A Proposed Institutional Approach to Designing for Networked Learning at the Course Level

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Abstract

This conceptual paper proposes a design approach for implementing networked learning at a course level at a University in New Zealand (Aotearoa). Networked learning has been noted to have many benefits for learners in the growing body of literature. However, the principles could be implemented differently depending on the institutional context, strategic goals and current practices. The objective of this paper is to propose an institutional approach to design for networked learning at the course level. The implementation approach should be systematic not uniform. This paper outlines the institutional context and rationale, evaluates each of the eight principles of networked learning to institutional context and suggests implementation ideas. A tiered approach to implementing design for networked learning at a course level is proposed, along with future work needed for the implementation across our institution.

Keywords

Learning Design, Educational Design, Networked Learning, Higher Education, Institutional Approach

Introduction

Course design is a key contributor to learner success. Traditional course design in higher education, which relies heavily on individual academics to define the curriculum and develop materials, is no longer sufficient. The COVID-19 pandemic caused a dramatic change in learning and teaching in tertiary institutions. This change reinforced research evidence that passive learning and didactic modes of teaching are ineffective (e.g., Biggs, 2012; Deslauriers et al., 2019). While active learning as a concept is well accepted by our academics, their teaching practices are influenced by less effective course design. Networked learning offers another alternative to didactic teaching. In NL, learners are active participants in their own learning and much of that activity is social – learners work with others in order to flourish. Networked learning seeks empower learners, engage them in dynamic collaborative activity and allow them to grow in a dynamic, collaborative way. Goodyear (2005) suggested that "successful networked learning depends, to a considerable extent, on well-targeted effort at design time – designing good learning tasks, ensuring good access to robust and appropriate technology, and helping create a convivial learning culture" (p. 84).

Our institution, Auckland University of Technology (AUT), is looking at networked learning from an institutional perspective to achieve its mission of 'Great Graduates'. The university's strategic directions to 2025 have informed the Learning and Teaching Roadmap to 2025. As the authors work in a central learning and teaching unit, our team supports the implementation of these strategic goals. As such, we are interested in applying networked learning design in our course design and how to implement that at the institution level. There is a growing body of literature highlighting the benefits of networked learning, including many that AUT's our strategic goals and directions.

We, the authors, have been working to adapt the NLEC (2021) redefinition of NL to fit our context:
> "Networked learning is a view of learning that relies upon actants' engagement in valued activities that are situated and contextualised, in a learning environment that cultivates connections between the actants. The actants operate as a learning community in which individual actants are connected to one another and to the resources of the community and where critical reflexivity is practiced by the community. Networked learning is designed and facilitated to

support collaborative reciprocal co-construction of meaning, identity and other products which represent 'learning'".

Networked learning, as an idea, provides potentially fresh perspectives on learners, learning environments, learning activity and teaching, among other things. This paper focuses on the applicability of networked learning principles to our work to support learning and teaching across our institution, especially focusing on the 'why' and 'how' for an institutional approach to implement design for networked learning at the course level.

However, NL does not include prescriptions for practice. Therefore, principles and practices are necessary to support the implementation process by academics who engage with the course design as part of their professional practice. In this article, we describe an institutional approach to design for networked learning at the course level. We begin with some context about our institution. Then we discuss our design approach: the focus, priority and guidance for each principle and the tiered implementation approach. Finally, we outline future directions for our work.

Rationale and Context

AUT is the youngest University in Aotearoa (New Zealand, NZ), with a strategic ambition of building its position as NZ's university of technology. In AUT's strategic directions for 2020 –2025, there are five board themes: 1) Creating exceptional learning experiences; 2) Discovery and application of knowledge for wellbeing and prosperity; 3) Responding to our place in the world; 4) Building our position as NZ's university of technology and 5) Being a place where people love to work and learn (AUT, 2019). Each strategic theme is broken down into various goals and aspirations. AUT's mission is to create great graduates by offering an exceptional learning experience that prepares students to be successful wherever in the world their career may take them. Exceptional learning experiences (XLE) will be achieved through delivering compelling programmes, going beyond educated and employable, designing student-directed learning, and supporting great teaching (AUT, 2019). The XLE framework has three pillars: authentic assessments, work and social connections and interdisciplinary collaboration. This theme is most related to the work in the authors' unit. In 2020, authentic assessment was the theme for the year for implementing the XLE framework until a global pandemic interrupted many plans, at the same time, it also prompted other explorations to support learning and teaching at our university. Networked learning design was one of them. Before further explorations of embedding networked learning design in our university, we also considered our values and traditions.

