

# ***A purposeful design for transformative networked learning in an online doctoral programme***

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## **Abstract**

In recent years, there has been a growing effort within a research community of NL to re-define the notion of NL and re-configure the landscape of NL practice. The present authors, who are also members of the NL community, aim to contribute to such a collective effort by filling an existing gap in the ongoing conversation—the community has mainly focused on promoting and facilitating the “network” part of NL while assuming and neglecting the “learning” part. The article first argues that the ultimate purpose of NL is to create meaningful personal and social changes: transformative NL. Therefore, the emphasis of the transformative NL design should not be restricted to facilitating learner interactions and knowledge acquisition inside an online course but expanded to helping learners’ holistic development that leads to meaningful changes in their lives outside the course. The article then proposes a “purposeful” design framework including three levels of interconnected NL communities that need to be considered when designing transformative NL: i) internal NL community in an online course that aims to transform individual students’ perspectives through tutor-driven collaborative learning, ii) external NL community in students’ real-life contexts that aims to transform group perspectives through student-driven collaborative practice, and iii) social NL community in broader contexts (or society as a community) that aims to transform social perspectives through community-driven collective action. The article also provides a brief illustration of purposeful NL design in an online doctoral programme in which the authors’ teaching and research praxis is situated.

## **Keywords**

Transformative networked learning, purposeful design framework, online doctoral education, perspective transformations, online learning environment

## **Introduction**

This article proposes a purposeful design framework for transformative networked learning (NL), which will be illustrated in a specific educational context: an online doctoral programme. In recent years, there has been continuing effort within the research community of NL to search for a shared community identity by re-defining the notion of NL and re-configuring the landscape of NL practice (de Laat and Ryberg, 2018; Networked Learning Editorial Collective, 2020; Networked Learning Editorial Collective et al., 2021). The present article is also written to contribute to such a collective effort by filling an existing gap in the ongoing conversation and suggesting a useful conceptualisation of NL and its design. We (two authors of the papers who are also members of the NL community) perceive the NL community as a community of devoted teacher-researchers who believe in different aspects and benefits of NL and care about learners’ effective learning and development (McConnell, 2006). Despite a diversity of pedagogical approaches that different members of the NL community may adopt in their teaching contexts, therefore, “design” is one of the core parts of our everyday practice, whether the design is directly translated into learners’ course activities or indirectly infiltrated into learners’ surrounding environments.

Nevertheless, NL design practices have usually limitedly focused on increasing learner-to-learner interactions (and a sense of community) within our immediately accessible and observable teaching space, such as online courses and programmes. As a result, the NL community has developed knowledge repositories with useful design principles and strategies for learner interactions and “networking”. However, there has been a lack of comprehensive accounts of the outcomes of such interactions—more profound meanings and purposes of being networked (also, not being networked). Even though learners’ perceived benefits of social interactions in their online courses are frequently reported, it is still unclear what those benefits mean from a learning perspective and how those interactions have changed learners’ lives in a more fundamental sense. In response to such relative absence, this article will argue that the NL community needs to focus on the ultimate “purpose” of NL

and the meaningful “outcome” of being networked and networking from a “learning” and “design” perspective (not an assessment perspective).

## Background and Problem

In 1998, the first definition of NL emerged as:

... learning in which information and communications technology (ICT) is used to promote connections: between one learner and other learners, between learners and tutors; between a learning community and its learning resources. Some of the richest examples of networked learning involve interaction with on-line materials and with other people. But use of on-line materials is not a sufficient characteristic to define networked learning. (Goodyear et al., 1998, p. 2)

The NL theory continued to develop as early members of the community engaged with more practical design conversations on “what constitutes a useful design for NL” and “what issues need to be addressed in designing such courses.” McConnell (2006) suggested a pedagogic framework for NL, including six principles as follows: i) *Openness in the educational process* where teaching and learning occurred are seen by participants in the learning communities, ii) *Self-determined learning* process where learners take primary responsibility for identifying and pursuing their own learning needs, iii) *A real purpose in the cooperative process* where a group of learners engage with learning relevant and meaningful to themselves interdependently, iv) *A supportive learning environment* where learners encourage and facilitate each other’s learning efforts, v) *Collaborative assessment of learning* that involves self-peer-tutor assessment processes followed by reflections on such experiences as well, and vi) *Assessment and evaluation of the ongoing learning process* where tutor and learner continuously and collaboratively discuss and improve the design of the course. These six principles have been used to develop and improve a range of educational programmes (McConnell et al., 2012; Hodgson and McConnell, 2019).

