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Abstract

The use of information technology in the learning process is one major success factor for innovative learning scenarios. A necessary pre-condition is learning process and appropriation of technology-mediated learning (TML) to ensure learning outcomes. However, research still lacks insights concerning determinants and consequences of a TML appropriation. Therefore, this dissertation proposal presents a theory-driven design approach to engage TML appropriation. First, based on the insights of a structured literature on TML, the learning process is identified as a critical variable in TML research. Second, based on adaptive structuration theory, a theoretical model is developed considering TML appropriation and its influence on the learning process and its outcomes. For this purpose, a mixed-methods approach is presented in order to evaluate the theoretical model and its propositions to gain rich insights on how the appropriation, the learning process, and learning outcomes are intertwined. Third, based on a theory-driven approach, elements engaging the appropriation of TML are designed and evaluated. In specific, I draw on the concept of scaffolding to engage appropriation by considering insights from didactical theory and practice. This thesis has several theoretical and practical contributions. For theory, I first provide a detailed overview of the state of the art in TML research, thus providing research directions for TML scholars. Second, TML and adaptive structuration theory are enriched with an in-depth view of TML appropriation. Third, by providing a design theory, I enrich the knowledge body of TML by considering scaffolding theory to support the learning process. Expected practical contributions include the derivation of design elements for TML services that are faithfully appropriated to ensure learning success of TML participants. These findings are of importance for universities and all service providers that heavily build on IT-supported learning scenarios, such as massive open online course providers.