements related to digital learning at your institution?

- My institution’s ability to offer high-quality online courses has significantly improved since the pandemic began. (n=157)
  - Strongly disagree: 2%
  - Somewhat disagree: 12%
  - Neither agree nor disagree: 42%
  - Somewhat agree: 42%
  - Strongly agree: 1%

- My institution will sustain its ability to offer high-quality online courses. (n=152)
  - Strongly disagree: 6%
  - Somewhat disagree: 13%
  - Neither agree nor disagree: 37%
  - Somewhat agree: 43%
  - Strongly agree: 1%

- My institution’s ability to offer high-quality hybrid courses has significantly improved since the pandemic began. (n=154)
  - Strongly disagree: 4%
  - Somewhat disagree: 16%
  - Neither agree nor disagree: 45%
  - Somewhat agree: 32%
  - Strongly agree: 2%

- My institution invested federal CARES Act funds to improve its digital learning infrastructure. (n=151)
  - Strongly disagree: 7%
  - Somewhat disagree: 7%
  - Neither agree nor disagree: 9%
  - Somewhat agree: 35%
  - Strongly agree: 41%
To what extent do you agree or disagree with the following statements about your institution’s support for using technology in teaching? My institution...

- Provides technical support for teaching online courses. (n=153)
  - Strongly disagree: 2%
  - Somewhat disagree: 7%
  - Neither agree nor disagree: 37%
  - Somewhat agree: 54%

- Provides technical support for creating an online course. (n=153)
  - Strongly disagree: 1%
  - Somewhat disagree: 1%
  - Neither agree nor disagree: 34%
  - Somewhat agree: 53%

- Has a climate that encourages experimentation with new approaches to teaching, including with technology. (n=157)
  - Strongly disagree: 3%
  - Somewhat disagree: 10%
  - Neither agree nor disagree: 18%
  - Somewhat agree: 46%
  - Strongly agree: 24%

- Acknowledges the time demands of online courses on faculty workload. (n=136)
  - Strongly disagree: 3%
  - Somewhat disagree: 16%
  - Neither agree nor disagree: 19%
  - Somewhat agree: 43%
  - Strongly agree: 18%

- Provides additional compensation for the development of an online course. (n=133)
  - Strongly disagree: 17%
  - Somewhat disagree: 17%
  - Neither agree nor disagree: 21%
  - Somewhat agree: 26%
  - Strongly agree: 19%

- Considers teaching with technology (in-person or online) in tenure and promotion decisions. (n=106)
  - Strongly disagree: 14%
  - Somewhat disagree: 22%
  - Neither agree nor disagree: 26%
  - Somewhat agree: 23%
  - Strongly agree: 15%

- Rewards faculty and staff for contributions made to digital pedagogy. (n=134)
  - Strongly disagree: 9%
  - Somewhat disagree: 25%
  - Neither agree nor disagree: 31%
  - Somewhat agree: 27%
  - Strongly agree: 8%
Are You on the Cutting Edge?

Which of the following best describes your institution’s experimentation/investment in some new technologies? (n=163)

<table>
<thead>
<tr>
<th>Technology</th>
<th>Made Meaningful Investments</th>
<th>Begun Investing</th>
<th>Considering Experimenting</th>
<th>Not in Short-Term Plans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantum computing/high performance computing</td>
<td>14%</td>
<td>9%</td>
<td>13%</td>
<td>63%</td>
</tr>
<tr>
<td>Machine learning</td>
<td>6%</td>
<td>15%</td>
<td>26%</td>
<td>53%</td>
</tr>
<tr>
<td>Artificial intelligence</td>
<td>8%</td>
<td>19%</td>
<td>29%</td>
<td>44%</td>
</tr>
<tr>
<td>Adaptive learning</td>
<td>7%</td>
<td>14%</td>
<td>44%</td>
<td>36%</td>
</tr>
<tr>
<td>Virtual reality/immersive learning</td>
<td>9%</td>
<td>29%</td>
<td>33%</td>
<td>29%</td>
</tr>
</tbody>
</table>
Are You Mobile?

How would you rate the difficulty of the following certain activities via a mobile device?

- **Apply to the institution (n=151)**
  - Extremely hard: 1%
  - Somewhat hard: 15%
  - Neither easy nor hard: 15%
  - Somewhat easy: 41%
  - Extremely easy: 27%

- **Buy a textbook (n=142)**
  - Extremely hard: 2%
  - Somewhat hard: 12%
  - Neither easy nor hard: 18%
  - Somewhat easy: 45%
  - Extremely easy: 23%

- **Pay a tuition bill (n=153)**
  - Extremely hard: 4%
  - Somewhat hard: 17%
  - Neither easy nor hard: 13%
  - Somewhat easy: 42%
  - Extremely easy: 24%

- **Change an academic course (n=152)**
  - Extremely hard: 3%
  - Somewhat hard: 21%
  - Neither easy nor hard: 23%
  - Somewhat easy: 39%
  - Extremely easy: 13%
Are You in the Cloud?

Which of the following core enterprise systems have you migrated to a SaaS-based model? Please select all that apply. (n=164)

<table>
<thead>
<tr>
<th>System</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Management System (LMS)</td>
<td>87%</td>
</tr>
<tr>
<td>Customer relationship management (CRM) system</td>
<td>70%</td>
</tr>
<tr>
<td>Human resources management</td>
<td>45%</td>
</tr>
<tr>
<td>Development office systems</td>
<td>44%</td>
</tr>
<tr>
<td>Budgeting and strategic planning</td>
<td>28%</td>
</tr>
<tr>
<td>Grants and research administration</td>
<td>27%</td>
</tr>
<tr>
<td>Financial accounting systems</td>
<td>26%</td>
</tr>
<tr>
<td>Student Information System (SIS)</td>
<td>18%</td>
</tr>
<tr>
<td>Other</td>
<td>18%</td>
</tr>
<tr>
<td>My institution has not migrated any systems to a SaaS-based model.*</td>
<td>1%</td>
</tr>
</tbody>
</table>

*Note: The term 'Other' includes institutions that have not migrated any systems to a SaaS-based model.
More on the Survey


• Download the full survey report: https://www.insidehighered.com/booklet/2022-survey-campus-chief-technologyinformation-officers

• Nov. 9 webcast: https://insidehighered.zoom.us/webinar/register/7016661899909/WN_Z1e9ieJ2SlGsvu-JIYLFmw
Thanks