More recently, however, there have been critical voices within the NL community that the community has much more focused on the educational phenomenon of being “networked” (and the technological affordances for connecting multiple actors and artefacts) than “learning” (and the pedagogical outcome of such networking) (see Oztok, 2022). As the NL community grew and the NL theory was more widely adopted by a broader group of educational practitioners and researchers along with other social learning theories, the benefits of networking for learning became more commonly accepted. Subsequently, it has become a taken-for-granted assumption that learning happens if learners are networked and networking. Learner interactions observed in online courses have been treated as clear evidence or manifestation of NL. There has been a strong thread of research conversations on how learners interact and how to facilitate learner interactions (and technological affordances that facilitate learner interactions) in different educational contexts. Consequently, much of the design efforts have been geared towards increasing learner-to-learner interactions and building learning communities within specific course environments.

While some NL researchers have focused on building learning communities in formal educational contexts using the NL principles, others have looked more closely into learning communities in informal educational contexts—for example, massive open online courses (MOOCs in Koutropoulos and Koseoglu, 2018) and social networking sites (Cloudworks in Alevizou et al., 2012). They have investigated the formation of informal learning communities, arguably enabled by communication technology, and the nature of participant interactions in those communities, largely mediated by communication technology. The NL theory (and principles) has also been used to analyse and evaluate different social learning practices that emerged in those informal learning communities. Some of the technology-mediated social learning phenomena, which were neither designed nor planned by NL researchers, have been retrospectively analysed using NL theory and conceptualised as NL practices. Many studies have reported that one or more of the six NL principles are realised in thriving learning communities despite the serendipitous nature of their development. Like the others who studied formal educational settings, these NL researchers also focus on participant interactions and socialising behaviours in those communities as evidence for NL. In this context, more recently, the term “community” has become a central theme in NL research (Hodgson and McConnell, 2018), and the multidimensional concept of being networked has been reduced to learners being connected to other learners.

Such an unbalanced research approach that focuses on the “network” part of NL while assuming and neglecting the “learning” part has limited the advancement of knowledge and practice in the NL community. To foreground the learning part in our conversations, we suggest that the NL community needs to move out of our comfort zone and challenge our pedagogical beliefs—with which we have become familiarised for the past decades—such that learner interactions and satisfaction are the evidence of meaningful social learning. This wake-up call

can be particularly challenging since it also requires us to rethink some of the established NL principles, including the meanings of self-determined learners and the roles of learners and teachers in NL processes. The roles of teachers in NL need to be developing a deeper meaning of learning in their pedagogical context and guiding learners throughout learning processes to personalise and realise the meaning. Alongside the valuable attempts to re-define NL and re-configure the boundaries of NL practices, therefore, the NL community needs to engage more with design conversations (Carvalho & Goodyear, 2014). The emphasis of the NL design should not be restricted to facilitating learner interactions and specific knowledge acquisition inside a course but expanded to helping learners' holistic development that leads to meaningful changes in their lives outside the course. Below, we propose a "purposeful" design framework for "transformative" NL.