AUT has a strong tradition as an on-campus institution since its inception as a technical school in 1895 (AUT, 2021). In addition, AUT embraces its place in the world, being in Aotearoa New Zealand with a strong commitment to Te Tiriti o Waitangi, the document which defines the partnership between Māori and non-Māori inhabitants of Aotearoa. Māori world views in general and Te Tiriti o Waitangi (Treaty of Waitangi) in particular, emphasise the value of relationship building and in-person (face-to-face) interactions for staff and students. This highlights a tension between the desire to be a contemporary university of technology while maintaining a robust on-campus experience for its students. Many staff and some students see a divide between 'technology-enhanced' (as online) and 'face-to-face' teaching. While this can be a challenge for implementing networked learning, it can also be an interesting opportunity. As the authors believe that networked learning is about human activities that centre on the endeavours of learning, it is not a pedagogy nor educational delivery, it is not about technology.

Networked learning is an emerging practice at AUT. Even though while the AUT's centrally supported course design process incorporates some networked learning ideas, they are often not intentionally applied as 'networked learning'. As we consider how to embed the principles in course design, we started with a definition of networked learning for our institution. A definition alone is not enough to support implementation, nor it is easy to grasp, as such we wanted to definite a set of principles in the design, much like how we have done with our recent learning management system replacement implementation. This leads to the team investigating the eight networked learning principles proposed by Ponti and Hodgson (2006; Hodgson & McConnell, 2019). While these may not be the single set of principles agreed by the networked learning community, it provides clear guiding principles for networked learning design. As a group we discussed and debated over the merits of the principles and potential challenges of implementing them in our institution. What an institutional approach for the implementation may look like, whether we could rank or prioritise one principle over another and still achieve important benefits of networked learning design. As we consider how to more fully embed the principles of Networked learning in course design, we also need to consider the practicality of including all

eight principles in the initial implementation. Ponti and Hodgson (2006) being the champions of networked learning have designed interactions to embed all eight principles and acknowledged the challenges of doing so. In the context of AUT, reflecting and learning from our own experiences and challenges in implementing institutional wide changes. This leads our proposed design approach to prioritises some principles for a tiered approach implementation. We believe this approach will provide better support to staff and courses new to this approach, while allowing flexibility to suit the context of a particular course. The principles will be prioritised based on our context, strategic goals and current practices.

Applying Ponti and Hodgson's (2006) Networked Learning Principles at our Institution and Design Approach

This section describes each of the networked learning principles, how we interpret it at AUT, and its importance in relation to our strategic goals, mission and values. The presentation includes comments on the priority of the principle in our design approach. These priorities inform the design approach we provide to our staff for embedding networked learning principles in their course design. Finally, we provide suggestions on how to implement these principles. Notably, the eight principles are interconnected. As such, implementing one can have a positive effect on another.

Principle 1: Our focus is on learning which has a perceived value to the learners

This principle emphasises the centrality of learners in NL. Learning intentions, activity and assessment should align with learners' goals, values and aspirations. This principle aligns well with AUT's strategic priority of creating exceptional learning experiences for our students, which is also focused on the central place of the learner in learning and teaching activity. Our focus on exceptional learning experiences highlights authentic assessment practices, emphasising professional and community connections within their studies and interdisciplinary collaboration. We cannot impose value of learning to our learners, but we can include design elements to enhance the perceived value for them. Students' goals may vary from simply passing the course, gain a qualification, get a better job, or make the world a better place through applying their learning. Our emphasis in operationalising this principle is on helping students recognise the value built into programmes, courses and individual learning activities rather than catering to each student's individual wants or needs.

In ideal situations, the learning outcomes, often defined as module, course or programme learning outcomes, reflect learning which is highly relevant to and valued by learners. However, we must not take this point for granted. We believe, initially, we can increase the perceived value to the learner by incorporating other principles in the course design. Hence, in our design approach, this principle is not essential for the first implementation. Instead, we intend to work towards this principle through a constructively aligned curriculum to enhance the "perceived value" for our learners.

