

The teacher as designer? What is the role of 'learning design' in networked learning?

Konnerup, Ulla; Ryberg, Thomas; Sørensen, Mia Thyrrø

*Published in:*

Proceedings of the 11th International Conference on Networked Learning 2018

*Publication date:*

2018

*Document Version*

Accepted author manuscript, peer reviewed version

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

Konnerup, U., Ryberg, T., & Sørensen, M. T. (2018). The teacher as designer? What is the role of 'learning design' in networked learning? In B. Milan, N. B. Dohn, M. de Laat, P. Jandric, & T. Ryberg (Eds.), *Proceedings of the 11th International Conference on Networked Learning 2018* (pp. 331-339)

#### **General rights**

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal -

#### **Take down policy**

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

# ***The teacher as designer? What is the role of ‘learning design’ in networked learning?***

Ulla Konnerup

Assistant Professor, PhD, Department of Communication & Psychology, Aalborg University  
[ullak@hum.aau.dk](mailto:ullak@hum.aau.dk)

Thomas Ryberg

Professor, PhD, Department of Communication & Psychology Aalborg University,  
[ryberg@hum.aau.dk](mailto:ryberg@hum.aau.dk)

Mia Thyrre Sørensen

PhD Fellow, Department of Communication & Psychology, Aalborg University, [mts07@hum.aau.dk](mailto:mts07@hum.aau.dk)

## **Abstract**

This paper explores various strands of ‘Learning Design’ and the understandings of Learning Design that have been developing or are emerging across research fields. We aim to understand the differences and similarities that have developed within various areas, such as Technology Enhanced Learning (TEL), networked learning, designs for learning and draw out their development and branching to understand potentially different ontological or epistemological roots they draw on. Further, we wish to inquire into how the area of ‘Learning Design’ relate to or distances itself from the philosophy and values of networked learning.

## **Keywords**

Learning design, design patterns, designing for learning

## **Introduction**

The notion of *design* has become increasingly popular in recent years within research on learning and technology, and it has also held a space within the area of networked learning e.g. through notions of indirect design, design patterns and learning design (Dalziel, 2003; Dalziel et al., 2016; Gleerup, Heilesen, Helms, & Mogensen, 2014; Goodyear, 2005; Jones, 2015). Within the Technology Enhanced Learning Circuit there have been multiple EU-projects working with ‘learning design’ from both a conceptual, as well as a more technical perspective, and a range of publications on ‘learning design’, ‘designs for learning’ and ‘teachers as designers’ have surfaced (G. Conole, Dyke, Oliver, & Seale, 2004; Grainne Conole, 2007; Goodyear, Carvalho, & Dohn, 2014; Goodyear, Retalis, Bartoluzzi, & Ronteltap, 2004; Laurillard, 2012; Maina, Craft, & Mor, 2012). Simultaneously with these developments, we have witnessed a surge of interest in areas such as *design-based research* or *educational design research* (Barab & Squire, 2004; Bell, Hoadley, & Linn, 2004; Markauskaite, 2010; Markauskaite, Freebody, & Irwin, 2011; McKenney & Reeves, 2012; Sannino, Engeström, & Lemos, 2016). Clearly, the idea of *design* has received wide attention and is being addressed from multiple perspectives and within different areas of research (Dohn & Hansen, 2016). While these areas of research may have overlapping interests, they could potentially also hold very different understandings of the relations between learners and teachers, and in their fundamental understanding of what ‘design’ might mean. Simply just referring to teachers as *designers* urge a need to reflect on the repositioning of education professionals. Further, the various perspectives may fit very differently with the underlying philosophical ideas and values of networked learning, which is one of the themes we wish to explore in this paper.

# Understanding the Notion of Design

*“Design is to design a design to produce a design”*  
(Heskett, 2002)

As illustrated in Heskett’s quote, the word design can be understood as 1) a domain; 2) giving form; 3) the process of forming; 4) as a sketch; 5) the immediate manifestation of an idea for design; and finally, 6) as a result. Historically, the concept of design originates from the field of designing specific physical products and their functionalities (Jensen, 2005)). In the past 20 years, there has been a shift in the understanding of the concept *design*. In the past, most design concepts were linked to predictability and uniformity (industrial design). Newer definitions are closer to artistic / architectural practices emphasising aesthetics, creativity and formable solutions adapted to the specific situation (Dohn & Hansen, 2016, p. 22)). Today the concept of design has expanded in terms of which areas that are considered formable, and now it also includes the planning of teaching and learning processes. The diverse and sometimes contrasting understandings of design might imply some difficulties in having a shared interpretation and understanding of the concept. In the following, we will specifically focus on how design is used in a teaching and learning context.

