

Chapter 10

Transformative Networked Learning: An Expanded Design Framework for Individual, Group, and Social Perspective Transformations



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Abstract There has been the growing effort within a research community of networked learning (NL) to re-define the notion of NL. Contributing to such a collective effort, the authors argue that there is a significant distance between the community’s political aspirations and everyday practices—subsequently, the community has exclusively focused on the “network” part of NL while neglecting the “learning” part. The chapter demonstrates how the NL theory and associated design principles have failed to translate the criticality of macro-level critiques into micro-level design practices. To address this issue, the authors propose an *expanded* design framework for transformative NL, consisting of three levels of interconnected NL communities: (i) *internal* NL communities in online courses that aim to transform individual students’ perspectives, (ii) *external* NL communities in students’ real-life contexts that aim to transform group practice, and (iii) social NL communities in broader contexts that aim to transform social perspectives. Thus, the emphasis of 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 and leading to meaningful changes in their lives outside the course. The authors conclude the chapter by drafting new transformative NL design principles.

Keywords Transformative networked learning · Expanded design framework · Transformative networked learning design principles · Three levels of networked learning communities · Online doctoral education

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Introduction

In 1998, alongside a fast-growing excitement in society about the new opportunities and possibilities created by emerging information and communication technology, the first definition of Networked Learning (NL) emerged:

[L]earning 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 above definition, which emphasises human “connections”, has strongly influenced research agendas and pedagogical practices within the NL community for the past two decades. Whether mediated by technology or not, human connections are inherently complex, shaped by the amalgam of ideological, political, and materialistic conditions of each “connected” human being; consequently, they are value-driven, power-embedded, and unequal in multi-directional ways (Jandrić & Boras, 2015). Thus, the emphasis on human connections in the NL community has profound implications for the ways in which the community develops, interacts, and communicates (McConnell et al., 2012).

In recent years, there has emerged a collective effort from the NL community to reflect on the original definition that emerged in the (pre-)digital era and examine its applicability in the fast-emerging post-digital era (Jandrić & Ford, 2020) or post-human era (Gourlay, 2020) when the dichotomy between digital and analogue (and human and machine) blurred. Fundamentally, it is a moment to search for a shared community identity by re-defining the notion of NL and re-configuring the landscape of NL practice (de Laat & Ryberg, 2018). In 2020, the Networked Learning Editorial Collective (2021) 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. (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”, and “learning and action” suggest. Nevertheless, the community’s response to the new definition (or “what is NL in the new era?”) clearly indicates a continuing sense of critical orientation within the community and a strong desire to integrate more critical perspectives in the new definition (Networked Learning Editorial Collective et al., 2021). Laura Czerniewicz, the first reviewer of the collective definition article, reflects:

[the community response] sets out to reclaim and surface critical principles: that humanity is at the centre of educational technologies, that tools can be ‘convivial’ (Ilich, 1973), that knowledge forms should be inclusive. Community and connectedness are emphasised.

These qualities, call them criteria for being considered NL, however, need to be a means to an end rather than ends in themselves. . . in order to strengthen the collective definition, it is necessary to articulate which goals these convivial tools, communities, and connections will serve. The public good. An alternative platform economy. Equity. Social justice. With these explicit goals and a bolder vision, the community definition will be a hopeful statement of what is, and can be, right, in digitally mediated Higher Education and the post-pandemic university. (ibid, p. 358)

The article concluded with the following recommendation by the second reviewer, Jeremy Knox:

Bayne’s ‘trap’ of endlessly defining NL might be avoided by putting NL ‘to work’, rather than trying purify it; doing something with it, rather than struggling to draw its boundary. Here the NL community might look to other areas of theory that have attempted to move beyond the impasse of ideology. To borrow a phrase from Deleuze and Guattari (1987), how might we ‘plug in’ NL to other concepts, such as postcolonialism? To reuse a term from Haraway (1997), how might we ‘diffract’ NL through social justice theory? In other words, to allow the concept of NL itself to become ‘networked’: to make connections, to interrelate, to transform, mutate, and hybridise in response to the pressing issues of our time. (ibid, p. 359)