## **An Online Doctoral Programme**

Before presenting our purposeful design framework, it is necessary to situate this conversation in our specific pedagogical context: a PhD in E-Research and Technology Enhanced Learning offered by the Department of Educational Research at Lancaster University in the UK. The programme is one of the first UK online doctoral programmes with taught elements (McConnell et al., 2012). During the first two years of the programme (Part 1), students as a cohort of around 30 start the programme at the same time and take six online modules together as a cohort in the same order. A lead tutor convening each of the six modules supervise the cohort's Part 1 learning progress. Students are all experienced educators in diverse educational and cultural settings. Approximately half of the cohort join the programme from outside the UK. Part 1 also offers two annual residential meetings during which members of the cohort visit the university campus in Lancaster, meet each other, and participate in face-to-face research training sessions for a week (the description reflects the situation before the COVID-19 pandemic).

Part 2 begins with each student submitting a research proposal (i.e., confirmation document) and seeking the institutional approval of their research ideas and plans. Each student is allocated one of the tutors as a thesis supervisor based on the chosen research topic and methodological approach. Once the proposal is approved, students conduct an independent thesis project with academic support from their thesis supervisor. Most students complete Part 2 and thus obtain a PhD in two to four years. Except for the two residentials organised during the first two years, students study fully online at a distance from the university and each other. The programme was initially designed based on the six principles of NL. Even though most of the original tutor team have left, and new tutors have joined the programme (including the two authors of the present article), and even as different aspects of the programme have been changed and re-designed over time, the NL ethos in the programme has remained strong. For example, the cohort-based structure provides a supportive learning environment where students encourage and help each other. There are multiple communication channels between students and the programme tutor team to discuss how to improve the programme design and student learning experiences. Each module also involves a collaborative (self-peer-tutor) assessment process and individual reflections on the process.

Since we joined the programme (each in 2013 and 2015), we have taught different modules in Part 1 and supervised more than a dozen students in Part 2 to the completion. We have continued to change the design of individual modules and evaluate the effectiveness of those changes through researching how those changes impact and improve student experiences (Lee, 2019; 2020a; 2020b; 2021). With other tutor team members, we have had ongoing conversations on the design of the programme as a whole and made a range of improvements to address and better reflect student feedback and suggestions. The idea in this paper is developed based on our multi-year collaborative teaching and research effort in the particular educational context. In the following section, we will first discuss the idea of transformative NL and move on to the purposeful design framework for transformative NL.

## **Transformative Networked Learning (NL)**

The NL theory (and its design principles) strongly emphasises the self-determined learning process where learners (not teachers) take primary responsibility for identifying and pursuing their own learning needs. Previously, we have also pointed out the limitations with some authoritarian design approaches to determining and imposing "good" (or "best") learning behaviours and outcomes without fully considering and understanding individual learners' circumstances and learning needs (Lee, 2018a). Thus, we fully appreciate the challenging (if not impossible) nature of pre-determining specific learning processes and outcomes before learners join online programmes. The challenge is even greater in adult learning contexts like our online PhD programme, in which learners are part-time students whose personal and professional lives are situated in different cultural and social settings from each others' and tutors'. Students' immediate goals for participating in the PhD programme vary,

and subsequently, the knowledge and skills they wish to acquire are diverse (Lee, 2020a). Therefore, we have found it difficult to answer epistemological questions about learning such as "what knowledge should we teach in this course?" or "is there something students must know at the end of the course?". However, it is still necessary (and possible) to pre-determine the learning purpose in an ontological and axiological sense by asking "what is worth feeling, thinking, and experiencing during the course period?" or "what kinds of person do we want our students to be and become at the end of the course?" (2020b).

Going back to the origin of the NL theory, we can find strong influences of two different theoretical approaches to adult learning: transformative learning theory and critical pedagogy (McConnell et al., 2012; Networked Learning Editorial Collective, 2020). Both learning theories suggest that the ultimate purpose of adult learning is to make meaningful changes in learners' perspectives and practices (or praxis). In such transformative learning scenarios, the role of adult educators is to provide learners with opportunities to be exposed to new perspectives, re-examine and challenge their own, and plan different actions in their real-life working situations (Mezirow, 1997; 2000). It is essential that adult learners interact with other learners and teachers who have different perspectives as well as feel safe and encouraged to share their perspectives with others. Therefore, the focus of learner interactions is not about exchanging useful knowledge and similar opinions (so, reinforcing each others' perspectives) but about creating meaningful conflicts and having open dialogues to resolve the conflicts (so, transforming each others' perspectives and co-developing a new perspective). Furthermore, these dialogues should lead to planning and making real-life changes (so, transforming group practice in real-life contexts). For critical pedagogues, the aim of learner interactions is even more political—raising learners' critical awareness of unequal and oppressive social structures producing a range of struggles in their lives (so, enabling learners to undertake collective actions to make positive social changes) (Freire, 1970; McLaren & Jandrić, 2015).