## Learning Design

The development of the concept of Learning Design<sup>1</sup> has been motivated by advancements in information and communication technologies (ICT) and web-based learning environments, which have challenged the traditional understanding of the role of the teacher, the students’ learning processes, and learning environments in general. The Internet has been a catalyst for changes in education and learning in many ways. In line with the development of the Internet and web 2.0 technologies, we see a gradual shift in focus from delivering content to the design of innovative, engaging and productive online activities. Fundamentally, the changing landscape for communication and learning has given rise to reflections on how these new opportunities can be implemented in education and it has become necessary to reflect on how learning takes place in and across different types of learning environments. This has led to the emerging field of Learning Design, which derives from a need to share and build knowledge about technology-mediated teaching and learning (Dalziel et al., 2016; Laurillard, 2008).

Overall the concept of Learning Design has been used to describe a technical architecture for support and sharing learning designs or describing structured sequences of information and learning activities (Conole, 2007). In the past 20 years many educational researchers have been developing the notion of learning design (Beetham (2007), Conole, 2012; Dalziel, 2003; Goodyear et al., 2004; Laurillard, 2002). It has been a shared concern for many educational researchers that the infusion of Information and Communication Technologies (ICT) into education often lead to instructive practices within standardised curricula. According to Conole, (2012) and Dalziel et al. (2016) a key principle in the concept of Learning Design is to make the learning design processes more explicit and shareable and facilitate pedagogically informed decisions about designing learning activities, as well as creating interventions that implement the use of appropriate resources and technologies.

## The Different Strands of Learning Design

In the following sections, we present a brief overview of different stands of learning design, which we later discuss in relation to networked learning.

### The Larnaca declaration on Learning Design

The Larnaca Declaration is a result of several research collaborations, conferences and projects up through the 00’s. The foundational projects that have inspired and led to the declaration are: the EML, SoURCE, AUTC and LAMS (Dalziel et al., 2016, p. 6). Some educational researchers shared a fear that ICT would result in one-sided behaviourist pedagogies e.g. passive learners acquiring skills and knowledge as transferred through software and

---

<sup>1</sup> Different use of term Learning Design might lead to confusion. In this paper, we follow the recommendations suggested in The Larnaca Declaration: “Learning Design” for the whole field and “a learning design” for an instance. Likewise, we call a sequence of teaching and learning activities that has been constructed using the ideas of Learning Design “a learning design” or “a design”.

standardised curriculum. At a meeting in Larnaca 2012, a group of Learning Design researchers agreed on a declaration (The Larnaca Declaration) with statements, descriptions and discussions about a concept of Learning Design. The people behind the declaration are James Dalziel, Grainne Conole, Sandra Wills, Simon Walker, Sue Bennett, Eva Dobozy, Leanne Cameron, Emil Badilescu-Buga and Matt Bower.

Following the Larnaca definition of Learning Design (Dalziel et al., 2016), the main purpose of Learning Design is to develop a better learning practice by developing a shared descriptive language for qualifying and sharing teaching activities. The concept is understood as a collective term for three components; 1. Learning Design Conceptual Map, describing the overall pedagogical landscape, regarding key components of a Learning Design; 2. Learning Design Framework, which offers a common language/notation system format/visualization to describe teaching and learning activities (that may be based on different pedagogical approaches). 3. Learning Design Practice, which can be described as the result of applying Learning Design concepts as well as the implementation of teaching and learning activities, also called "Designing for Learning" (Dalziel et al., 2016). The idea of efficiency of teaching and learning is central to the declaration (Dalziel et al., 2016) and this concerns both pedagogical benefits (improved student outcomes), as well as productivity benefits (decreased teacher preparation time).

The Larnaca Declaration of Learning Design strives to be “pedagogically neutral”, by arguing that the Learning Design Framework should be viewed as a layer of abstraction above traditional pedagogical theories by developing a general descriptive framework for different types of teaching and learning activities (Dalziel et al., 2016). This descriptive framework is compared to the ‘Western music notation system’, and it is noted, to explain the idea of pedagogical neutrality, that this system can be used both to notate Jazz, Heavy Metal and classical music - as well as good, bad and mediocre music (Dalziel, 2015). The notional system can then be used to describe a ‘learning design’ (uncapitalised) also called a ‘design’ or ‘sequence’ which is a plan for ‘potential activities with learners’. The actual implementation of a learning design is called a ‘running learning design’ or ‘running sequence’. Under these broader headings, however, there are also varying understandings of the relations between the notional system, the learning design and the running design. For example, the notation system can be more or less intimately connected to a software system i.e. as being something that can be implemented and executed as a LAMS or IMS-LD sequence inside a LMS, or it can be viewed as inspirations for teachers’ further design (such as a design pattern). This McAndrew & Goodyear (2007) refer to as either computer-understandable or human-understandable forms of representation, but it also concerns how pre-programmed or open the structures or sequences of activities are. As an example of a human-readable notation system Goodyear (and many others) work with design patterns, as we shall return to.

