Lincoln Connected: A case study

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Online education is no longer a growing trend and is now an accepted delivery model with more and more institutions offering academic programs of study online. Presented as a single-case study, this paper outlines one Aotearoa New Zealand institution’s decision to begin offering an online learning program, the Lincoln Connected Initiative. The initiative aimed to increase the institution’s enrolment by developing online learning content, implementing new administrative programs, enhancing technological systems and developing support resources for both staff and students. From this work, there were four main lessons learned: implementation of a strong administrative model, early project and change management, adequate staff resourcing and development, and continuous content development. Since its implementation, this initiative has successfully launched numerous academic programs, updated its systems and development tools, implemented support resources for students and staff and aims to reach its goal of achieving 15% of its full-time equivalent students being enrolled in an online program by 2024.

Keywords: Online learning, program administration, lesson learned, distance learning

Introduction

Before the Covid-19 pandemic, online education already allowed anyone in the world to access and attend courses and programs virtually. While the pandemic might have hastened many institutions’ moves to online learning, the practice was well established before 2020. As such, many universities have already established online learning programs for students who are not able to travel to their physical institutions (Palvia et al., 2018). Presented as a case study, this paper details one university’s journey to implement and deliver a new online learning program.

Moving with the times, in 2019, Lincoln University, a small land-based agricultural university in the Canterbury region of Aotearoa New Zealand, launched the Lincoln Connected Initiative as part of its strategic priorities (Lincoln University, 2019) to use technology-enhanced online and blended delivery as the key to both attracting and retaining new students. This was a significant step for an institution that historically had been place-based. In alignment with this strategy, the Lincoln Connected Initiative’s initial focus was to develop online programs that built on and resonated with the University’s distinctive campus-based teaching programs, in conjunction with Lincoln’s strong staff-to-student interaction, to create an outstanding online learning environment following our strict academic quality and content standards.

The goal of creating professional online delivery for land-based sector programs is challenging and requires careful management of resourcing for online delivery, identification of programs that have high student demand, linkages with academic staff for the development of course content, connection with other campus programs and services, and investment in new technology (Burnette, 2015; Kampov-Polevoi, 2010; Webber, 2016). Like many smaller institutions with limited revenue and competing priorities, Lincoln University had underinvested in learning technology over the past decade. The learning management system (LMS) had not been functionally reviewed or fully supported by specialist staff in years, and the system’s design and user interface were aging. This left staff and students with a declining user experience. Likewise, the outdated educational technology tools available to instructors left staff unable to make newer, more engaging content or experiences for potential students. In addition, while some basic campus-based support and helpful information was available for all students, further work was needed to support online learner success while maintaining high educational performance indicators. Similarly, there was very limited support for academic staff in the way of professional development pathways or existing materials for instructors to learn how to embed technology-enabled learning into everyday teaching practice.

Lastly, it should be noted that while the decision to begin the Initiative occurred in late 2018, its implementation did not begin until the start of 2020 and unintentionally coincided with the Covid-19 pandemic. While this paper, will not detail those events, it is important to note the additional challenging backdrop of implementing a new program while simultaneously evaluating the University’s overall educational approach and decreasing...
resources. Due to the drop in enrolments, like many other institutions during this period, the University faced financial challenges that impacted staff resourcing and other day-to-day operational activities.

**Methodology**

This research employs a case study approach facilitated by the participant observers to gain a deep understanding of the challenges faced by a small land-based university with little online experience. Case study methodology is commonly used in educational research (Yin, 2018, Hamilton & Corbett-Whittier, 2013). As noted by Thomas (2016), “case study is especially good for is getting a rich picture and gaining analytical insights from it” (p. 23). Furthermore, a historical, or retrospective, case study allows for the examination of a past event (Yin, 2018; Thomas, 2016). In this paper, the authors examine the historical activities of implementing a new online learning program over the past three years. Acting as participant observers, their role involved active engagement and observation within the context of the study.

For this study, data was collected form two primary sources. First, the authors, acting as participant observers, were actively engage in the project work and met weekly to discuss and record their observations and experiences. Secondly, relevant published documents, records, and reports related to the project were examined to provide additional information. Collected data went through a systematic process involving thematic coding and cross case analysis to derive comprehensive insights. The authors adhered to strict ethical guidelines at all time to ensure the confidentiality of data.