Drawn from the adult learning theories, we argue that effective NL begins with a strong sense of learning "purpose" and outcomes, including individual perspective transformations, group practice transformations, social changes. In this view, the core outcome of being networked in an online course needs to be learners' ontological and axiological development through being exposed to and interacting with diverse perspectives. Learner interactions, therefore, should support and guide these processes of personal transformation and subsequent group and social changes (rather than knowledge construction and skill development, which is often a prerequisite for such transformations, however). Whereas individual learners take primary responsibility for their engagements with the course activities and specific changes made in their personal lives, teachers should determine the direction of students' learning processes and outcomes. We call it transformative NL. The focused outcomes of transformative NL in our online PhD programme, for example, are "becoming" critical scholars who are fully aware of social and educational inequalities in the society, ethical researchers who are deeply concerned about the political nature of scientific knowledge and its production, and critical pedagogues who are actively engaged with social changes and movements. Such tutor-(or programme-)determined purpose of doctoral education is at the heart of our NL design practice.

## **A Purposeful Design for Transformative NL**

The question is then what to design to ensure the tutor-determined purpose of NL is achieved in the doctoral programme. There are two critical aspects of our purposeful design framework for transformative NL. Firstly, the framework re-defines the "scope" of the NL design. Our previous works (Lee, 2018b; 2021) argue that there is no clear separation between learning and living in the online doctoral education contexts. Students log into our online courses from where they have been and where they would continue to be; thus, learning does not occur in a vacuum. We need to understand that online learning happens in their pre-existing messy reality. Therefore, it is necessary to expand our conceptual boundaries of an online learning environment beyond our immediately accessible teaching space (i.e., a Moodle platform) to include each learner's everyday learning and living spaces. Of course, it is not to presumptuously insist that we need to access students' personal spaces and control their everyday practices, but to acknowledge that their learning experiences and outcomes are bound and shaped by their personal and professional circumstances and relationships.

The scope of our NL design goes beyond the formal learning space. Here, the concept of "community" can be helpful to better frame the scope. In the framing work, relative positions of communities (internal versus external) will be adopted from our (tutor's) vantage point. As historical beings, our doctoral students already have multiple memberships of different communities when they join the online PhD programme. They have lived, worked, and learned by participating and socialising in those communities, and their established memberships in those external communities outside the programme continue to be valid during their doctoral studies. They simultaneously exist in multiple communities in their life—they are more present in some communities and less in others. A cohort community newly built in the programme will be another one (not the only one) they join and co-develop—some will be more present in the community and others less. Although we

feel the urgency to build a supportive community with a new cohort of thirty adults (given the short course period typically lasting between 3 to 6 months), it takes time and effort to have a genuine sense of community among the cohort. Thus, the expanded conceptualisation of the online learning environment that includes and utilises the existing communities outside the course space can provide an effective (even more efficient) approach to the NL design.