As members of the NL community, we (the two authors of the present chapter) value and support the critical perspective in the community; thus, the present article is also written to contribute to the community (re-)definition effort by re-directing its focus onto the emancipatory origin of the NL community and its critical orientation for research and practice. We strongly agree with Czerniewicz’s point about the necessity and urgency of articulating “explicit goals and a bolder vision”; that is, the ultimate purpose for nurturing such human connections. Further inspired by Knox’s call for “putting NL to work” and “doing something with it”, we propose an expanded design framework for transformative NL. Given the strong influence of Transformative Learning Theory (Mezirow, 1997) on the development of the NL theory, the term “transformative” in transformative NL can be seen as superfluous; however, our intention is to make it more “explicit” again. That is, the framework presents three dimensions of perspective transformations at an individual, group, and social level as explicit goals of networked learning. More importantly, we argue that the direction of such transformations needs to be purposefully designed and facilitated by critical pedagogues: educators whose practice is informed by Critical Pedagogy (Freire, 1970).

The following section will re-visit the origin of the NL community and theory to better situate the ideas of transformative NL and expanded design in the historical development of the community’s approach to NL design. We will further illustrate the framework in a specific educational context: an online doctoral programme.

The Origin of the NL Community and Theory

The founding members of the NL community shared an emancipatory mandate that stemmed “from the traditions of open learning and other radical pedagogies and humanistic educational ideas from the likes of Dewey, Freire, Giroux and Rogers”

(McConnell et al., 2012, p. 4). Subsequently, the NL community established a more immediate research agenda “to optimise and research the growing potential and possibilities of rapid developments in ICT to offer greater degrees of educational openness” (McConnell et al., 2012, p. 6). Educational openness, as one of the core NL principles, became a focal point of how the NL community distinguishes itself from other neighbouring academic communities that are also interested in technology-mediated human connections and relationships, such as e-learning and Computer-Supported Collaborative Learning (CSCL) (Bligh & Lee, 2022; de Laat & Ryberg, 2018; Steeples et al., 2002). NL puts learners (not technologies nor teachers) at the heart of learning “networks” and networked “learning”, enabling them to define their own needs for learning and professional development (McConnell et al., 2012, p. 8).

In this view, the emergence of the NL theory is often referred to as a “critical response to dominant discourses” in the broader field of Educational Technology (Networked Learning Editorial Collective et al., 2021, p. 327). The two criticisms brought by early NL scholars focused on: (i) the restricted and uni-directional understanding of relationships between humans and technologies, such as technological determinism and technological instrumentalism, and (ii) the neglected focus on unequal power relationships embedded in day-to-day educational situations. Thus, the community has always been at the vanguard of critically observing new educational phenomena in the broader historical and social backdrop of emerging technologies and subsequent changes in human connections (Jandrić & Boras, 2015). Those criticisms towards the dominant ideology of Educational Technology permeate community members’ writings: for example, Czerniewicz (2018) explores diverse forms of inequality growing in online higher education, categorising them as vital inequality, resources inequality, and existential inequality; Jones (2016) criticises neoliberal ideas and technological determinism underlying the rise of Massive Open Online Courses (MOOCs).

The Development of NL Theory and Design Practice

The NL theory continued to develop as members of the NL community engaged with a range of NL practices and subsequently pursued more practical “design” conversations: “what constitutes a useful design for NL” and “what issues need to be addressed in designing such courses.” McConnell (2006) first suggested a pedagogic framework for NL, including six principles as follows: (i) *Openness in the educational process* where teaching and learning occur 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 tutors and learners continuously and collaboratively discuss and improve the design of the course.

Whether the design is directly translated into learners' NL activities or indirectly infiltrates into learners' surrounding learning environments, "design" is a mediating activity between the NL principles and the NL experiences. Thus, despite the heterogeneity of NL community members' professional roles and pedagogical responsibilities, "design" is at the heart of their practices (McConnell, 2006). Subsequently, the above six principles have been used to develop and improve a number of NL-informed educational programmes and courses, including the one that will be introduced in the following section (cf. Hodgson & McConnell, 2019; McConnell et al., 2012).

