CAUDIT

2018 TOP TEN TOPICS

Summarising the most significant technology-related topics for higher education in Australia and New Zealand

1 Supporting Student Success

2 Information Security

3 Business Transformation

4 Digital Strategy

5 Educational Technology

6 Research Support

7 Change Leadership

8 Digital Integrations

9 Cultural Change

10 Data Management and Governance

INTRODUCTION

University ICT leaders are at the forefront of applying digital capabilities to transform education and research. Their advice is instrumental for achieving effective, efficient, contemporary outcomes. The ICT leader's brief includes matching institutional purpose, vision, mission and values with responsive, value-adding, cost-effective technology capability.

CAUDIT's Top Ten Topics list is a practical tool that identifies significant challenges and opportunities. The Top Ten booklet encourages conversations about transformative capabilities and related topics that serve the competitive advantage of individual institutions, and benefit the higher education and research sectors as a whole.

CAUDIT's annual member survey determines the Top Ten Topics. First conducted in 2006, this year marks the 13th annual survey and report. Adapted each year, this survey incorporates contemporary technology-related priorities in strategic contexts characterised by institutional priorities, funding pressures and policy uncertainties.

University ICT leaders must carefully assess pressures and uncertainties in a time of continuing disruptive technological and societal change. Enduring as these realities are, they do not alter the commitments of CAUDIT member institutions to secure successful student outcomes, and to achieve research impact in a competitive funding environment.

Thank you to 2018 Top Ten Working Party members

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THE 2018 TOP TEN SURVEY

Changes in 2018

An excellent response rate was achieved for the 2018 Top Ten survey. All Australian and New Zealand university Members and a Papua New Guinea university participated. Three of CAUDIT's six research organisation members also provided their rankings.

In 2018, the topic selection and ranking process was simplified for Members. The number of topics to rank was reduced to 15, and only the topic heading was listed. In previous years the survey included a supporting descriptive statement, and primary and secondary key words for each topic.

New measures were introduced to further assess the significance of each of the 15 topics. Members were asked to indicate:

► the level of impact each topic is likely to have for their institution in 2018, and

► the time scale over which each topic is expected have strategic importance for their institution.

Methodology

The 2018 Top Ten program commenced with CAUDIT staff undertaking a literature review of higher education and ICT-related articles, yielding a long list of possible topics.

CAUDIT's Top Ten Working Party reduced the long list to a working list of 25 topics. CAUDIT's Executive Committee then refined the working list of 25 to a short list of 15 topics.

These 15 topics were then made available to all CAUDIT Members to rank.

Report Base

The 2018 CAUDIT Top Ten Report is based on responses from university Members only. Rankings provided by three research organisation Members informs the commentary and is discussed in the Outcome section over the page.
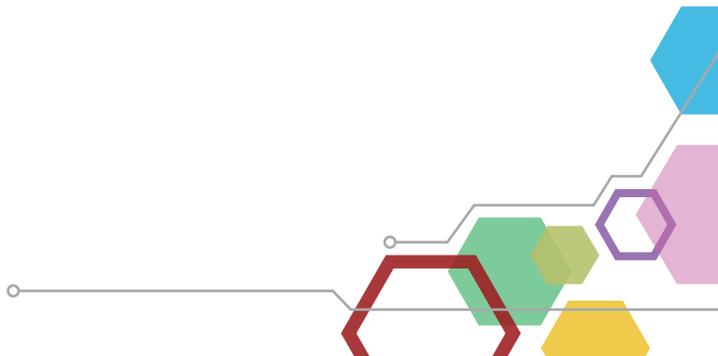
OVERVIEW 2016–2018

The Trends chart overleaf summarises the most significant technology-related topics engaging universities in each of the past three years, and where they rank during this period. The number in the coloured triangle denotes each topic's ranking in each year. Rankings are linked where a topic was ranked across multiple years.

With the reduction of the 2018 topic ranking base to 15, some previously listed topics were absorbed into 2018 topics.

Topics brought together for the 2018 survey are listed in the table below.

This is a simplified framework for consolidation purposes. Many 2017 topics could inform more than one 2018 topic.

In 2018 one new topic was introduced – Digital Integrations (#8): *Combining data from disparate sources places a focus on leveraging enterprise architecture to ensure system interoperability and integration*.

2017 Topics

Information Security (ranked #3 in 2017)
Secure Collaboration (#5)
Identity and Access Management (#10)

Supporting Innovation (#18)
Organisational Efficiency (#20)
Business Value (#21)

Learning Analytics (#14)
Personalised Learning (#17)

Delivering Services (#4)
Institutional Partnerships (#13)
Strategic Alignment (#16)

Analytics (#11)
Enterprise Architecture (#19)
Data Governance (#22)

2018 Topics

Information Security (ranked #2 in 2018)

Business Transformation (#3)

Educational Technology (#5)

Change Leadership (#7)

Data Management and Governance (#10)

OUTCOME

Under its 2018 title, Supporting Student Success (previously titled Student Success Technologies) again headed the Top Ten list. Information Security is a close second, up from third in 2017. Its ranking highlights the prominence of cybersecurity concerns, both within higher education and the community at large.

