Hannes Sjöblad

@hsjob

Technology is transforming business and society, but what about the human body?

Exponentially advancing and converging technologies

COMPUTING

ARTIFICIAL INTELLIGENCE

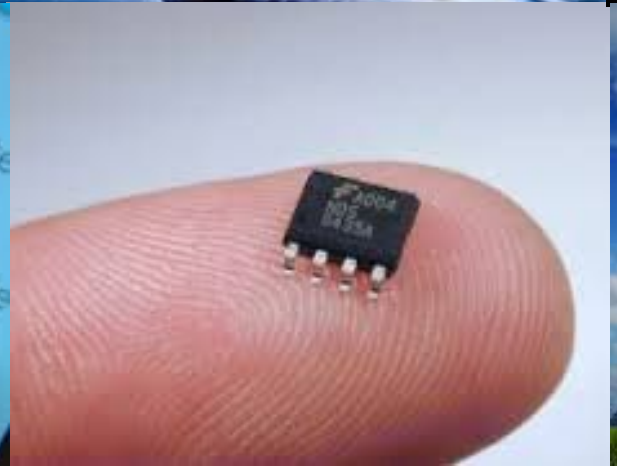
BIOTECHNOLOGY

NEUROSCIENCE

ROBOTICS

DIGITAL MEDICINE

NANOTECHNOLOGY



ENERGY

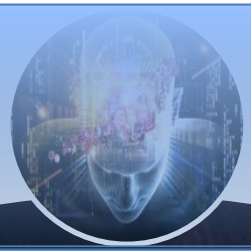
Converging on YOU!