### **The Teacher as Designer**

Another important notion within Learning Design is the teacher as designer. While teachers have always been designers of lesson plans and teaching, they may not have been describing themselves in such terms. Taking new tools in use, changes the practice and new practices call for new metaphors. Therefore, Laurillard (2008, 2012) suggests thinking of the teacher as designer. She argues that teachers need to understand the context of the environment their learners inhabit, and she proposes a repositioning of teaching as a design science and the teachers’ role as designers for learning. Laurillard (2008) is explicit about her constructivist approach to learning. From Dewey onwards, through Piaget, Vygotsky, Freire, Bruner, Papert, Marton, and Lave. The common denominator is that the learner he/herself should be active. “.... the role of the teacher is not to transmit knowledge to a passive recipient, but to structure the learner’s engagement with the knowledge, practicing the high-level cognitive skills that enable them to make that knowledge their own” (Laurillard, 2008, p. 527). She also argues that teachers need to understand the context of the environment their learners inhabit and thus confirms that learning is an interplay between student, teacher and community - not unchangeable knowledge, independent of time and place (Laurillard, 2008, 2012).

With reference to Alison King’s call for a repositioning of teachers in 1993, “from sage on the stage to guide on the side” (King, 1993), Mor et al. (2012) calls for another repositioning: from conveyors of knowledge to designers of learning. The rapidly emerging technological landscape within education has challenged the teaching profession and practice. As a teacher, it is no longer enough to possess professional and pedagogical skills; the teacher practice must be informed by subject knowledge, pedagogical theory, technological know-how, and practical experience. At the same time, it should also engender innovation in all these domains and support learners in their efforts and aims (Maina et al., 2012). They also refer to Alexander’s idea of design patterns, that enable teachers to share, learn, get inspired from, and exchange knowledge with each other.

## Design Patterns and Designing for Learning

The concept of design patterns builds on the work of the architect Alexander (1977, pp. ix–xix) including architectural drawings as design patterns and pattern languages (Goodyear et al., 2004). Alexander's idea was to democratize architecture by offering the patterns as conceptual resources to ordinary people to shape or reshape their own environment. A design pattern is not a final design that can be used directly; it is more akin to a description, an idea or a template for solving a problem, which occurs over and over again. The pattern is developed and evolves over time and can be re-used in similar situations, but without ever doing it the exact same way twice (Alexander et al., 1977, p. x)

Alexander was very explicit about the values that were reflected in his patterns; re-design of patterns should strive to improve the previous. Furthermore, he stressed that all patterns are related to other patterns and the designer's network: "...no pattern is an isolated entity. Each pattern can exist in the world, only to the extent that is supported by other patterns." (Alexander et al., 1977, p. xii). The pattern-based approach to design has been picked up and adapted to an educational context by, among others, Goodyear (Goodyear, 2005; Goodyear & Retalis, 2010; Goodyear et al., 2004). Educational design patterns intend to provide teachers with design ideas and enable them to build on former design experience. A single pattern is seldom easy to adapt, but it might be meaningful due to its position in a sequence of other design patterns, also called a pattern language (Goodyear, 2015). Goodyear recommends that design patterns should be written in such a way that they help the reader understand enough about learning and educational issues that they can be adapted and redesigned for her own practice (Goodyear, 2015). This indicates that design patterns not only serve the purpose of reusing or inspiring, but also can prompt professional development among teachers. The patterns, thus, can be viewed as a means to bridge the gap between theory and practice.

In relation to the notion of Learning Design, Goodyear emphasises that we cannot design learning, but we can design *for* learning. The activity of the students, the social relationship, and the interactions are physically and socially situated, meaning that they cannot be determined or prescribed by a learning design. What *can* be described, following Goodyear, is: 1) learning tasks, 2) physical and social environments and 3) social organisation and division of labour. The students interpret the designed tasks, tools and organizational forms, by which the activities are shaped.

By changing from the term Learning Design to use such terms as educational design, design patterns, and designing for learning, Goodyear and others signal a change in the understanding in what, how and for whom, we are designing. They point out that learning cannot be designed, but it can be designed for (Goodyear & Dimitriadis, 2013)

We prefer it to "learning design" for what may seem a trivial reason but is crucially important. "Learning design", like "experience design", can be read as meaning that it is possible to design other people's learning. This is not the case (Beetham 2008). One cannot design someone else's experience. One cannot design their happiness. One cannot design their learning. Only the person who is learning can learn. Someone involved in the design for learning can design things that help other people learn.

(Goodyear & Dimitriadis, 2013)

Understanding students' learning as something different from the teachers' design practice, aligns well with the Scandinavian distinction between the student's learning (a social, cognitive process) and the teacher's practice (didaktik, teaching).