We can achieve this principle by making the value of learning explicit to our learners, which means making the learning outcomes at the course, week, task level explicit. Where possible, we can also find out learners' motivations and goals for their studies and help them connect what we have in the course to their goals. This could mean making the development transferable skills explicit to highlight connections between coursework and other aspects of learners' lives. Incorporating authentic contexts, examples, assessment tasks; problem-based assessments or tasks; or student-led project-based courses are some of the ways to embed this principle.

Principle 2: Responsibility for the learning process is shared (between all actors in this process)

This principle focuses on students and their shared responsibilities in the learning processes within the course. This means giving students shared control over what they want to learn, how they want to learn, how their learning is assessed and more. Overall, empower students in their learning. This principle aligns well with the "designing student-directed learning" goals at our institution. While the intent of this principle is highly desirable, in terms of implementation, this principle is quite hard to achieve in the initial stage. This is mainly due to prevailing teaching practices at our institution and the need to increase familiarity with pedagogical approaches which emphasise learner agency and shared control in learning processes. We believe shared responsibility will be more successful when we can incorporate the design at a programme level to scaffold our students (and staff) to be more ready for shared responsibilities in their learning processes. Hence, this principle is not included initially, due to the potential lack of readiness for staff and students to include it.

We can achieve this principle by creating opportunities for students to exercise control over their learning. This could include self- and peer- assessments as part of assessment submission, learning tasks to scaffold learner agency into their learning processes. We can design student-directed discussions or activities, allowing them to input or even lead parts of their learning. We can also design processes to allow student input in the course, such as input on (some) course topics, format (online, face-to-face, or discussions, student-led facilitations), or co-design parts of course content. Students can also have input into assessments, from assessment choices (e.g., live or recorded presentation), input into marking criteria or co-design it, co-design (parts of) assessments.

Principle 3: Learning is situated and context dependent

Context matters for learning, and we should design learning activity to be situated and contextualised for the course and its discipline. This is essential as part of our vision to create exceptional learning experiences (XLE) for our students, as authentic assessment is one of the XLE pillars. We want to include more authenticity in our course design, using real world contexts and examples, using context and situations that are familiar and personally meaningful to our students. By doing so, we can create connections between their learning and the real world. This way, we can engage and validate the students' existing knowledge and experiences, which is an essential characteristic in constructivist teaching (Baviskar et al., 2009). In addition, all these will also help us enhance the perceived value of learning for our learners (Principle 1). We believe it is relatively easy to include this principle in the course design even at the initial stage. Therefore, this principle will be given a high priority in our design approach and implementation.

We can achieve this principle by using real world examples in the course to make content/concepts easier to relate to and use examples, contexts and situations that are personally meaningful to learners. We can include authentic assessments and tasks that reflect or simulate real work tasks and contexts, use real world case studies and scenarios in the course, and anything that helps learners connect their formal education to the real world. We can also create opportunities for learners to interact with industry/world of work through research, guest speakers, placements or internships, workplace visits or collaboration projects with industry or community.

Principle 4: Time has to be allowed to build relationships

Relationships between individuals are key mechanisms of connections and salient for networked learning. The relationship development has to be catered for and not developed by chance. A key part of this, is creating time for relationship establishment and development of productive relationships. This principle means that we need to design deliberate activities and sufficient time for relationship building in our courses. This principle aligns strongly with our values and our place in Aotearoa, New Zealand. We need to consider the university philosophy and its commitment to Te Tiriti o Waitangi (Treaty of Waitangi). Even though the Treaty is not a law in New Zealand, it is being treated with great significance. This is especially important in the education system. Our higher education institutions have obligations to operationalise the Te Tiriti o Waitangi, through initiatives like embedding "mātauranga Māori" (Māori knowledge, culture, and world view) into the curriculum and into their institutions. One of the Māori concepts "whakawhanaungatanga" aligns closely with this principle. It means "the process of establishing relationships, relate well to others" (Moorfield, n.d.).

Given the place of AUT in Aotearoa New Zealand and the commitment of AUT to honouring the partnership described by Te Tiriti o Waitangi emphasise the importance of this principle. This principle should be implemented purposefully by designing relationship building activities in class with sufficient time across the whole course to allow relationship building to take place. This means we will place higher value to the time given to build relationships, over other class activities such as covering content.

