Executive Summary and Recommendations

Introduction

The 2020 Technology (and Digital Affordances) Demonstrator Special Initiative Grants connected with the successful Technology Demonstrators program offered in the past. This special initiative was offered with specific requirements to enmesh the technologies and/or digital affordances into curriculum and teaching (in alignment with the USQ Academic Plan) in Semester 1, 2021 in a scholarly, systematic, and evaluated manner. Grants were made available to USQ academic staff to support and enable solutions to contextualised learning and teaching challenges using new technologies while also encouraging consolidation of existing technology use at USQ. Grant money was provided for Learning and Teaching Assistant (LTA) time managed through the Office for Advancement of Learning and Teaching, (and after the restructure in July 2021, the Academic Transformation Portfolio) for the purpose of individual support with the technologies, pedagogical applications and completing a final report. The project overall was supported by regular community of practice workshops and sessions (from November 2021) that focused on designing interventions and encouraged suitable approaches to implementation data collection, analytics and ethics application writing (as required).

This report provides an executive summary, pertinent recommendations, and final reports for each of the 11 completed projects.

The Online Engagement Framework for Higher Education

Projects for this initiative are aligned with the Online Engagement Framework for Higher Education (Redmond et al., 2018) as shown in Figure 1. The goal was for academics to identify student engagement problems (such as non-engagement with resources, teachers, or other students) and purposefully implement new ideas (interventions) for enhancing and transforming the learning and teaching experience. Choice of technology enabled innovation with new technologies and consolidation of existing technology at USQ.
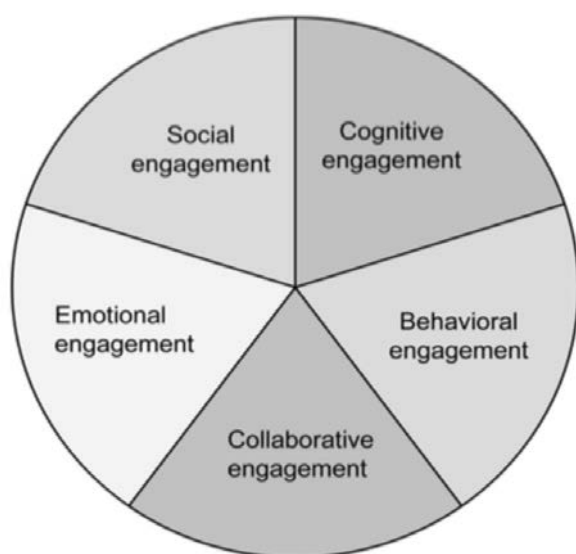

Figure 1. *Online engagement framework overview.*

2020 TechDem participants

Successful participants came from schools in both HES and BELA, as shown in Table 1.

Table 1. 2020 Technology Demonstrators - reporting participants

Name	School	Course(s)	Project title
Andersen, Cecily	School of Education	EDM8014 English Literacy and Special Educational Needs	Embedding Student Engagement Technologies
Beccaria, Lisa (Dr)	School of Nursing and Midwifery	NUR1100 Introduction to Nursing Praxis	Embedding online technology to build social and emotional engagement with first year nursing students: A pilot study
Beel, N (Dr) & Hoare, N (Dr)	School of Psychology and Counselling	COU8101 Counselling Skills and Applications and the Graduate Certificate/Diploma/Master of Counselling	ePortfolio for a graduate counselling skills course
Chan, KC (Dr)	School of Business	CIS8500 Applied Research for Information System Professionals	Design of course activities for improving behavioural and collaborative engagement for the CIS8500 Applied Research for Information System Professionals course
Hills, Catherine	School of Mechanical and Electrical Engineering	ELE1301 Computer Engineering	Using Padlet to Support Development of a Sense of Belonging in First Year Engineering Students
Johnson, Rhi	School of Creative Arts	VIS1010 2D Studio Foundations	Expanding Creative Communities: Facilitating Multimodal Forms of Engagement and Learning in Tertiary Visual Arts
Rees, Sharon (Dr)	School of Nursing and Midwifery	ANP5001 Introduction to Rural and Remote Nursing Practice	Introducing asynchronous tutorials to an online postgraduate nursing course
Southern, Jo	School of Nursing and Midwifery	NUR1102 Literacies and Communication for Health Care	Using Padlet and student attitude toward learning communication skills from teacher-made video vs generic YouTube video.
Taylor, Melissa (Dr)	School of Nursing and Midwifery	NUR3020 Professional Transitions ANP8003 Management in Health Care Practice	Increasing social and collaborative student engagement through interactive technology integration into online StudyDesks in an undergraduate and postgraduate course
Tualaulelei, Eseta (Dr) Getenet, Seyum (Dr)	School of Education	EDM5010 Literacy Learning in the Early Years EPM4100 Mathematics in Context	Promoting student engagement with embedded technologies
van der Hoorn, Bronte (Dr)	School of Business	MGT8077 Project Risk Management	An exploration of postgraduate management student engagement