As discussed above, the NL community has also been interested in observing a range of emerging technology-mediated social learning phenomena that are not necessarily deliberately designed and planned. Even for NL researchers whose everyday practices are not immediately related to a particular NL design, the above principles have also been useful, guiding their investigation into NL experiences in informal educational contexts such as MOOCs (Koutropoulos & Koseoglu, 2018) and social networking sites (Cloudworks in Alevizou et al., 2012). These works explore the formation of informal NL communities in specific educational and social settings, the nature of participant interactions in those communities, and the roles of ICTs in mediating and shaping such interactions. Those informal NL communities possess some characteristics commonly pursued by NL researchers, even where they develop serendipitously rather than as a result of deliberate design.

Despite their dominance in the NL community, it is difficult not to notice a somewhat neutral, less critical tone in the descriptions of the six principles. Unlike the claim made about the critical origin of the NL theory, which was influenced by "radical pedagogies and humanistic educational ideas from the likes of Dewey, Freire, Giroux and Rogers" (McConnell et al., 2012, p. 4), the devised design principles do not necessarily reflect such criticality. Furthermore, macro-level conceptual criticisms towards the dominant discourses of Educational Technology, which are frequently observed in the community members' eloquent writings (e.g., Czerniewicz, 2018; Jones, 2016), do not seem to be smoothly translated into the design principles of the community.

Such discrepancies fundamentally undermine the NL community's efforts to distinguish itself from other neighbouring academic communities, such as e-learning and CSCL (cf. Bligh & Lee, 2022). As several contributions to the collective definition article have pointed out (Networked Learning Editorial Collective et al., 2021), the new definition of NL appears rather idealistic, yet misses an (explicit) criticality. That is, it can be argued that the NL theory (more specifically, the NL "design" theory) fails to differentiate itself from these learning design (or instructional design) theories that unconditionally and uncritically emphasise learner-to-learner interactions and connections as a means for knowledge construction, normally known as constructivist learning theories (Dohn et al., 2018). The first

author (Lee, 2018a) of the present paper has previously warned about losing the critical identity of the NL community by making the same mistakes as others. She criticised that learning designers in online higher education contexts tend to have blind faith in social learning activities, subsequently exclusively valuing learner-to-learner interactions and treating them as evidence for (or equivalent to) effective online learning outcomes. Their design practices, misinformed and misguided by such faith and associated dominant discourses, tend to replace the “end” with the “means”; that is, learner-to-learner interactions become “ends” rather than a “means” to an end—learning (borrowing the phrases from Laura Czerniewicz’s review in the collective definition article, 358).

The Problem and Moving Backward to Move Forward

As indicated in the previous section, the problem that the present chapter aims to address, at least partially, is the gap between a conceptual criticality prevailing in the NL community’s macro-level critiques and a practical criticality absent in the NL community’s micro-level design practices. More specifically, NL design practices have often limitedly focused on increasing learner-to-learner interactions in technology-mediated learning contexts, including 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, such networking has been misunderstood as learning outcomes themselves; NL researchers have overlooked the collection of empirical evidence to develop a deeper understanding of the outcomes of such interactions—or prove whether or not “being networked” increased or improved learning outcomes. What we do not intend here is to urge NL researchers to collect more data (e.g., assessment outcomes and learner perspectives). Indeed, a large number of studies conducted both in NL and CSCL communities have provided ample data; learners’ perceived benefits of social interactions and increased exam scores followed after social learning have been well-reported.

What we want to argue here is that despite the excessive emphasis on “networking”, the purpose of the NL design of such networks is not explicitly critical in NL literature. It is unclear how those learner connections and interactions in learning networks aim to change learners’ lives in a more fundamental sense. We are not the first to observe this issue. Others have already reported that the NL 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 Hodgson & McConnell, 2018; Öztok, 2021). Such an unbalanced research approach that focuses on the “network” part of NL while assuming and neglecting the “learning” part has resulted in weakening the political and critical essence of the original NL theory.

