Advances in the field of robotics in recent years have made it possible to use robots for a variety of different purposes. One notable example is that of humanlike robots that interact socially with children, introducing the possibility to use such robots as tutors in education. This thesis is about exploring these new possibilities by studying how children interact with a robotic tutor in a school setting, as well as about ethical dilemmas and the social desirability of implementing robots in future classrooms, seen from the eyes of teachers and students.

The results obtained through a field experiment and a longitudinal field study show that children comply with a robot's instruction, respond socially towards it, but also that interactions frequently break down when the robot fails to interact in a consistent and meaningful way.

From an ethical perspective, the results obtained in studies with teachers and students show that there are many open questions and concerns associated with moving social robots into education. This includes how children's rights to privacy can be guaranteed, what roles robots should have, and who should take responsibility for a robot, not only in the actual classroom, but also if unintended consequences occur. These issues need to be dealt with when attempting to implement autonomous robots in education on a larger scale.

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