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### Robots Moving Closer to Humans

Robots! Robots on Mars and in oceans, in hospitals and homes, in factories and schools; robots fighting fires, making goods and products, saving time and lives. Robots today are making a considerable impact on many aspects of modern life, from industrial manufacturing to healthcare, transportation, and exploration of the deep space and sea. Tomorrow, robots will be as pervasive and personal as today's personal computers. The dream to create machines that are skilled and intelligent has been part of humanity from the beginning of time. This dream is now becoming part of our world's striking reality. Beyond its impact on physical robots, the body of knowledge robotics has produced is revealing a much wider range of applications reaching across diverse research areas and scientific disciplines, such as: biomechanics, haptics, neurosciences, virtual simulation, animation, surgery, and sensor networks among others. In return, the challenges of the new emerging areas are proving an abundant source of stimulation and insights for the field of robotics. It is indeed at the intersection of disciplines that the most striking advances happen. Today, new communities of users and developers are forming, with growing connections to the core of robotics research. A strategic goal for the robotics community is one of outreach and scientific cooperation with these communities. Future developments and expected growth of the field will largely depend on the research community's abilities to achieve this objective. This talk revisits 50 years and more of research and development in robotics and provides the active trends and perspectives of the field.