Educational Technologies used in TechDem Projects

Participants were encouraged to implement technologies for flipped classroom approaches (Padlet, FlipGrid and Voicethread), for ePortfolios (Mahara, WordPress), and for clinical simulation and active lab work. There was also an open 'free choice' category. Table 2 provides details of technologies used for interventions.

Table 2. Educational technologies used in Technology Demonstrator interventions

Tool	Description	Key uses	USQ license and access status
360 Video	Use of video to create an immersive learning experience.	Interactive artefact to share an experience Asynchronous	Access to 360 video cameras and SeekBeak software subscription through the HIVE.
Adobe Spark	Cloud-based, video creation tool that provides templates and easy access to images, music and recording of narration.	Teacher presence Video content Asynchronous	Free online for all users.
FlipGrid	Cloud-based, video discussion platform. Teachers can post discussion prompts for students to react to and interact with peers via short videos.	Share ideas and promote interactive discussion Collaboration Multimodal responses Asynchronous	Free for education/educators.
Google Tools (Docs)	Cloud-based, free, tools for sharing. Docs provides a shared word processing environment.	Small group Collaboration Zoom breakout rooms Mind mapping activities Synchronous Asynchronous	Free online for all users.
H5P	A plugin for existing publishing systems that enables the system to create interactive content like interactive videos, presentations, games and quizzes.	Short self-check quiz activities Formative feedback Asynchronous	Integrated into USQ Moodle / StudyDesk.
Mentimeter	Cloud-based tool for interactive presentations, live polls, quizzes, word clouds, Q&As.	Initial course contribution Warm-up exercise Synchronous Asynchronous	Free version provides some workable options. Recent USQ trial of the paid version (used by some participants) highlighted advantages of purchasing a license.
Padlet	Cloud-based tool hosting a real-time collaborative web platform in which users can upload, organise, and share content to virtual bulletin boards called "padlets." Interactive including posting images, links, videos, and documents.	Communication skills Group activity Team & individual contribution Collaboration Asynchronous Synchronous (learning tool in tutorials)	Free version is limited. ATP provided access to a subscription for TechDems.
Panopto Quizzes	Cloud-based platform for recording and sharing video. Searchable and provides integration of quizzes.	Enmeshed into lecture viewing Check student prior knowledge Formative feedback Synchronous	USQ preferred platform for lecture and tutorial recordings. Integrated into USQ Moodle/StudyDesk.
Voicethread	A cloud-based multimedia tool that can be used for content sharing, student interaction learning and collaborative group work.	Student-student Student-content Student-teacher Collaboration Group work Multimodal responses Asynchronous	Integrated into USQ Moodle / StudyDesk.
WordPress	Free and open-source content management system used for creating websites and online portfolios.	ePortfolio - individual student use Employability First Year Experience Asynchronous	Hosting outsourced to CampusPress as part of the ePortfolio Create@USQ pilot.

Outcomes and impact

The final reports, Appendix 1, share the context, aims, approach, evaluation method, project impact and recommendations as evidence of key interventions using chosen technologies. In conjunction with these, Table 3 shares the list of technologies used, number of students impacted and relative success of each intervention while Table 4 shares extracted and summarised details of purpose, impact and recommendations from individual project reports. All projects/reports indicate relative levels of success with the intervention based on contextual evidence, student feedback and analytics of engagement. Academic feedback (from a final online survey) and key points are shared here.

