

Educational Innovation Pillar 2022

Annual Report

Pro Vice-Chancellor
Education and Student
Experience Portfolio



UNSW
SYDNEY



Welcome from Simon McIntyre



In 2020, the Educational Innovation Pillar was established within the UNSW Pro Vice-Chancellor Education and Student Experience Portfolio (PVCESE). The Pillar was established in a time of global disruption and rapid change, highlighting the fact that our digital environments and capabilities will continue to become more central to – and inseparable from – our educational practice as we move into the future.

Technology is advancing rapidly and offering greater connectivity and flexibility than ever before. Advances in artificial intelligence challenging our perceptions about academic practice and offering rich opportunities to implement new ideas. With these changes transforming many aspects of our everyday lives, our students and staff will continue to expect the same type of seamless and effective digital experience to be integrated into their university life. For UNSW to create a truly world leading student and staff experience, we recognise the importance of acknowledging that digital and physical are in fact equally important and intertwined parts of the UNSW experience for our students and staff.

This vision is what drives the team within the Innovation Pillar. There are many essential Pillar projects and services that provide, contribute to, and maintain UNSW's significant learning estate – and the team is always finding new ways to improve this. Our team applies a design mindset to reimagine, improve and uncomplicate the educational experience of students and staff at UNSW. We are working in collaboration with staff and students across faculties and divisions, co-designing innovative digital innovations for our online and physical spaces to move us progressively closer to a more integrated digital learning ecosystem that offers a simple personalised experience for students, and streamlined processes, tools, and support to enable our staff to deliver leading learning experiences.

One principal piece of work providing the right foundations for such a transformation is the Education Technology for the Future Strategy. Initiated in 2022 and due for release in early 2023, it is a collaborative effort involving over 100 academics, professional staff, and students. The strategy will provide UNSW with a vision and clear pathway to creating a world class digital learning environment that evolves and adapts to individual student needs, provides efficient and effective experiences, and helps facilitate community building.

Another key project towards achieving the vision is the establishment of our Learning Analytics Intelligence team (LAI), who are focused on developing artificial intelligence models to provide personal learning and wellbeing support for our students and provide valuable insights to inform our teaching and support staff. Several exciting prototypes were developed this year with the help of our academic and student community, which will be subsequently scaled up across the institution to improve.





Building the digital capabilities of our staff and students is an important part of this journey, and as such, UNSW academics have benefited from the investments in effective and impactful educational delivery systems, professional development, and support to help them utilise innovative technologies to create high quality learning experiences.

The following pages outline these and other key Innovation Pillar projects and services in 2022 and their impacts, which have been aligned with current UNSW strategic focus areas – improving the student experience, scaling lifelong learning, social impact momentum, supporting people and community, and simplifying and upgrading university systems.




I would like to extend my thanks for the commitment and enthusiasm shown by the students and staff throughout the university who have contributed to our projects and initiatives throughout the year, and I am equally enthusiastic about what we will achieve as we move forward together.




Professor Simon McIntyre
Director, Educational Innovation
Pro Vice-Chancellor Education and Student Experience Portfolio

2022 Educational Innovation at a Glance

-  **7**
Major projects in 2022
-  **151**
Staff collaborators
-  **279**
Staff providing input and feedback
-  **3,814**
Students providing input and feedback



-  **568**
Training activities and consultation sessions
-  **3,721**
Staff supported through service catalogue
-  **10,696**
Chatbot users supported

-  **653**
Staff in pilots
-  **58,581**
Students enrolled in pilot courses
-  **862**
Courses in pilots/courses built



Leadership team



Educational Innovation Pillar

Professor Simon McIntyre, Director, Educational Innovation



Educational Delivery

Dinesh Paikeday, Director, Educational Delivery



Special Projects

Karsten Sommer, Senior Manager

The Special Projects team oversees the planning, design and delivery of strategic educational innovation projects to transition newly introduced educational technologies from pilot to business-as-usual operations.

Educational Design Solutions

Thuy Vu, Ee Kho and Amanda Yeung, Managers

The Educational Design Solutions team brings educational insight to drive strategic innovation and technology projects for enhancing the learning and teaching experience at scale. From engagement with faculties to capability building to evaluation of solutions, the team supports staff and students through change.

Learning and Digital Environments

Sam Hegarty, Senior Manager, Learning and Digital Environments

The Learning and Digital Environments team focuses on evolving the University's digital learning ecosystem to enhance the educational experience for students and staff.

Media & Immersive Technologies

Brian Landrigan, Manager

Media & Immersive Technologies works with academic staff to develop educational media resources such as educational videos and virtual reality experiences to help students engage with content in innovative ways.



Learning Environments

Paul Dickinson and Joanna Kartheritsas, Project Managers

Learning Environments is responsible for the strategic planning, design and delivery of learning and teaching environments. They also create precincts of student-led study spaces to encourage collaboration and engagement in and outside of the classroom.

Educational Technology Support

Pradhiban Duraisamy, Manager

The Educational Technology Support team contributes to the development, enhancement and implementation of educational technology platforms. Educational Technology Support upskills UNSW staff and students in using educational technology for teaching and learning through presentations, consultations and webinars.

Learning Management Systems & Integrations

Vicki Tan, Manager

Learning Management Systems & Integrations is responsible for daily operations of centrally supported educational technologies and operational enquiries from staff and students. This includes implementing the latest functional and performance improvements and addressing staff and student pain points.

Digital Assessment

Elizabeth Rosser, Senior Manager

Digital Assessment provides strategic and operational leadership across the University in the adoption and transition to business as usual of digital assessment, enabling central support of final exams both remotely and on-campus.

Online and Short Courses

UNSW Online – Sepi Seuala, Senior Manager

Short Courses – Andrew Hill, Manager

UNSW Online partners with faculties and schools to develop high quality, fully online award offerings for lifelong learners. Short Courses provides central advice and strategic guidance to faculty short course initiatives. These teams also offer expert consultation, lessons learned and a service model that will help drive forward our new student experience strategy.

What we do

The Innovation Pillar of the Portfolio of the Pro Vice-Chancellor, Education & Student Experience provides strategic direction and key services to improve staff and student experience at UNSW Sydney alongside the Education, Experience and Wellbeing Pillars. Our focus includes both enterprise-wide projects across our digital and physical learning environments and a continuing service model. Everything we do is driven by a human-centred design philosophy, with the goal of distinguishing UNSW as a leader in student and staff experience in Australia and world-wide.



Improving physical and digital environments

As a Pillar, we are dedicated to continually improving UNSW's physical and digital environments. We pioneer the integration of digital platforms into our learning estate, enabling the University to conduct high-stakes digital exams at scale. We make UNSW's Moodle learning management system more consistent and easier to use. We provide expert consultation for outfitting study spaces with everything students and staff need to learn and teach effectively. We ensure that the right infrastructure and support are available so students online and face-to-face can learn together. We also maintain and upgrade UNSW's digital education environment, striving for a smooth, uncomplicated online experience.

Identifying, supporting and scaling innovation

Our interest is also in identifying, supporting and scaling educational technology innovations at UNSW. We provide training and resources to empower staff to use educational technologies confidently. We also maintain an AI-driven digital assistant which independently addresses staff educational technology queries anytime. We use educational data insights to explore new ways of benefiting students and supporting teachers. We create media and immersive experiences that expand learning and teaching opportunities beyond what is possible in a physical classroom. These activities set the stage to enable and support growth in UNSW's educational technology capabilities so that we can be agile in meeting the challenges of the future.



Embedding central projects and initiatives

Our mission is to innovate in the educational technology, process and pedagogy realms, supporting staff to further evolve their teaching practice. We work closely with faculties to create and embed solutions that apply broadly, while always remaining attuned to disciplinary-specific needs. Our co-design process includes staff and students as equal collaborators in developing solutions. In driving change, we iterate our solutions not only with staff and students, but also alumni, industry leaders and professional bodies. To effectively manage the transitions that our projects bring, we actively manage these changes by putting in place just-in-time and ongoing forms of support. By actively involving the community in every step of the change process, we create advocates who can attest to how change invigorates their work.

