When the world throws you a curve ball, **how can technology save the day?**

A must read for those in the education sector

Nash Tech.

What's inside

Executive summary

The Covid-19 pandemic has shaken up every industry on a global scale, and the education sector is no exception, it needed to adapt quickly once it became clear social distancing and lockdowns were the only way to slow the spread of this highly communicable disease.

For a sector known to take their time weighing up decisions, figuring out how to stretch limited budgets, while still ensuring a strong commitment to providing great teaching and learning experiences, there was no time to dawdle! Action was immediate - distance learning models were implemented in record time and new software as a service (SaaS) platforms were introduced to ensure class time and collaboration could continue while everyone stayed home.

The NashTech team hosted a virtual event with industry experts, during which they evaluated the impact Covid-19 has had on the Australian education sector. The panelists discussed how digital transformation strategies were accelerated, the impact of social contracts in relation to course completion rates, and the new opportunities that exist because of all the modifications to the way we now need to communicate, collaborate and engage on a day to day basis.

This eBook takes you through the key insights uncovered during the event, and we trust you will find the information both educational and thought provoking.

Introduction

Scaling technologies; digital priorities; ensuring the educational experience isn't compromised; organisational change and loss of IP, these are some of the topics we will be exploring and whether they have had a positive or negative impact on the education sector since Covid-19 threw everyone off balance and rearranged our world.

This is a time of disruption and opportunity. There has been a paradigm shift in education systems globally. EduTech will redefine how education is resourced and consumed, and it will be so transformative that it will ultimately change society. There is huge potential for universities and further education colleges that embrace digitisation to expand their reach beyond campuses and cities, enhance the student experience, reduce operational costs, and diversify their revenue streams.

Since the beginning of the pandemic, tertiary and higher level educational institutions have had to find creative ways to translate all of their services to a purely online framework. This process has presented several challenges and revealed noticeable gaps in the structure and processes of how these organisations operate on a daily basis, yet technology has not only enabled this transition to be undertaken, but accelerated it.

With technological shifts occurring at a significant rate since the outbreak of Covid-19, NashTech decided to investigate what the most notable technology shifts in the education space have been over the past 12 months. An expert panel was assembled, and we would like to share the findings with you.

Panelist insight

"12 months ago, if you said, what's holding everything together, what's the most important piece of technology, you might say something as crazy as email. Whereas today, it is not email it's Teams, using instant messaging to support students on any device, anywhere, at any time during the day. And so that change is largely due to scale, not necessarily individual products."

Steve Johnston
Director, Strategic Procurement at CAUDIT

The three most notable technology shifts in education since Covid-19

Scaling technology

Since the outbreak of Covid-19, the focus for universities and further education colleges wasn't necessarily on the adoption of new technologies, but instead the increased scale and adapted uses of existing ones.

While the the Australian education market was well placed in terms of its practice for moving education online, it was far from universal. Covid-19 exposed several gaps in the transitioning process, and these gaps were embraced to design better experiences in alignment with our new reality.

Education institutions had to change the way they engaged with technology, for example, the **Boston Consulting Group** looked at how the education sector embraced remote collaboration to enable continuity during the pandemic and how the trends may continue in the future. **They found there was a 3.5x increase in the use of video conferencing solutions during the pandemic by organisations surveyed**. Zoom is responsible for the bulk of this increase which saw a 418% growth in adoption rate in just two months.

There has also been a holistic shift towards an increased adoption of instant messaging platforms, video collaboration tools, video capture and webinar services. All of these technologies were in use before the pandemic but have become far more essential to the everyday operational requirements of working and studying through all institutions.

Digital priorities

The last 12-18 months has required the education sector to make significant shifts in their business models, much more than technology shifts.

In March 2020, **40% of educational institutions scaled back on what they considered non-essential IT expenses**. While this was occurring, tertiary institutions began to recognise that they had to start, refocus, or accelerate their **digital transformation** projects in response to the changing study habits dictated by the pandemic. These projects were aimed at accelerating the use of digital tools for student, employee and educator experiences. This also meant adapting administration processes to be more streamlined, as well as understanding how to modify the learning requirements for educators to facilitate sessions remotely.