Academic feedback

> *I developed skills in the use of technology. It was also useful to be in a group with academics from other schools as you could get ideas for future teaching. The whole project gave me good insight into the time demands of introducing new technology into courses.* (Sharon)

> *This Tech Dem project has built our capacities as educators to design curriculum that is 'Digital first'. It helped us experiment with different approaches to using the three technologies and we upskilled to assist students.* (Eseta)

> *The project increased my knowledge and skills in how to establish and maintain a classroom that incorporates the use of engagement technologies. I commenced the project without having any prior experience, knowledge, or skill in how to use or set up Padlet, Mentimeter, Flip Grid or build HP5 activities. As a result of the project, I am now able to effectively use these educational technologies across a number of courses. I have also increased my knowledge and skill in course design and am now able to plan learning outcomes and identify appropriate engagement technologies to support the achievement of the identified learning outcomes.* (Cecily)

> *The project also offered a supportive opportunity to build skills in the use of technologies and provided a collegial forum to discuss their affordances.* (Bronte)

> *TechDems is such a great initiative that allowed me to explore technology that I probably wouldn't otherwise have explored. Being part of the TechDems CoP exposed me to technologies that other TechDems were using and has certainly motivated me to give more of those technologies a try.* (Nancey)

> *I think that this was a significant help [L&T Assistant support] and hope that this continues for future Tech Dems. I was very helpful to have the ability to bounce ideas around and also to have support with the project implementation e.g., reporting, which can save academics valuable time.* (Lisa)

Preparation for and ability to use edtech tools

At times both staff and students needed support with the edtech tools used and in some instances the tool was an inhibitor to successful engagement. The LTAs provided much of this and effectively supported increased digital literacy and fluency. Some academics shared the impact of preparation time for creating learning artefacts and designing new learning approaches in conjunction with StudyDesk integration. Once again, the LTSs filled in some of this gap through their support, but the question remains as to how we acknowledge innovation at USQ and potentially providing time allocation to staff. A positive outcome was the increased ability of academics to integrate new learning approaches using one or more edtech tools.

> *Academic integration needs to include appropriate workload allocation relative to the enhancement being implemented. Outcomes determined in this TechDem Grant opportunity determined that through a well thought out and focused implementation, positive student learning was apparent. Time allocations are needed to be considered into the future to enable further enhancements. The need to have a community of practice to engage with colleagues in and across faculties was a driver to the success of the project. The team of support staff, learning and teaching staff and educational designers provided guidance and mentorship as new technologies were tried and tested. This support requires further*

expansion as the limited capacity of an academic team and Course Examiner to plan, map and integrate such change does require consideration of development hours minimalistically of an additional 50 hours. (Melissa)

Analytics and data collection

Many projects were challenged with gathering adequate analytical data. Methods used included:

- Voicethread provided users and viewings e.g. Tutorial 2 - 129 views by 29 users
- MyOpinion data used to compare with previous years
- Padlet - some analytics came through from Padlet after they were contacted several times - otherwise academics analysed individual Padlet's for student responses
- Online student survey
- Panopto quiz data
- FlipGrid analytics provided #groups, #views, #videos

Student engagement and impact

Most courses provided evidence of increased engagement through the designed interventions. This is contextual to each cohort and pertinent to how the technologies were implemented. For example, evidence of impact reveals that a tool like Padlet supports all aspects of the engagement framework with a focus on collaboration, selective contribution, and critical thinking. Many observed a reduction in student engagement with the technology(ies) as the semester progressed and cited attrition and assessment priorities as the main reasons. EDM8014 found that students appear to prefer engaging in technologies that are highly visible and easily and directly accessible on the StudyDesk. MGT8077 found the cohort preference was not to engage so much although teacher presence was improved using Adobe Spark videos.

Table 3: List of interventions (technologies used) and relative success for each course

	Student numbers	Adobe Spark	FlipGrid	Google docs	H5P	Mentimeter	Padlet	Panopto Quizzes	Video	Voicethread	WordPress ePortfolio
ANP5001	21										
CIS8500	79										
COU8101	109										
EDM5010 & EPM4100	126 74										
EDM8014	60								360 videos		
ELE1301	195										
MGT8077	26										
NUR1100	424										
NUR1102	448										
NUR3020 & ANP8003	368 22										
VIS1010	52										
TOTALS	2004 / 26	1	2	1	3	4	7	1	2	3	2

Colour intensity relates to the level of success of each intervention for student engagement from light colour (some success) to more intense colour (more successful). Note, these ratings were determined through narratives and evidence found in the individual reports.