Business Transformation ranks third, reflecting the all-encompassing nature of organisational change and the impact of disruption factors. Change Leadership rose to #7, and Cultural Change to #9, both moving up from 'the Fringe' in 2017.
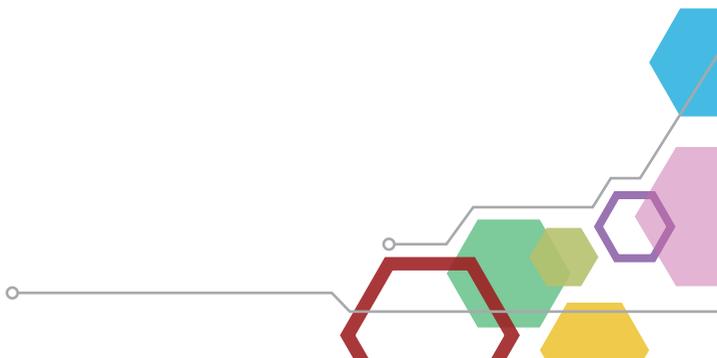
Digital Strategy dropped from #2 to #4. However, Digital Strategy goes hand-in-hand with Business Transformation and is also a driver for targeting and maximising the impact of Digital Integrations, which enters the Top Ten at #8.

Educational Technology at #5 continues to attract attention for its prominent role in the teaching and learning experience. At #6 is Research Support, attesting to renewed focus after dropping to #12 in 2017.

Data Management and Governance rounds out the Top Ten. This complex area brings together underpinning enterprise architecture and data management – whether for research, teaching and learning, student support, or administration and analytics supporting both strategic and operational decision-making.

Research organisation rankings

Rankings by research organisation participants differed significantly in some areas given respondents do not have the same emphasis on supporting students and on teaching and learning. Information Security, Change Leadership, and Data Management and Governance, headed their list, followed by Cultural Change and Access Anywhere Anytime.

TRENDS FROM 2016–2018

2016

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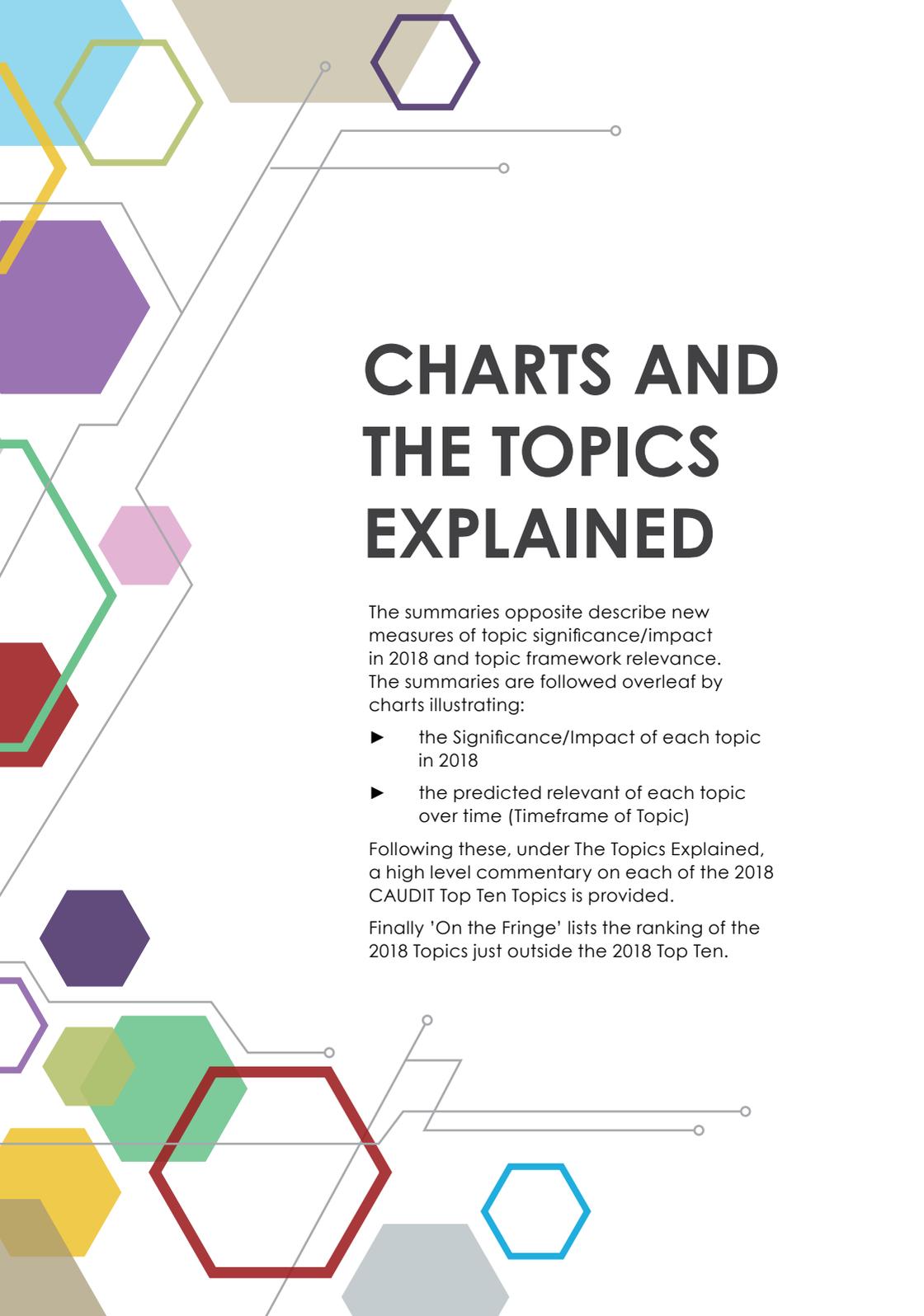2
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15 Cloud Services
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17 Leveraging Technology for Collaboration
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21 Managing Demand
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23 Addressing Student Expectations
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25 Connecting Research to Support & Infrastructure
26 Digital Literacy
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28 User Experience
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30 IoT