Some may accept this as a natural progression of NL becoming a more established “field” in which the NL community grew, and the NL theory became

widely adopted by a broader group of educational practitioners and researchers without being carefully distinguished from other constructivist learning theories. Vice versa: constructivist learning theories have already been picked up by many NL researchers and used almost interchangeably with the NL theory (de Laat & Ryberg, 2018). In this context, defining NL and drawing the boundaries of NL is not necessarily a useful practice (cf. Siân Bayne’s response in *Networked Learning Editorial Collective et al., 2021*). However, although we do not want to fall into the “trap of endlessly defining NL”, we believe it may be necessary—to try “purify it” (ibid, p. 359) to challenge the taken-for-granted assumption that learning happens if learners are networked and networking and stop the NL design efforts going into “network” (the means) rather than “learning” (the end).

In response to the problem, alongside the valuable attempts to re-define NL, therefore, the NL community needs to engage more in design conversations (Goodyear & Carvalho, 2014). We suggest that the NL community needs to move backwards to move forward; how far? Perhaps to those NL design principles. This wake-up call can be particularly challenging since it also requires us (referring to the NL community, in this context) to rethink the established NL design principles that we have used for the past two decades—to some of us, they are the solid rock of the NL theory. It is, however, a necessary step to embrace the more fundamental identity of the NL community as critical theorists and critical pedagogues. Accordingly, it may also require us to rethink the core ideas in (and behind) the six principles, including the self-determination of learners and the roles of learners and teachers in NL processes. If we want to be critical pedagogues, the roles of teachers are to develop a deeper meaning of learning in their pedagogical context and guide their learners throughout learning processes to personalise and realise some teacher-determined meaning. 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, which leads to meaningful changes in their lives outside the course. We propose a “expanded” design framework for “transformative” NL as one way (of many possible ways) to foreground the end part of NL design practices in the NL theory and community: the framework should be able to help us re-direct our focus on the ultimate “purpose” of NL design practices—transformative learning (neither human connections nor learner interactions themselves).

Context: An Online Doctoral Programme

Before presenting our expanded NL design framework, it is necessary to situate this conversation in our specific pedagogical context where the framework has been developed: 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—known as one of the first online programmes originally designed and

developed using the six NL design principles discussed above (McConnell et al., 2012).

During the first 2 years of the programme (Part I), 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 supervises the cohort's Part I learning progress. The online doctoral students are all experienced educators in diverse educational and cultural settings. Approximately half of the cohort join the programme from outside the UK. Part I also offers two annual residential meetings during which members of the cohort visit the university campus in Lancaster, meet each other, and participate in intensive face-to-face research training sessions for a week (the description reflects the situation before the COVID-19 pandemic). Part II begins with each student submitting a research proposal (i.e., confirmation document) and seeking 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 II and obtain a PhD in 2–4 years. Except for the two residentials organised during the first 2 years, students study fully online at a distance from the university and each other.

Since the launch of the programme in 2007, most of the original tutor team have left, new tutors have joined the programme (including the two authors of the present article), and different aspects of the programme have been changed and re-designed over time. Nevertheless, the initial NL principle-informed design of the programme has remained strong until now. For example, the cohort-based structure provides a supportive learning environment where students are encouraged to work with each other 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. However, it is worth mentioning the same problem identified in the previous section—that is, an absence of “explicit goals and a bolder vision” of NL design—was observed in the programme, which often lacked a clear sense of political and critical purpose in teaching and learning.

Since the present authors joined the programme (each in 2013 and 2015), we have taught different modules in Part I and each supervised more than a dozen students in Part II to completion. Since 2016, the first author, Lee, has taught the first module of the programme aiming to help students' effective transition into the doctoral programme and guide their initial growth into a (qualitative) educational researcher. Lee, as a lead tutor of the module, has continued to change the module design and evaluate the effectiveness of those changes through researching how those changes had impacted and improved student NL experiences and outcomes. The module is the core space (or test bed) where the framework was developed, implemented, evaluated, and refined. The fundamental ideas of the framework (i.e., transformative NL and expanded NL design) were born out of Lee's pedagogical experiences (often, struggles) and research endeavours to reflect on those experiences. Both

successful and unsuccessful aspects of different versions of the module design have been recorded in the first author's previous publications (Lee, 2019, 2020a, b, 2021, 2022). Although the details of the changes and evaluation outcomes are all recorded in those publications, some of the critical points will be discussed in the later part of the chapter after introducing the framework.