The second aspect of the purposeful design framework is the “purpose” of the NL design, which was primarily discussed in the previous section: enabling personal, group, and social transformations. Although we succeeded in having the cohort community built within a specific online course, the internal NL community itself does not necessarily provide learners with opportunities to make changes in real-life contexts. When our design aims to transform learner perspectives that ultimately lead to positive social changes, we cannot simply focus on what is happening in front of us on our Moodle site. Thus, the design efforts restricted to learner-to-learner interactions within the online course are insufficient. Although students experienced meaningful perspective transformations and developed effective action plans to transform their social practices, it may be too ambitious to expect each student to successfully manage those changes alone outside the course (Moffitt and Bligh, in press). Especially when the planned changes are rather radical, as critical pedagogues would envision, students are likely to experience resistance from other members of their external communities relevant to the changes. When some students (maybe a small number of students who actually enact new perspectives in their work environment) face such difficulties, they would genuinely need a supportive community. Given that most learning communities developed within formal online courses do not sustain after the course period when carefully designed and facilitated collaborative learning activities are no longer available, it is necessary to think about the role of the courses in developing and strengthening the external communities that exist and more likely sustain in learners’ life.

Figure 1 is a visual illustration of the expanded boundaries of an online learning environment. The scope of the purposeful design framework for transformative NL embraces the expanded boundaries (Lee, 2018b).

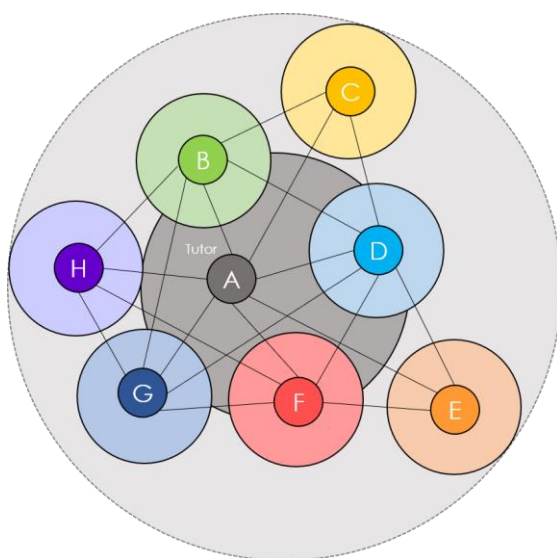


Figure 1. The Expanded Boundaries of Online Learning Environments: A Scope of the NL Design

The mid-size dark grey circle in the middle refers to an “internal” community emerging within an online course: a cohort community in our doctoral programme, for example. Circle A represents an academic tutor who designs and teaches the course. There are students (circle B to H) joining the course. Their engagement with the internal community vary. Some students (circle D and F) may more actively participate in the cohort community, playing central roles as core members even from the beginning of the course. Others (circle C, E, and H) are less likely to move towards the centre of the cohort community, remaining as outsiders even at the end of the course. From the students’ perspective, the internal course community is new. Regardless of their engagement level, they are all newcomers in the cohort community for the time being—borrowing a notion of legitimate peripheral participation from a theory of community of practice (Wenger, 1998). On the other hand, they all have their own “external” communities outside the online course in which their everyday practice is centrally situated. Lighter coloured outer circles of each student (circle B to H) indicate their existence in those external communities as

core members. Many online doctoral students, as experienced educators, tend to have a member identity of old-timers in their external communities, often exerting strong leadership. The large light grey circle with the dotted border indicates a bigger society potentially influenced by doctoral students’ transformative NL outcomes through multiple changes made in their external communities: an envisioned scope of the purposeful design of transformative NL.

The original NL definition suggests the use of ICT to promote multiple connections “between one learner and other learners, between learners and tutors; between a learning community and its learning resources.” (Goodyear et al., 1998, p. 2). However, as discussed above, those connections are not sufficient to achieve the purpose of transformative NL. When it comes to what to design, therefore, transformative NL designers not only focus on building an NL community inside their courses but also connect the internal NL community to learners’ real-life contexts and the bigger society. Despite the inseparability between doctoral students’ online

learning and living, developing the authentic and organic connection between an internal NL community and learners' real-life context (and the bigger society) is not necessarily a simple task. Thus, the purposeful design framework suggests that we reduce the scope of learners' real-life context into one of the external communities to which their practice and planned changes are the most relevant. As Figure 2 suggests, there are three levels of NL communities whose developments and connections need to be carefully considered when designing transformative NL:

1. Internal NL community: a cohort community developed in an online course that aims to transform individual students' perspectives through tutor-driven collaborative learning.
2. External NL community: a professional community developed in students' real-life contexts that aims to transform group perspectives through student-driven collaborative practice.
3. Society as NL community: an informal NL community developed in a bigger society that aims to transform social perspectives through community-driven collective action.