**The Lincoln Connected Initiative**

Today’s online education marketplace has become saturated with competing online learning programs offered by multiple institutions catering to an ever-increasing number of potential students from around the world (These 3 Charts Show the Global Growth in Online Learning, 2023; Bouchrika, 2023). To be successful when starting a new online learning program, an institution must strategically differentiate itself to stand out among its global peers (Lim et al., 2018). Furthermore, it must do this while also addressing the most pressing of its operational and technological issues while building content and implementing new services and supports for both staff and students.

In a world in which everything is online, having content online means nothing. Potential online students have too many choices available to them to decide on a program of study based solely on content availability. Like their campus-based counterparts, online students are looking for value-added service offerings (Bailey et al., 2015). Online is ambiguous. It is an empty word, with no meaning. Online does not differentiate itself. Online is impersonal, faceless, empty and without meaning. In a world where everything is online, online means nothing. What students want is a connection (Smith-Merry et al., 2019). At Lincoln University this feeling of connection, of treating each other as family is called the Lincoln Way and it is encapsulated in our values as “Students at our Core”. It underpins everything the institution strives to do, every day. In creating a new online learning program there was no desire to set up a new generic online entity, but rather to expand on who we are and what we represent; to connect with students and allow them to connect with each other. Thus, the Lincoln Connected Initiative was established.

**Options considered**

To build this initiative, the University first considered three operational models.

*Status quo*

The University could have chosen to remain in its current situation and do nothing. This would mean that there would be no centralised online learning presence, but programs could go online with faculty resource allocation and staff availability. Online courses and content would be ad hoc with inconsistency of both design and content standards across faculties. Student services would remain focused solely on campus students, leaving a very unsupportive and ineffective online student experience.

*Build internal capacity*

This model builds the University’s internal capacity to design, develop and offer online and blended learning in a consistent, branded and highly engaged/supportive manner. This option allowed for a distinctive presence, program offerings and services to meet the needs of the student populations while maintaining best practices within the field of online and blended education. Online enrolment and registration would also be developed to ensure a smooth experience for all students, as would the necessary pastoral care and student services.
Outsource development

This model relies on a third-party vendor for online course content development and delivery. The vendor would perform the market analysis and subsequently select a handful of programs they deemed desirable for investment. Personnel provided by the vendor would assist the University with all aspects of program development and delivery. Depending on the contract, university staff might retain or relinquish varying degrees of academic freedom and oversight. There would be an expectation of significant redesign of course materials for academic staff. This model would not address the online student experience outside of the classroom.

Chosen solution

After identifying the options, a robust analysis was completed against a list of critical success factors and the University’s strategic priorities. A financial analysis was also prepared and considered for each option to understand the whole of life costs and potential return on investment. The University chose option two; to build on its internal capability. This enabled the University to retain its brand and capture the essence of its core values and current student experience, whilst moving forward to an online and flexible learning approach.

Officially, the Lincoln Connected Initiative launched in April 2020 with the following goals:

1. Development of at least eight (8) asynchronous online degree programs.
2. Development of a new/revised student/staff support platform.
3. Development of student/staff support materials and resources.
4. Technical and design upgrades and enhancements to our technology platforms and tools.

Implementation

Opportunities

While the University was starting a new online program, it was fortunate that it could take advantage of several factors. The University, including its governing Council, was committed to building the Initiative and had put aside the financial capital for its start-up phase. There were also several examiners and instructors interested in developing the first programs. Academic staff had had access to some training in the past, including a blended learning project that had been run for several years prior. The University had a well-developed ITS support structure in place that was available during business hours and defined student support systems in place for its campus students. Additionally, an LMS was in place, as were a few online tools allowing for the development of course materials.