## Learning Design in a Scandinavian Context

Although teachers have developed teaching and learning materials based on knowledge of learners, subjects, theories of learning and pedagogical philosophy (Uljen & Ylimaki, 2017; Westbury, 1998), the concept of Learning Design is still rather new in a Scandinavian context. In the continental European countries (mostly Germany and Scandinavian countries), philosophy of learning and teaching has been distinguished by the terms *didaktik* and *learning*. Didaktik refers to the teacher's practice, regarding the methodological approach, planning teaching activities, interventions, and evaluation of the teaching (Dohn & Hansen, 2016; Hiim & Hippe, 2007; Illeris, 2006). Learning, on the other hand, is understood as the learners' cognitive, social and/or physical *processes* developing depending on the interaction with the surroundings (Illeris, 2006). Furthermore, learning is considered to involve a process of personal formation (*bildung*), which emphasises meaning, relevance and coherence between theory and practice (Uljen & Ylimaki, 2017). To understand the meaning of didaktik, it is

important emphasizing the distinction between the Anglo-American tradition of curriculum and German/Scandinavian *Didaktik*. Westbury outlines the differences between curriculum tradition and didaktik:

“Didaktik seeks to assist teachers in the complex deliberation by offering frameworks and models to crystallize “appropriate” patterns of thinking. Whereas the core task of curriculum centers on thinking about building and managing a controlling institutional (curricular) delivery system, Didaktik seeks to explicate, and then turn into a usable framework, deliberation about the educational (in the largest sense) problems which teacher reflection must and might engage.”

(Westbury, 1998, p. 65)

Westbury (1998) suggests a fundamentally different role for the teacher in these two frameworks. In the curriculum tradition, Westbury (1998, p. 52) suggests, the teachers are “the invisible agents of the system to be remotely controlled by that system for public ends, not independent actors with their own visible role to play in the schools”, whereas in the Didaktik tradition teachers are seen as professional practitioners working within, but not directed by the curriculum (or more correctly: Lehrplan) (Westbury, 1998, p. 54). The teacher has a larger degree of freedom in interpreting the less fixed ‘lehrplan’ and the Didaktik tradition seeks to ‘model forms of teacher thinking that might direct the teacher to systematic hermeneutic reflection about the ways in which classroom environments might support a personal subjective encounter, or relationship with the educative “content” represented in the curriculum’ (Westbury, p. 59). Central to the curriculum tradition, Westbury (1998, p. 60) (citing Robinsohn), is the construction of ordered sequences of learning experiences, related to intended objectives, whereas in the Didaktik tradition learning emerges from the unique interaction or meeting established between the teacher, the ‘content’ and the (unique) student; this from the perspective of character-formation and how individual students themselves can experience the significance of the ‘content’ or learning experience, rather than pre-defined objectives or goals. Thus, rather than an instructive and goal-oriented approach that is stepwise, observable, curriculum-based and controllable, a critical, humanistic German/Scandinavian oriented approach understands teaching and learning as a process of learning that emphasizes meaning, relevance and character-formation (Dalsgaard, 2004; Illeris, 2006). Further, the teacher is viewed as a professional practitioner, whose (individual) understanding of learning theory should guide and be reflected in the teaching practice. In this sense, learning and didaktik are never pedagogically neutral, but based on the, conscious or unconscious, underlying ontological and epistemological thinking and learning philosophy embodied by the teacher.

The concept of design related to didaktik gained footing in a Scandinavian research context in the early 00s (Lone. Dirckinck-Holmfeld & Fibiger, 2002; Fibiger, 2003; Georgsen, 2003). Fibiger and Dirckinck-Holmfeld (2002, p. 17), argued that the introduction of the concept of *didaktisk design* was an attempt to counter two trends in ICT-mediated education. Firstly, the tendency in the early 90s to let ICT determine the pedagogy; secondly, in the late 90s, the tendency to focus on the logistics and practicalities associated with ICT-mediated teaching. With the notion *didaktisk design* the aim was to focus on a third perspective: teaching and learning.

While the term *didaktisk design* is being used in a Scandinavian context, the literal translation to ‘didactic design’ is problematic and therefore, the wording *designs for learning* is being used instead.

## Pedagogical Philosophy of Learning Design

In the following section, we will discuss the pedagogical philosophy of the different strands of Learning Design and how selection of specific words and notions reveal the way we think. In the previous sections, we highlighted the distinctions between didaktik and learning, and the notions of designing for learning over learning design. While these seem to resemble the distinction in the Larnaca Declaration between a ‘learning design’ as a potential design and then ‘a running design’ as the concrete implementation, we are wondering, whether the distinction is so clear-cut. For example, if a design is made as a computer-readable and executable learning design, such as a LAMS sequence, we are wondering to which degree one can effectively distinguish between the plan and the execution of the plan? This opens questions of how prescriptive or open a shareable design is; whether it is a resource for reflection and planning (a pattern) or a more pre-figured and pre-programmed sequence. In case of the latter, one could further ask whether such a design would speak more readily into a curriculum tradition, than a didaktik approach? This also concerns the role of the teacher, and the autonomy associated with this role. In some interpretations within Learning Design, there seems to be some conceptual overlaps with the Didaktik tradition, particularly in thinking about the teacher as a designer.