Table 4: Collation and summary of educational technologies, purpose, impact and recommendations from individual project reports.

Tool	Who used	Purpose	Engagement Framework	Student feedback / impact	Recommendations
360 Video	EDM8014	A suite of asynchronous technologies was embedded in the course to promote co-constructed learning, and opportunities for interactions with course teaching staff, or other students. The video was embedded in a Course Module Workbook later in the course.	*Cognitive and Emotional* - Used by Course lecturers to expose students to an immersive learning experience where they experience a Neurologically Diverse Person's 'Meltdown'.	A large number of students (43%) engaged with the 360 Video technology that illustrated a personal experience of a person with ASD from a 360 perspective.	● It was good for maintaining engagement later in the course
Adobe Spark	MGT8077	Teacher-student Teacher presence To build connection with the students through a series of mini videos for guidance, instructions, material wrap-ups, discussion prompts.	*Social* - provided a break from textual or other interactive content.	Some drop-off as the semester progressed. The first Adobe Spark was accessed by 12 students, the second by 10 students, but the final Adobe Spark was only accessed by 3 students.	● An effective tool for quickly creating mini videos (that don't require a 'face to camera' record) which can enhance teaching presence. ● Include Adobe Sparks in other courses to provide quick videos which contextualise, make links to workplace practice, or provide useful tips relating to learning
FlipGrid	NUR1100 EDM8014	To increase students' social, emotional and collaborative engagement with their peers through collaboration. The FlipGrid activity involved students uploading 1min 30sec videos for eight topics throughout the semester (NUR1100).	*Social* - groups to develop a relationship with other students in preparation for participation in the on-campus residential school (NUR1100). *Emotional* - opportunities to articulate their assumptions and manage their expectations about the residential school, to motivate each other in preparation for the res school experience and help them develop greater confidence in and commitment to learning throughout the semester. *Collaborative* - online with their peers. *Cognitive* - through critical thinking, developing deep discipline understandings, and justifying decisions.	There was very little uptake of FlipGrid by students in the Semester 1 cohort (NUR1100). One student provided an email indicating that Flip Grid was a very good activity that she would use with her future students. Very few students posted a video response within the activity, although many viewed what was posted. Such behaviour indicates the presence of lurking behaviour in some students in the cohort. Student: *"Hi. I've uploaded my FLIP GRID elevator speech now (what a great classroom tool!)*(EDM8014)	● Train teaching staff who are required to trial the use of a new technology. ● Become familiar with the features and functionality of FlipGrid and undertake prototype testing. ● There was a high administrative/technological load of setting up large sets of FlipGrid groups for each new cohort/semester - maybe a simpler solution is needed (NUR1100) ● While the Flip Grid activity was valued by the few students who engaged with the technology, it would be discarded as too few students engaged with it (EDM8014)

			Behavioural - related to academic skills and agency, as students can receive feedback from both the course examiner and peers.		
Google Tools (Docs)	EDM5010 EDM4100	Used primarily in tutorials but also in Moodle lessons and available asynchronously. Activities included math problem-solving and discussions of pedagogy and curriculum in Zoom breakout rooms. Also incorporated within Moodle lesson activities for mind-mapping activities. Not used for assessment tasks.	*Cognitive, Collaborative and Social* - students working in small groups to complete tasks such as exercises on Google Sheets, presentations on Google Slides, or group work on Google docs.	Across both surveys, students highlighted the value of Google docs. for cognitive engagement (thinking critically, developing deep discipline understandings, using expertise from other courses and developing academic skills). Student: *"Lectures were engaging and breakout room exercises were great to enhance my understanding of content".*	● Works well for focused small-group activities in recorded tutorials. ● Give students clear directions and provide worked and unworked examples for all students - especially when using in Zoom breakout rooms ● Use a variety of activities to engage students.
H5P	NUR3020 MGT8077 EDM8014	To undertake a series of asynchronous, short self-check quiz activities throughout the course to test their understanding of course content and assessment, and to determine their progress. Activities scaffolded across all course objectives and located in specifically targeted StudyDesk Moodle books. Students engage in theoretical content that they may otherwise choose to skip over. Aligned with the VoiceThread design and was focused on providing a more professional, inclusive and collegial approach to learning (NUR3200).	*Social* - students engage in weekly module content with simple activities that promote deeper thinking with reflective exercises, or reinforced core learning through word searches and fill the blank type activities. *Behavioural* - regular engagement with key course content through activities designed to explore content with immediate feedback. *Cognitive* - students can think critically about core concepts, retain key principles and content, and provide a space for formative feedback.	Implementation of H5P activities in study desk content assisted in bringing theoretical concepts into learning journeys for students. HP5 activities promoted high levels of engagement from a range of students.	● Keep H5P in NUR3020 to maintain and further enhance H5P integration with weekly activities ● Activity development must be scaffolded to ensure alignment with content ● The inclusion of H5P's coincide with a standardised digital curriculum development workload of 20 hours per annum to encourage staff to develop, implement and monitor digital enhancements in undergraduate and postgraduate courses (NUR3200). ● Consider how to create questions that are quick to answer but probe for understanding. ● Provide constructive feedback for incorrect answers to support formative assessment. ● HP5s offer a wide variety of interactive elements and engagement activity types and are also easy to setup, maintain and ' roll over' from semester to semester once set up.