The second author, Bligh, has been a close colleague and critical friend, supporting Lee's pedagogical experiments and theoretical developments. The two authors have had ongoing conversations on the design of different modules and the programme as a whole and further made a range of improvements across Part I. Thus, the ideas of this chapter can be said the outcome of our collective teaching and research efforts in the online PhD expanded design framework for transformative NL.

What Is Transformative 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 (McConnell, 2006; McConnell et al., 2012). Lee (2018b) also observes the limitations of teacher-centred 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. 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 other's and tutors'. Students' immediate goals for participating in the PhD programme also vary, and subsequently, the knowledge and skills they wish to acquire are diverse (Lee, 2020a).

It is, therefore, 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?" (Lee, 2020b). Table 10.1 illustrates the core difference between the epistemological and ontological approaches to learning. Obviously, it is the second approach we aim to foreground in the expanded NL design, although the epistemological approach remains as background.

As discussed, the origin of the NL theory was strongly influenced by two theoretical approaches to adult learning: transformative learning theory and critical pedagogy (Networked Learning Editorial Collective, 2021). Both learning theories suggest that the ultimate purpose of adult learning is to make meaningful changes in

Table 10.1 A comparison of two approaches to learning: constructivist vs transformative learning (Lee, 2020b)

	Epistemological approach	Ontological approach
Philosophical Foundations	Knowledge-focused: Constructivist learning paradigm	Existence-focused: Transformative learning paradigm
Learning Purpose	Constructing meaningful knowledge	Becoming a more authentic person
Learning Process	Problem-solving, collaborative knowledge production, reflection	Critical reflection, rational dialogue, multiple becomings
Learning Outcome	New knowledge and skills	New perspectives and critical awareness
Learning Model	Situated learning	Transformative learning
Tutors' Roles	Instructional designers: Designing authentic learning activities and facilitating knowledge production	Emotional supporters: Triggering disorienting dilemmas and providing emotional supports
Pedagogical Limitations	A lack of political direction and emotional emphasis	A lack of pedagogical direction and practical design principles

learners' perspectives and practices (or praxis). In such transformative learning scenarios, in particular, 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 limited to exchanging useful knowledge and similar opinions (consequently reinforcing each others' perspectives) but expanded to creating meaningful conflicts and having open dialogues to resolve the conflicts (consequently transforming each other's perspectives and co-developing a new perspective). Furthermore, these open dialogues should lead to planning and making real-life changes (consequently transforming group practice in real-life contexts). For critical pedagogues, the aim of learner interactions is even more political—raising learners' critical awareness of those unequal and oppressive social structures producing a range of struggles in their own lives (and consequently, 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 transformative NL begins with a strong sense of learning “purpose”—facilitating individual perspective transformations, group practice transformations, and social changes. In this view, the core outcome of being networked in an online course must be learners' ontological and axiological development (i.e., becoming a critical educator and a critical scholar) through exposure to and interaction 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). 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 ontological outcome of transformative NL in the first author's module in the online PhD programme is, therefore, "becoming" (i) critical scholars who are fully aware of social and educational inequalities in one's pedagogical settings, (ii) ethical researchers who are deeply concerned about the political nature of scientific knowledge and its production, and (iii) critical pedagogues who are actively engaged with social changes and movements. Such a tutor-determined purpose is at the heart of our NL design practice—the NL process is still learner-centred but, we argue, teacher-driven.

Expanded Design for Transformative NL Cycle Through Three Levels of NL Communities

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 expanded design framework for transformative NL. Firstly, the framework redefines the "scope" of the NL design. Previous works (Lee, 2018b, 2021) argue that there is no clear separation between learning and living in online doctoral education contexts. Students log into our online courses from where they have been and where they continue to be; thus, learning does not occur in a vacuum. Online learning happens in their pre-existing messy reality. Therefore, it is necessary to expand the conceptual boundaries of an online learning environment beyond teachers' (or learning designers') immediately accessible teaching space (i.e., a Moodle platform) to include each learner's everyday learning and living spaces. Of course, recognising this reality is not to presumptuously insist that we need to access students' personal spaces and control their everyday practices, but instead to acknowledge that their learning experiences and outcomes are bound and shaped by their personal and professional circumstances and relationships (see also, Dohn et al., 2018 for the socio-materiality of NL).