Challenges

While the University was able to capitalise on the basics being in place, it still faced multiple challenges in standing up the initiative. First, as noted earlier, while the decision to launch the Initiative took place before the pandemic, the actual launch occurred in early 2020, as a direct result of the immediate need to move to an online learning delivery mechanism. Second, there was limited existing online learning development and administration knowledge and/or expertise within the University. Similarly, most academic staff were not familiar with the tools, technologies, pedagogy, or services that are required to implement a new online program. An existing Teaching Quality team was already over-subscribed and had no availability for new projects, especially considering the demands placed on it at the start of the Covid-19 pandemic. The University also had no policies or procedures in place to guide online learning initiatives or activities, nor was there any governance structure or strategic plan for the administration of online education. Each of these challenges is described briefly below, along with how they were overcome.

COVID-19 meant that all courses starting in the second term of the first semester of 2020 were taught in an Emergency Remote Teaching (Hodges et al., 2020) mode. Although face-to-face teaching occurred in Semester Two 2020 there remained a need to engage students who either could not or chose not to return to campus, therefore all taught courses still offered Emergency Remote Teaching (ERT) materials. The start of 2021 saw a more stable environment with only a brief change in Covid-19 controls impacting the University’s teaching delivery. Feedback from students regarding Emergency Remote Teaching was mixed, with some enjoying remote study, and others struggling in the new environment.
There was some confusion as to what differentiated an online course from every other course that the university was offering as ERT. For an institution without administrative processes or structures for online learning, it was hard to identify what was deliberately created as an online course/program as opposed to ERT. This led to further confusion for our student engagement teams as they recruited potential students. Ultimately this led the University to broadly define online learning, as a defined Lincoln Connected Initiative asynchronous degree program, with a few other hybrid programs, designated as distance learning. It is only now that the University is looking to better define its teaching modalities, to identify a broader suite of distance learning activities.

**Organisational structure and staffing**

Most tertiary education institutions place online education programs directly under either the senior most officer or a direct report at the institution. This is a strategic decision because to be successful, the program must functionally cut across most other academic and administrative programs within the institution. This also serves as a line of direct access to a chief executive to remove roadblocks and manage shifting priorities. For Lincoln University, this meant the program was placed under the Assistant Vice Chancellor (AVC), Teaching and Learning.

Before establishing the Lincoln Connected Initiative, the university hired a new Director to develop and manage the project. The Director started in January 2020 and provided the University with the administrative expertise to launch a large-scale online learning initiative. While the University had a small technology and teaching excellence team, it did not have enough staff with experience in instructional design, rapid authoring software skills, and ability in academic media development to create the program content. While the existing team had some overlap of similar educational backgrounds and skill sets, there was an immediate need to identify and hire new staff members with specific design and learning technology experience and skill sets.

Funding was already approved for the Initiative and the hiring process for additional staff began in June 2020 and included two project managers, one senior instructional designer, two instructional developers, three instructional designers and one multimedia specialist. This was a challenging process as funding was conditional and limited the new staff to term-based contracts. This combined with the limited talent base within New Zealand and the pandemic closing our borders, meant it took nine months to hire the complete team after multiple rounds of recruitment. Over the last two years since the initial team was contracted, there has been a 100% turnover in staff as individuals have found permanent employment elsewhere. This challenge has yet to be fully overcome, though offering longer-term contracts and higher salaries seems to have stemmed the turnover rate to a small degree.

**Academic programs**

Another challenge faced by the Initiative was the academic programs, both in terms of staff buy-in and support and selection for moving into an online format. Without any formal policy or process in place beforehand to help guide the selection of what programs to work with, this decision fell to the Deputy Vice Chancellor (DVC) and the Deans of each Faculty to decide. From a series of meetings held over a few weeks, a set of criteria was identified, including potential number of students, market demand based on contact with colleagues or industry partners, availability of academic staff, degree level and number of courses involved. This led to the identification of six programs to be created over the first year and a half of the Initiative.

As the Initiative advanced, a new academic committee was formed to strategically consider new programs, both online and on campus. This committee is now responsible for identifying new academic programs to offer online at the university and existing programs to move into an online modality. Also added as criteria for consideration was a formal market analysis of program viability. This analysis, conducted by an outside vendor, ensures market demand based on both current and future job demand, instead of relying on word of mouth or relationship-based decisions.

