SMILE

Smart Environments as a context of motivating learning opportunities for girls for a growing proportion of computer scientists by involving teachers and parents

Project goal

Despite good income opportunities for long-term, secure future prospects, the proportion of women in computer science courses is with about 20 percent in Germany still very low. The aims of the SMILE joint project are to demonstrate these opportunities and to increase the proportion of women in computer science on a sustained basis.

Procedure

The goal of SMILE is to build a positive image of computer science, especially for schoolgirls. On the basis of the socially highly modern theme of the smart environments, girls and young women from the 5th grade level up to the Abitur will be approached by the offer of lectures, participation and research in the field of computer science. With the help of a didactic concept, which is oriented towards the topic of intelligent environments, motivational target- and age-group-oriented teaching offers as well as information materials for the extra-school are developed

- Directly related to the life of girls and teenage girls,
- Providing easy access to the methods and techniques of computer science as well
- Presenting an attractive picture of computer science and computer science professions.

The developed courses are a playful and vivid illustration of the questions in the field of smart environment. In the further process of the courses, the schoolgirls acquire the necessary skills to develop especially computer-related solutions. In addition to the continuous motivation of the pupils, networking structures are created for girls of different age levels among themselves and with women from computer science professions who can serve as role models.

The sustainability of SMILE is assured by the inclusion of stakeholders of the MINT promotion (school authorities, foundations, associations, etc.) as well as the transferability of the designed courses to other laboratory environments.

Innovation und perspective

By emphasizing highly topical and future-proof occupational fields in the area of intelligent environments and assistance systems, the profession of the computer scientist becomes lastingly attractive for female students and thus ensures a growing proportion of computer science students. In addition, SMILE provides answers to the didactic research question as to how learning environments must be structured in order to interest girls in computer science in particular. The developed SMILE offers and structures will continue after the project has ended and be spread supraregionally.

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