However, there are also traces of more curriculum inspired interpretations within Learning Design. For example, Dalziel (2015) highlights the *replicability* of well-crafted learning designs as an opportunity for teachers to adopt *successful* designs into their own practice; thus improving teaching, minimising preparation time and making teaching more *efficient*: “Learning Design offers a more precise way to specify the steps taken in a sequence of teaching and learning activities, and this may allow for more precise comparisons of teaching methods during educational research” (Dalziel, 2015, p. 10). Dalziel equally stresses that teachers will often want to improvise (like Jazz) and need to skillfully respond to the unfolding activity in-situ. This is an aspect that according to Dalziel (2015) has not been sufficiently addressed in Learning Design and provoked critical response from teachers “as they feel this element of “live adaptation” is so central to their self-image as teachers that any approach that appears to give it less emphasis is undesirable (Dalziel, 2015, p. 11). Interestingly, this has recently been the response of some Danish teacher to newly implemented learning platforms in primary education. In these platforms (and in a recent large-scale school reform), there is a stronger focus on the teachers making the steps and the learning goals of their teaching more explicit, as well as relating them to nationally defined ‘common learning goals/objectives’. Further, one of the overarching policy goals has been that teachers would be more easily able to share their designs. These changes for one thing have provoked broader pedagogical critique and raised concerns that this is fundamentally adopting a more curriculum-oriented focus at odds with the Didaktik tradition. Secondly, in a recent study (Misfeldt et al., 2018) have found that the platforms challenge the teachers’ conception of valuable teaching and their roles as teachers. They believe they have become too restricted by the increased focus on *learning goals*, which eschews their focus on the relational work with the individual student, as they feel the children have become *something* rather than *someone*.

These concerns also question the assumed pedagogical neutrality of a descriptive language. While it might be able to describe different pedagogies, it seems at the same time that this line of thinking encompasses aspects that seem more strongly embedded in and inspired by a curriculum tradition, than a Didaktik perspective. For example, the notion of specifying more precisely the steps taken in a sequence of teaching activities, might feel alienating to teachers within a Didaktik tradition, as they orient towards longer-term objectives of formation, and emphasise exactly the importance of the *live adaptation* that is not as well developed within some versions of Learning Design.

Considering the Larnaca Declaration, Learning Design is conceptualised as something that can be operationalized across different learning theoretical foundations and with a high level of neutrality. The question, however, is whether you can ignore the underlying philosophies and theories of learning and describe and share learning designs in a neutral language, as suggested by Dalziel:

“Learning Design is not a traditional pedagogical theory like, say, constructivism. Learning Design can be viewed as a layer of abstraction above traditional pedagogical theories in that it is trying to develop a general descriptive framework that could describe many different types of teaching and learning activities.”

(Dalziel et al., 2016, p. 13)

Dalziel et al., (2016) argue that a common neutral meta-language provides opportunities for sharing and re-using innovative courses. Although a common descriptive meta-language, hovering above pedagogical theories, may seem appealing for sharing and developing teaching activities across teachers, subjects and institutions, this poses some difficulties. As discussed, not even the meta-language is completely neutral. Even a general descriptive framework based on a neutral meta-language may contain ideological elements from specific philosophies, epistemologies and practices, as exemplified above. As Wittgenstein describes in the following aphorism: “Words are the chains that set us free” (cited in Derry et al., 2010), words allow us to communicate and make sense together, but we are limited by the words that are available between the participants.

Goodyear & Carvalho (2013) are also critical of the idea that learning designs can be operationalized across different contexts with a high level of neutrality. They point out that tasks and learning activities are transformed and implemented by teachers and students in their respective environments (Goodyear & Carvalho, 2013). They suggest that researchers and teachers instead should recognize that they can plan, design tasks and tools that can support the learners, but that they cannot design learning. Designs will always have to be re-interpreted in the given learning environment by the teachers, who are embedded in a particular socio-cultural context. The designs can serve as links in relation to the collaborations between teachers, and we agree that descriptions of teaching methods and plans offer a shared language. The meta-language can act as a link between teachers, but noting the perspective adopted in the Didaktik tradition, any actual design will (and should) be shaped by the individual teacher's interpretation dependent on the culture of teaching planning,

method and learning situation and will be shaped by the underlying epistemological foundation, the pedagogical philosophy, and approaches of the teacher; explicated or not. In other words, activities are not developed in theory, but emerges from and are related to particular contexts, beliefs and practices. These concerns become even more pronounced when designs are shared in software packaged and ‘playable/executable’ formats such as LAMS or IMS-LD designs that, while they might be open to re-design, come as more finalised sequences of learning and teaching activities, which can challenge the teachers views of themselves (as reported by Goddard, Griffiths, & Mi, 2015). In this vein, we believe it is useful to distinguish between the sharing of learning designs in terms of whether they are ‘plans for action’ or ‘resources for reflection’. While executable, run-time standards belong to the former, patterns are more clearly associated with the latter. Adding to this, we argue that particularly *resources for reflection* may not only serve the purpose of inspiring the individual teacher but can become *springboards for development* among teachers.

