

## ROLE OF ROBOTS IN TODAY'S SCENARIO OF TEACHING

Dr. Shilpa Joshi

Associate Professor, Mamata Academy of Medical Sciences, Bachupally, Hyderabad India

Orcid Id- <https://orcid.org/0000-0002-1652-2175>

Article Received: 05-03-2025 | Article Accepted: 12-04-2025

©2025 Biomedical and Biopharmaceutical Research. This is an open access article under the terms of the Creative Commons Attribution 4.0 International License.

We have all faced the Covid pandemic, in which online classes took over the classroom teaching as an alternative method. As the technology is advancing, Robots have emerged as a strong weapon and are being used worldwide to revolutionize the conventional methods of teaching.

Currently over 13000 humanoid robots have been deployed in various schools & educational institutions worldwide.

In next few years they will be incorporated in Classroom teaching.

It has been found that the mere presence of Robot can effectively enhance the learning experience of the students, improve the attention level and engagement in the class. Some programmed Human Robots are able to read the expressions also.

According to educational Experts, in the coming years teaching Robots will be able to read facial expressions of children, may be their brains to analyze and adapt what the child is learning.

In language learning also, Robots can be of great help in conversation, feedback and interaction.

Robots can continuously assess students performance and understanding of concepts through interactions and activities. This real-time feedback helps educators identify areas where students need additional support or increased challenges.

Interactions with educational robots evolve over time as a child's experience and skills grow. With robots integrated into the classroom, students embark on a progression-based learning journey that begins with simple instructional commands and gradually advances to using more complex coding languages.

In many institutes teaching staff is also involved in administrative work which becomes very cumbersome, so that teachers can focus more on student interactions. Robots can offload the teachers of teaching repetitively the same course content & administrative work. They can provide personalized support for students with special needs.

Hope so in coming future developing country like India we explore this new innovative method and how it can integrate into our system.

In the future, robots will get to know the students well, and will be able to give personalized teaching to the students.

**Teacher will become more as Mentors rather as educators**

**Robots will & never replace human teachers, but complement to the teaching**

### REFERENCES

1. Guenat, S.; Purnell, P.; Davies, Z.G.; Nawrath, M.; Stringer, L.C.; Babu, G.R.; Balasubramanian, M.; Ballantyne, E.E.F.; Bylappa, B.K.; Chen, B.; et al. Meeting sustainable development goals via robotics and autonomous systems. *Nat. Commun.* **2022**, *13*, 3559. [[Google Scholar](#)] [[CrossRef](#)] [[PubMed](#)]
2. Papert, S.; Solomon, C. *Twenty Things to Do with a Computer*; Constructing Modern Knowledge Press: Cambridge, MA, USA, 1971. [[Google Scholar](#)]
3. Karim, M.E.; Lemaignan, S.; Mondada, F. A review: Can robots reshape K-12 STEM education? In Proceedings of the 2015 IEEE International Workshop on Advanced Robotics and Its Social Impacts (ARSO), Lyon, France, 30 June–2 July 2015; pp. 1–8. [[Google Scholar](#)]
4. Papadopoulos, I.; Lazzarino, R.; Miah, S.; Weaver, T.; Thomas, B.; Koulouglioti, C. A systematic review of the literature regarding socially assistive robots in pre-tertiary education. *Comput. Educ.* **2020**, *155*, 103924. [[Google Scholar](#)] [[CrossRef](#)]
5. Li, D.; Rau, P.P.; Li, Y. A cross-cultural study: Effect of robot appearance and task. *Int. J. Soc. Robot.* **2010**, *2*, 175–186. [[Google Scholar](#)] [[CrossRef](#)]