Each institution needs to manage their priorities as budgets and resourcing allows, and given the pace at which they have all been transforming, an agile mindset is clearly required to keep pace with the challenges ahead.
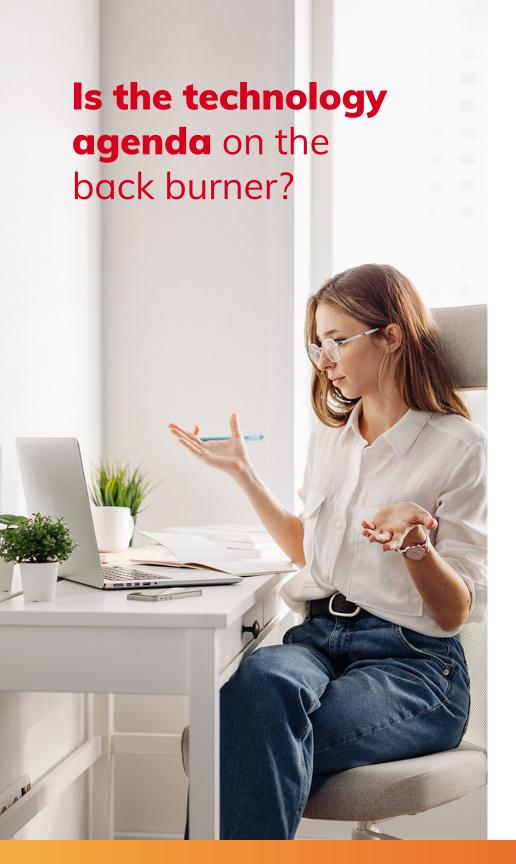
Data-driven technologies

Extracting data from digital technologies can reveal important information, such as when a teacher is engaging with students and how positive that engagement is.

From the data RMIT Online is able to acquire, should it identify that a teacher has problems with their teaching style, senior staff have the opportunity to positively react by mitigating the issue through coaching, which then has a positive influence on the rest of the course delivery. Furthermore, student engagement can also be analysed, and their individual learning journeys can be optimised as they progress throughout their degree. Therefore, **automated learning systems** can be put in place to get the best out of both the teacher's and student's learning experiences.

AI tools can also be applied for a targeted mode of communication that engages with the right student at the right time. For example, if the data shows certain students are falling behind in their course work, they can be directly contacted through an automated email to discuss how the teaching faculty can help and support them. It's a timesaving system that optimises productivity, enhances the learning experiences, and makes smart use of technology to enable effective study.

Is the technology agenda on the back burner?

Personalised learning

Personalised learning has become even more pronounced since the pandemic. Education institutions are now able to change the way they teach. **The curriculum can be tailored** to suit student's individual needs, their learning journeys can be closely monitored, and feedback can be provided in real time. Institutions can leverage analytics derived from online interactivity to aid the student in their individual learning journey.

Collaborative education

Collaborative education has been a key focus area since educational institutions moved to an online framework, and will continue to be carefully monitored if the pandemic dictates the terms of study.

Peer collaboration is an essential aspect of learning, but difficult to enable effectively when circumstances restrict physical meetings. As Mukherjee states, "*we know that students learn as much if not more from their peers than from their educators.*"

The pandemic has also allowed for a more communal style of learning to continue despite the setbacks and disruptions to family life.

Process automation

While nearly 80% of educational institutions are going to continue to adopt digital technologies for student and staff experiences, only 46% say that they will focus on process automation in 2021.

Adopting and utilising technology to aid process automation is going to become essential as tertiary education institutions make changes in entry requirements and course fees, amongst other adjustments.

Projects and intellectual property

As it stands, educational institutions are in a stage of transition, where they are aware of their processes and practises changing dramatically but have yet to decide what the new projects will be, or how they will be funded due to the sharp decline of budget and resources.

According to the 2021 Harvey Nash Group tech and talent study, we asked a panel of global education organisations, "how important are these technologies in helping your organisation to realise your business goals?". Most organisations are utilising the use of SaaS (61.11% of respondents) and big data (32.73% of respondents) extensively.

Is everyone coping with **the accelerated changes across EduTech?**

Breaking down barriers

The need to adopt certain technologies in an educational environment has forced teachers and students alike to accept new ways of learning at an accelerated rate. Steve Johnston, Chief IT Procurement Officer at CAUDIT, talked about how technology has broken down the barriers in the way teachers engage with their students, and how changing the interactivity with technology has had some positive effects on the learning experience.