Bringing together educational insights and ideas from across the university

As a part of the central unit, the Innovation Pillar helps bring together the perspectives of diverse groups of students and staff throughout UNSW. In addition to our relationships with academic and professional staff in the faculties, we have close working partnerships with IT, Registrar and Student Services (RaSS), Estate Management and UNSW Planning and Performance (UPP). Alongside the faculties and divisions, we drive the co-design and development of the Educational Technology for the Future Strategy to realise a shared vision for UNSW's digital education future. These insights also act as enablers of other pivotal strategic initiatives under way across UNSW.

Trends in Higher Education

UNSW aims to offer a world-class tertiary education that equips learners to confidently meet society's evolving needs.

To meet this challenge, we stay on top of emerging trends in the higher education, technology and industry spheres. As part of the Education Technology for the Future Strategy development that PVCESE Innovation is leading, the Emerging Trends working group performed an extensive literature review, identifying five key principles underpinning many emerging education technology trends.

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Self-agency encourages students to take an active role in their education, making decisions about what, how, and when they learn. Self-agency promotes a sense of ownership over the learning journey, increasing students' engagement and confidence. Co-design and co-creation in partnership with students enables self-agency by supporting them to purposefully reflect and pursue personal learning goals. The approach contrasts traditional education models, which often emphasise a one-way transfer of knowledge and little personalisation.



Flexibility is a growing need for both staff and students. Flexible delivery means students can study at their own pace, on their own schedule, and from any location using an online learning ecosystem. This lets students access course materials, discuss content and submit assignments anywhere, any time. Flexibility enhances students' experience, allowing them to balance study with work, family and personal responsibilities.



Holistic education aims to provide students with a well-rounded education that addresses not only their academic needs, but also their emotional, social and ethical needs. This approach recognises that many factors contribute to a person's success, including emotional intelligence, critical thinking, and self management skills. Holistic education prepares students for success in all areas of their lives and can result in increased satisfaction and personal fulfillment.



Connectedness emphasises building relationships and networks within the academic community and beyond. Connectedness helps students engage consistently with UNSW in and outside of the classroom, fostering relationship building with peers, teachers and potential employers. Integrating data systems and analytics solutions creates space for this human connection. A seamless online ecosystem allows people to connect across great distances, making learning environments more inclusive.



Personalisation means tailoring the education experience to meet each student's individual needs and interests, contributing to a holistic university experience by streamlining their learning journey. It also helps connect them with university services as needed and keeps them informed of opportunities relevant to their career path. Personalisation is achievable through leveraging student data collected by the university, as well as through adaptive learning technologies that adjust learning experiences to individuals' needs.

Opportunities to put these principles into practice for our current and future students are being explored by other Education Technology for the Future strategic working groups. These focus on topics of relevance from recent years, from synchronous online learning to data ethics.

The strategy will be a critical component and enabler of the recommendations emerging from the VC's Academic Excellence working groups, ensuring that we have the university's wider strategic vision in mind when reimagining, improving and uncomplicating the digital learning environment at UNSW.

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Strategic alignment

The [UNSW 2025 Strategy \(S25\)](#) remains a strong and relevant strategic plan to help UNSW Sydney to further advance our contribution in academic excellence, social impact and global engagement. This Strategy was further distilled into 6 key focus areas by the Vice Chancellor's Student Experience working groups:



Improving student experience



Research excellence and translation



Scaling lifelong learning



Simplifying/upgrading university systems



Social impact momentum



Supporting our people and community

These recommendations from these working groups provide the foundation for all Educational Innovation Pillar projects, initiatives and services. Icons representing relevant working group themes are included at the beginning of each section to indicate how the work aligns against the wider strategic context.



Education Technology for the Future Strategy

Creating UNSW's future digital learning experience



Improving student experience



Simplifying/upgrading university systems



Supporting our people and community

- The Education Technology for the Future Strategy will outline a vision for an ideal UNSW digital education experience and will be accompanied by a conceptual masterplan for its realisation.
- The strategy will be the foundation of a modern UNSW digital learning ecosystem that is simple, cohesive and agile, and fit for our current and future learners.

Overview

UNSW's digital landscape has become as fundamental to the student experience as our physical campus. However, over time our digital learning environment has become increasingly complex, resulting in a less than optimal user experience for students and staff.

As the PVCSE Innovation Pillar, we are uniquely positioned to be the interconnection between the education, technology and lifecycle aspects of the student journey. In 2022, we initiated the strategy work as a more strategic approach to modernise the UNSW digital learning experience for our current and future learners. The Education Technology for the Future Strategy is a key participatory design project, led by our pillar and in collaboration with students and staff from the faculties and divisions.

It strives to create a world-class student and staff digital educational experience, underpinned by a simple to use, integrated learning ecosystem that is nimble enough to adapt to the changing higher education sector.

The strategy will deliver a detailed analysis of the current digital learning experience, as well as a vision and high-level roadmap that addresses gaps and opportunities to realise UNSW's future digital ecosystem, co-designed by staff and students

Outcomes

Working groups, led by faculty and division leaders and comprising over 104 students, academics and professional staff from faculties and teams including PVCSE, IT, and Registrar & Student Services, focused on six highly topical areas of digital education:



Synchronous online classrooms



Hybrid learning



ePortfolios



Data ethics and privacy



Technical and data interoperability



Emerging trends

Over a span of six months, they explored the following factors, with the student and staff experience always at the forefront of consideration



Student user experience



Staff user experience



Technology and tools



People and culture



Process and governance



Support and service model



Performance and metrics



Many valuable insights and observations were made, culminating in ~300 detailed and considered suggestions emerging from the efforts of the groups. They focused on areas ranging from the simplification and streamlining of the digital learning environment, to enhanced education technology support and the building of digital capabilities, to the effective and ethical leveraging of data analytics for an improved staff and student experience.

Work is currently underway by the central PVCSE/IT team to distil these into key themes and short-, medium-, and long-term recommendations, which will form the basis of larger programs of work as well as lead to the identification of 'quick wins' that can be begun immediately as a part of the operational responsibilities of various teams across the university to improve the staff and student experience.

2023 and beyond

The Education Technology for the Future Strategy - slated for release in May 2023 - is just the beginning of a new and improved digital learning experience at UNSW. Importantly, this strategy cannot be enacted by PVCSE alone; the necessity of closer partnerships and coordinated effort between divisional units and with the faculties will be pivotal for its implementation.

The Education Technology for the Future Strategy will also support and be a key enabler of the other UNSW strategies, as well as provide IT with the essential education perspective to inform their strategy developments, helping to align efforts and increase impact and benefits.

Together, we aim to design a singular consistent digital experience that adapts to students' needs throughout their entire lifecycle across undergraduate, postgraduate, and lifelong learning, with less time spent navigating complex education technology and more time focusing on developing the skills needed to forge successful careers

For more detail on this project and outputs to date, please visit the [project overview](#) and the [mid-point project](#) update SharePoint pages.



Strategy home

websites are viewable by UNSW staff and students only



7 focus areas identified as most important to students and staff



23 primary recommendations for improving the digital learning experience at UNSW



82 staff in the working groups



12 students in the working groups



7 faculties involved



4 divisions involved



89 stakeholders consulted



Improving Student Experience

Learning Analytics and Intelligence

Insights you need, when you need them



Improving student experience



Simplifying/upgrading university systems



Scaling lifelong learning

- Learning Analytics and Intelligence (LAI) is developing a success monitor to identify students at risk of academic failure earlier than ever before, to help academics and support services provide support when it is needed most.
- LAI aims to make value of the wealth of data that UNSW holds to draw together the learning, teaching, administrative, support and wellbeing aspects of the UNSW experience.
- LAI can equip staff and students with timely and actionable data insights to meet their needs efficiently.

Overview

The Learning Analytics and Intelligence (LAI) project connects and utilises the vast and ever-growing educational data available at UNSW to equip staff with information they need to anticipate student needs and provide a more personalised experience. By addressing students' problems through timely, accurate solutions, LAI can simplify the UNSW digital experience. The goal is to deliver a holistic view of students' learning, engagement and support needs, using these insights to improve student satisfaction.