2017

1
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4 Delivering Services
5 Secure Collaboration
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10 Identity & Access Management
11 **Analytics**
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14 Learning Analytics
15
16 Strategic Alignment
17 Personalised Learning
18 Supporting Innovation
19 Enterprise Architecture
20 Organisation Efficiency
21 Business Value
22 **Data Governance**
23
24
25

2018

1 Supporting Student Success
2 Information Security
3 Business Transformation
4 Digital Strategy
5 Educational Technology
6 Research Support
7 Change Leadership
8 Digital Integrations
9 Cultural Change
10 Data Management and Governance
11 Emerging Technologies
12 Workforce Evolution
13 Access Anywhere Anytime
14 Sustainability
15 Strategic Sourcing

Expanded explanation of topics (sorted alphabetically)

Topic	Description
Access Anywhere Anytime	Providing access to on-campus learning and research applications off-campus, anywhere, anytime
Addressing Student Expectations	Understanding and addressing the expectations of a new generation of students
Analytics	Developing easily accessible analytics to support strategic initiatives and decision making
Business Transformation	Positioning ICT as a catalyst to support the transformation of education and research, along with transforming the institution's business functions
Business Value	Establish information management capability for analysis, cost effective data handling and ensure security of sensitive information
Change Leadership	Helping institutional constituents (including IT staff) adapt to the increasing pace of technology change, optimising the use of these technologies in teaching, learning and research
Cloud Services	Leveraging cloud services strategically for integrated services to students and staff
Connecting Research to Support & Infrastructure	Connecting the disparate research community to existing support tools and infrastructure by facilitating awareness and access
Cultural Change	Agility to change the ICT culture to align with the organisation's needs
Data Governance	Improving the management of institutional data through data standards, integration, protection, and governance
Data Management and Governance	Leveraging data for information-informed decision making supported by effective institutional data management and governance practices
Delivering Services	Developing and implementing enterprise ICT applications, architectures, and sourcing strategies to achieve agility, scalability, cost effectiveness and effective analytics
Digital Integrations	Combining data from disparate sources places a focus on leveraging enterprise architecture to ensure system interoperability and integration
Digital Literacy	Increasing the level of digital literacy of students and staff
Digital Strategy	Developing and implementing a fit-for-purpose, whole of organisation strategy for the institution's digital future
Educational Technology	Supporting innovative approaches to teaching and learning through appropriate applications of technology
Emerging Technologies	Ongoing demand to facilitate and support the application of emerging technologies (in a variety of scenarios)
Enterprise Architecture	Understanding and leveraging an enterprise architecture to maximise future value, integration and minimise duplication
Identity & Access Management	Effective and efficient Identity and Access Management to provision appropriate e-Services to students and staff
Information Security	Developing a risk-based approach to information security to reduce institutional exposure to information security threats and challenges - balancing agility, openness and collaboration with security, risk and privacy and incorporating effective and efficient Identity and Access Management.
IoT	Update existing enterprise architecture and operating models to enable smart device usage developed through connecting things to capturing insights
Learning Analytics	Supporting improved student progress through establishing & utilising learning analytics
Leveraging Technology for Collaboration	Leveraging and providing easy access to technology to enable greater use and increased collaboration
Managing Demand	Managing demand to deliver high quality services and projects
Organisation Efficiency	Achieving organisational efficiencies through centralisation of ICT governance and resources
Personalised Learning	Developing and supporting personalised learning delivered through pedagogical changes
Research Support	Developing a sustainable research support model (supporting the group and individual researcher) that helps drive forward the institution's strategic research agenda
Secure Collaboration	Balancing agility, openness and collaboration with security, risk and privacy in a hybrid environment
Strategic Alignment	Ensuring effective governance structures to align information technology with the strategic direction of the institution
Strategic Sourcing	Sourcing technologies and services at scale to reduce costs
Supporting Innovation	Facilitating and supporting innovation, wherever it may occur
Supporting Student Success	Improving student outcomes through an institutional approach that strategically leverages technology
Sustainability	Developing a sustainable approach to the organisation's technology capability to meet changing needs
User Experience	Ensuring consistent interface for all technologies used on and off campus
Workforce Evolution	Continually reshape the ICT workforce to ensure it provides agile technology capability that supports the institution's evolving needs

CHARTS AND THE TOPICS EXPLAINED

The summaries opposite describe new measures of topic significance/impact in 2018 and topic framework relevance. The summaries are followed overleaf by charts illustrating:

► the Significance/Impact of each topic in 2018

► the predicted relevant of each topic over time (Timeframe of Topic)

Following these, under The Topics Explained, a high level commentary on each of the 2018 CAUDIT Top Ten Topics is provided.