Mentimeter	CIS8500 EDM8014	Platform for students to engage with. Platform for the lecturer to collect real-time survey, feedback and polling data with a cohort of students. Used at the very beginning of S1 to simply encourage students to contribute online to the cohort; it was included as a warm up exercise. Asynchronous responses.	*Cognitive* - critical thinking and integration of ideas *Behavioural* - greater online contributions from students, both individually and when working in their teams. *Emotional* - developing student agency and helping the course lecturers in supporting student expectations.	Task in Wk 1 was not assessed therefore little engagement took place (CIS8500).	● Use for optional tasks, e.g. icebreaking-style activities, for the Course Examiner and students to gain a better sense of the nature of the cohort's expertise and interest. ● Embed into Zoom and directly in the StudyDesk rather than within Moodle workbooks for high visibility ● Mentimeter activities would be retained but only used during synchronous and recorded Zoom sessions
Padlet	CIS8500 EDM5010 EDM4100 EDM8014 ELE1301 MGT8077 NUR1102 VIS1010	Group work Student-student Student-lecturer Students learn and practice teamwork and develop their soft skills and communication skills. A mandatory task that was marked and used as evidence for students' genuine contribution to their team (CIS8500). Used to collect student artefacts related to children's literacy, student reflections on their knowledge and to facilitate communication between online students and on-campus students. Artefacts and ideas were subsequently discussed in weekly tutorials so the Padlet became a learning artefact and not just a repository (EDM5010) To promote co-constructed learning, and opportunities for interactions with course teaching staff, or other students.	*Cognitive* - students to think critically, integrate their ideas and justify their decisions (particularly when working in teams), and to support the distribution of expertise between peers. To scaffold students' completion of the assessment. *Behavioural* - model online learning norms *Collaborative* - encourage students to engage online with faculty members and ultimately, learn with peers. Provide teams with a platform where they share resources, identify what tasks each team member was working on, and learn with peers. Acted as an iterative process for students to collaboratively reflect on their own work and that of others, as well as reflexively developing confidence, capability and community. *Social* - build community and create a sense of belonging for students	Mandatory activity resulted in increased student engagement. Provided authentic evidence of individual students' contribution to group work and increased collaborative activity. Platform was an appropriate choice to support students' online collaboration and engagement. The increase of student participation and engagement was obvious compared to previous cohorts (CIS8500). Data from EDM5010 indicate that when used optionally and asynchronously, using Padlet has limited impact on student engagement. Far greater engagement with Padlet with traditional Forums, although several students seemed not confident using Padlet, are not conformable with engaging in collaboration or sharing learning, or would prefer traditional methods of engagement (EDM8014) The social introduction Padlet was not well used. Weekly polls were used by just	● Keep Padlet as an online collaboration tool for group tasks and team work. ● Enhance the scaffolding for Padlet activities through careful design ● Embed in your StudyDesk - it breaks up the standard moodle layout ● Use for both synchronous and asynchronous activities across different devices ● Improve the scaffolding of the social Padlet to encourage greater student use. ● Padlet is really useful when you need to create an instant webpage. For Orientation it was used as part of the "Orientation Challenge", ● A strength of the Padlet platform is the quality of Padlets as they are presented on students' mobile phones. ● Using Padlet in a course requires a cohort who wants to share information about themselves and/or their learning (and to connect with peers) in a classroom environment. If a cohort is not doing this in traditional forums, this project showed that changing the technology did not guarantee a change in students' online behaviour or greater engagement. ● Key to the success of the Padlet was teacher engagement, which was an iterative process. Initially, teachers modelled the process of posting their

