From Expert-Driven to Data-Driven Adaptive Learning

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Abstract: Adaptive educational system have a very long history, however, the majority of work in this field can be still considered as traditional expert-driven personalization. The increased availability of student data opened a way to data-driven personalization, however it is still a challenge to replace traditional expert-driven approaches with data-driven ones. In my talk I will review our attempts at PAWS lab to make transition from expert-driven to data-driven approaches in several sub-areas of adaptive learning such as adaptive navigation support, domain modeling, and student modeling.

Peter Brusilovsky is a Professor of Information Science and Intelligent Systems at the University of Pittsburgh. Peter has been working in the field of adaptive educational systems, user modeling, and intelligent user interfaces for more than 30 years. He published numerous papers and edited several books on adaptive hypermedia, adaptive educational systems, user modeling, and the adaptive Web. Peter is the Editor-in-Chief of IEEE Transactions on Learning Technologies and a board member of several journals including User Modeling and User Adapted Interaction and ACM Transactions on Social Computing. At the University of Pittsburgh. Peter leads the Personalized Adaptive Web Systems Lab that investigates various kinds of user-adaptive systems: adaptive hypermedia, adaptive search, recommender systems and adaptive educational systems. Among the current PAWS priority topics is personalization based on social data, i.e., information directly or indirectly left by the large community of users.