Finally 'On the Fringe' lists the ranking of the 2018 Topics just outside the 2018 Top Ten.

Significant impact in 2018

In addition to ranking the topics, CAUDIT Members were asked to use a six-point scale to rate each topic's significance/impact in 2018. The ratings are summarised in the chart 'Topic Significance/Impact in 2018' over the page.

The top three Top Ten topics are also considered to have the most significant impact in 2018 – Supporting Student Success (rated Very High by 62% of the universities), Information Security (60%), and Business Transformation (48%).

With an increased focus on innovative and agile practices, Cultural Change (26%) featured the fifth largest Very High impact rating – well ahead of its #9 ranking in the 2018 Top Ten.

Half or more of CAUDIT Member universities identified three topics as 'High impact' – #8 Digital Integration (58%), #6 Research Support (56%), and #10 Data Management and Governance (50%).

Three topics drew overall high to medium impact ratings in 2018 – #14 Sustainability, #11 Emerging Technologies, and #15 Strategic Resourcing.

Topic Timeframe

Using a seven-point scale, CAUDIT Members were asked to indicate the strategic relevance to their institution of each topic over time.

A mix of top and lower level ranking Top Ten topics emerged as the most prominent Ongoing topics.

To varying degrees, topics in 2018's Top Ten are all considered to have either ongoing impact, or short term impact (less than 2 years). Over half the universities (58%) regarded #2 Information Security as the most pressing topic. It rated well ahead of a close cluster comprising #15 Sustainability (46%), #1 Supporting Student Success (44%), #6 Research Support (44%), and #11 Emerging Technologies (44%).

For 54% of universities, #10 Data Management and Governance is considered as meriting a short term rather than ongoing focus. It ranked ahead of a group of topics with closely related purposes, including #4 Digital Strategy (46%), #7 Change Leadership (46%), #8 Digital Integrations (42%), #15 Strategic Sourcing (42%), and #1 Supporting Student Success (42%).
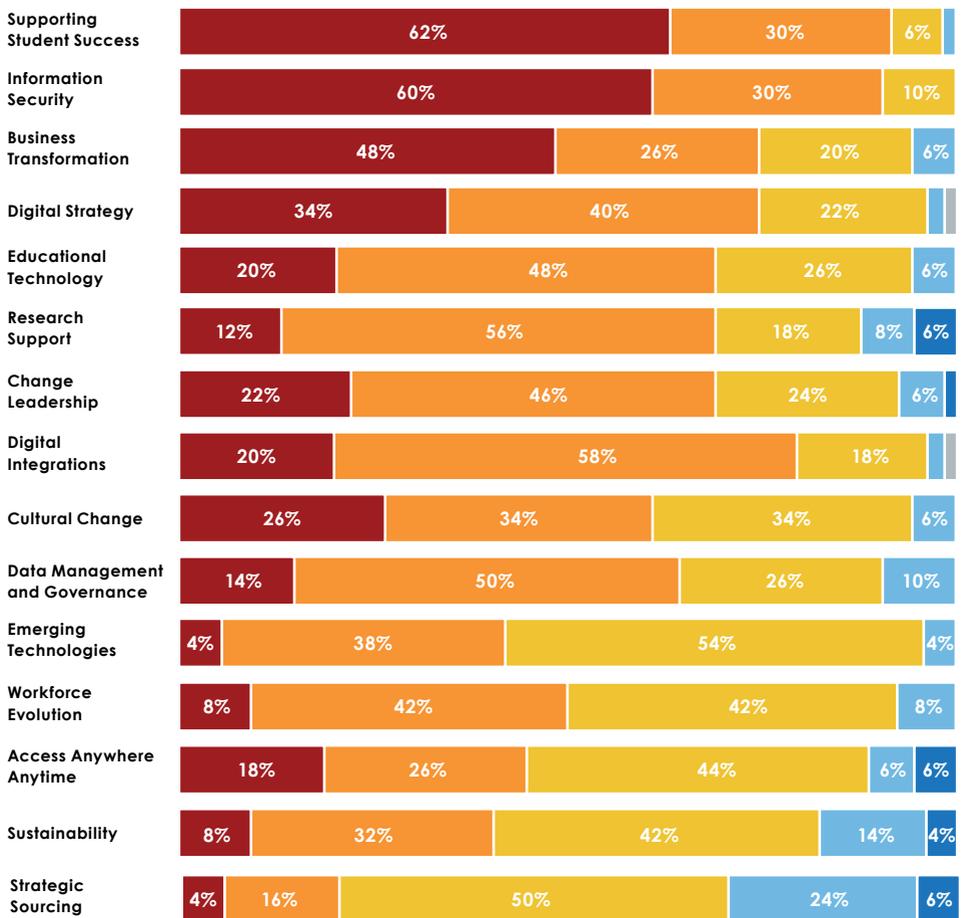
While 18% of universities consider they have addressed #13 Access Anywhere Anytime, another two-thirds consider this topic stands as a significant short term priority (38%) or ongoing (30%) priority.

