

Workshop “Seamless learning ecosystem”: past, present and future relevance for research and practice in tailored lifelong learning

Abstract

While there is an increase of scholarly publications on seamless learning since roughly 15 years and several projects, some of them large scale, conducted in particular in Asia and Europe, the theoretical basis of seamless learning is still in development. The aim of the proposed workshop is to bring together scholars and practitioners in the area of seamless learning for taking stock and discussing the state of the art in the field in respect to theory and practice with the aim to generate a future research agenda and planning further collaboration.

1. Taking stock of seamless learning

Although the initial ideas behind ‘seamless learning’ took off almost 30 years ago (Kuh, 1996) the term as we know it now was coined later. The concepts ‘behind’ seamless learning originated from identified needs in various disciplines already in the 1990’s (Wong, 2015), such as the gap between faculty and student affair staff in higher (distance) education, the increased opportunities for personalisation brought with the availability of ‘one-device-or-more-per-student’ and the idea to interweave formal and informal science learning activities (Hofstein & Rosenfeld, 1996). Although these developments ‘co-existed’ without any relation at that time, these later on influenced our understanding of ‘seamless learning’.

Nowadays, many variants and connotations of the term are still distinguished and its relevance for (lifelong) learning and education indicated at different functional and organizational levels. Looking at various definitions, Wong (2015) suggested that the definition by Sharples et al. (2012, p. 24) could be considered as the most common denominator between distinguished connotations, namely “Seamless learning is when a person experiences a continuity of learning, and consciously bridges the multifaceted learning efforts, across a combination of locations, times, technologies or social settings.”

As this definition expresses an intent and characteristics of a specific type of envisioned learning process of an individual, it does not yet express how this ‘continuity’ comes into being and whether the individuals should for themselves take care of this e.g. by bridging contexts or be supported in their efforts through the instructor. For this workshop, for sake of our discussions, in which we take part both as designers as well as researchers, we therefore re-/define it from a designer’s perspective as a learning design paradigm: “Connecting (learning) experiences and learning activ-

ities, through technology-supported learning scenario's using wireless/handheld devices, that learners experience through participation in various contexts (e.g. formal/non-formal) and hereby supporting, improving and enhancing learning (and support) processes, so that learners experience a continuity of learning across environments and settings at different times and are, for their learning processes, optimally benefiting from their experiences both in and across contexts" (Rusman, 2019, adapted from Sharples et al., 2012, p. 24).

However, also looking from a design perspective to the concept, it has been argued that the learning notions underlying 'the enhancement of learning and support processes' is still under-theorised to date and furthermore that seamless learning might also be positioned as a meta-learning approach, "*that spans, encapsulates or extends the currently known learning approaches*" (Wong & Looi, 2019, p. 20). It also has been argued that the aim of seamless learning should not be "to overcome or reduce seams, but to work with seams as potential learning opportunities" (Dilger, Gommers, & Rapp, 2019, p. 48), for which the learning theoretical foundation should be developed further.

Meanwhile, Durak and Çancaya (2018) show in their systematic scoping review study an increase in the number of studies on seamless learning and indicate that the importance of the concept seems to be gradually increasing. However, their detailed analysis of 58 selected articles also showed additional issues in the current body of research. Looking at where studies took place, the majority of studies (42 %) took place in Asia (Singapore and China), mostly (almost 95 % in total) amongst student and teachers at a K12 or undergraduate level. Not many studies took place in higher (distance) education, although this could be expected, as they provide various modes of online academic education. Also other contexts (e. g. vocational education) could be considered underrepresented, although especially there are ample opportunities for 'boundary crossing' present through the combination of formal learning and 'learning on the job'. Furthermore, looking at research methods and models employed in the field, it appeared that conceptual and descriptive methods and qualitative methods were most prominent. More quantitative methods constituted 17 % and mixed methods 14 % of employed research methods. They concluded that more experimental methods are not (yet) much favoured in studies carried out on seamless learning.

Starting from the critical notes and reflections above, in this workshop we would like to invite researchers and practitioners to think, contemplate and discuss about the past, present and particular the future relevance of 'seamless learning' for various educational contexts, share knowledge, design practices and experiences and jointly formulate recommendations for the domain, in terms of future and further research lines and endeavours.

After a brief presentation of the state of the art in the field of seamless learning in the workshop we would like to deepen the discussion in respect to theorising and practice. We will invite the participants to provide their central research questions regarding the concept of seamless learning and for the design of seamless learning settings. Through these discussions in the workshop a "landscape" of further research and practice in the field of seamless learning will be co-created. Furthermore

we would like to invite the workshop participants to prepare their ideas of future research and practice initiatives in the field of seamless learning. We will provide an "mini open space" platform within the workshop to allow participants with similar ideas to link up. As a further outcome we want to link researchers and designers in the field of seamless learning closer together.

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