The Softer Side of Robots

Robots as we know them are made out of hard parts so that engineers can precisely calculate and program how they move. But they can also be clunky, costly, and dangerous. One of the most sophisticated automatons, the $400 million Mars Spirit rover, got stuck in a sand trap when its wheels couldn't grip the dirt. Now the emerging field of soft robotics aims to mitigate the shortcomings of hard robots. Its goal: build autonomous machines out of malleable materials that work better in sensitive sites such as disaster areas and emergency rooms. The softer, lighter machines could make surgeries safer and less painful, enhance search-and-rescue operations, and improve factory safety. The rise of the robots is looking surprisingly human. Or at least fishlike.