## Networked Learning and Learning Design

In the following, we will discuss the above-mentioned positions clarifying how the different strands of Learning Design relate to networked learning. Networked learning is rooted in a pragmatist, socio-cultural/social-constructionist philosophy of learning that assumes learning and understanding of the world emerges from interactions and relational dialogue, and where collaboration, participation, and taking responsibility plays a central role. According to Hodgson, McConnell & Dirckinck-Holmfeld (2012, p. 293), networked learning could be perceived as a proxy for epistemology, meaning that we can understand practice as epistemic; as a certain way of seeing and acting, and as something that intimately connects theory *and* activity *and* learning. Thus, the social actions and behaviours emerging from networked learning will always emanate from the underlying epistemological underpinnings of networked learning pedagogy. Much like the Didaktik tradition, this view suggests an intimate link between the teacher’s beliefs and the practice of designing and teaching. Networked learning equally emphasises the importance of teachers’ skillfully responding to the unfolding activity in-situ, through the idea of ‘indirect design’, arguing essentially for a distinction between *plan* and *action*. To illustrate the idea of distinguishing between *plan* and *action*, we draw on Davidsen & Konnerup (2016) who are using Sheets-Johnstone’s (2011, p. 420) quotation about improvisational dance. She argues that annotations can set some guidelines for dancers, but their interpretation and expression may vary depending on the dancers, environment, history and practice. Sheets-Johnstone notes that even famous dances should be considered as *this evening’s dance*; the expression and the experience of a dance change from evening to evening, from hall to hall, from culture to culture and from dances to dances. Common to the dancer and the teacher is that they both do not know how the audience will react to their prepared activity, and that each show and teaching is shaped in the present and in a dynamic interaction between the involved actors. With this we wish to underline also, that in networked learning we should understand the usefulness of sharing learning designs from the perspective of ‘resources for reflection’, rather than as ‘plans for action’

### Concluding remarks

We have argued, in line with many others, that we should be wary of assuming that we can develop a pedagogically neutral *notation system* and illustrated this by highlighting the different roles of the teacher in the Didaktik and the curriculum tradition, as well as their different approaches to learning goals and objectives. Also, we have raised questions of how detailed and prescriptive such a system should be. This, however, should not overshadow, that we find the aspiration of sharing learning design important, although we are somewhat uneasy with some of the more prescriptive formats for doing so, which can be at odds with teachers’ practice and autonomy. Likewise, we are concerned with the strong focus on efficiency or ‘effective teaching’ echoed in the Larnaca declaration. While reducing preparation time might be a need for some teachers, we worry that this speaks even more clearly into a political, managerial discourse, where technology is seen as a means to ‘get more teaching for less money. This also concerns a potential undercurrent of de-professionalization of teaching i.e. assuming that (perhaps less successful or inexperienced) teachers can adopt ‘successful designs’ prepared by others. However, as we have pointed out teaching is not only planning, but equally skillful responses to the teaching situation and the unique student.

In the work with different perspectives on Learning Design, we have identified a variation in the view of how Learning Design can inform teaching and learning. Learning Design is about qualifying teaching, reusing designs and a more ‘efficient’ use of time and resources (Dalziel et al., 2016), about inspiration, problem solving, bridging theory and practice, shared dialogue, and collaborative reflection (Goodyear, Banks, Hodgson, & McConnell, n.d.; Mor & Craft, 2012). In summary, Learning Design can be understood as: 1. The designs, which can be reused or redesigned (plans for action) 2. Learning designs as inspiration/ideas/conceptualization (resources for reflection), 3. Learning design as an opportunity for dialogue and reflection on practice,



philosophy and values (springboards for development). We find that the latter two points are particularly interesting in relation to networked learning. Echoing Goodyear et al (2004) arguing that access to content is a necessary, but not sufficient characteristic, of networked learning, we would say that re-use of learning designs as 'plans for action' in isolation is not sufficiently interesting for the field of networked learning; but the sharing and development of learning designs as 'resources for reflection' or as 'springboards for development' are promising and interesting. Opening for dialogues amongst teachers concerning values, understandings, meaning, and underlying philosophies of learning should be a key issue for networked learning researchers and practitioners.