As Johnston remarks, *"every school and every area has got that academic that didn't really want to move online and didn't understand what they were talking about, and some of them have now become the greatest advocates for online learning you've ever seen."*

Teaching staff at universities have come to realise the benefits of working from home, having a more controlled teaching environment and the ability to change their course to focus solely on what's relevant. This change has challenged them to rethink the way they teach and engage with their students. Meanwhile,

traditional processes of having to arrange physical meetings with tutors have become obsolete and have dramatically shifted to a more flexible, real time framework.

Changes in technology

Most staff and educators are now satisfied with the changes to pedagogy adapting to digital learning technologies. There will always be areas of teaching that make more sense to be held in-person, but technology has allowed tertiary and higher education educators to find creative and practical solutions to help make this accelerated transition more manageable and, in certain cases, preferable to more traditional methods.

The switch from working in an office or classroom environment to working online from home presented practical and communication challenges for staff members. However, the communication hurdles could easily be overcome through phones and digital messaging software, while most physical resources used by teachers – such as notes, project walls and task management books – all had a digital alternative.

Is everyone coping with **the accelerated changes across EduTech?**

Accelerated changes. Increased workload

Helen Souness, CEO of RMIT Online stated that despite their systems being more prepared to handle the influx of online students created by the pandemic environment, she was still amazed at the boost and acceleration of online learning by students, which therefore placed an enormous workload on her and her team of educators. *"We were seeing an acceleration, but they (the students) really embraced online in a big way."*

For the staff of RMIT Online, the doubling of portfolios across the institution meant that there was increased pressure on the teachers to cope with the surge in demand. However, as they were already set up to work online and all the teachers and students had been coached and inducted virtually, it *"wasn't as big a disruption as it would normally be"*, stated Souness.

The last year has meant that staff, students and educators at tertiary institutions have had to rapidly adapt to the accelerated changes in technology brought about by the pandemic. These changes have brought about positive shifts in teaching strategies, student experiences and digital connectivity, and while there could always be improvements in scaling the faculty's workload to meet the increase in demand more efficiently and managing digital resources more effectively, overall, these accelerated changes have been embraced wholeheartedly.

> " We were seeing an acceleration, but they (the students) really embraced online in a big way."
>
> **Helen Souness**
> CEO of RMIT Online

Are the technologies students use to collaborate influenced by the need to be social?

RMIT Online found that **more than 70% of their students finished their courses.** No one finishes anything unless they have to and are made accountable, so we know that social contracts are a key part of solving this problem and effort needs to be made by all institutions to create an inclusive and collaborative environment for all students and educators.

The importance of social contracts

We know that connecting with others has been more important than ever since the outbreak of Covid-19 and we are seeing a huge influx of people using digital platforms and applications to stay connected with their friends, family and colleagues. However, we wanted to take a further look at how tertiary education institutions are being influenced by this need to connect and be social in a university setting - between teachers and students, as well as between students and students.

Helen Souness, CEO of RMIT Online explained that the social elements of learning, and the feeling that you belong to a group, are incredibly important. Without the sense of social contracts with other students or the teacher, there is no reason to participate in discussions on a regular basis, or to finish your course. Souness noted that while *we all might be well-intentioned, we are also all naturally flawed when it comes to "finishing", especially if there is no motivation or social reason to do so."*

Are the technologies students use to collaborate influenced by the need to be social?

New opportunities for students

The need to connect and be social in a digital way has brought about new opportunities for students and these digital changes have gone beyond just reinforcing the social contract.

In Indonesia, the Ministry of Education & Culture had been working on remote learning tools for over a decade, and had already implemented the Merdeka Learning policy prior to the pandemic. Kampus Merdeka, which is part of the Merdeka Learning policy, provides opportunities for students to hone skills according to their talents and interests by going directly to the world of work as preparation for future careers. When Covid-19 hit, they were able to digitise all learning content across all of their tertiary education institutions, and almost 300 institutions converted to being 100% digital overnight.

Kampus Merdeka realised that this was a wonderful opportunity to rework their course material and bring in industry mentors. Students were now able to have all these new social and professional interactions with industry professionals and, as a result, there were more internships and more practical opportunities for students.