TOPIC IMPACT AND TIMEFRAME

Topic Significance/Impact in 2018

Impact in 2018

■ Very High | ■ High | ■ Medium | ■ Low | ■ Very Low | ■ Not Applicable

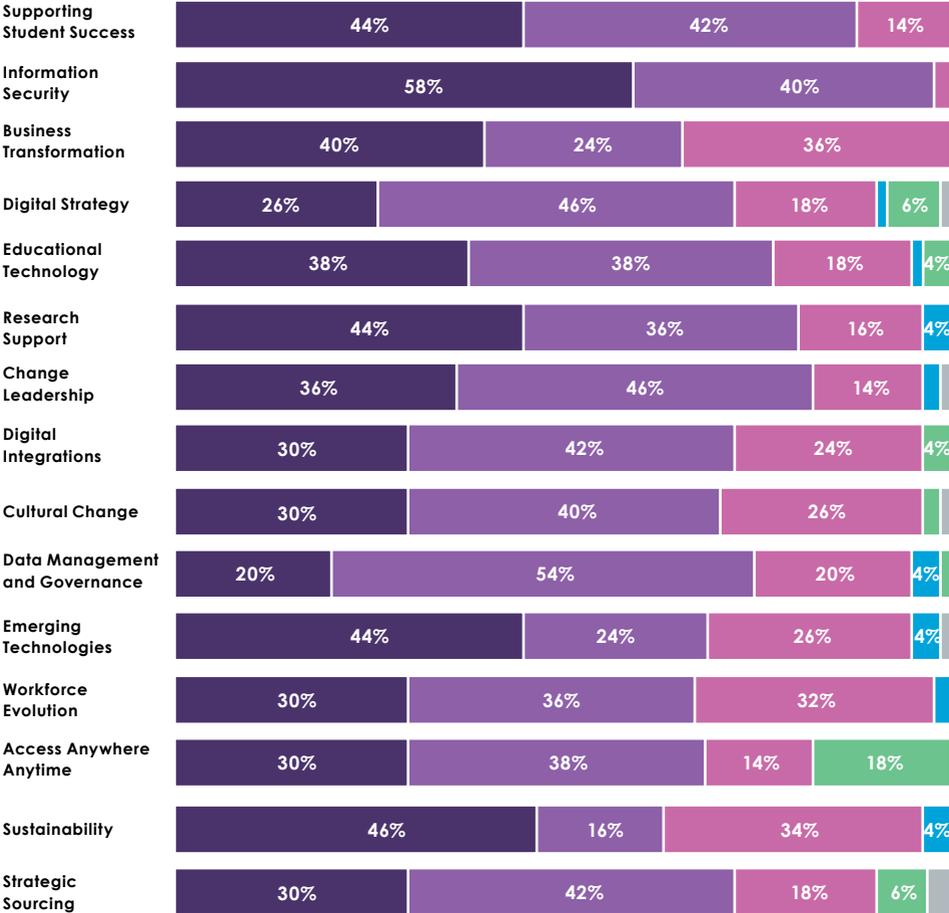| Topic	Very High	High	Medium	Low	Very Low
Supporting Student Success	62%	30%	6%		
Information Security	60%	30%	10%		
Business Transformation	48%	26%	20%	6%	
Digital Strategy	34%	40%	22%		
Educational Technology	20%	48%	26%	6%	
Research Support	12%	56%	18%	8%	6%
Change Leadership	22%	46%	24%	6%	
Digital Integrations	20%	58%	18%		
Cultural Change	26%	34%	34%	6%	
Data Management and Governance	14%	50%	26%	10%	
Emerging Technologies	4%	38%	54%	4%	
Workforce Evolution	8%	42%	42%	8%	
Access Anywhere Anytime	18%	26%	44%	6%	6%
Sustainability	8%	32%	42%	14%	4%
Strategic Sourcing	4%	16%	50%	24%	6%

% of Respondents

Topic Timeframe

Timeframe

■ Ongoing | ■ <2 years | ■ 2 to 5 years | ■ 6 to 10 years | ■ Addressed | ■ No Future Impact

Topic	Ongoing	<2 years	2 to 5 years	6 to 10 years	Addressed	No Future Impact
Supporting Student Success	44%	42%	14%			
Information Security	58%	40%				
Business Transformation	40%	24%	36%			
Digital Strategy	26%	46%	18%		6%	
Educational Technology	38%	38%	18%		4%	
Research Support	44%	36%	16%	4%		
Change Leadership	36%	46%	14%			
Digital Integrations	30%	42%	24%		4%	
Cultural Change	30%	40%	26%			
Data Management and Governance	20%	54%	20%	4%		
Emerging Technologies	44%	24%	26%		4%	
Workforce Evolution	30%	36%	32%			
Access Anywhere Anytime	30%	38%	14%		18%	
Sustainability	46%	16%	34%		4%	
Strategic Sourcing	30%	42%	18%		6%	