Here, the concept of "community" can be helpful to better frame the scope of NL design. In the framing work, relative positions of communities (internal versus external) will be adopted from teachers' vantage points. For example, in our online PhD programme, doctoral students as historical beings already have multiple memberships of different communities when they join the programme. They have lived, worked, and learned by participating and socialising in those communities. Their established memberships in those external communities outside the programme remain valid during their doctoral studies. They simultaneously exist in multiple communities; they may be more present in some communities and less in others (see also, Littlejohn et al., 2019 for core characteristics of networked professional learning).

A cohort community newly built in the programme will be another one (not the only one) they join and co-develop; similarly, some students will be more present in this community and others less so. Although we often feel the urgency to build a new cohort into a supportive community during the module period of 3–6 months, it takes time and effort to establish a genuine sense of community among a cohort (Lee, 2021). 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 expanded design framework is the “purpose” of the NL design, which was primarily discussed in the previous section: enabling personal, group, and social transformations. It is crucial to realise that an internal NL community, a cohort community within a specific online course, does not necessarily provide learners with opportunities to make changes in real-life contexts (Lee & Brett, 2015). When the NL design aims to transform learner perspectives that ultimately lead to positive social changes, design efforts restricted to learner-to-learner interactions within the online course are insufficient. Although students may experience meaningful perspective transformations in the cohort community within the course and may develop action plans to transform their professional practices in their external communities outside the course, it may be too ambitious to expect each student to successfully manage those changes alone after the course period (Moffitt & Bligh, 2022).

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 (see Lee, 2018b for the ephemerality of internal learning communities), 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 (Fig. 10.1).

The scope of the expanded design framework for transformative NL embraces expanded boundaries. 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 “Teacher” represents an academic tutor who designs and teaches the course. There are students (circles A to G) joining the course. Their engagement with the internal community varies. Some students (circles E and F) may more actively participate in the cohort community, playing central roles as core members even from the beginning of the course. Others (circles D and G) are less likely to move towards the centre of the cohort community, remaining as outsiders even at the end of the course.

From each student’s perspective, the internal course community is new. Regardless of their engagement level, they are all newcomers in the cohort community for

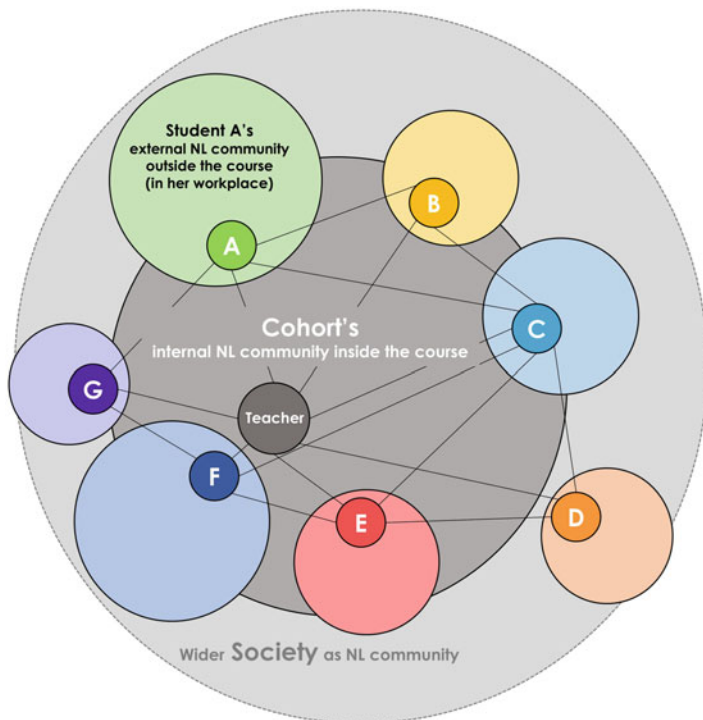


Fig. 10.1 Expanded boundaries of online learning environments: A Scope of the transformative NL Design