Outcomes and impact

Collaborating with UNSW Planning and Performance and OpenLMS (UNSW's Moodle provider), the project made fundamental inroads toward preparing an efficient data infrastructure to pilot scalable solutions. This enabled the team to explore the value of data insights in educational, administrative and management applications with staff across UNSW faculties and divisions. In translating common pain points into the development and evaluation of 15+ prototypes, this helped the team conceptualise a multi-year plan for digital personalisation.

For instance, together with the UNSW Student Success team, UNSW Canberra, and Microsoft, the LAI team created a prototype version of an Academic Success Monitor module. Using machine learning models to predict academic success, this module is designed to identify opportunities and suggest tailored support services and resources to improve students' academic outcomes based on factors such as academic performance, digital engagement and demographic factors. For easier access and usability of data insights, this prototype was fully integrated within the Moodle Enhance course template. Plans are underway to further develop and scale the tool enterprise wide in 2023.

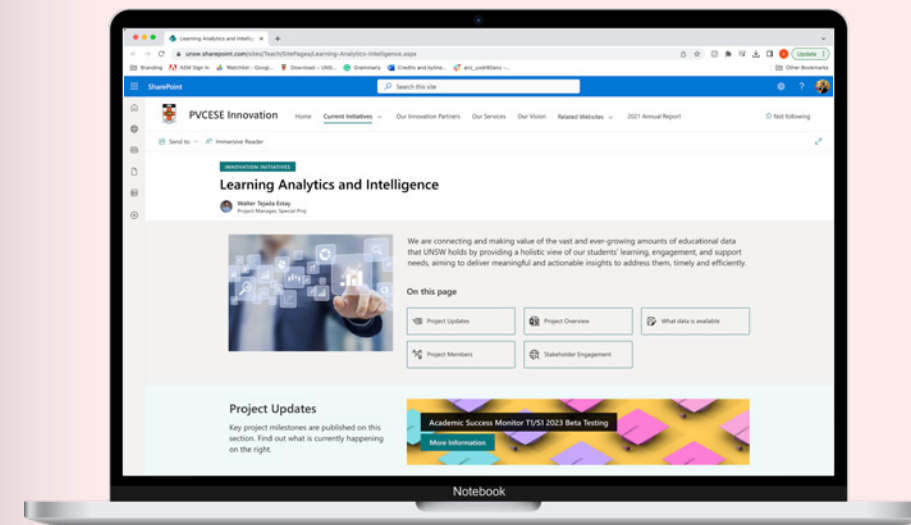
2023 and beyond

LAI will collaborate with students, academics and professional staff across all UNSW faculties in Term 1/Semester 1 onwards to pilot, evaluate and iteratively improve the Academic Success Monitor, as well as coordinate the design and delivery of complementary analytics modules in a multi-year effort.

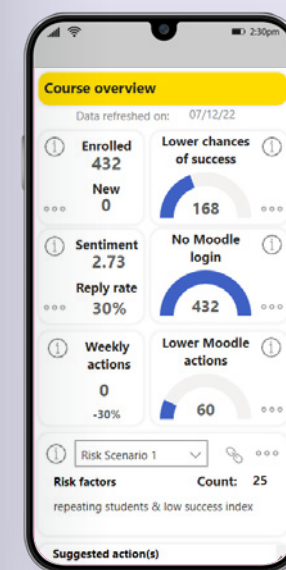
This program of work includes data insights to optimise course design, tracking data-driven interventions and streamlining students' academic progression, in keeping with data ethics and privacy recommendations. LAI will also evolve modelling capabilities for more sophisticated approaches and higher predictive accuracy. LAI will add more data sources, scale up their data architecture and solutions and facilitate continuous identification of the most effective learning insights and interventions with the academic community. In addition to its focus on current students, LAI's future program of work aims to scale alumni engagement with lifelong learning by recommending professional development pathways for further qualifications.



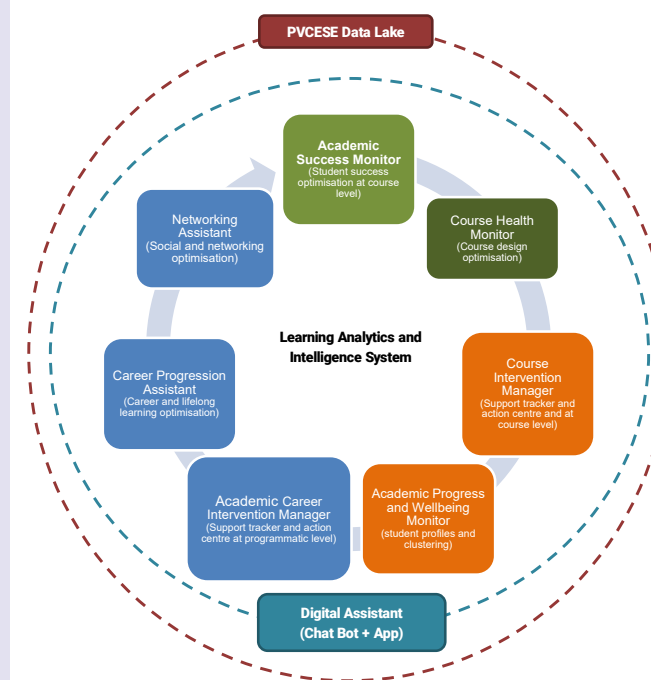
LAI home



Prototype design of the Academic Success Monitor view that provides insights into cohort demographics linking Moodle and SIMs data. These insights will support academics who may adjust their course design to suit the current demographic (for example, highlighting students who have not completed relevant foundational courses).



Example of a proposed learning Analytics Modules to be developed in a multi-year roadmap by LAI Project team, in collaboration with key UNSW initiatives and stakeholders.



Proposed data analytics and intelligence system that will extend the proven success of early prototypes to provide a more inclusive, personalised level of learning support for students.



15+ Data dashboard prototypes



2 terabytes of educational data analysed



¾ Academics in pilot adjusted their teaching based on data insights



41 data-driven indicators to analyse academic success

Moodle Enhance

A new-look Moodle with improved navigation, consistency and experience



Improving student experience



Simplifying/upgrading university systems



Supporting our people and community

- The Moodle Enhance project introduces a contemporary and consistent look to Moodle, while also making it easier to use and navigate.
- The project addresses key pain points experienced by students and staff with Moodle and delivers iterative improvements based on user feedback.
- To streamline workflows and create efficiencies, Moodle Enhance solutions are focused on integrations with other PVCESE innovations (such as Learning Analytics & Intelligence modules and dashboards) as well as new and existing tools in UNSW's digital learning ecosystem.
- Following positive student and staff feedback, Moodle Enhance has been adopted by all faculties and will be implemented across UNSW from T1 2023.

Overview

The Moodle Enhance project continues to improve the student and staff experience in using the Moodle learning management system. Moodle Enhance offers improved navigation from login to dashboard to subsequent course pages, as well as a standardised course template which allows students and staff to focus more on course content. Its contemporary interface meets current web standards and is aesthetically consistent with other UNSW websites, positioning UNSW as a modern, connected university. Moodle Enhance is an iterative ongoing project which will continue to develop and improve into the future.

Outcomes and impact

Following highly positive feedback from students and staff in pilots from 2021 and early 2022, the project began the transition towards university-wide implementation of Moodle Enhance solutions in T2 2022. In 2022, over 400 courses were delivered in Moodle Enhance across all faculties, including UNSW Canberra and UNSW Global.

The standardised course template also offered a scaffold for future integrations with other platforms and systems in UNSW's digital learning ecosystem. By streamlining the addition of key course information into Moodle course pages, the template reduced convenors' administrative burden and put the focus back on teaching.

Moodle Enhance has strengthened PVCESE partnership with faculties and cross-team collaborations, enabling smooth and efficient implementation of the theme and course template. For instance, in collaboration with the School of Chemistry, the Moodle Enhance team delivered a new Bulk Editing Toolbar, which reduces the editing time for staff in getting course sites ready. During the Moodle 4.0 upgrade, the project team liaised with the Learning Management Systems & Integrations team, which played an integral role by thoroughly testing the upgraded environment and pushing through feature requests to meet user needs in a timely manner. The project team has also managed change in faculties by offering training and establishing services to support the transition of Moodle Enhance theme and course template to business-as-usual operations.