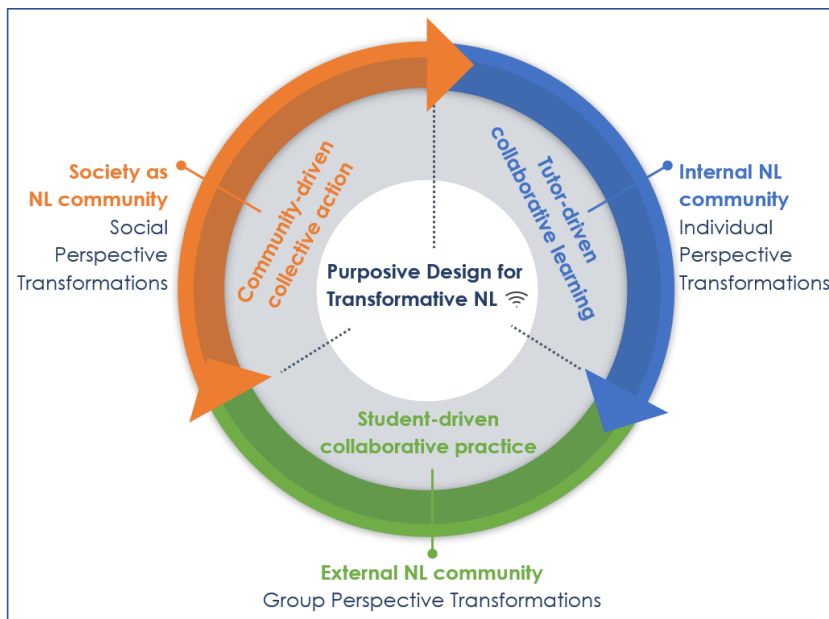


Figure 2. The Conceptual Framework for Transformative NL

## Purposeful NL Design in Online Doctoral Education

The idea of promoting such “connections” between the single “internal” NL community and multiple “external” NL communities, in which each of the cohort members has individually participated, can still be rather too vague and abstract. To make the idea more concrete, we will present an illustrative example of the purposeful design based on our own experiences in the online PhD programme. Our main design effort goes into Part 1 in the programme, where we offer six online modules to the cohort. To begin with, we have carefully defined the idea of community to avoid mistakenly assuming a large volume of learner-to-learning interactions as the manifestation of a successful learning community. The structural characteristics that constitute a successful community of practice suggested by Wenger (1998) have enabled us to remain clearer and stricter to discern the development of a supportive learning community (details can be found in Lee, 2018b). This conceptualisation stresses the practice-oriented (rather than discourse-oriented) approach to community building. Each member needs to engage with a shared practice of the community, either collectively or individually. Online discussion groups that exchange ideas and opinions at a discursive level do not qualify as an NL community. This idea is also shared with students in the programme.

The internal NL community in our programme has research projects as shared practices—each module requires students to design and conduct a research project relevant to their professional practices and write a 4,000-6,000 research report. Many students experience a range of academic and emotional struggles, especially during the first part of the programme when they try to familiarise themselves with this new learning environment and research practices. The cohort community, including the module tutor, thus, provides both academic and social support. However, more importantly, as the programme aims to develop critical scholars, a series of

collaborative learning activities are strategically planned to challenge some widespread assumptions about the educational use of technologies, provoke students' emotional responses to various educational problems, and increase critical thinking and research skills to address particular educational problems of their interest. The cohort community engages with the transformative learning process together as critical friends whose role is, in a nutshell, not only providing resources and encouragement but different perspectives and constructive feedback.