We can achieve this principle by being explicit about the value of relationship development and operationalising that value with activities which have relationship development as intended outcomes. For example, we can design meaningful icebreaker activities for learners to get to know each other from the start of the course and continue to enhance relationship building throughout the course. Options to do this are student led icebreaker questions for student groups or pairs at the start of each session or design opportunities for students to share their thoughts and experiences, and to socialise and get to know each other. We can include collaborative tasks that allow students to experiment or role-play, allowing them to get to know one another over time, or collaborative tasks that allow students to share their goals and work towards those goals.

Principle 5: Learning is better supported in collaborative settings and dialogue plays a major part in the collaborative learning process

Dialogue is an essential learning activity. It follows that we must create opportunities to promote collaboration and dialogues between students. According to Alexander (2018), dialogue in learning is cumulative, collective, reciprocal, supportive and purposeful to learners' deep understanding which maximises students' engagement and learning. The principle aligns well with all our goals to create exceptional learning experiences: delivering effective programmes, going beyond educated and employable, designing student-directed learning, and supporting great teaching (AUT, 2019). Without a doubt, this principle needs to be incorporated in our course design to support our students' learning beyond its current course setting and to learn beyond the university setting. We need to design collaborative work in different settings where students can practise together safely and learn from those experiences. Achieving this requires providing learning opportunities in the classroom, for example by building the time for dialogue as part of the learning process and by incorporating the questions leading to purposeful dialogue in the in-class learning activities.

We can achieve this principle by designing meaningful and purposeful collaborative working opportunities in the courses. Such as designing collaborative tasks for students to work on and achieve shared goals as a group, incorporating questions leading to constructive discussion within groups or pairs, designing group assessments to enable collaborative learning, which can include individual components to enable assessing individual capabilities and/or contribution to the group work. We can include tasks for collaborations such as small group projects, building joint output, participate in social networking, group share a special topic with the class, mentor one another (Young & Perović, 2018).

Principle 6: Social interaction allows for co-construction of knowledge, which promotes engagement of learners in work-based and problem-based learning

This principle underscores the need to include knowledge co-construction through collaborative work. This principle builds on Principles 3 to 5 with the focus on knowledge co-construction which promotes learner engagement in contextualised learning situations. In terms of implementing this principle at AUT, it aligns well with our goals related to exceptional learning experiences, especially for "designing student-directed learning" and "going beyond educated and employable". We want to create opportunities for students to "develop skills and dispositions that equip them for learning, life, work and professional practice" (AUT, 2019).
In terms of implementation, especially initially, this principle is easier to incorporate for courses that already are work based or designed for problem-based learning. Attempting to turn more courses into work-based and problem-based learning could be a whole new change project in teaching practices and course design itself. Co-construction of knowledge by students can also be a challenging idea to unpack for some of our teaching staff. Therefore, we believe this principle would be included later, as our practices mature, and we become more familiar with designing for networked learning.

We can achieve this principle by creating opportunities for students to share their learning, their experiences, and their own examples as a starting point. Designing group tasks that help students to link new information with existing knowledge, including scaffolding these tasks to allow students to help one another to co-construct knowledge. We can also design collaborative tasks (and/or assessments) that require co-construction of knowledge, such as producing artefacts that require research, investigation and potentially problem solving. At a higher level, the course could include work-based, problem-based, or project-based learning that requires learners to solve real life problems or challenges with their group. A notable example from our institution involved design students and engineering students taking milk bottles from our campuses and turn them into new products. Engineering students made new materials from the recycled bottles while design students turn those new materials into new products, such as window screens and partitions for our campuses.

Principle 7: The role of the facilitator/animator is essential for collaborative eLearning

Further to Principle 2 above, this principle underscores the role of a 'facilitator' who performs a variety of roles often associated with 'teaching' in some form: mentor, guide, expert, manager, support provider, and mediator, among others. The course design will require active participation from learners and our lecturers to facilitate student activities to support collaborative learning. This includes but is not limited to peer learning, group activities and discussions. The Community of Inquiry model notes that collaborative tasks support teaching higher-order cognitive skills, and well-established social presence enhances and sustains cognitive presence (Garrison, 2011).

This principle supports our goal of "supporting great teaching" by emphasising the importance of the facilitator role in supporting collaborative learning for our students. While this principle can be challenging to implement initially due to pedagogical preferences and beliefs of individual staff members, this principle is considered

incredibly important to be included even for the beginners. This is key for a central learning and teaching unit like ours to create positive changes in our teaching practices in our institution. This is crucial for sustainable changes in the way we teach and think about teaching, and the role of teaching. To make this happen, we will also need to support our staff through course design and through professional development.