2023 and beyond

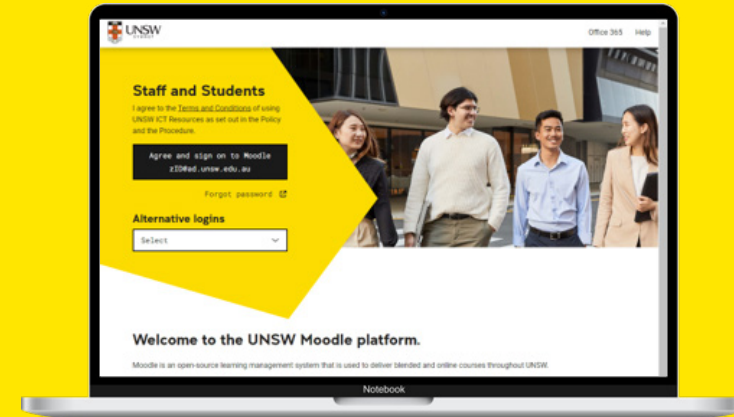
In 2023, the project will continue supporting faculties to implement Moodle Enhance solutions through developing a dashboard to monitor adoption of the standardised course template. By the end of the year, the Moodle Enhance template will roll out across more than 3,700 courses in all faculties.

Continued exploration and building of platform and systems integration is also a key component of the project. This includes integration of the enterprise course outline solution to streamline the addition of key course information into Moodle course pages. The course template will also provide a vehicle for the [Learning Analytics & Intelligence project](#) to present real-time student learning insights, allowing staff to respond in a more timely manner to students' requirements and course trends.

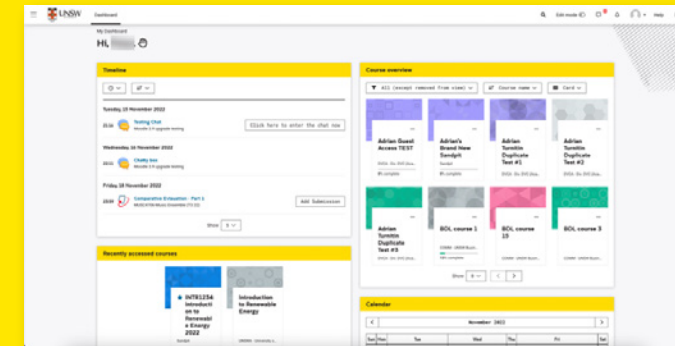
The team is currently working on Microsoft Teams integration for simple setup of class meetings and communications. For a more personalised Moodle experience for staff and students, tailored notifications will be introduced, alongside the personalised calendar already in Moodle. Improving mobile compatibility and accessibility will also be a focus of 2023.



Moodle Enhance home

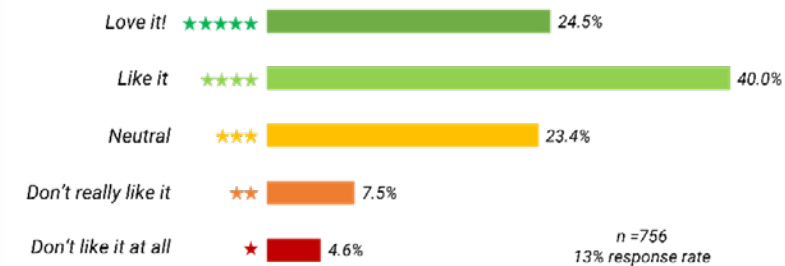


Moodle Enhance login page



Moodle Enhance dashboard

How much do students like the new Moodle design?



88% of surveyed students in T1 2022 gave the new Moodle design 3 to 5 stars rating

What did students think?



Who was involved in this project?



New user friendly look and feel



New consistent course information template



88% of pilot students rated Moodle Enhance positively



403 courses used Moodle Enhance in 2022



200 staff pilot participants



23K+ enrolments in pilot courses



950 staff and students gave feedback during development

Digital Assessment Program (DAP): Inspera

Transforming assessment and feedback experience at scale



Improving student experience



Simplifying/upgrading university systems

- DAP provides an enterprise-level digital assessment platform enabling central support of high-stakes exams both remotely and on-campus.
- DAP addresses UNSW's need for a consistent, robust and secure assessment platform.
- The project is a critical first step to establishing an e-assessment infrastructure for the university for sustainable expansion of UNSW's digital assessment offerings.

Overview

Headed by Professor Alex Steel, Director of Teaching Strategy, the Digital Assessment Program (DAP) is implementing Inspera: a high quality, digital, enterprise-wide, accessible approach to assessment. Inspera allows students to use their own devices to take part in synchronous online assessment, enabling the university to conduct high-stakes digital exams at scale. Facilitating real-time assessment to take place either remotely or on campus is fundamental to enhancing the student experience and in positioning UNSW as a sector leader in anytime, anywhere digitally enhanced education. This project provides an important first step: to provide an e-assessment infrastructure that serves as a backbone for most UNSW assessments, which can integrate a small number of other enterprise-wide solutions.

Outcomes and impact

Throughout 2022, the Innovation Pillar provided support for DAP in collaboration with faculties, IT, RaSS and Teaching Strategy. DAP achieved two major development milestones in 2022: integrating the Inspera platform with university systems and administering UNSW's first centrally invigilated face to face digital exams. To achieve these milestones, Educational Technology Support, Educational Design Services, Special Projects and Media & Immersive Technologies poured significant efforts into functional testing of the technology involved, setting up of business processes and training staff to implement the above.

Together with the UNSW RaSS exams team's administrative and support operations, DAP efforts translated into high levels of student satisfaction around their digital exam experience, relieving student anxiety around exam technology and availability of support.

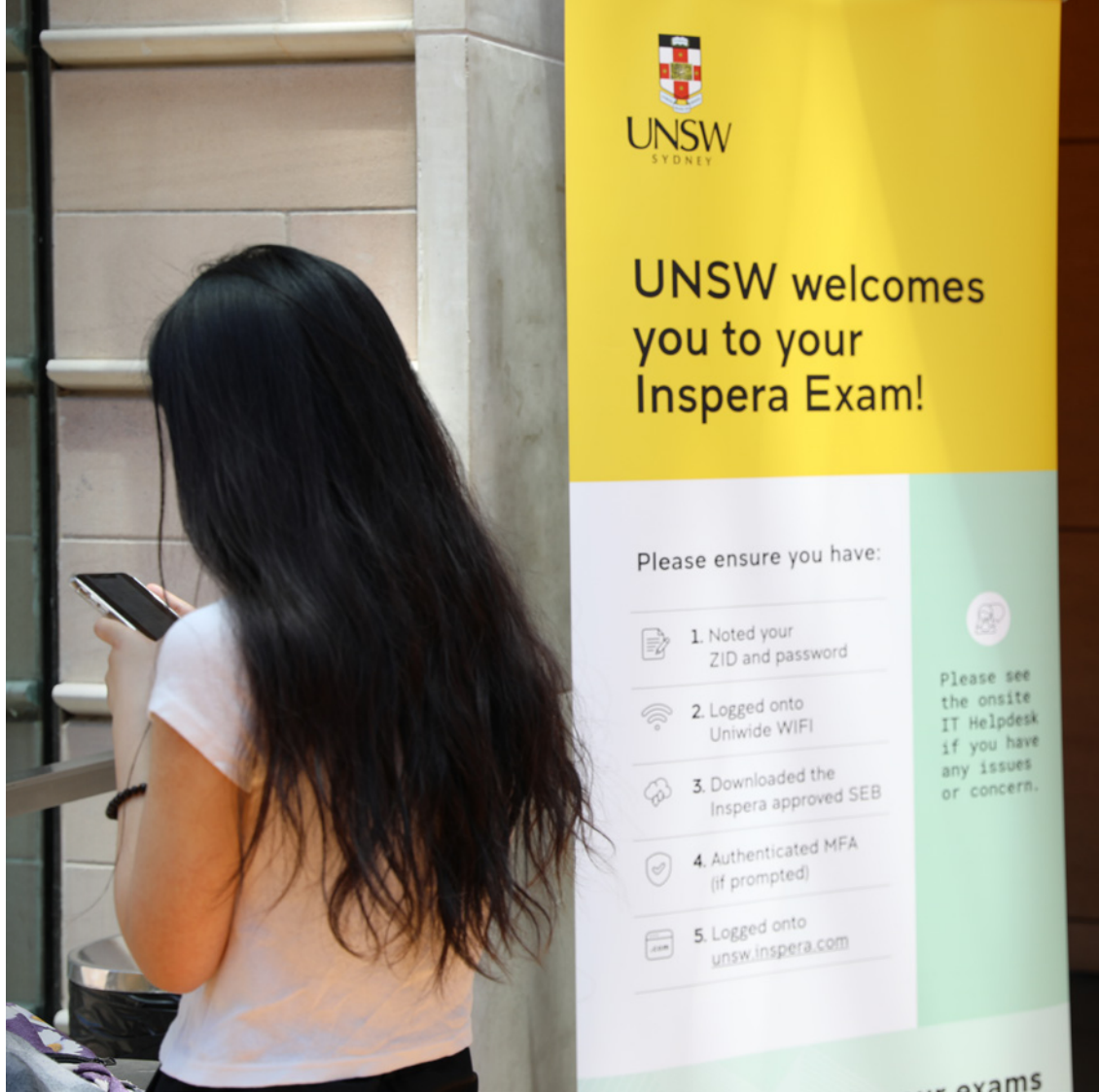
As staff familiarise themselves with the platform, evaluation results show increased levels of positivity and confidence when delivering online exams. DAP is drawing on this valuable staff feedback to inform the project's decision-making around assessment-related workflows and platform features.

