An Innovative Non-Humanoid Automaton to Ameliorate Children With Social Emotional Learning Uncommunicative Skills

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Children with social and emotional learning suffer daily with conversation due to the lack of social interaction in the classroom setting. The purpose of the project was to create a robot to help children with disabilities and poor communication skills improve their social skills. The automaton created is interactive, kinesthetically appealing to children and is equipped with welcoming automated phrases to help students improve social interactions. According to research, studies have found significant positive effects of social robots in fostering children's learning dealing with emotional nature. Moby was created using 3D printers, an Arduino system and has pre-recorded phrases to carry out social interactions with children with social emotional and cognitive disabilities. Experimentation was done by collecting data from students' coloring Christmas images during a lesson and then during the interaction with Moby. Data was collected by observing the student's work and interactions with the robot as well as evaluating their coloring work. The hypothesis is that using a non-humanoid automaton with social and emotional learning children in a classroom setting would help improve their social communication over time. The data collected demonstrated significant social interactions with the automaton but less coloring work was collected. The hypothesis was partially correct proving positive social interactions between the children and the robot. In conclusion, the robot can help special needs children improve their social-emotional skills by having positive interactions with pre-recorded phrases to better improve the child's communication skills.

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