We can achieve this principle by creating opportunities for learners to work on tasks, where the lecturers are active facilitators, rather than the source of knowledge. We want to structure group learning activities where facilitators are there to support, extend and provide feedback on student activities. In class, lecturers will take on the role of facilitators, they would scaffold the learning through managing group dynamic to enhance student learning as collaborative work and to support students learning how to learn with their groups.

Principle 8: Critical reflexivity is an important part of the learning process for evaluating and examining both the learning process itself and the resultant actions taken

This principle emphasises the role of reflection and reflexivity in meaning making. As course designers, we must design learning tasks which not only create opportunities for critical reflection but require reflection as a normal part of routine learning activity. Ideally, this will increase students' meta-cognition and equip them to take the reflective practice into other aspects of their lives. The principle aligns well with our goals to prepare our students "beyond educated and employable" (AUT, 2019).

Reflexivity takes practice. After reviewing on current practices in our institution, reflexivity is more embedded in some disciplines than others. We believe a programmatic approach to embed critical reflexivity and student-directed learning will be more effective. As a programmatic approach creates greater alignment across courses within the programme, allows scaffolding the practice throughout the programme, and creates more coherent learning experiences for our students. In addition, several case studies we reviewed, did not explicitly include reflexivity but were still able to gain benefits through networked learning designs (e.g., Kelly et al., 2017; Anders, 2018; Lee et al., 2018). Hence, while highly desirable, this principle is not essential in the initial stage.

We can achieve this principle by designing reflective tasks or assessments in the course and including time in-class to prompt students to reflect on their learning processes and the results of their actions. We can encourage students to make action plans from what they have learnt through their own reflection, remind students that the learning points from their reflection can be used for the course, or for beyond the course and in other aspects of their lives. It is important to design and scaffold guidance/framework/criteria/rubric for learners to reflect/evaluate their own work/practice. This is especially important at a programme level, so reflexivity can be scaffolded throughout the programme. We can also design learning tasks/projects that require learners to question and challenge current practices. Furthermore, the teaching team could model reflective practice by sharing their own experiences and learning points with their students.

Although each of the eight principles have been discussed separately, they are intertwined and related, so implementing one will have impact on another. As they are intertwined, it also enables us to take the tiered approach in our implementation design. Table 1 provides a summary of this section. In the next section, we will discuss our proposed tiered approach to the implementation.

Table 1: Level of Implementation

Principle	Priority	Implementation Ideas
1 (perceived value)	Medium	• Make the value of learning explicit to our learners by making learning outcomes explicit • Understand learners' motivations and goals and help them connect learning to their goals • Incorporate authentic contexts, examples, assessment tasks; problem-based assessments or tasks; or student-led project-based courses
2 (shared responsibility)	Lower	• Create opportunities for students to exercise more control in their learning. (e.g., self- and peer-assessment) • Include student-directed learning activities • Create opportunities for student input on course topics, learning tasks or assessment. Explore co-design of course content

3 (situated and context dependent)	High	• Use authentic (real world) examples, contexts, tasks and situations • Situate activity in contexts that are familiar or personally meaningful to learners • Create opportunities for learners to interact with industry/world of work through guest speakers, placements, workplace visits or collaborative projects with industry or community
4 (relationship building time)	High	• Design meaningful icebreaker activities to create opportunities for learners to get to know each other from the start of the course and throughout the course • Include collaborative tasks that allow students to experiment or role-play, allowing them to get to know one another over time
5 (collaborative learning)	High	• Design purposeful collaborative working opportunities in the courses. • Design group assessments to promote collaborative learning
6 (knowledge co-construction)	Lower	• Create opportunities for students to articulate and share their understandings, experiences or examples • Design collaborative tasks that require co-construction of knowledge, e.g., producing artefacts that require joint investigation and problem solving • At a higher level, the course could include work-based, problem-based or project-based learning that requires learners to solve real life problems or challenges with their group
7 (facilitation role)	High	• Design learning processes in which where the lecturers are active facilitators, rather than the source of knowledge • Lecturers as facilitators to scaffold the learning through managing group dynamic to enhance student learning as collaborative work and to support students learning how to learn with their groups
8 (critical reflexivity)	Medium	• Include tasks within course designs to prompt students to reflect on their learning processes and the results of their actions. • Encourage students to make action plans from what they have learnt through their own reflection • Design and scaffold guidance for learners to evaluate their own work.