2023 and beyond

In 2023, DAP will continue to expand Inspera across more courses' assessments, operationalising the platform and processes around it as foundations for digital assessments. DAP will work with the vendor to improve the user experience for staff and students and enhance the platform's functionality. These improvements will incorporate additional features to upgrade the question-writing, feedback and analysis capabilities. Internally, DAP will continue to partner with faculties, focussing on aligning Inspera's feature development timelines with their rollout plans. The project will also continue refining support mechanisms in collaboration with faculties, IT and RaSS.



Inspera home



400+ staff trained and supported



37K+ students took exams with Inspera in 2022



57K+ submissions across 2,800 tests



90% of students agreed with the ease of use



124 training sessions delivered



10 new features and integrations rolled out

Media & Immersive Technologies

Media storytelling to enhance education



Improving student experience



Supporting our people and community

- The Media & Immersive Technologies team designs, films, produces and maintains media content, including educational and promotional videos and augmented/virtual reality experiences.
- The videos and immersive experiences Media & Immersive Technologies create allow students to learn in innovative, accessible ways and translate research for varied audiences.

simulations and VR experiences for teaching and the wider student experience. Media & Immersive Technologies also provide support in promoting, delivering and highlighting staff achievements within the PVCESE portfolio and beyond. This includes supplying studio space and hardware to create educational videos and immersive experiences.

The specialised team members across Media & Immersive Technologies also support UNSW's people and community. The team gives opportunities for WIL students across disciplines to learn practical skills and contribute meaningfully to real projects. The Immersive Technologies arm of the team have transformed their tech space into a vibrant area for VR demonstrations and events and have pioneered a mobile VR trolley which is used in classes across the campus



Team homepage

Overview

The Media & Immersive Technologies team work with staff to develop educational media resources that enrich the student experience. Within Media & Immersive Technologies, staff developers and Work Integrated Learning (WIL) students work collaboratively with academics and educational designers across UNSW to conceive, design, create and deliver educational video content, immersive

Media Highlights



Education Focussed Retreat

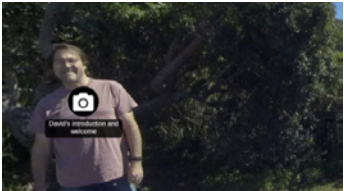
Capturing EF Retreat presentations using live switcher software for a more professional and efficient result.



Animal Behaviour Video Lectures

Producing an unconventional lecture series with "choose your own adventure" style interactivity.

Immersive Highlights



TALIA

Virtual Experience Platform to empower staff and students of all skill levels to create interactive 360° experiences for virtual field trips for themselves.



Race to the South Pole

Simulation of the early 20th Century race to the South Pole to teach Strategic Logistics Management for UNSW Canberra Business School.



My First Day: An Empathy Project

Collaboration with the ADA Innovation Hub for an interactive 360° filmed VR experience about students starting at uni.



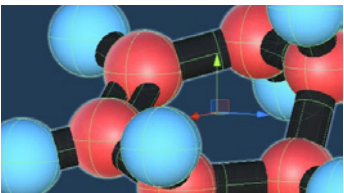
Languages Taster VR

Undersea experience available in multiple languages to encourage students to creatively describe their surroundings



Student Wellbeing VR

Collaboration with PVCESE Health to build mental health awareness and resilience through a magical forest of student stories.



Molecular Chemistry

Simple VR experience to help students understand the intricacies of the 3D form of molecules for the School of Chemistry



Awarded Top 5 in Focus on Ability Short Film Festival 2022

Riding with Amy is a 360° video and interactive VR experience exploring treatment of people with disabilities. It is a collaboration between the Business School and Media & Immersive Technologies..



Languages Week Promotional Video

Video promoting social, emotional and professional benefits of learning languages.

Media Stats



363 educational videos



49 promotional videos



15 livestreams



42 events filmed/photographed



16 audio-only recordings

Immersive stats | 23



28 immersive projects



23 VR/tech classes & events



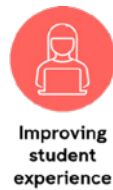
28 Work Integrated Learning student placements



4 production classes mentored

Hybrid Learning Pilot

Exploring flexible approaches to learning



- The hybrid teaching and learning approaches trialled across UNSW faculties have created much-needed flexibility for all students.
- As a collaboration between multiple units, the Innovation Pillar's Hybrid Learning Mode pilot aimed to evaluate academic and student hybrid experience to establish good practice guidelines for hybrid delivery in Centrally Allocated Teaching Spaces (CATS) at UNSW.
- The pilot coordinated technical and educational support to ensure a successful hybrid learning experience for academics and students.

Overview

Throughout 2022, UNSW faculties expended great effort into pioneering hybrid teaching and learning. Combining online and in-person students in synchronous classes, hybrid teaching approaches give students more opportunities to stay engaged and involved in their learning. This student-centric teaching approach aims to provide a consistent learning experience for the whole cohort, flexible attendance modes and an inclusive class environment.

In T1 2022, PVCESE Innovation, Multimedia and Audio-Visual Services, Timetabling and faculty Learning & Teaching teams collaborated on a Hybrid Learning Mode pilot. A continuation from 2021, the pilot aimed to establish good practice and guidelines for hybrid delivery in UNSW's Centrally Allocated Teaching Spaces (CATS) to ensure a successful hybrid teaching experience for academics and students. These CATS rooms cater for small, medium and large classes and are configured with modern technologies to support collaborative, interactive and team-based learning.

Outcomes and impact

In the 2022 pilot, 43 academics across all faculties chose to participate compared to 16 participants in 2021, reflecting the growing need and interest for hybrid learning and teaching. Pilot participants were provided with substantial pedagogical and technological support for their hybrid classes.

Comprehensive feedback was collected, with many students commenting that they appreciated the flexibility hybrid afforded. International students based overseas, immunocompromised students and students with work commitments or caring responsibilities could engage and be part of the course community.

Of 29 responses to a survey conducted post-pilot, 23 participating academics indicated that they found hybrid delivery beneficial. It enabled them to return to the classroom, while accommodating domestic and online students who were unable to attend class in-person. 24 respondents were positive about their experience and agreed that hybrid learning should continue to be a delivery option.

Working towards future-proofing UNSW teaching needs, the Hybrid Learning Mode pilot established ways of teaching in hybrid mode for CATS spaces that can be managed centrally, without the need to bring in external forms of support. The technology made available in CATS also improves the student experience when recording or livestreaming classes using Lecture Recordings+ (Echo360).



