Challenges, blockers and planning for success

From the CIO point of view
CAUDIT MEMBERS

- All Australian universities
- All New Zealand universities
- 3 PNG universities
- 2 Fiji universities
- 6 Australian research bodies
- The College of Law
- UTS:Insearch
CAUDIT’s purpose is to support each other in leading the application of digital capabilities to transform education and research.
Challenges
#2 Information Security
#3 Business Transformation
#5 Cultural Change
#9 Data-enabled Institution
#11 Workforce Evolution
Blockers
Barriers to the Adoption of New Technologies
What are the greatest barriers to the adoption of emerging technologies within your organization?

- Lack of funds: 48%
- Skills shortage: 38%
- Need to see proof of concept/results in other organizations: 34%
- Top management resistance to change: 28%
- Lack of use case/need: 24%
- Abandoning legacy investments/sunk costs: 18%
- Business user resistance: 17%
- Risk of failure: 17%
- IT resistance to change: 10%

Note: Maximum of three responses allowed.
Data: Interop survey of 181 technology professionals, March 2019

Survey of 181 technology professionals
14% in education (largest representation)
**Barriers to Data Analytics and AI Success**

What are the biggest barriers to success when it comes to data analytics and artificial intelligence?

- **Data security**: 41%
- **Lack of staff expertise**: 41%
- **Analytics/AI talent availability**: 34%
- **Legal and compliance issues**: 26%
- **Ensuring data quality**: 25%
- **Data stewardship and governance issues**: 23%
- **Management/business resistance**: 20%
- **Data silos**: 19%
- **Extracting data quickly**: 12%
- **Coping with rapidly increasing data**: 10%
- **Unavailability/immaturity of needed platforms and tools**: 8%

*Note: Maximum of three responses allowed*

*Data: UBM survey of 140 technology decision-makers, March 2019*

Ref: Interop.com Research Report: State of IT April 2019

Survey of 140 technology decision-makers

11% in education (3rd largest representation)
Planning for Success
#2 Information Security
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#5 Cultural Change
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#2 Information Security
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Cybersecurity
Networks / Communities
Professional Development
Benchmarking
Cybersecurity
Proposal for CAUDIT members

To help safeguard the digital assets and reputation of the HE sector and individual institutions
#3 Business Transformation
#5 Cultural Change
#11 Workforce Evolution
Networks
Communities

CAUDIT Communities of Practice - 2019

- P3M
- Cybersecurity
- EA
- USLC
- Assoc Dir
- BA
- Research Support
- Lib IT
- IM&A

CAUDIT
Professional Development
Proposal for CAUDIT members

To build a ‘future-ready’ IT workforce – through a framework which drives improved behaviours by instilling an underlying leadership culture for the HE sector.
#9 Data-enabled Institution
Higher Education Business Reference Model

Understanding Business Capabilities

The capabilities model supports the development of strategic business capability models. It is constructed as a series of capability models to show how the organizations are structured to deliver business capabilities. This model helps to define and implement business capabilities within the wider business context of the business environment. It provides a framework for developing, communicating and managing business enablers in an organized, consistent and systematic way.

Core Capabilities and Value Chains

Core capabilities are those that are directly supportive of the value chain and are the focus of the relevant value chain segment.

Enhancing Capabilities support the core capabilities across the value chains and keep them in alignment with strategic goals.

Business Motivation

The purpose of the institution is to support the achievement of the core capabilities in a way that supports the strategic goals of the institution.

Research

Research helps to inform the development of the institution’s strategy and the design of new processes and systems.

Project Management

Project management is a key enabler of the institution’s strategy and the design of new processes and systems.

Impact

Impact is the key measure of the success of the institution’s strategy and the design of new processes and systems.

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CAUDIT HE EA Reference Model
Well, we're both fruit.
CAUDIT Complexity Index
The **CAUDIT Complexity Index (CCI)** is based on four key public measures available for all universities:

- Total number of students (EFTSL)
- Total number of staff (FTE)
- Research income ($)
- Number and size of different university sites serviced by IT for an identified calendar year

**Multistage process:**

1. Index scale each component

   \[ \text{Index Value}_i = 1 + \frac{9 \left( \text{Value}_i - \text{Min} \right)}{\left( \text{Max} - \text{Min} \right)} \]

2. Apply prescribed weighting factors

3. Sum the four resultant weighted values

   \[ \text{CI Value}_i = [0.35 \times \text{Staff}] + [0.35 \times \text{Students}] + [0.25 \times \text{Research}] + [0.05 \times \text{Geography}] \]
Lots of moving parts!