Deep learning in school construction
Smart design wizards for the school of the future

The requirements for modern learning environments are constantly changing and the spatial conditions must be continuously adapted. At the same time, school buildings are subject to laws and regulations such as escape routes and are characterised by large flows of people. In the IDP, contemporary school buildings are analysed and learning strategies derived together with experts for school construction from the Leinhäupl+Neuber architectural office and for deep learning technologies at the German Research Center for Artificial Intelligence (DFKI). Building on this, smart digital assistants are developed to alert the architect to design errors or to suggest individual rooms or parts of buildings.

The aim of the interdisciplinary projects advertised here at the Faculty of Computer Science is for example:
- Analysis of school buildings
- Development and evaluation of learning methods
- Development and evaluation of user interfaces
- Development of plug-ins for architectural software

For interdisciplinary projects, the BIM-Lab (http://www.ar.tum.de/bimlab/startseite/) is available at the city campus of TUM as a working space. Intensive support by scientists at the interface of computer and architecture is possible. There will also be meetings or video conferences with the architects from Leinhäupl+Neuber and the scientists from DFKI and the University of Hildesheim for help, questions and feedback.

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