

DISCOVER

CONTENIDO

VOLUME 31 No. 4, MAY 2010

THE NEW ROBOTICS

Two decades ago the Internet began to make it felt in our lives — subtly at first, then with increasing insistence, until it became hard to recall how we lived without it. Two decades from now, will we look back on this as the time when robotics made the same leap? DISCOVER investigates.

30 Machine Dreams.

From disaster sites to the classroom, robots are reaching ever deeper into our lives. Four robotics experts weigh in on the science and the social implications.

36 The Terminators.

In Iraq and Afghanistan, military machines have proved their value at gathering intelligence and disarming bombs. Now the hard question: Should robots also be allowed to kill?

Mark Anderson.

42 The Body Shop.

Hanson Robotics is creating androids that look and act uncannily like us. The way we respond to these creations says as much about who we are as about what the new machines can do.

Bruno Maddox.

50 Child's Plague.

In the past few years, type 1 diabetes rates have soared alarmingly. Nobody knows why — but one man has an idea.

Dan Hurley.

58 New Moon.

The moon is suddenly not again: Scientists see a world of mystery, adventurers see a place to live, and entrepreneurs see a way to get rich.

66 Turning to Dust.

Dry weather, overgrazing, and population growth are transforming grassland into desert around the globe. But some smarter planning (and a little chicken wire) might reverse the tide.

Michael Tennesen.

4 Mail

5 Contributors

6 **Editor's Note**

8 **Data.**

Making sense of the earliest galaxies, eternal youth, probing the appendix, better body scans, genomes by numbers, how water slowed global warming, the multitasking tongue, and more.

18 **Five Questions for Babak Tafreshi**

The founder of the World at Night photo project explains how the night-time sky unites us all.

Andrew Grant.

20 **Hot Science**

New books and TV, future food, art that blurs the line between life and death.

22 **Destination Science.**

Caves, hot springs, and diamond fields — Arkansas is full of surprises.

26 **Vital Signs**

After the Haiti earthquake, volunteer doctors struggle with a puzzling, potentially fatal injury.

H. Lee Kagan.

28 **The Brain.**

An olfactory yardstick measures our sense of smell.

Carl Zimmer.

80 **20 Things You Didn't Know About Water**

Rebecca Coffey.

On the Cover.

The moon, seen in a color-enhanced composite photograph.

ABOVE

A bee collects pollen from a flower in Amman, Jordan.