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. The lighter-coloured outer circles of each student indicate their existence in those external communities as core members. Many online doctoral students, as experienced educators themselves, 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 for the expanded 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 argued above, those connections are insufficient 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

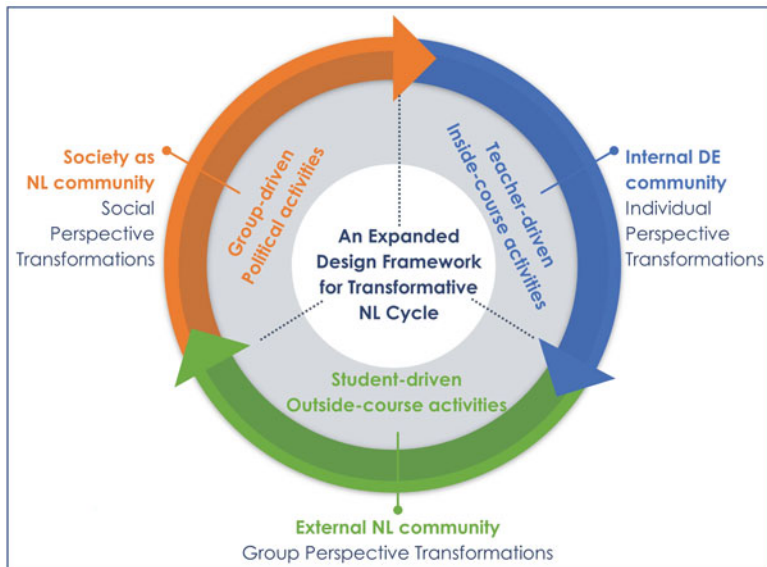


Fig. 10.2 A visualisation of the expanded design framework for Transformative NL cycle

connect the internal cohort community to learners' real-life contexts and the wider 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 (Lee, 2018b). Thus, the expanded design framework enables us to reduce the focused scope of learners' real-life context into one of the external communities to which their practice and planned changes are the most relevant.

Figure 10.2, then, demonstrates three levels of NL communities whose developments and connections need to be carefully considered when purposefully designing transformative NL:

1. Internal NL community: a cohort community developed within an online course that aims to transform individual students' perspectives through tutor-driven inside-course activities.
2. External NL community: a professional community developed outside an online course (in students' workplaces) that aims to transform group perspectives through student-driven outside-course activities.
3. Society as NL community: a social community developed in the wider society that aims to transform social perspectives through group-driven political activities.

An Illustrative Example: Transformative NL 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, is somewhat general and abstract. To make the idea more concrete, therefore, we will present an illustrative example of expanded design based on our own experiences in the online PhD programme.

The scenario presented here is a careful and neat (re-)construction of our ongoing module design experiences, which are historically rooted in the limitations of the original NL design principles and primarily constrained by the design of the entire programme and the regulations of the university. Thus, we admit that our module design process is, in reality, rather messy, clumsy, and unsystematic. The conceptualisation of transformative NL and expanded NL design has been done retrospectively; in other words, the framework has emerged alongside and within our practices. Nevertheless, to help readers better grasp the complex notion of the transformative NL design, we have decided to trim such messy details (e.g., any residual crumbs of the original design) and develop a neat narrative with a definite sense of temporality, pretending that we have fully and systematically designed our modules from start to finish, using the pre-existing framework. It should be noted that the below text is a hybrid of texts of both actual and conceptual (or imaginary and hypothetical); it should not be read as an empirical research report.

Our design effort goes into Part I of the programme, where we offer six online modules to the cohort. The internal NL community 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 4000–6000 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 tutors, thus, provides both academic and social support. However, more importantly, as the modules aim to develop critical scholars, a series of learner interactions are strategically planned to challenge some widespread assumptions about Educational Technology (Networked Learning Editorial Collective et al., 2021), provoke students’ emotional responses to various educational problems (diverse forms of social injustice), 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, to provide not only 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 projects (see Fig. 10.3). Tutor-driven NL activities in the internal community guide students in identifying critical, and often “social justice-oriented”, research problems worthwhile to explore both for the