Implementation – a Tiered Approach

In this section, we outline three levels of implementation in our institution, based on the priorities discussed in the previous section. We provide brief examples of what the implementation could look like at each level. The discussion focuses on which principles to include at each level, noting that implementation of each principle can be done at different quality, or at different level of nuance, depending on lecturers' level of experience and confidence with networked learning design. For example, critical reflexivity can be included as a token activity without much guidance for students or it can be purposefully designed and embedded throughout the course.

As noted earlier, it is challenging to include all eight principles in the initial implementation. Especially for courses and course leads who have not incorporated networked learning design in the past. At the same time, it is also challenging to prioritise certain principles over others. One does have to ask, if we leave out some principles, can we still call it a networked learning design? We have learned from several case studies that has reported benefits in networked learning across different contexts, without embedding all eight principles. Their contexts span across professional settings (e.g., Ponti & Hodgson, 2006; Kelly et al., 2017), for professional development for teaching staff or teachers (e.g., Alexander & Fink, 2018; Lee et al., 2019) and an undergraduate business communication course (Anders, 2018). Even though we were unable to find case studies designed their implementation using the eight principles proposed by Ponti and Hodgson (2006) in the higher education setting with an institutional approach in its design. We can learn from these case studies and our own experience in implementing university wide changes. Reflecting on our original intention to implement networked learning design in our institution to support university's strategic goals. As we take an institutional approach to implementing networked learning design in our courses, a partial implementation is more realistic to achieve than trying to incorporate all eight principles, especially in the initial stage. As such, we propose a tiered

approach for implementation. This allows a scaffolded approach to implementing networked learning design in our courses for both our staff and students. This approach also provides a systematic way of implementation that can be customised based on the level of experience of networked learning design and how well the existing course design aligns with the networked learning principles. Fawns (2019) talks about teaching as design and as orchestration which fits in well with our goals of supporting great teaching. We hope, over time, we can use networked learning design experiences to increase staff capabilities in course design and facilitation in our students' learning processes (orchestration).

In the initial implementation would include Principle 3, 4, 5 and 7. At this level, the emphases are on the situated and contextualised learning, to allow time to build relationships, to include collaborative learning and for the lecturers to be active facilitators in the learning process. These principles are selected as essential as they are highly aligned with our strategic goals in the XLE framework, align with respect to the Treaty in our context, and supporting great teaching. We believe that these principles are also easier for "beginners" to adopt and accept based on our current practices. It is important to acknowledge that it is difficult to leave out principles. Learners engaging in valued activities, and the community practising critical reflection are key to the essence of networked learning, therefore hard to imagine a networked learning design without them. That said, it is much harder to establish perceived value, if our learning is not situated and context dependent; much harder to build the community without allowing time to build relationships, design collaborative tasks to enhance the relationship building and to have these learning activities well facilitated. It is much more challenging to include knowledge co-construction and a sense of shared responsibility in learning without some foundations in the community building. That is why, in the initial implementation, only four Principles are included for courses and staff new to networked learning design. Embedding these four principles (3, 4, 5 and 7) should allow a solid foundation for adding more principles in the next levels.

At the last two levels, it gets even more challenging to determine which to include. It is tempting to include all. Noting that these principles do intertwine and implementing one well can have positive benefits in another. The reverse is also true, if we do not have a solid foundation or enough experience from staff and students, it is much more challenging to embed some principles, such as Principle 2 and 6. As knowledge co-construction works better if students take an increased ownership and responsibility in their own learning process. While each principle can be implemented on its own, they create positive effects to one another if they are paired. Hence, Principle 2 and 6 are added at the "advanced" level. We believe, by now, our learners should be more ready to take on more responsibilities of their own learning processes and to co-construct knowledge in their learning. Our lecturers will also be more ready to let their students take more control of the course and their learning process, and to embed collaborative opportunities for knowledge co-construction.

This leaves us with Principle 1 and 8 to be added in the "enhanced" level. We believe that when we have implemented the initial level well, it is easier to add on increasing the perceived values of learning for our students and to include critical reflexivity in the design. A course designed to create a sense of community and well-facilitated collaboration activities that are situated and relevant for our students in its own should create values for our students. Then the course design in the next level simply need to enhance and signpost these values. Plus embedding critical reflexivity to support students reflect on their own learning will further enhance the sense of perceived value, as well as preparing them for the next level. Table 2 has the summary.