The acceleration of current trends

Not everything that happened digitally due to the pandemic was a new trend, or just happened overnight. According to Souness, the Australian education sector was already seeing skills shortages and a need to shift to online or hybrid learning models. In a similar vein, the rise of eCommerce was clearly affecting the retail sector, with organisations such as Myer failing to enhance their online shopping experience forcing them to lose even more market share as fewer people chose to shop in-store. Souness explained that many trends were already in progress, but Covid-19 accelerated them. This meant that years and years of planning a digital transformation strategy happened in just six months – it was a case of *"we'd better jump on board or sink!"*

The one thing that has clearly changed with the digital tools and applications we currently use, is further development on the tools in use. We are seeing targeted advancements on the technologies and platforms we already have at our disposal – more users means greater insights into how people are using, and need to use, the array of tools and applications at our fingertips.

With these social channels opening up, it provides stronger and deeper interactions for both teachers and students as well as students and students.

Five tips to improving the student experience

Students who fail to graduate are costly to universities, colleges and training providers, so here are five tips to improve the student experience, ensuring they graduate and create an engaged and active student base that become advocates and alumni.

Keep students engaged!

University is not just about the course work, but if the onus is up to an individual to sit through dreary lectures with zero interactions, there's a high chance they will zone out, fail and drop out altogether. It's a digital age and there are a vast array of tools and avenues for increased communication for both onsite and virtual students.

The importance of social contracts has proven to be effective in reducing attrition rates (see previous page), so investing in collaboration and communication tools that integrate with all avenues of your institution will improve student engagement, open new channels and empower them to succeed.

Create immersive, future ready learning environments

We are fortunate to have a myriad of courses available, taught in a range of formats. The one thing Covid-19 identified was that technology has enabled us to be creative and inventive, even when we are operating in a socially distanced and distributed construct.

Barriers have been broken down between the teacher and student. Access to information is greater than ever. It's important to leverage an arsenal of content and media that promotes high levels of engagement for all parties. Whether it's for course selection, volunteering or joining a club, submitting assignments or working on a team project, technology brings people together and has the power to automate, integrate and communicate one to one or one to many with ease.

Prioritise digital transformation projects that add value

Automating the admissions processes, upgrading your Learning Management System, introducing chat bots these are just a few projects that will improve the student experience. If you have mapped out the student journey from commencement to completion, identifying the interactions that can be expedited through the use of automation is a great step in improving the student experience. No queues, immediate responses, digital confirmations-who wouldn't prefer to engage in this way?

360 degree data tracking and course engagement

It is through the acquisition of data and analytics that improvements can be made to the student experience.

Organisations will be able to offer a more personalised student/teacher learning experience because of access to student performance data. These insights will enable teachers to assess different learning styles and adjust the course direction when required. This can also be achieved by evaluating course feedback on content and delivery. In the end, organisations will achieve stronger retention rates and greater engagement from all parties.

Hybrid educational services beyond learning

When a student's university degree concludes, it doesn't have to be the end of your relationship with them. Keep them connected through a range of communications, alumni committees, faculty groups and events that add value to their chosen profession or life choices.

The experiences gained throughout their degree, and the IP they have acquired, should be imparted to new students and those following in their footsteps. At the same time, offering continuing professional accreditations (CPA) through their faculty or the Office of the Chancellor would boost their engagement levels and extended their student experiences.

Our partners

Helen Souness
CEO at RMIT Online

RMIT Online offers a world-class education that delivers work-ready skills and knowledge to transform your career. 100% online, built with industry leaders and backed by RMIT. We offer short courses and degrees at the nexus of business, design and technology, leaning into the future of work needs. We team up with industry leaders and experts to deliver the best in structured, flexible education using the latest digital tools and interactive technologies. We're dedicated to our mission of future-ready careers and creating a 'community of lifelong learners, successfully navigating the world of work. Designed for the Future of Work.

Steve Johnston
Director, Strategic
Procurement at CAUDIT

The Council of Australian University Directors of Information Technology (CAUDIT) is an incorporated entity with membership drawn from the Information Technology (IT) Directors/Chief Information Officers of higher education institutions in Australia, New Zealand, the South Pacific and Papua New Guinea, as well as the Commonwealth Scientific & Industrial Research Organisation (CSIRO) and the Australian Institute of Marine Science. CAUDIT negotiates collective procurement agreements, provides professional development, undertakes projects and fosters collaboration through the sharing of ideas, experiences and best practice amongst its members.

Sash Mukherjee
*Vice President,
Content and Principal Analyst,
Industry Research at Ecosystm*

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