From an Award-Winning Blended Learning Platform to a Transferable Learning Ecosystem: The Evolution of the textil trainer

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Abstract

The rapid transformation of industrial sectors requires higher education institutions to provide flexible, competence-oriented learning opportunities that support lifelong learning and interdisciplinary qualification pathways. In textile engineering education, this challenge is amplified by the increasing complexity of materials, processes, and sustainability requirements, while learners often enter programmes with heterogeneous disciplinary backgrounds. This contribution presents the *textil trainer* as a blended learning platform for higher education in the textile sector. The platform was recently honoured with the Comenius-EduMedia Medal in the *Blended Learning Programmes* category, recognising exemplary quality in digital educational media and innovative blended learning concepts.

As a case study, the poster presents the integration of a curated curriculum of textile trainer learning modules into a micro-credential offered within the TUCacademy framework at Chemnitz University of Technology. The modular curriculum serves as an asynchronous preparation phase, enabling participants from a wide variety of disciplines, like engineering, natural sciences, economics, design, and others to establish a shared foundation in textile technologies. Building on this common knowledge base, participants addressed an authentic industrial challenge in the field of protective textiles using a Design Thinking approach.

The presented concept demonstrates how established blended learning platforms can support competence-oriented teaching by combining self-directed online learning, collaborative project work, and close cooperation with industry. Initial experiences indicate that this approach not only fosters domain-specific competences but also promotes transversal skills such as interdisciplinary collaboration, problem-solving, creativity, and innovation capabilities.

Beyond the successful implementation of the micro-credential, the project illustrates how an established digital learning platform can evolve into a transferable learning ecosystem. Rather than serving solely as a repository of learning resources, the *textil trainer* increasingly connects modular online learning, competence-oriented teaching, interdisciplinary collaboration, authentic industrial challenges, and lifelong learning opportunities within a coherent educational framework.
The poster shows a pedagogical design principle, implementation experiences, and transfer potential of this evolution. It argues that such learning ecosystems represent a promising pathway for flexible, scalable, and industry-relevant higher education, enabling universities

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to bridge formal education, continuing professional development, and collaboration with industry.

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