% of Respondents

THE TOPICS EXPLAINED

1 ▶ Supporting Student Success

Significance/Impact in 2018: Very High

62%	30%	6%	

Timeframe: Ongoing

44%	42%	14%

Improving student outcomes through an institutional approach that strategically leverages technology

Consistently high Top Ten ratings reflect the significance of strategies and tools to support student success. Substantive contributions to student success flow from integrating delivery of and access to support across learning and teaching, library services, academic advising, career and other student services. Innovations like augmented reality support personalised experiences and learning, and on and off campus learning opportunities.

Staff and students need seamless access to integrated, accessible student success technologies. They serve retention and timely progress by acknowledging each student's path to completion. Proactively using student data across different systems enables academics to pre-emptively address issues that may impede student success.

Seamless access implies a student-centred approach. The technical challenge includes balancing migration to cloud-based access with privacy and security considerations. It encompasses designing delivery platforms that foster attributes which influence student success – engagement, building students' confidence in taking responsibility for their learning, collaboration, knowing when to seek assistance and feeling welcomed when they do.

ICT leaders and their staff meet these challenges through structured interactions with academic and professional staff, and with students. Achieving purposeful integration rests on a willingness across the institution to endorse ongoing, iterative adaptations to technologies that respond to course design parameters and students' personal circumstances.

Keywords:

Student Success	Teaching & Learning	Strategy

Ranking Trend: 2016 #1 ● | 2017 #1 ● | 2018 #1 ●

2 ▶ Information Security

Significance/Impact in 2018: Very High

60%	30%	10%

Timeframe: Ongoing

58%	40%	

Developing a risk-based approach to information security to reduce institutional exposure to information security threats and challenges – balancing agility, openness and collaboration with security, risk and privacy and incorporating effective and efficient Identity and Access Management

The contours of information security change rapidly. Functional complexity and diversified interactions characterise universities and research institutions. They also offer numerous cyber attack entry points. Threats emerge as models for research, learning and teaching, and student support evolve and benefit from new technologies. Threat actors apply social engineering and probe vulnerabilities in business processes and systems introduced to serve changing models and improve efficiencies.

In addition, the regulatory environment protecting privacy and personal data appropriately imposes new information security expectations on universities and research organisations.

Responsive, robust risk management is a touchstone for the sector's information security. Minimising damage to individuals, financial stability and institutional reputation requires awareness across the institution, especially as human error enables most successful attacks.

Cybersecurity is everyone's responsibility – Board members, University Executive, academics, professional staff, ICT staff and students. ICT leaders and staff cannot be alone in the unremitting contest with malevolent attempts to steal, compromise or shut down access to sensitive personal, research and operational data. Collaborative risk management with students and staff is the risk minimisation bottom line.

Keywords:

Security	Risk	Culture

Ranking Trend: 2016 #3 ★ | 2017 #3 ● | 2018 #2 ▲

THE TOPICS EXPLAINED

3 ▶ **Business Transformation**

Significance/Impact in 2018: Very High

48%	26%	20%	6%

Timeframe: Ongoing with Medium Term focus

40%	24%	36%

Positioning ICT as a catalyst to support the transformation of education and research, along with transforming the institution's business functions

The expectation is that the business of universities and research institutions will soon change markedly.

The nature of change is less certain. It depends on the impacts of shifts in policy and funding arrangements, and anticipated variations in student flows. Domestic uncertainties aside, there is continuing ambiguity about how global changes affecting higher education and research, like micro-credentialing and academic freedom in research domains, may incrementally or decisively test current business models.

Whatever business transformations are underway and ahead, information technology will be to the fore, executing them in ways that maintain institutional values and stability. In this operating context, ICT leaders and managers are essential participants in developing and executing strategy, and monitoring the effects of technology choices on advancing institutional priorities. AI, automation and robotics will increasingly play a part.

Well calibrated strategy and implementation hinge on collaboration. ICT leaders and their team can apply their expertise to achieving objectives. They can advise on information technology's role in business transformation. But ultimately, transformation is a common endeavour for the whole institution.

Keywords:

Business Value	Strategy	Collaboration

Ranking Trend: 2016 #7 ▲ | 2017 #6 ▲ | 2018 #3 ▲

4 ▶ Digital Strategy

Significance/Impact in 2018: High

34%	40%	22%	

Timeframe: Short Term

26%	46%	18%	6%

Developing and implementing a fit-for-purpose, whole of organisation strategy for the institution's digital future

The digital strategy is akin to the institution's business strategy and incorporates learning, research, marketing, student recruitment and support, and corporate services.

Obtaining high, near term impact is a familiar expectation of digital strategy. This orientation is common across society and economic sectors and has particular resonance for higher education and research sectors. ICT teams are assumed by internal and external stakeholders to be aware of next generation information technology, and eager and able to apply it in diverse disciplinary and interdisciplinary contexts.

