The Future Roles of Artificial Intelligent Teacher

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Abstract: In recent years, with the leaps and bounds of microelectronics and the Internet, the computing and storage capabilities have dramatically promoted the fast growth of artificial intelligence (AI). The breakthroughs and widespread applications of big data have driven the substantial progress of AI. Thus, the application of AI in education has become a hot topic for discussion. This paper introduces the three kinds of AI and their typical cases, discusses the attitude of mankind to deal with AI, and specifically describes the possible twelve roles that AI teachers will assume in the future. The roles are as follows: a teaching assistant who can automatically set a question and correct homework; an analyst who can automatically diagnose learning disabilities and provide feedback; a coach who can improve the quality of students' problem solving ability; a counselor who can evaluate students' mental health and provide intervention measures; a health physician who can monitor and improve students' physical health; a head teacher who can provide feedback on the report of students' comprehensive quality evaluation; a smart advisor who can offer personalized teaching service; a smart tutor who can solve individual student's problems; a career planner who can promote students' growth; a partner who can help each other during precision teaching research; an intelligent agent which is able to automatically generate and gather personalized learning content; an assistant who can help make education decisions driven by data. In this sense, AI teachers will take a critical part in future schools, and future education will be an era in which human teachers and AI teachers co-exist.

Keywords: artificial intelligence; application of artificial intelligence in education; AI teacher; co-existence; future education