		First year experience through loosely structured, visually engaging, simple social interactions and sharing with lecturers and between students. To address gaps in online engagement seen in previous iterations of this first year course (limited posts in forums). For students to nominate and discuss case assignments and receive feedback from the Course Examiner. Week 1 as part of an 'Introduce Yourself' activity.		under half the cohort. Most popular topics, *"The thing I am most worried about in the course is…"* and *"The thing I am most looking forward to in this course is…"*. Student outcomes have been difficult to measure but the increase in non-academic engagement is demonstrable (ELE131) Survey result - students felt that a StudyDesk should not mandate that they engage with the Course Examiner nor their peers as part of the learning experience. Student: *"I found the padlet to not be as useful as the mini videos, quizzes"* (MGT8077) 80% strongly agreeing they preferred Padlet to social forums, and 80% strongly agreeing that the Padlet enhanced the quality of, and their engagement in, the course (VIS1010).	own works-in-progress.
Panopto Quizzes	EDM5010 EDM4100	Enmeshed as part of the lecture viewing experience (the video could not proceed without attempting the quiz) in six lectures in each course, with two at the beginning of the lecture recording, two in the middle and two at the end. The quizzes were made up of three or less questions formatted as true/false, multiple choice, multiple select or fill in the blank.	*Cognitive and Behavioural* - to help students develop deeper discipline understandings and critical thinking skills and instill agency and independence with learning.	Panopto analytics shows students tend to attempt the quizzes when they are located at either the beginning or middle of the video. Having the quizzes embedded within lectures provided a seamless and low-stakes teaching approach for providing formative feedback. Student: *"I think they were great! Quizzes in particular really helped when going through the coursework."*	● Embed these in lectures so that students are actively learning and not passively watching ● It also slows down the students that are watching the video at faster speeds.

| Voicethread | ANP5001

MGT8077

NUR3020 &
ANP8003 | Teacher presence
Student-student
Student-content
Asynchronous interactive study group activities (tutorials) to support new course design of online synchronous tutorials.
All students completed a task to post their group discussions in a tutorial at least once (ANP5001).

For students to examine assignment guidelines and assessment criteria and seek feedback on their understanding of assessment requirements from their peers and the Course Examiner (MGT8077)

Flipped classroom model and asynchronous verbal interaction | *Social* - relationships and sense of belonging; explore real life scenarios as prompts that initiate conversation and reflection.
Collaborative - working as a team.
Cognitive - through critical thinking, integrating ideas, and negotiating decision making; to scaffold students' completion of the assessment..
Behavioural and Emotional - students worked in groups and learned how to interact with each other online, negotiate activities within the group, and support each other; students develop agency as they transition into the real world of nursing as practitioners. | 93% of students viewed every VoiceThread, with 100% of students viewing the Tutorial 2 VoiceThread,
Student: *"the voicethread and tutorials are very helpful"*
Academic: *The technology achieved the aims that I wanted to achieve in allowing students to contribute to a tutorial at a time and place that suited them.*

Not effective in increasing peer-to-peer or peer-to-Course Examiner interaction (MGT8077)

Approx. 46% of students did engage in one VoiceThread activity with a marked increase in student overall satisfaction (NUR3020)
ANP8003 - engagement of 81%
The integration of voice threads has impacted the curiosity of students and increased their engagement in course content.
Student: *'am not liking the format that this is being presented. It is difficult to go back and review things again as you have to go through so many screens to find it.'* | ● Start development well before the semester begins and preferably have Voicethreads already completed for students to access when they are ready.
● Anyone starting to use VoiceThread to have someone who has experience in using it to provide support.
● Ideally have some practice in advance of embedding the technology into the course on StudyDesk.
● To use VoiceThread effectively, a course requires a cohort who are willing to share information about themselves and/or their learning (and to connect with peers) in a classroom environment. If a cohort is not doing this in traditional forums then changing the technology will not necessarily guarantee a change in students' behaviour or engagement in a course.
● Discard as an activity for students to engage asynchronously whilst on placement.
● Staff and students were overwhelmed due to the large enrolment numbers and the enormity of the files that present. This strategy has been removed from the Course in S2 2021 (NUR3020)
● Keep in ANP8003 to maintain and further enhance VoiceThread utilisation in the course as a source of asynchronous tutorial presentation combined with some synchronous teaching activities. |