Whilst the availability of academic staff was considered as a selection criterion, it did not mean that the individual instructors and examiners bought into moving their course or program online. In some cases, the staff had not been contacted or even told by the Dean before the newly established Online Learning team walked into the first scheduled meeting to begin planning for the development. This led to a lot of confusion and frustration on both sides and a lot of time upfront spent building relationships with each academic staff member and bringing them along the journey to be comfortable, not only with the decision but also with the amount of work involved during an already hectic time, especially in the early days of the pandemic.

Most, if not all, of these issues were overcome with better planning, more communication, and by providing additional support as the project went on. The first phase of the project, June 2020 thru Dec 2021, was
essentially built around developing content. Moving into Phase two in Jan 2022, more support resources were identified and developed for both staff and students. Additionally, two new staff were hired to focus on the development of student success and support, and staff development and support.

**Online program administration**

As mentioned previously, before starting this work the university did not have any formal structures, policies, processes, or guidelines for true online education. While there were a couple of web-conferencing-based hybrid programs, these had popped up and were managed individually within one Faculty. This meant that as the Initiative started it had no guiding processes to work from or templates to build work off. In the early days, the phrase “flying an airplane that hasn’t been designed” was almost a daily mantra. We took this as an opportunity for the formation of new design standards and a guiding community model, without having to retrofit it into existing coursework. Though it happened quickly, it allowed the new Online Learning team to develop a style guide, design model and student experience principles that form the basis of the development work today.

The development of formal policies, processes, and standards was also necessary. The University has addressed each of these areas over the past two years. A Technology-Enabled Learning Strategy was developed in 2021. The strategy identified four goals that align with the work being done:

1. Standardise the blended development and delivery model - a coherent set of delivery options that provide both flexibility in the mode of study, and a consistent quality experience across the University.
2. Align capability and support change - a clear vision for learning enables focused capability development and supports staff through change.
3. Ensure quality processes and support systems enhance the learning experience - an end-to-end quality experience.
4. Enhance learning - targeted activity to improve learning outcomes.

The University has since also created an Asynchronous Online Course Policy, modified the existing system process to include and account for online and blended teaching modalities and drafted a Learning Management System Acceptable Use Policy. Together with the aforementioned academic committee identifying possible new programs, the University is much better positioned to offer and appropriately administer online learning activities.

**Systems**

The last significant challenge faced dealt with systems technology. Like many Canterbury organisations after the devastating earthquakes in 2010 and 2011, Lincoln University spent significant time and resources in the previous decade on maintaining or rebuilding its physical infrastructure. As a result, much of the technology, while working was aging, or outdated. For this reason, the Lincoln Connected Initiative had to also address updating key software platforms and tools. While some work was done to help modernise the student application system, as an older system reached the end of life, the Initiative focused primarily on two areas, the Learning Management System (LMS) and the website used to provide support to online students.

The University had been using Moodle as its LMS for years before the Initiative started, and because of the time constraints involved, a change of LMS was not considered. Our work focused on updating the systems to within two versions of the most recent official release. Additionally, as the development team established new course designs and standards, new Moodle plug-ins were able to be utilised to add functionality. This work was done quickly and created a baseline to build from. In the long term, and only recently completed, the team designed course templates and standards not only for the new online courses but for all courses offered by the University. Furthermore, because of the previous ERT delivery, new course content standards have been put in place, including recording all lectures and the expectation for all in-term assessments to be delivered online.

The Initiative also redeveloped the main student support website - Te Kete Wānaka (https://ltl.lincoln.ac.nz/), “the basket of knowledge.” This website supports not only the online students but is home to all the university’s academic support programs led by its Learning, Teaching and Library team. This includes Library Services, Academic Skills and Knowledge, Student Career Services, and Inclusive Education. The website provides interactive content, as well as instructional content and video. It provides 24-hour just-in-time support for all university students and academic staff.

Collectively, these two activities alone have vastly improved the student experience, but we have identified further opportunities for improvement. Early in 2021, the Initiative conducted a learning ecosystem review. This review was used to roadmap future work and has been the primary driver for further system enhancements.
Moving forward, the University will continue working in this area, with a full LMS review tentatively scheduled for 2025, once the development of the last three currently planned academic programs is completed.

