Core Research Area: Personalization of Learning

There are enormous differences between learners that influence how they interact with learning materials and environments. For instance, learners differ in their prior knowledge, their experiences with new technologies, and their learning interests. Ideally, learning environments should be tailored to each individual’s specific characteristics. To ensure effective learning and to prevent learners from getting frustrated due to being over- or underchallenged, technology-enhanced learning environments increasingly offer possibilities for adapting and personalizing learning experiences. For instance, they provide error feedback that is tailored to the learner’s knowledge level, or enable the learner to customize the learning environment to fit his or her interests.

Research efforts at the frontier of this core area are, for example, directed at the issue of how to move beyond stereotype-based personalization by identifying learning-specific requirements and constraints of personalization. Further research is also needed to develop measures for evaluating the effectiveness of personalization features in learning environments. Another exemplary research questions concerns the distribution of control between learner, teacher, and system.