Responsive digital strategy is highly attuned to the competitive nature of higher education and research. An institution's engagement style, and its technology offering to current and prospective students, or social and business partners, influences perceptions and market positioning.

Agile digital strategy is an enabler of performance and reputation. It supports institutions to align factors like cost-effectiveness and security with judgements about whether new capabilities and applications can produce desired performance improvements.

ICT leaders and their teams evaluate prospective yields and real costs of innovations as diverse as augmented reality, blockchain, and institution-wide video platforms. They recognise the importance of continually adapting strategy and plans to institutional objectives via inclusive consultation with academic and professional staff.

Keywords:

Strategy	Digital	Vision

Ranking Trend: 2016 #5 ▼ | 2017 #2 ▲ | 2018 #4 ▼

THE TOPICS EXPLAINED

5 ▶ Educational Technology

Significance/Impact in 2018: High

20%	48%	26%	6%

Timeframe: Ongoing with Short Term focus

38%	38%	18%	4%

Supporting innovative approaches to teaching and learning through appropriate applications of technology

In just a few decades, technology has disrupted student-teacher interactions broadly recognisable over centuries. Educational technologies have revolutionised the social and geographical reach of higher education. School leavers come to university with expectations of, and adeptness with, using technologies to enrich their learning journeys.

While technology is instrumental to every student's learning experience and every academic's teaching, digital literacy cannot be taken for granted. It is nevertheless essential to student success and empowered citizenship. It is a prerequisite for the contemporary workforce.

For students, technology is not solely about applications and access – it is fundamentally about connecting. Universities enhance student awareness of technology's affordances and pitfalls. Digital literacy extends to adaptability in the face of ever-changing information and communication technologies. It encapsulates learning how to use them innovatively and with a critical thinking mindset.

ICT leaders, managers and their teams have a distinctive role: to fashion information technology applications and uses for learning and assessment. Their role involves actively embedding across the institution the capability to extract high value learning outcomes from current technologies and emerging technologies like augmented reality, artificial intelligence, and the Internet of Things.

Keywords:

Teaching and Learning	Innovation	New Technology

Ranking Trend: 2016 #4 ★ | 2017 #7 ▼ | 2018 #5 ▲

6 ▶ Research Support

Significance/Impact in 2018: High

12%	56%	18%	8%	6%

Timeframe: Ongoing

44%	36%	16%	4%

Developing a sustainable research support model (supporting the group and individual researcher) that helps drive forward the institution's strategic research agenda

Research support requires flexibility – each discipline and research program entails unique technology demands. Interdisciplinary and cross-institution research adds complexity. Institutional commitment, expressed through informed strategy and policy settings, is a prerequisite for moving beyond 'one-size-fits-all' support. All researchers, not only High Performance Computing (HPC) users, drive the need for a new research support model.

Sustainable, effective research support models serve interconnected needs. Essential elements of robust models include data management, data storage (including cloud use), FAIR, research training (in areas like data carpentry), publishing services, and easy access to highly skilled technical support.

Crucial also are technology-supported collaborations with research partners within and beyond the global and local academic community. Substantial technical and security challenges exist in such a widely distributed environment.

Delivering or providing access to fit-for-purpose technology solutions and services underpins the research enterprise and boosts institutional competitiveness. At the same time, ICT leaders attend to the benefits of sector-wide procurement and of sharing successful support strategies. They also encourage ongoing interactions with researchers in their institutions – iterative communication is a primary enabler of relevant, valued research support.

Keywords:

Research Support	Research	Service Provision

Ranking Trend: 2016 #9 ▼ | 2017 #12 ▼ | 2018 #6 ▲

THE TOPICS EXPLAINED

7 ▶ Change Leadership

Significance/Impact in 2018: High

22%	46%	24%	6%

Timeframe: Short Term

36%	46%	14%	

Helping institutional constituents (including IT staff) adapt to the increasing pace of technology change, optimising the use of these technologies in teaching, learning and research

Change leadership is an enabler of targeted, sustainable transformation.

To optimise meaningful adoption of technological innovation, ICT needs to partner with academic leaders and professional staff. Through partnering, distinctive skillsets – technical, disciplinary and pedagogical – mesh to identify and activate technological applications that secure positive outcomes for the institution and its constituents.

This kind of distributed leadership increases ownership and acceptance of technological change. It deepens institutional capability in implementing innovative applications of current and new technologies.

ICT leaders need to consult widely to understand how information technologies align with teaching and research practice across disciplines. They need to support change in diverse contexts – architecture studios, intelligent classrooms, and other specialised environments, and to understand user needs that accompany both pedagogical advances, and new research areas and methodologies.

Change leadership certainly calls on technical expertise, but first and foremost it calls on skills to collaborate, empathise, inform decision makers, and support innovation. Ongoing investment in professional development for ICT staff is essential to their role in supporting the institution.

