

Full Digitization of Universities- Need of the Hour – An Australian University Experience

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I THE BACKDROP

One of the most important devices in our life is PC – maybe even more important than our coffee machines. We take it to even informal appointments, long car rides, holidays; practically everywhere we normally have some time to use it. It’s hard to believe that the very first personal computer was launched just 50 years ago. This innovation laid the foundation for the first digital revolution. The invention of Ethernet followed by the Internet and, eventually, smart phones took personal computing to a whole new level. We take for granted our ability to easily communicate, find and share information around the world. Now, we are at another inflection point, as today’s digital transformation is set to once again revolutionize how we work, live, play, and learn. Instead of the PC, the center of today’s transformation is any connected device – smart phones, tablets, cars, machines, sensors – the list grows each day.

When we first heard the term digital transformation – or digitization or digital revolution, pick your favourite term – it appeared, what an odd phrase. Isn’t everything already digital? What is so different now? The digital transformation we are experiencing today is driven by fundamentally new technologies that are changing at a rapid pace and creating significant new opportunities.

- (a) How do we make it possible to learn and collaborate anywhere, anytime, and on any device?
- (b) To innovate, we need to enable new models of teaching, learning, and research.
- (c) We need to reach new, non-traditional students beyond the classroom and campus.
- (d) The skyrocketing cost of higher education is a burden to our students and a long term risk to the institution. How can we do more with less?
- (e) How can we better answer- what is the value of an education? How can we use analytics and data to show the value of the institution.



Digital Institution

Deliver staff, building, and energy efficiently through the use of technology.



Digital Teaching, Learning and Research

Use technology to pioneer new ways of teaching, learning, and research to increase admissions and retention.



Digital Campus and Communities

Transform the built environment to reduce costs and deliver the best experience for students, staff, and stakeholder communities.

II DIGITISATION PROJECT IN THE AUSTRALIA UNIVERSITY

Digital transformation means creating solutions that are powerful, that helps to bring digital technology to the forefront of higher education. In this way University can use technology as differentiator. It is now widely accepted that any modern organization needs a digital strategy if it is to achieve its business objectives; and universities are no exception.

Digital transformation projects are very complex and have many moving parts that need to be connected. You need a foundation that leverages a strong technology portfolio from the cloud to the data center and all the way to the end device. A foundation that is simple, automated, and secure across the board. One that connects people and devices in meaningful and secure ways. So IT can move fast to respond to the business. Network companies like Cisco, Microsoft etc provide the network, security, analytics, automation, and collaboration needed to achieve higher operational efficiency, greater competitive advantage, and increased profits. We are just scratching the surface on what we can do to accelerate digital progress.

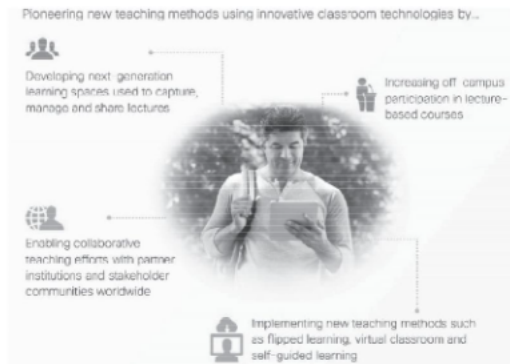
Now more than ever, universities must establish digital strategies that bring technology to the forefront of their institutions.

We would like to share one of the case studies here. The first author was closely working with one of the key Universities last year within the most liveable city in the world. Melbourne. It provides education to almost 30,000 students annually covering a diverse range of course from Arts, ICT, Engineering, Science, Health, Law and Sports. It is 100 years old this year and is passionate about delivering an excellent student experience.

Cisco team where the first author is a key member worked tirelessly for approximately 9 months with the University to help it set a 5 year transformation strategy that will enable the university to digitise the campus. Cisco worked directly with the university executives, line of business management and ICT personnel to jointly develop a “Digital Campus” transformation. This project was to see University implementing Cisco’s Digital Network Architecture (DNA) along with enabling the Network as a Sensor, transforming the Student

learning experience with the use of video and collaboration tools, dramatically improving the student experience and automating application delivery from the data centre.

The effort delivered by the team has been nothing short of outstanding a true example of ONE CISCO covering all elements of Business, especially Security, Collaboration, Data Centre, Enterprise Networking, legal and commercial finance.



III DELIVERED SYSTEM & BENIFITS

The solution provided to the university included the design, and implementation of all of the following elements:

- (a) Deployment of Telepresence Video Conferencing units to approximately 42 lecture theatres.
- (b) IP Phones all video enabled.

- (c) Cisco DX80 Executive desktop units for a full HD video, phone and WebEx
- (d) Conference phones
- (e) Wireless access points - High Density WIFI everywhere
- (f) Edge switches that underpins the foundations of a smart and robust network.
- (g) ACI DC Switching resulting in fully automated real time provisioning and orchestration of services.
- (h) An upgrade to the security infrastructure to turn the network into a sensor. Security – ASA's, Source fire IPS, Lancope & ISE for 51,000 devices
- (i) Cisco ONE software across all elements
- (j) Digital Media, and Advance Analytics
- (k) WebEx change management and usage adoption service to migrate existing users off Blackboard Collaborate and expand the usage of WebEx

The full digitization implemented in the university has immensely helped them stay competitive, attract and retain students and faculty, and deliver the best possible academic experiences. It's essential now for any higher education institution to fully digitize their campus in order to improve the quality.