Hybrid Learning home

2023 and beyond

From T1 2023, 888 teaching hours per week are slated for hybrid delivery, showing a marked increase from the 397 hybrid teaching hours per week in T2 2022. This increase shows the necessity of an institutional level position on, and approach to, hybrid learning. It also illustrates the ongoing need for academics and students to be well supported for hybrid delivery.

The Innovation Pillar's plans for 2023 include equipping more CATS with hybrid technology based on timetabled demand, enabling seamless audio in CATS, introducing digital annotation devices to select venues, continuing scheduled training and replacing analogue with digital cameras where possible. This will provide UNSW with solid foundations to support flexibility as needed in the future.

Complementing the pilot is the Hybrid Learning working group as a part of the Education Technology for the Future strategy development, which is exploring where, when and how hybrid learning fits into UNSW's short and long-term vision.



1,716 students in pilot courses



43 academics in pilot courses



90% academics in pilots satisfied



94% students in pilots enjoyed their hybrid class experience



25 CATS rooms upgraded for hybrid learning



53% of students attended both online and in-person in T1

Scaling Lifelong Learning

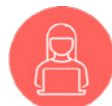


UNSW Online

World-class education, anytime, anywhere



Scaling
lifelong
learning



Improving
student
experience

- UNSW Online aims to help faculties increase the number of fully online programs and build organisational capability for online education.
- In addition to meeting strategic objectives for this year, UNSW Online will continue refining their service model to support development and delivery of high quality, fully online lifelong learning from 2023.
- Together, UNSW Online and Short Courses support the strategic push towards lifelong learning, enabling learners to upskill or reskill to stay competitive in their industry.

Overview

UNSW Online partners with faculties and schools to develop high quality, fully online award offerings for lifelong learners looking to upskill or transition in their careers. As UNSW looks to future offerings in online education and for lifelong learning, UNSW Online offers lessons learned and a service model that will help drive the new student experience strategy.

Outcomes and impact

In 2022, UNSW Online continued to drive growth in the number of fully online courses, programs and students to UNSW, with a focus on refining existing processes to be better able to scale up and support future lifelong learning. In addition, UNSW Online have improved their existing support model for onboarding and capability development of academics to teach in the fully online hexamester (7-week teaching period delivered 6 times a year) model.

2023 and beyond

In 2023, UNSW Online looks to partner with schools and faculties to develop more fully online programs. In partnership with the Short Courses team (see next page), UNSW Online will also expand their service model to enable UNSW to offer more flexible learning options for lifelong learners.



UNSW Online home



6,829 student
enrolments



119 staff teaching
fully online courses



23 new courses ran
for the first time



22 subject matter
experts developed
courses



12 Schools engaged
across 4 Faculties



514 graduates in
2022

Short Courses

World-class education, anytime, anywhere



Scaling
lifelong
learning



Improving
student
experience

- The Short Courses team works to raise awareness of the benefits of, and provides advisory support for, developing short courses and micro-credentials across the university.
- Together, Short Courses and UNSW Online support the strategic push towards lifelong learning, enabling learners to upskill or reskill to stay competitive in their industry.

Overview

The Short Courses team provides support in an advisory capacity for new and established short courses offered by the faculties across areas as diverse as medicine, management and design.

Outcomes and impact

In 2022, as a part of the team's standard services for UNSW staff, Short Courses continued to provide advice to scale short courses and micro-credentials into the future, as well as reviewing faculty short course systems to ensure security.

Short Courses also participated in externally led short course and micro-credential projects. This ensured that UNSW had presence in the newly launched National Micro-credentials Marketplace. Alongside other Australian universities, the team also explored the potential of universal learning credits, which would allow students to transfer their units of credit across to any university more easily.

2023 and beyond

In 2023, Short Courses will explore how to serve the broad University requirements and new strategic direction most effectively. Broadly, the team aims to collaboratively develop a central operating model that would support short course delivery throughout UNSW. Short Courses will also evolve current systems in partnership with faculties to provide a sustainable, scalable suite of technology for expanding delivery of lifelong learning.



Short Courses home





Social Impact Momentum

Open Education Resources (OER)

Building sustainable capacity for blended learning



Social impact momentum

- In 2022, Innovation Pillar delivered workshops to enhance Nigerian and Ghanaian universities' capacity in building and delivering blended learning using OER as part of The Association of Commonwealth Universities Partnership for Enhanced & Blended Learning initiative (PEBL).
- To benefit from OER, academics must have the ability to develop and deliver blended learning, while students must have the skills to meaningfully interact with blended learning content.

Overview

Open Education Resources (OER) are resources which can be freely used and repurposed for teaching and learning by anyone. These can include full award courses, course materials and self-contained modules. The collaborative Partnership for Enhanced and Blended Learning (PEBL) supports academics across 12 universities in Ghana and Nigeria to build sustainable capacity for blended learning through expert-led training, collaboration, and the development of quality assured, credit-bearing blended courses.

As a PEBL member university, UNSW worked with the Association of Commonwealth Universities (ACU) to assist partner universities in Nigeria and Ghana in developing courses with OER that any participating university can benefit from. Drawing on the consultation of Ben Conyers (Director, Information Services) and the UNSW Library team, the Innovation Pillar was invited to develop and facilitate a series of online workshops for 150 academics in the network to help them develop their own OER for African and global universities.

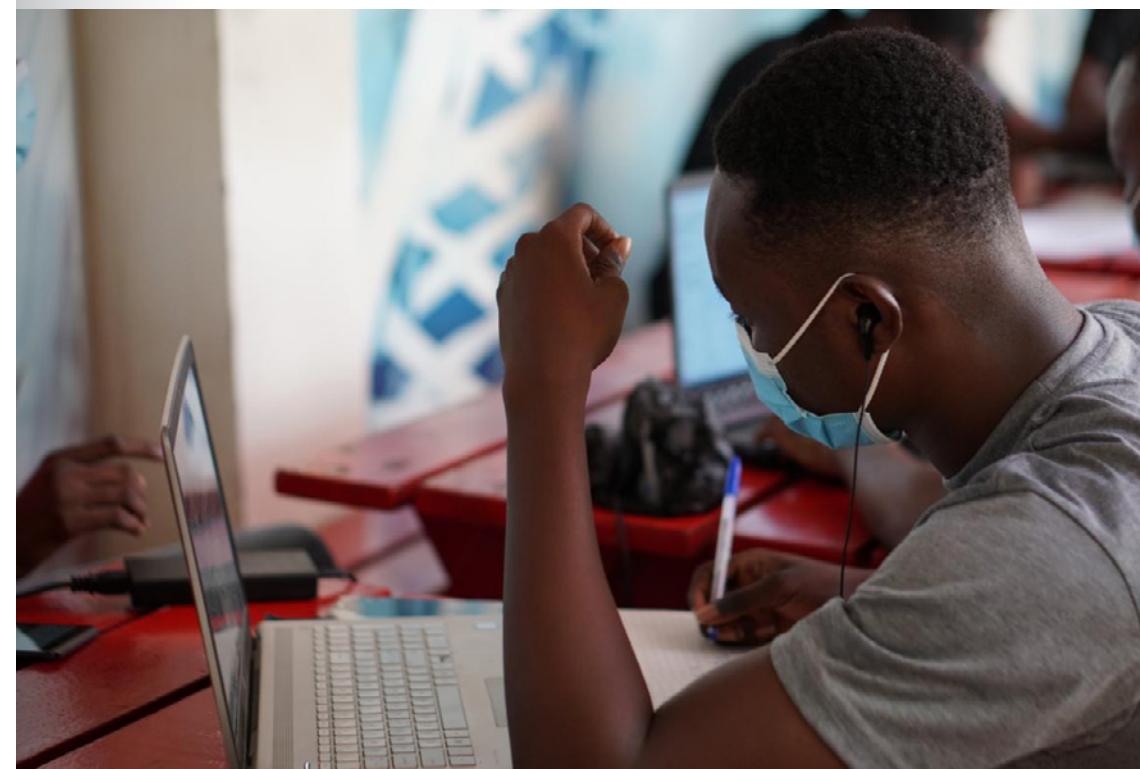
Outcomes and impact

A key consideration for PEBL is helping partner universities overcome skill shortages that would otherwise impede OER implementation. Academic staff must have the skills to develop and deliver interactive blended courses using OER, while students must have the ability to use online tools and learning management systems to engage meaningfully with blended learning content. For these reasons, the Innovation Pillar's contribution to PEBL focused on strengthening institutional and individual capabilities in blended learning.