## References

- Alexander, C., Ishikawa, S., & Silverstein, M. (1977). *A Pattern Language*. New York: Oxford University Press New York. <https://doi.org/10.2307/1574526>
- Barab, S., & Squire, K. (2004). Design-based research: Putting a stake in the ground. *The Journal of the Learning Sciences*, 13(1), 1–14.
- Beetham (2007). (n.d.). Beetham2007(1).
- Bell, P., Hoadley, C. M., & Linn, M. C. (2004). Design-based research in education. *Internet Environments for Science Education*, 2004, 73–85.
- Conole, G. (2007). Rethinking Pedagogy for a Digital Age. *Rethinking Pedagogy for a Digital Age: Designing and Delivering E-Learning*, 81–91. <https://doi.org/10.4324/9780203961681>
- Conole, G. (2012). Mediating Artefacts. In *Designing for Learning in an Open World* (pp. 65–84). New York, NY: Springer New York. [https://doi.org/10.1007/978-1-4419-8517-0\\_5](https://doi.org/10.1007/978-1-4419-8517-0_5)
- Conole, G., Dyke, M., Oliver, M., & Seale, J. (2004). Mapping pedagogy and tools for effective learning design. *Computers and Education*, 43(1–2 SPEC ISS.), 17–33. <https://doi.org/10.1016/j.compedu.2003.12.018>
- Dalsgaard, C. (2004). Pædagogisk vurdering af e-læringssystemer. In *Fleksibel Læring Og Undervisning* (pp. 239–258). (p. (pp. 239–258). Aalborg Universitetsforlag.
- Dalziel, J. (2003). Implementing learning design: The learning activity management system (LAMS).
- Dalziel, J. (2015). Reflections on the Art and Science of Learning Design and the Larnaca Declaration. In *The Art & Science of Learning Design* (pp. 3–14). Rotterdam: SensePublishers. [https://doi.org/10.1007/978-94-6300-103-8\\_1](https://doi.org/10.1007/978-94-6300-103-8_1)
- Dalziel, J., Conole, G., Wills, S., Walker, S., Bennett, S., Dobozy, E., ... Bower, M. (2016). The Larnaca Declaration on Learning Design - 2013. *Faculty of Social Sciences - Papers*. Retrieved from <http://ro.uow.edu.au/sspapers/2322>
- Davidson, J., & Konnerup, U. (2016). Revitalisering af PBL i videregående uddannelser gennem Learning Design. *Tidsskriftet Læring Og Medier (LOM)*, 9(15). <https://doi.org/10.7146/lo.m.v9i15.23126>
- Derry, S. J., Pea, R. D., Barron, B., Engle, R. A., Erickson, F., Goldman, R., ... Sherin, M. G. (2010). Conducting video research in the learning sciences: Guidance on selection, analysis, technology, and ethics. *The Journal of the Learning Sciences*, 19(1), 3–53.
- Dirckinck-Holmfeld, L. (2002). ICT and Problem Oriented Project Pedagogy. *Dirckinck-Holmfeld, Lone-Fibiger, Bo. et Al (Eds): Learning in Virtual Context. Samfundslitteratur*.
- Dirckinck-Holmfeld, L., & Fibiger, B. (2002). *Learning in virtual environments*. Samfundslitteratur.
- Dohn, N. B., & Hansen, J. J. (2016). Didaktik, design og digitalisering. In *Didaktik, design og digitalisering*.
- Fibiger, B. (2003). Streaming Video - grundlæggende genrer i læringsomgivelser, 1–9.
- Georgsen, M. (2003). Læring , kommunikation og samarbejde i virtuelle rum. *Tidsskrift for Universiteternes Efter- Og Videreuddannelse (UNEV)*, 1(1). [doi:http://dx.doi.org/10.7146/unev.v1i1.4995](http://dx.doi.org/10.7146/unev.v1i1.4995), 1–9.
- Gleerup, J., Heilesen, S., Helms, N. H., & Mogensen, K. (2014). Designing for Learning in Coupled Contexts. In V. Hodgson, M. de Laat, D. McConnell, & T. Ryberg (Eds.), *The Design, Experience and Practice of Networked Learning* (pp. 51–65). Cham: Springer International Publishing. [https://doi.org/10.1007/978-3-319-01940-6\\_3](https://doi.org/10.1007/978-3-319-01940-6_3)
- Goddard, T., Griffiths, D., & Mi, W. (2015). Why has Ims Learning Design not Led to the Advances which were Hoped for? In M. Maina, B. Craft, & Y. Mor (Eds.), *The Art & Science of Learning Design* (pp. 121–136). Rotterdam: SensePublishers. [https://doi.org/10.1007/978-94-6300-103-8\\_9](https://doi.org/10.1007/978-94-6300-103-8_9)
- Goodyear, P. (2005). Educational design and networked learning: Patterns, pattern languages and design practice. *Australasian Journal of Educational Technology*, 21(1), 82–101.
- Goodyear, P. (2015). Teaching as design. *HERDSA Review of Higher Education Volume 2*, 2, 27–50. Retrieved from <http://www.herdsa.org.au/wp-content/uploads/HERDSARHE2015v02p27.pdf>
- Goodyear, P., Banks, S., Hodgson, V., & McConnell, D. (n.d.). Research on networked learning: An overview. In *Advances in Research on Networked Learning* (pp. 1–9). Dordrecht: Kluwer Academic Publishers. [https://doi.org/10.1007/1-4020-7909-5\\_1](https://doi.org/10.1007/1-4020-7909-5_1)