Keywords:

Collaboration	Innovation	Culture

Ranking Trend: 2016 #13 ▼ | 2017 #13 ● | 2018 #7 ▲

8 ▶ Digital Integrations

Significance/Impact in 2018: High

20%	58%	18%		

Timeframe: Short Term

30%	42%	24%	4%

Combining data from disparate sources places a focus on leveraging enterprise architecture to ensure system interoperability and integration

Smart labs. Intelligent classrooms. Collaborative research training. Coherently managed human resources policies, processes and data. Data informed strategic and operational management. Connected campuses. These objectives are commonly encountered in strategic and business plans across universities and research institutions.

Through integrating varied digital resources, ICT is pivotal in moving these objectives from the aspirational column to the operational practice column. Designing, implementing and monitoring digital integrations forms a suite of activities which are now required practice for enterprise architects, IT project managers and procurement teams.

Purposeful data integrations depend on concrete understandings about the adaptive capacity of current ICT systems, and the potential impact on the scope of digital integrations implied by emerging technologies such as data analytics and augmented reality. Strategic procurement is a central consideration.

Clever is collaborative. Digital integrations rely on clarity about the institution's intent. Specification of outcomes aligned with business objectives is the necessary starting point. Defining purpose and intended practice is dependent on structured, iterative collaboration between ICT specialists and every institution's system users and data consumers.

Keywords:

Technology	Architecture	Integration

Ranking Trend: 2016 — | 2017 — | 2018 #8 ★

THE TOPICS EXPLAINED

9 ▶ ## Cultural Change

Significance/Impact in 2018: High / Medium

26%	34%	34%	6%

Timeframe: Short Term

30%	40%	26%	

Agility to change the ICT culture to align with the organisation's needs

CIOs lead in complex strategic and operating environments. ICT teams are charged with charting a viable technology path in uncertain policy and funding environments, together with managing legacy systems and new platforms. They must respond to requests for incisive, responsive technology contributions to best practice business processes.

ICT is no longer predominantly about 'plumbing IT'. It is instilling a culture that enables higher-level support, brokering services, and finding innovative solutions and tools. ICT teams need flexible structures that enable staff to move between legacy approaches and more agile and responsive modes of operation.

Strategic change depends on institutional cultures that embrace innovation in familiar operational practices. Yet, as Peter Drucker memorably observed, 'culture eats strategy for breakfast.'

Digital technologies continually open new avenues for improving operating models in ways that accelerate achievement of institutional objectives. CIOs and ICT teams in universities and research institutions must embody cultural change, and work as active cultural change agents. Their task extends to reorienting mindsets towards strategic, well-considered change options, be they in financial and HR systems, student support, facilities management, or data storage.

Cultural change is essential for grasping opportunities that increase efficiencies, competitiveness, and satisfaction among students, staff and stakeholders.

Keywords:

Change	Collaboration	Strategy

Ranking Trend: 2016 #27 ▼ | 2017 #15 ▲ | 2018 #9 ▲

10 ▶ Data Management and Governance

Significance/Impact in 2018: High

14%	50%	26%	10%

Timeframe: Short Term

20%	54%	20%	4%	

Leveraging data for information-informed decision making supported by effective institutional data management and governance practices

Data drives strategic and operational decision making. It illuminates students' progress and support needs. It propels research activity, reputation and income. It enlarges understanding of our workforce. It helps identify where change is needed across business processes, and what might work. It is indispensable for monitoring outcomes and trends.

Universities and research institutions hold large, expanding datasets. Data privacy and security need to adhere to regulatory requirements. Commercial sensitivity and business intelligence considerations may govern data access. But good practice data management and governance runs a wider course.

Institutionally endorsed data standards, and governance policies and protocols, acknowledge the purposes and power of data.

Good practice data management and governance establishes institutional ground rules that cultivate confidence in using data. They ensure data is trusted because it is accurate, analysed because it is meaningful, understood because it is consistent, used because it is stored accessibly, secure because it is appropriately protected.

ICT specialists promote good practice across institutions. They know where data is held and how best to integrate it. They assist in developing, implementing and monitoring policies and procedures. They actively communicate the institution's data management and governance ground rules.

Keywords:

Governance	Data	Standards

Ranking Trend: 2016 — | 2017 — | 2018 #10 ★

ON THE FRINGE

11 Emerging Technologies

Keywords:

Service Provision	User-centricity	New Technology

Ranking Trend: 2016 #2 ▲ | 2017 #24 ▼ | 2018 #11 ▲

12 Workforce Evolution

Keywords:

Workforce	Strategy	Collaboration

Ranking Trend: 2016 #6 ▲ | 2017 #8 ▼ | 2018 #12 ▼

13 Access Anywhere Anytime

Keywords:

Service Provision	Teaching & Learning	Research

Ranking Trend: 2016 #14 ▼ | 2017 #23 ▼ | 2018 #13 ▲

14 Sustainability

Keywords:

Funding	Sustainability	Innovation

Ranking Trend: 2016 #20 ★ | 2017 #9 ▲ | 2018 #14 ▼

15 Strategic Sourcing

Keywords:

Procurement	Efficiency	Service Provision

Ranking Trend: 2016 #29 ★ | 2017 #25 ▲ | 2018 #15 ▲

Ranking Trend Legend: ★ New ● Stayed the same — Not listed ▲ Increased ▼ Decreased

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