Learning design
As most of the course delivery in the University represented traditional approaches, there was a need to ensure that new online course delivery is purposefully designed for online students and did not try to represent the traditional approach. Wanting to build and extend our student-centered focus on building communities of learning and providing opportunities for meaningful interactions, the selected online course design model was underpinned by the Community of Inquiry theoretical framework (Garrison, Anderson & Archer, 2000). This framework proved to be quite a change for the university with the addition of new learning activities and a change in the way content is presented compared to a traditional site that supported a face-to-face class.

Representing the special nature of the university was also reflected in the high use of real-world examples supported by digital media in online courses. Ensuring all course sites utilised a consistent university theme and structure while being easy to navigate was the foundation for the learning design. Making all courses with a philosophy of being ‘casual, friendly and human’ also went a long way to ensuring the tenets of the Community of Inquiry theoretical framework were being met (Moore & Miller 2022).

Lessons learned
In considering the entire scope and timeline of the Lincoln Connected Initiative there are a range of lessons learned. These are grouped below to summarise the fundamental learning for starting a tertiary education online learning program, while also being relevant to other organisations.

Online program administration
Beginning a new online learning program is a challenging and complex process. Doing so at a small institution requires both leadership and clear communication to ensure the entire organisation is moving in alignment with its strategic goals. Faced with the time pressure of a global pandemic impacting all aspects of the business, the University moved straight into development and delivery without enough organisation of the program administration and its associated impacts on all other facets of the institution. This negatively impacted the Initiative’s effectiveness as it progressed. Key items learned along this journey included:

- Constant senior leadership buy-in, approval and championing are vital.
- Academic staff must be included as part of the decision-making.
- Qualitative and quantitative data should be used to support the decision-making process, especially around program selection.
- Confirmation of reporting requirements and templates upfront to avoid repeated modifications is necessary.
- Establishing a project page on the institutional Intranet or other central location to use as a central place for all staff to access project updates and information is required.
- Establishing regular meetings between the project team and senior management, as well as the development team and examiners is essential.

Project and change management
In setting up the Lincoln Connected Initiative, the University appointed a Project Manager to coordinate the activity. This initial decision meant the project was established with the appropriate oversight and management in place. Unfortunately, though, while change management was identified as a key risk, due to cost and resource constraints, a dedicated change manager was not appointed. As the Initiative progressed, this hindered its ability to keep momentum and caused repeated conversations to draw new institutional partners on board. Key items learned in these areas included:

- A change manager is essential to projects that change the way staff work.
- Schedules should be developed for each round of development and agreed upon with SMEs early on to allow for adjustments for leave, exam marking, etc. In this way, all staff involved are aware of the delivery expectations.
- Planned schedules must allow flexibility for staff illness, holiday periods pre-planned/booked leave and other significant university dates and events.
- Roles and responsibilities of the online team and the SMEs need to be clear at the start of development.
• Project plans should indicate resources committed from all stakeholder areas.
• Project communications plans do not substitute for change management engagement.
• Faculty leaders and SMEs must champion the project with their peers for it to be successful.
• Prior commitment is required from all faculty staff involved to develop a program.

Staff resourcing and development

Setting up a new team is a time-intensive and costly process. It required finding the right skills and experience for staff not widely available in New Zealand. This process took much longer than anticipated, and the lack of permanent positions meant the recruitment and hiring process was constantly repeated. In addition, the Initiative did not account for the upskilling required for academic staff to provide suitable online content within an already full workload, and though a small stipend was initially offered, it wasn’t enough to fully free their time or lift their capabilities. These two factors combined resulted in leadership and staff at odds oversupplying timelines and development delays. Keys items learned in these areas included:

• Recruiting experienced staff for a new initiative takes longer than expected in a limited national market. This is multiplied if offering term-based contracts and expect turnover.
• Academic staff time is over-subscribed. Look for ways to help free their time in other ways, e.g., course buy-outs or stipends for additional instructors/markers.
• It is helpful to have the academic program coordinator/department head for each program on board with the project to help with communication, resource management and escalation.
• All staff participating in a project must be supported by their department to complete the work promptly alongside any business-as-usual commitments they have.
• Budget should be put aside for a specialised online development educator for staff to support their upskilling in technology-enabled learning delivery.
• Academic staff need more support and training for online delivery vs traditional classroom delivery, to ensure the student experience delivered is of a high standard.
• Socialise teaching staff to the purpose and practice of online course design and delivery. Introduce them to the many ways that content can be presented so that it reflects the underlying theoretical framework. This will help with answering many of the questions about ‘why’ a particular technology tool or resource is used or created.