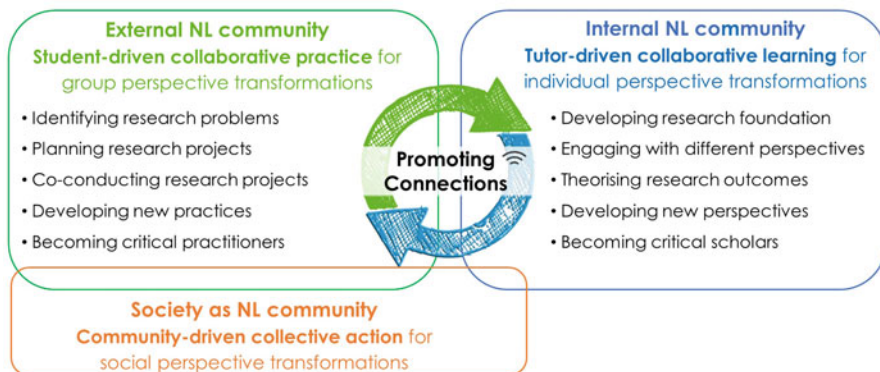


Fig. 10.3 Transformative NL in online doctor programme. (A model adopted from Lee & Brett, 2015)

students and their external communities. Students bring the research foundations and different perspectives built through their engagement with the internal NL community into their chosen external communities and plan specific research projects. Students are also encouraged to reflect on the ideas of research collaboration and relational research ethics 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 communities are brought back to the internal NL community, where students theorise them and 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 practitioners.

All aspects of this expanded module design (including learners’ interactions at different moments of the module) explicitly focus on promoting “connections” between internal and external NL communities (see Fig. 10.3). Even though the ultimate purpose of transformative NL is to make social changes, the scope of expanded NL design is inevitably limited to the expanded boundaries of the online learning environments that, at most, include students’ external NL communities. Arguably, making social changes by social perspective transformations requires group-driven collective actions beyond the design capacity of individual teachers in formal educational programmes. However, in a manner analogous to how previous NL researchers have observed the natural emergence of informal NL communities in different educational and social settings (e.g., Alevizou et al., 2012; Koutropoulos & Koseoglu, 2018), we can envision the potentially transformative impact of the external NL communities on the broader society in which students with raised critical awareness and social justice-oriented perspectives are situated.

Conclusion

What we have described above is work-in-progress—the narrative represents a hybridity of our realities and aspirations. The expanded design framework must be further used, tested, and refined; its feasibility and effectiveness must be repeatedly evaluated and improved in different NL settings; more specific pedagogical strategies and methods must be developed and added to the framework. We present this framework not to boast the completeness and spotlessness of our teaching and research practice but to invite other members of the NL community to try it out (if they find our arguments persuasive and the envisioned scenarios attractive). As mentioned in the Introduction, we intend to contribute to the ongoing community effort to redefine NL in the current postdigital context and re-establish the community identity by proposing the ideas of transformative NL and expanded NL design.

We want to conclude this inconclusive chapter by drafting transformative NL design principles that can replace the original ones (McConnell, 2006) with the hope of initiating more practical “design” conversations on what constitutes a useful design for “transformative” NL. These principles are more applicable to formal educational settings, and “teachers” in the below descriptions can be substituted by other related terms such as educators, designers, trainers, tutors, and critical pedagogues. The new seven “expanded” design principles are as follows: (i) *A real purpose in the learning process* where all pedagogical activities and interactions consistently aim at meaningful individual, group, and social perspective transformations, (ii) *An expanded scope of learning design* that embraces and connects three levels of learning communities of internal, external, and social communities, (iii) *Openness in the educational process* where teachers explicitly communicate the political aim of their teaching and associated design choices to their learners; (iv) *Teacher-directedness in the learning process* where teachers carefully guide their learners to achieve the teacher-determined aim, such as raising critical awareness and transforming perspectives and practices; (v) *Learner-centeredness in the learning process* where all transformations and changes are directly meaningful for learners themselves and their own communities, meeting their needs; (vi) *A supportive learning environment* where learners encourage and facilitate each other’s transformative learning efforts, and (vii) *Collaborative assessment and ongoing evaluation on learning process* where teachers and learners continuously and collaboratively assess and improve their learning processes and the design of the course.

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