While students in the internal NL community develop the research foundation and engage with different perspectives, they select an external community where they would like to conduct their research project (see Figure 3). Tutor-driven learning activities in the internal community guide students in identifying specific research problems worthwhile both for the students and their external communities. Students bring the research foundations and different perspectives built through their engagement with the internal NL community into the external community and plan specific research projects to address the identified problems. Students are also encouraged to reflect on the ideas of research ethics and collaboration and further co-conduct their research project with other members of their external community—through which the community also develops into an NL community with a shared practice. The research outcomes drawn from the external NL are brought back to the internal NL community, where students theorise their them, develop new perspectives, which are brought back to the external NL community. Based on such “bringing back and forth” connection between the two communities, doctoral students achieve the purpose of doctoral education: becoming critical scholars and critical practitioners.

All aspects of the purposeful module design (including learner interactions) clearly focus on promoting the connections between internal and external NL communities. Despite the ultimate purpose of transformative NL, which is to transform social perspectives and make social changes, the scope of purposeful NL design is limited to the expanded boundaries of the online learning environment that include students' external NL communities. As previous NL researchers have observed the natural emergence of informal NL communities in society, we can envision the potentially transformative impact of the programme on the bigger society in which students and their external NL communities are situated. Nevertheless, transforming social perspectives (making social changes) requires community-driven collective actions beyond the design capacity of individual tutors or formal educational programmes.

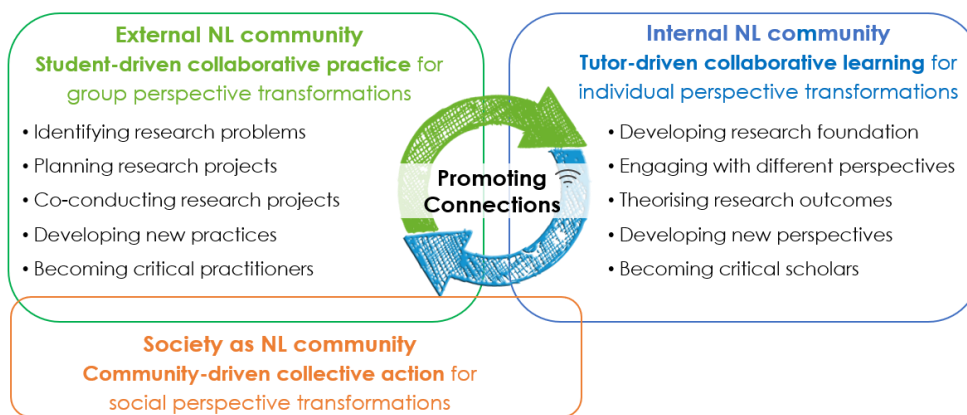


Figure 3. Transformative NL in Online Doctor Programme (a model adopted from Lee & Brett, 2015)

## Conclusion

In 2020, Networked Learning Editorial Collective proposed a new definition of NL as follows:

Networked learning involves processes of collaborative, co-operative and collective inquiry, knowledge-creation and knowledgeable action, underpinned by trusting relationships, motivated by a sense of shared challenge and enabled by convivial technologies. Networked learning promotes connections: between people, between sites of learning and action, between ideas, resources and solutions, across time, space and media. (Networked Learning Editorial Collective, 2020, p. 320)

The new definition successfully expanded the scope of the NL process and highlighted a sense of the NL purpose as the terms “knowledgeable action”, “shared challenge”, “learning and action” suggest. Nevertheless, the community's response to the new definition clearly indicates a strong desire to integrate more critical perspectives in our NL definition and practices (Networked Learning Editorial Collective et

al., 2021). It is important to remind us of the origin of the NL community, which emerged from a commitment to social justice and emancipation ideas. We believe what really distinguishes NL theory from other social learning theories is its political and critical orientation. Therefore, to strengthen our shared community identity, we must engage more with political conversations on the design of the NL and the roles of teachers in the NL processes. We hope that the conceptualisation of transformative NL and the purpose design framework provided in the article can usefully contribute to such conversations.

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