Table 2: Level of Implementation

Level of Implementation	Explanation	Principles
Initial	Initial implementation has all the high priority, must-have principles	3 (situated and context dependent), 4 (relationship building time), 5 (collaborative learning) 7 (facilitation role)
Enhanced	Enhanced implementation adds on two more principles for enhancement	Add 1 (perceived value) and 8 (critical reflexivity)
Advanced	Advanced implementation adds on the final two principles to include all	Add 2 (shared responsibility) and 6 (knowledge co-construction)

Initial Implementation

The first level of implementation is for courses completely new to networked learning design approaches. It will include Principle 3, 4, 5 and 7. The course will include icebreaker activities at the start and throughout the course to support relationship building. The course content and materials will weave in examples from situations and contexts that students could relate to and may be personally meaningful for them. There will be real world examples, scenarios and case studies where appropriate to help students connect what they learn to other aspects of their lives. There will be collaborative tasks throughout the course for students to learn as a group, share and learn from one another while the lecturers will play an important facilitation role for the collaborative tasks in class.

Enhanced Implementation

In the next level, two more principles (1 and 8) will be included. This can be for those who have started from the first level and moving onto enhancing their practices or for those who already have course designs well aligned with networked learning principles. The implementation will include making the learning outcomes at all levels explicit, aligned and communicate this clearly to the students throughout the course. It will include tasks for students to identify their own goals and lecturers supporting students to connect learning to their goals. There will be critical reflective tasks for them to take more agency in their own learning processes. Students will be guided through reflective tasks, especially for courses and programmes less familiar with reflective tasks. Eventually, reflexivity will be embedded and scaffolded throughout the programmes.

Advanced Implementation

In the "advanced" level of implementation, all principles will be incorporated in the design of the courses. Principles 2 and 6 will be included in the design. There will be opportunities for students to have input into their own learning process, whether it relates to the content, format, delivery, or assessments in the course. The aim to increase the level of shared responsibilities in the learning process from students. These opportunities will look different depending on what is appropriate for the course and discipline. The course will extend the collaborative tasks to include elements of knowledge co-construction to further enhance the learning experiences. This includes more student-directed learning tasks and opportunities, such as student-led topic explorations, discussion, or projects.

As an institution relatively new to networked learning, a tiered approach as mentioned above seem more achievable. This provides a systematic approach while allowing flexibility to customise the approach to suit each course's situation. Paper 2 is an example of a full implementation as the course design was well aligned with the NL design.

Conclusion and Future work

This paper attempts to apply networked learning principles proposed by Ponti and Hodgson (2006) as part of an institutional approach to implementing networked learning in higher education at the course level. The authors have considered each principle against the institutional context, values, and goals, then prioritised them for implementation. The paper also provides suggestions on how to implement each principle and proposes a tiered approach for implementing networked learning at its institution. The proposed implementation focuses on the inclusion of networked learning principles, not how well or the level of each principle is embedded to make the implementation simpler. It focuses on the high-level design, noting many details will be designed later. Institutional wide implementations always come with challenges and practical issues to work with. Paper 3 shares some aspects of challenges and difficulties focusing on student-directed learning.

As for next steps, we can refine our design approach based on the feedback from the conference, and design evaluation processes for our design. Then we can call for expression of interest for early pilots to help further refine our design and implementation guidance. We aim to collect data and feedback from a few pilot courses, through observations, interviews, and surveys to refine our implementation strategies, guidance and evaluation. Paper 4 is an example of a case study approach to evaluate the design in classroom settings.

We will need to create further guidance and support to implement networked learning designs in our courses. This includes resources and professional learning suite. Resources could include some practice examples, guiding questions to help with course design, and implementation examples for different teaching situations at our institution. Even though our focus for networked learning design is not on delivery, these examples will help illustrate what the implementation could look like for our courses and our teaching context. For example: our face-to-face humanity versus science courses; for blended or online courses, or for studio-based courses.

Professional learning suite could include sessions on networked learning designs, for designing tasks and for effective facilitation. We would also want to create learning opportunities with networked learning design for our staff, so they can experience what that is like as learners.

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