- Goodyear, P., & Carvalho, L. (2013). The analysis of complex learning environments. In *Rethinking Pedagogy for a Digital Age: Designing and Delivering e-Learning* (pp. 49–63).
- Goodyear, P., Carvalho, L., & Dohn, N. B. (2014). Design for networked learning: framing relations between participants' activities and the physical setting. *Ninth International Conference on Networked Learning 2014*, 137–144. Retrieved from <http://www.networkedlearningconference.org.uk/abstracts/pdf/goodyear.pdf>
- Goodyear, P., & Dimitriadis, Y. (2013). In medias res: Reframing design for learning. *Research in Learning Technology*, 21(SUPPL.1), 1–13. <https://doi.org/10.3402/rlt.v21i0.19909>
- Goodyear, P., & Retalis, S. (2010). *Technology-enhanced learning*. Sense Publishers.
- Goodyear, P., Retalis, S., Bartoluzzi, S., & Ronteltap, F. (2004). Towards a Pattern Language for Networked Learning. *Networked Learning*, 449–455. Retrieved from <http://www.cs.rug.nl/paris/papers/NL04.pdf>
- Heskett, J. (2002). *Design Very Short Introduction*. New York: Oxford University Press.
- Hiim, H., & Hippe, E. (2007). *Læring gennem oplevelse, forståelse og handling: en studiebog i didaktik*. København: Gyldendal.
- Hodgson, V., McConnell, D., & Dirckinck-Holmfeld, L. (2012). The theory, practice and pedagogy of networked learning. In *Exploring the theory, pedagogy and practice of networked learning* (pp. 291–305). Springer.
- Illeris, K. (2006). *Læring* (Vol. 2. revider). Frederiksberg: Roskilde Universitetsforlag.
- Jensen, H.-C. (2005). Fra velfærd til designkultur. Ph.D.-afhandling h Institut for Litteratur, Kultur og Medier h Syddansk Universitet.
- Jones, C. (2015). *Networked learning: an educational paradigm for the age of digital networks*. Springer.
- King, A. (1993). From Sage on the Stage to Guide on the Side. *College Teaching*. Taylor & Francis, Ltd. <https://doi.org/10.2307/27558571>
- Laurillard, D. (2002). *Rethinking University Teaching: A Conversational Framework for the Effective Use of Learning Technologies* (London: RoutledgeFalmer).
- Laurillard, D. (2008). Technology enhanced learning as a tool for pedagogical innovation. *Journal of Philosophy of Education*, 42(3-4), 521 –533.
- Laurillard, D. (2012). *Teaching as a Design Science*. Routledge. <https://doi.org/10.4324/9780203125083>
- Maina, M., Craft, B., & Mor, Y. (2012). *The art & science of learning design*. (M. Maina, B. Craft, & Y. Mor, Eds.). Sense Publishers. Retrieved from <https://www.sensepublishers.com/catalogs/bookseries/technology-enhanced-learning-1/the-art-and-science-of-learning-design/>
- Markauskaite, L. (2010). *Methodological Choices and Research Designs for Educational and Social Change : Linking Scholarship, Policy and Practice*. New York: Springer. Retrieved from <http://www.worldcat.org/title/methodological-choices-and-research-designs-for-educational-and-social-change-linking-scholarship-policy-and-practice/oclc/778000426#.WfSGdXzJGJQ.mendeley>
- Markauskaite, L., Freebody, P., & Irwin, J. (Eds.). (2011). *Methodological Choice and Design*. Dordrecht: Springer Netherlands. <https://doi.org/10.1007/978-90-481-8933-5>
- McAndrew, P., & Goodyear, P. (2007). Representing practitioner experiences through learning design and patterns. In H. Beetham & R. Sharpe (Eds.), *Rethinking Pedagogy for a Digital Age: Designing and Delivering e-Learning* (pp. 92–102). New York, NY: Routledge.
- McKenney, S. E., & Reeves, T. C. (Thomas C. (2012). *Conducting educational design research*. Routledge.
- Misfeldt, M., Tamborg, A. L., Qvortrup, A., Petersen, C. K., Svensson, L. Ø., Allsopp, B. B., & Dirckinck-Holmfeld, L. (2018). Implementering af læringsplatforme – Brug, værdier og samarbejde. *Tidsskriftet Læring Og Medier (LOM)*, 10(18). <https://doi.org/10.7146/lom.v10i18.97013>
- Mor, Y., & Craft, B. (2012). Learning design : reflections upon the current landscape, 5, 85–94. <https://doi.org/10.3402/rlt.v20i0.19196>
- Sannino, A., Engeström, Y., & Lemos, M. (2016). Formative Interventions for Expansive Learning and Transformative Agency. *Journal of the Learning Sciences*, 25(4), 599–633. <https://doi.org/10.1080/10508406.2016.1204547>
- Sheets-Johnstone, M. (2011). *The Primacy of Movement* (Vol. 82). Amsterdam: John Benjamins Publishing Company. <https://doi.org/10.1075/aicr.82>
- Uljen, M., & Ylimaki, R. M. (2017). *Bridging educational leadership , curriculum theory and didaktik. Non-affirmative theory of education*. <https://doi.org/10.1007-978-3-319-58650-2>
- Westbury, I. (1998). Didaktik and curriculum studies. *Didaktik And/or Curriculum: An International Dialogue*, 47–78.