Content development

Knowing you will be developing new content for new online programs is one thing; knowing how much content will be created is quite another. While the development team did have the centralised ITS infrastructure in place to know where to store it, it was a considerable undertaking knowing how to organise it in a standardised, consistent and identifiable manner. The project team put information management measures in place early and built upon them as the project developed over time. Key areas you must get right include:

• Setting a firm foundation for the design and delivery of online courses. Creating a set of principles and an overarching philosophy for how courses will be designed will help with ensuring consistency across courses and meet the needs of online students.
• Use of a central repository. All communication and learning materials shared during content development should be stored in an easily accessible format.
• Use of a standard naming convention for all developed learning objects and resources.
• Learning objects and resources must adhere to basic pre-defined quality standards.
• Designers and SMEs must agree to the course structure and design before development starts.
• All courses must be developed using the same standards and templates. Any changes to templates must be able to be updated easily across the suite of courses without being administratively heavy.

Results

Working since April 2020, the Lincoln Connected Initiative has successfully achieved its main objectives. Collectively, Lincoln Connected developed programs and courses, account for approximately 13% of all the University’s Equivalent Full Time Students (EFTS). This equates to roughly 400 students a semester and generates close to $2.0 Mil (NZD) in revenue each year. Furthermore, the project has worked collaboratively with students and staff to deliver to date:
Eight fully online programs.
- Two New Zealand Secondary Tertiary Alignment Resource (STAR) courses to increase secondary student pathways to tertiary education.
- User-friendly course templates for online and on-campus learning.
- The University’s first Technology Enabled Learning Strategy.
- A full learning technology ecosystem review and a future-focused roadmap based on its results.
- Full redevelopment and migration of the student support platform, Te Kete Wānaka.
- Marketing of our online programs externally.
- Streamlining of the online application/registration system.
- An online readiness assessment for potential online students.
- Student success processes and procedures for online student pastoral and academic support.

But the work is far from over and continues in the following areas:

- Development of three additional academic programs.
- Development of Postgraduate student and supervisor training to create a highly desirable graduate and consistent experience.
- Development of additional support materials and workshops for teaching staff.
- Finalisation of an LMS Acceptable Use Policy.
- Designation of a toolbox to support the full continuum of technology-enabled learning.

**Conclusion**

Due to the rise in popularity of online education, and a plethora of providers, a learner has no shortage of options to choose from in the global market. It is not enough for an institution to just offer content. Four years ago, Lincoln University decided to begin an online learning program to increase the reach of its domestic enrolment plans. It also decided to build these programs modelled on its on-campus feel, centring on the student and helping them succeed. Derived from the university’s values the Lincoln Connected Initiative was created.

The Lincoln Connected Initiative sought to enhance capability for online and blended learning by both developing content and ensuring appropriate support structures are in place for students and instructors. While several administrative models were examined and considered, the university ultimately decided to invest in its internal capacity, its people and its systems to launch the endeavour. Currently, eight academic programs have been launched and three more are scheduled for completion within the year. 13% of the university’s student body consists of fully online students and the goal of 15% is achievable by the end of 2024. Administrative policies and processes, though time-consuming, have been implemented. Aging systems have been updated. Support resources, including documents, websites and workshops, have been created. By its own goals and established metrics, the Lincoln Connected Initiative is a success.

Presented as a single-use case study, these results, while impressive to the institution involved, are limited in their generalisability to other institutions. While there are points unique to the institution involved, limiting the external viability of the presented case study, the authors hope the challenges documented and the lessons learned provide a roadmap for undertaking similar activities in the future.

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