In collaboration with an external education design company, the Innovation Pillar developed and facilitated an online workshop series on the use and sourcing of OERs. These workshops were delivered to academics in the network of 12 universities in Ghana and Nigeria. The workshops discussed the benefits of using OER for students, learning designers, universities and academics. They also explored practical considerations for using OER, including licensing and design, accessibility, dissemination and integration into a wider curriculum. Workshop attendees described the training sessions as "impactful" and felt that the content explored enhanced knowledge of creating OER for purpose. Two more workshops are due for delivery in 2023.



OER home



2 workshops delivered



Impacting 12 West African ACU partner universities



1,200 academics benefiting



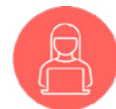
5,000 students benefiting



Supporting People and Community

Student Study Spaces

Delivering safe and inviting on-campus spaces



Improving student experience



Supporting our people and community

- The Student Study Spaces project provides support for outfitting physical learning environments to empower students with personalised, flexible educational experiences.
- By complementing teaching spaces with study precincts, the project encourages student collaboration and engagement in and out of the classroom.

Overview

Designing and outfitting learning spaces across the campus is an ongoing partnership between the Learning Environments team and Estate Management. In 2022, in response to an identified need for informal learning spaces, the Student Study Spaces project revitalised key areas on UNSW's Kensington campus. The Learning Environments team sought input from Arts, Design & Architecture and collaborated with Medicine & Health to create new Study Space Precincts in the Morven Brown and Wallace Wurth buildings. These study precincts are open spaces providing seating, desk spaces and various amenities primarily in areas adjacent to Centrally Allocated Teaching Spaces (CATS) classrooms. They will be ready for students to use from Term 1, 2023.

Outcomes and impact

Creating a mix of individual, group and quiet study spaces for short-term and long-time stays improves students' on-campus experience. Both the Morven Brown and Wallace Wurth student study spaces are wheelchair accessible. They also offer improved Wi-Fi and have power for students to charge their devices.

The Morven Brown study spaces have a mixture of booth and community seating to cater for both quiet study and collaborative student work. The two community spaces feature student artwork in the form of murals, which connect the study space to the wider UNSW campus. The spaces also include new amenities such as a reheat station (microwaves and hot/cold water units) and provides students 24/7 access to study in a safe, secure environment.

The Wallace Wurth student study spaces bring to life existing open spaces across three levels, forming a new student study precinct on Kensington's upper campus. Similar to the Morven Brown spaces, this new study precinct also includes both booth and community seating, as well as featuring microwaves and hot/cold water units.

The positioning of these spaces will connect students with the main library (and its Nucleus student hub), the Medicine precinct, nearby teaching spaces, retail and public transport, creating a feeling of belonging to a larger community, as well as encouraging an affinity with the physical campus.

2023 and beyond

Learning Environments will continue working alongside Estate Management, exploring opportunities to activate more student-centred spaces on campus. This also includes engaging with both students and staff to gauge their experience and requirements. Part of this loop will include Student Experience-type surveys delivered through iPads that are rotated through both new and existing student study spaces. This initiative is part of a larger student engagement campaign named 'Where Can I Study on Campus?'



Learning Environments home



5 new study spaces developed in 2022



134 new desk spaces in Morven Brown building



196 new desk spaces in Wallace Wurth building

Education Technology Training and Support

Timely, hands-on ed-tech help



- Educational Technology Support runs year-round training and consultation sessions to upskill staff and students in using educational technology confidently and effectively.
- An AI-driven chatbot allows staff to have their educational technology queries answered 24/7 without needing to contact IT or search multiple web pages.
- The team also contributed expert advice and development work for adaptation and integration of technologies into the UNSW digital landscape.

Overview

Throughout the year, Educational Technology Support hold individual consultations as well as online and on-campus group training sessions and workshops that enable academic and professional staff to use educational technologies successfully.

Complementing the training, Educational Technology Support has also built, and continues to maintain, the Artificial Intelligence for Digital Education (AIDE) chatbot, which is available round-the-clock to all staff to address educational technology queries that they would otherwise need to visit multiple web pages to solve.

Outcomes and impact

Pitched at both basic and advanced levels, the regular workshops offered included the LET'S (Learn Educational Technology Services) Meet series at the start of each term and a weekly webinar series. Interactive onboarding sessions on educational technology were also offered to students as part of the Prepping for Success sessions during O-week to prepare them for study at UNSW. The Educational Technology Support team also delivered Moodle LMS training to students through the UNSW Awards Introductory Academic Program (IAP).

In 2022, the training session format transitioned from one-way webinars towards longer, more hands-on workshops. Experienced academics were also invited to co-present and share their experiences and suggestions with fellow staff. Together, these changes resulted in significantly increased staff engagement and, based on staff feedback, enhanced confidence in using the tools in their courses.

With 10,696 users and 57,316 messages sent since its 2020 launch, the AIDE chatbot answered 96% of users' queries correctly in 2022. AIDE analytics and chat histories were regularly monitored to identify gaps in the chatbot's existing knowledge base and to keep responses up to date.

Educational Technology Support collaborated with Microsoft to improve AIDE's ability to tackle more complicated issues and provide support for topics outside of educational technology which are typically managed by other teams across UNSW.

Educational Technology Support's one-on-one consultations, increased AIDE usage and well-attended training sessions led to a reduction in staff enquiries. Feedback from staff was extremely positive.



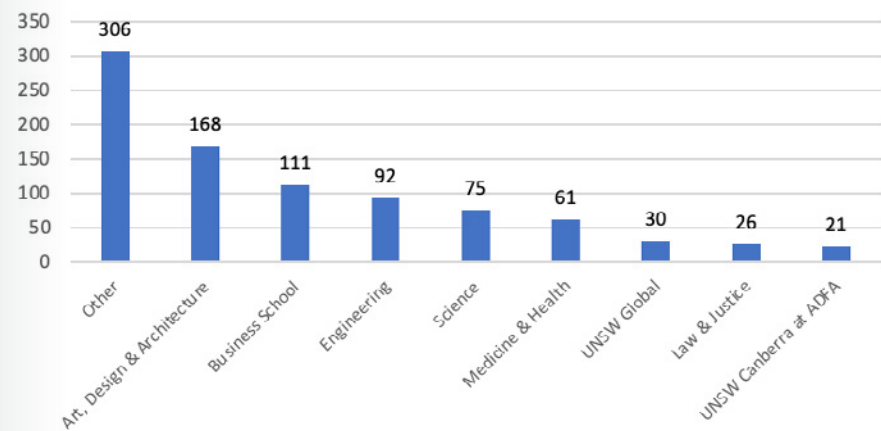
ETS home

2023 and beyond

In 2023, most staff training sessions will be delivered in a hands-on workshop format given the success of this format in 2022. A major focus for 2023 will be ensuring that staff can comfortably use the new Moodle Enhance theme and structure, which all courses will be using by the end of the year.

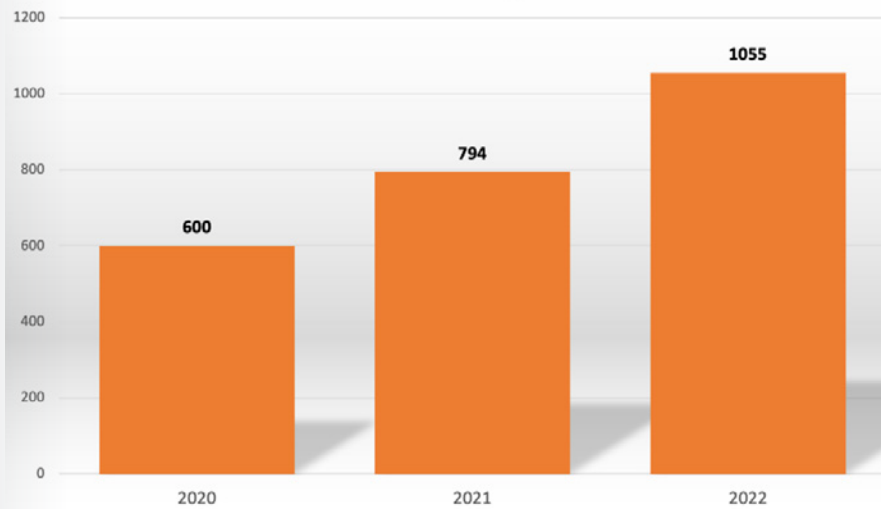
Educational Technology Support aims to further develop their chatbot technology to act as a true one-stop-shop for supporting key UNSW topics, working towards a connected support service model where the chatbot is the first point of contact for both staff and students. This is essential for simplifying support processes currently split between many teams and platforms. Their goal is to leverage AI and data-driven support structures to evolve the chatbot into a true Digital Assistant, able to understand individual users' needs and swiftly direct them to the information or support they require.

