

PLE in formal education: challenges for openness and control

Citation for published version (APA):

Kalz, M. (2014). PLE in formal education: challenges for openness and control. In S. Kroop, A. Mikroyannidis, & M. Wolpers (Eds.), *Responsive Open Learning Environments: Outcomes of Research from the ROLE Project* (pp. 226-228). Springer. https://doi.org/10.1007/978-3-319-02399-1_9

DOI:

[10.1007/978-3-319-02399-1_9](https://doi.org/10.1007/978-3-319-02399-1_9)

Document status and date:

Published: 05/11/2014

Document Version:

Peer reviewed version

Document license:

CC BY-NC-SA

Please check the document version of this publication:

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
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- The final published version features the final layout of the paper including the volume, issue and page numbers.

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PLE in formal education: challenges for openness and control

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Abstract. This short comment reflects about a critical account of educational technology and makes reference to the chapter by Vieritz et al. about the use of widget bundles for formal learning in higher education.

1 Introduction

Personal Learning Environments (PLE) have been intensively discussed since the introduction of the concept without an agreement about their definition and concrete focus. In its early development phase PLE have been introduced as learning technologies under the control of the learner [1]. Later we have described a PLE as a learning environment in which learners on the one hand actively integrate distributed digital information, resources and contacts, on the other hand document learning progress and learning outcomes based on standards [2]. While the original concept of the PLE has been introduced as a counter-concept for teacher/instructor-prepared learning environments like Learning Management Systems (LMS) nowadays this perception of a PLE seems to have moved into a direction in which all technology that enlarges the landscape of standard learning technology can be regarded as a PLE.

The authors of the chapter have presented three case studies of widget bundles that function as an enrichment of the traditional technology-supported learning environments at these three institutions. These implementations provide interesting directions for a transition between learning technologies that are designed according to fixed curricula and prepared content towards more flexible environments. Especially the activity recommender might offer an interesting direction to support self-organized learning. But flexibility alone is not the core of a PLE.

Selwyn calls for a critical account of educational technology that takes into account the societal intertwining of educational technology on the micro-and macro-level and the study of learning technology in dimensions of “power, control, conflict and resistance” [3]. We cannot disconnect this wider discussion and reflection from the implementation level. In this sense, learners need to be able to actively (co-)design their learning environment to make it a personal one. This is the important difference between adaptivity and adaptability of a learning environment [4]. While adaptivity can be designed completely according to rules of teachers or the designer of a piece of learning technology, the adaptability enables a learner to design the learning environment according to individual needs. In the context of educational institutions and formal learning this leads to a number of challenges.

The authors have argued that pre-designed widget bundles have been used to not confuse users and provide them with too many choices. But this leads to the contradiction that widget bundles are a result of a design process of teachers without giving learners any influence on their technology-enhanced learning environment. We have described this contradiction as a “competence continuum” consisting of a number of core skills to be able to use a PLE effectively for self-directed learning [5]. The biggest challenge is to come to a setup that also enables learners without a high level of self-directedness and IT skills to slowly get used to a more open and flexible learning environment. Pre-defined spaces that can slowly be extended are one option for this issue, the other option would be to make available a limited number of widgets that users try first and then decide about their use and usefulness.

And this leads to a related challenge: Since PLE are dynamic environments that grow according to the context and needs of the learner their evaluation needs to take into account a temporal perspective consisting of a number of snapshots of the environment and their impact on enabling self-directed learning processes. It is essential for the further development of PLE and their impact in education that the community develops evaluation frameworks that can systematically handle the complexity of evaluating a personal environment that changes its status dynamically over time and can thus fulfill different purposes.

One possible theoretical framework for developing such an evaluation approach is the adaptive structuration theory: „The act of bringing the rules and resources from an advanced information technology or other structural source into action is termed structuration. Structuration

is the process by which social structures (whatever their sources) are produced and reproduced in social life” [6]. Thus can this theory build a good foundation to analyse the interrelation between social structures and technological structures developed in a PLE and the dimensions pinpointed by Selwyn.

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