| WordPress (ePortfolio) | VIS1010 COU8101 | For students to create an emerging artist website. Focus on employability.

A space to record, reflect, and display student journals, competencies and knowledge.
To solidify their professional identities, enhance their employability, showcase their professional competencies to potential placement providers and employers, and build their digital literacy skills to facilitate the creation of their own business website.
The development of program-wide eportfolio resources. | *Cognitive, Behavioural and Emotional* - to think critically about creative identity and how this could be communicated to others in a digital platform. To enhance reflective learning opportunities.
Collaborative - shared activities and the eportfolios providing an enhanced means for students to get to know each other.
Behavioural and motivational - content that enhances students' professional identity and confidence for employability. | Many students have created highly engaging artist websites. Student survey indicates that 100 percent of respondents either agree or strongly agree that having an artist website would be an asset to their future career and/or professional undertaking. Only 50% of respondents, however, found the technology easy to engage with.

60 students have expressed interest in becoming part of the ePortfolio Community of Practice at the program level (COU8101) Use in S1 was not compulsory. Student feedback:
"I think there may be more interest if the ePortfolio was promoted with the focus on real world application."
"Producing a very quick and easy to read fact sheet about its use and benefits."
"Embed course assessments that assist us to develop portfolio and prepare for professional Registration and employment" | ● Students found this technology the hardest to use as it did not rely on previously existing behaviours and is somewhat more complex in its initial set up phases.
● It is recommended that additional live classes (both face-to-face and Zoom) be timetabled at the beginning of the course to allow students to work through the initial set up stages with the support of both teaching staff and relevant support staff.
● Provide students with a clear rationale at both program and course levels, outlining the reasons why students should be developing a portfolio, and the value it will bring to them as a counselling professional and addressing employers' expectations. |

Key recommendations

The following recommendations apply to educational software purchase and support and ongoing support for innovation at USQ.

Educational software purchase and support

Outcomes from the 2020 TechDem interventions reveal the need for additional software purchase as well as support for academics to enmesh into their courses and learning environments. This includes:

- University-wide purchase of Padlet - strong evidence of the benefits for student engagement and a wide variety of uses shared. Anecdotally this tool is already used widely for student-student, student-content, student-teacher interaction and collaboration, for academic development, and for interaction with those outside of USQ when needed
- Purchase of Mentimeter - this tool was trialled in Sem 1, 2021 and a subsequent report delivered to the Learning and Teaching Environments Working Party recommending purchase of limited licenses for distribution
- Create an edtech portal to support whole university needs in this area that includes a list of tools used for student engagement and within courses, examples of how they are used at USQ, case study material from TechDems and others, and support for others to learn and implement contextually into their learning environments. This includes collaborating with ICT on updating current training programs (e.g. Voicethread) and providing links to additional resources and the TechDem CoP activity

Innovation support

Provide a seamless pathway for academics to participate in new and innovative learning and teaching approaches. This should not be confined to the early adopters of technologies. This could include:

- Continue to build on the Technology Demonstrator model with CoP activities for cross-discipline knowledge sharing and creation
- Develop a mentor-mentee program
- Fund ongoing support through Learning and Teaching Assistants
- Determine clear pathways for scaling an initiative (such as Padlet adoption across disciplines)
- Determine the structure for how we support and acknowledge those who are innovative and improve student engagement, success and learning outcomes using educational technologies
- Look at microcredentialling as a pathway for academic upskilling and acknowledgement of innovative practice

References

Redmond, P., Heffernan, A., Abawi, L., Brown, A., & Henderson, R. (2018). An online engagement framework for higher education. *Online Learning, 22*(1), 183-204. doi:10.24059/olj.v22i1