2022 Usage by Faculty



Distribution of AIDE chatbot users across UNSW faculties* below 2022 Usage by Faculty bar graph

LET'S Meet total yearly attendance



Upward trend of LET'S Meet attendees (both professional and academic staff) since 2020* below LET'S Meet Total Yearly Attendance graph



1,055 staff trained via 5 workshops



159 individual staff consultations



33% increase in LET'S Meet annual attendance



47% reduction in annual support tickets



57K+ chatbot questions



10K+ chatbot users



96% correct answer rate

Simplifying and Upgrading University Systems



Moodle LMS, Media Systems and Integrations

Maintaining and improving UNSW's learning management and educational media systems



- Several teams within the Pillar manage all centrally supported educational platforms and tools, including UNSW's learning management system Moodle, its plugins, and associated media systems.
- Regular upgrades and maintenance of these educational technologies ensure a seamless staff and student user experience, where technology is the invisible enabler of new and innovative ways of learning.



Integrations with other centrally supported systems

In collaboration with UNSW IT, Learning Management Systems & Integrations was responsible for setting up the Zoom to Echo360 integration, a multi-year undertaking enabling seamless publishing of Zoom Cloud recordings to Moodle and Echo360 courses. Throughout 2022, the Educational Technology Support team also provided expert advice on integrating education technology tools into different UNSW platforms. This included the integration of Turnitin and Safe Exam Browser with Inspira, and integrating the new Course Login Dashboard and Notification Banner with Moodle. The team also ensured stability of UNSW learning ecosystems by helping staff to adapt and incorporate newly introduced technologies into their teaching.

Overview

There is often significant work happening almost invisibly in the background that is critical to the function of the university. Keeping Moodle and its associated plugins running smoothly for students and staff daily, whilst also staying abreast of the latest features to keep this university-wide system current, is one of the key roles for the Innovation Pillar and in particular, its Learning Management Systems & Integrations team.

Media systems

The Learning Management Systems & Integrations and Media & Immersive Technologies teams also oversee and manage UNSW's central media systems. These include Zoom, Blackboard Collaborate Ultra (for video conferencing), Echo 360 (to support interactive learning in lecture-based courses), theBox (a media management system), and VoiceThread (a collaborative multimedia slideshow tool), all of which are fully integrated with Moodle.

Beyond maintaining these systems to ensure smooth functioning day to day, Learning Management Systems & Integrations and Media & Immersive Technologies regularly update these systems with the latest features and make feature requests to vendors to improve the student and staff experience.

Supporting staff and students

Learning Management Systems & Integrations are responsible for ensuring that Moodle runs smoothly for the UNSW community around the clock. When experiencing Moodle issues, staff and students from faculties and business units lodge incident tickets (for problems requiring investigation and resolving) or requests (for processes like implementing new plugins or creating self-enrolment keys). Between January and December 2022, Learning Management Systems & Integrations resolved 209 incident tickets and 775 feature request tickets, while Media & Immersive Technologies resolved 438 media request tickets.

Moodle 4.0 upgrade

The Learning Management Systems & Integrations team is primarily responsible for the daily operations of UNSW's centrally supported educational technologies, in addition to addressing operational enquiries from staff and students. In 2022, Learning Management Systems & Integrations managed the testing and implementation of the major upgrade from Moodle 3.11 to Moodle 4.0, the 10th annual Moodle upgrade since 2013.

New features in Moodle 4.0 include:

- Better focus on managing learning for students
- Improved interface for Instructors to create and edit course content
- Improvements in reporting
- Improvements in Quiz and Question Bank



175K Moodle user accounts



644 Moodle plugins maintained



1,422 support tickets resolved



820K Echo360 views



1.51M theBox views



930K Blackboard Collaborate attendees

Educational Innovation Pillar Team

Leadership

Professor Simon McIntyre,
Director, Educational Innovation

Dinesh Paikeday,
Director, Educational Delivery

Learning & Digital Environments

Sam Hegarty, Senior Manager

Pradhiban Duraisamy, Manager,
Educational Technology Support

Brian Landrigan, Manager, Media &
Immersive Technologies

Vicki Tan, Manager, LMS & Integrations

Educational Technology Services

Abdulla Zubair, Educational Technologist

Adrian Godoy, Senior Educational Technologist

Anoop Malekudiyil, Senior Educational
Technologist

Jackie Su, Educational Technologist

Petar Kolundzic, Support Officer, Educational
Technology

Learning Environments

Joanna Kartheritsas, Project Manager,
Learning Environments

Paul Dickinson, Project Manager,
Learning Environments

Media

Anh Nguyen, Multimedia Specialist

David Minh-Tam Nguyen, Multimedia Specialist

Roxie Vuong, Digital Resource Developer

Immersive Technologies

Graham Hannah, Manager, Immersive
Technologies

Ashley Hall, Immersive Technology Specialist

Paul Dyer, Immersive Technology Specialist

Seyha Sok, Immersive Technology Specialist

Timothy Dodds, Immersive Technology Specialist

Xueqing Lu, Immersive Technology Specialist

Learning Management Systems & Integrations

Catherine Ryan, Educational Developer

Cathy Lam, Educational Media Systems Specialist

Michael Roberts, Support Officer,
LMS & Integrations

Nathan Gibson, LMS & Integrations Specialist

Special Projects

Karsten Sommer, Senior Manager

Walter Tejada Estay, Project Manager

James Vassie, Senior Education Designer

Learning Analytics & Intelligence

Chaoxu Zheng, Senior Education Designer

Olivia Ng, Senior Education Designer

Philippe Gentillon Molina, Senior
Education Designer

Qingyang Lei, Senior Education Designer

Educational Delivery Solutions

Amanda Yeung, Manager

Ee Kho, Manager

Thuy Vu, Manager

Educational Delivery Solutions – Project Resource Pool

Benny Baharuddin, Senior Education Designer

Clem Wong, Senior Education Designer

Emily Chandler, Senior Education Designer

Faisal Khattak, Senior Education Designer

Han Ayshan, Senior Education Designer

Jasper Kun-Ting Hsieh,
Senior Education Designer

Martin Parisio, Senior Education Designer

Naveen Kumar, Senior Education Designer

Nikki Hayes, Senior Education Designer

Sabina Hussain, Senior Education Designer

UNSW Online

Sepelini (Sepi) Seuala, Senior Manager

Angela Wang, Program Officer

Denise Souza e Silva, Senior Program
Launch Officer

Helen Flint, Senior Program Officer

Wylie Breckenridge, Education Developer

Short Courses

Andrew Hill, Manager

Joint appointments with Digital Assessment Program

Elizabeth Rosser, Senior Manager,
Digital Assessment

Roslyn Davies, Change Manager,
Digital Assessment Platform

Agneetha Amarnath, Faculty Project Officer, DAP

Andres Espinoza Meza,
Faculty Project Officer, DAP

Andrew Yu, Faculty Project Officer, DAP

Ankita Srivatsava, Senior Support Analyst, DAP


Dien Minh Ha Ta, Senior Support Analyst, DAP

Natalia Torres, Project Officer, DAP

Penelope Turner, Senior Change
Analyst, DAP

Find out more

 pvcese@unsw.edu.au

 education.unsw.edu.au/pvcese

 unsw.sharepoint.com/sites/Teach (UNSW staff)

 [@unswpvcese](https://twitter.com/unswpvcese)