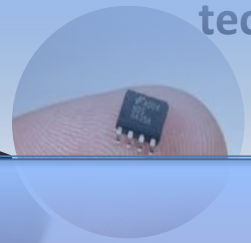
Artificial Intelligence

Nano-technology

Pharmacological

Biotechnology

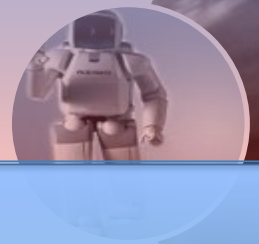


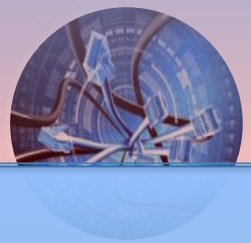


Cybernetic

Computing

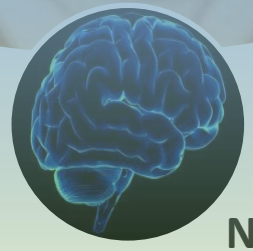
Robotics





Genetic

Energy

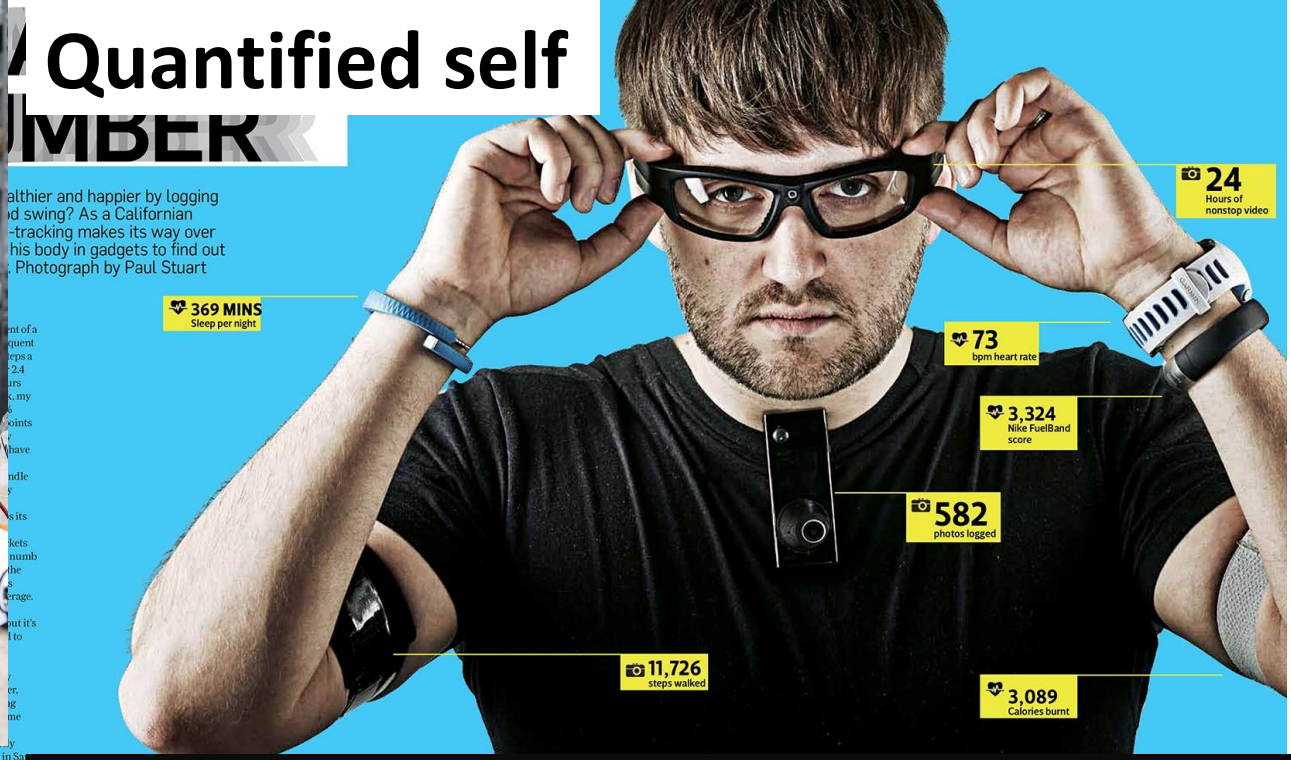


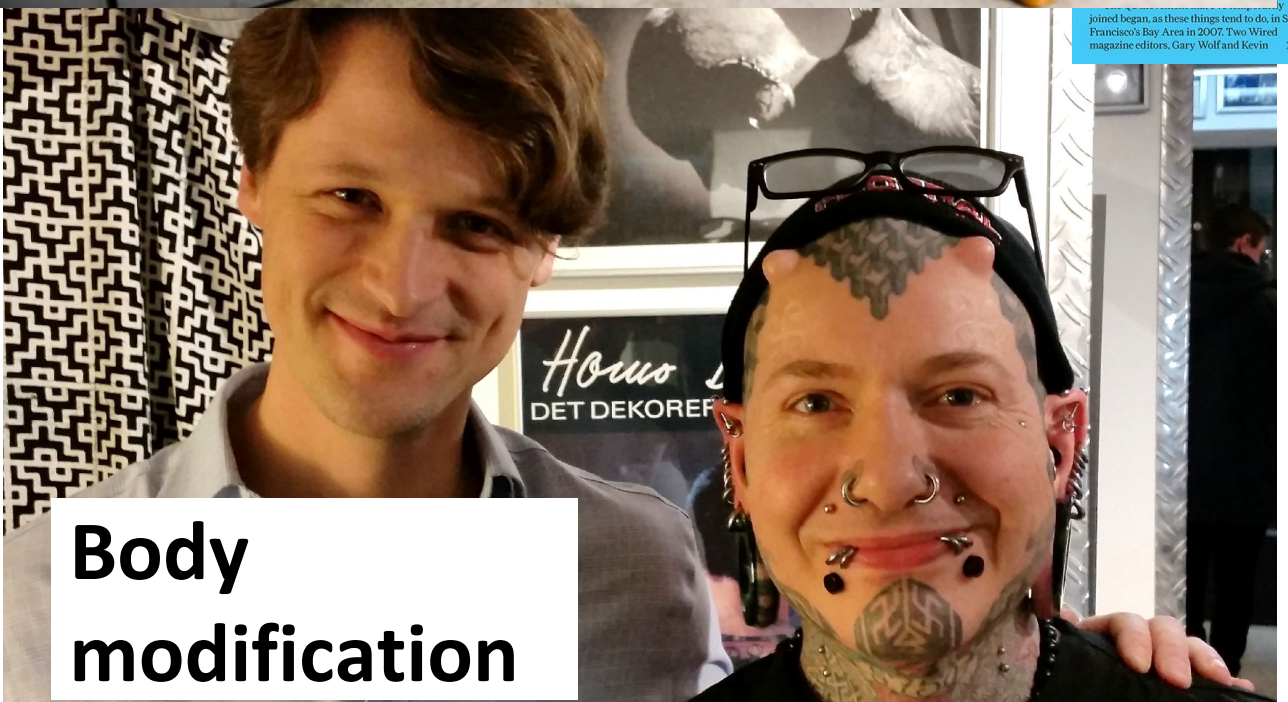
Digital Medicine

Neuroscience

DIY Biology

Quantified self





Body modification

Health and fitness

Ways of hacking your body

Established

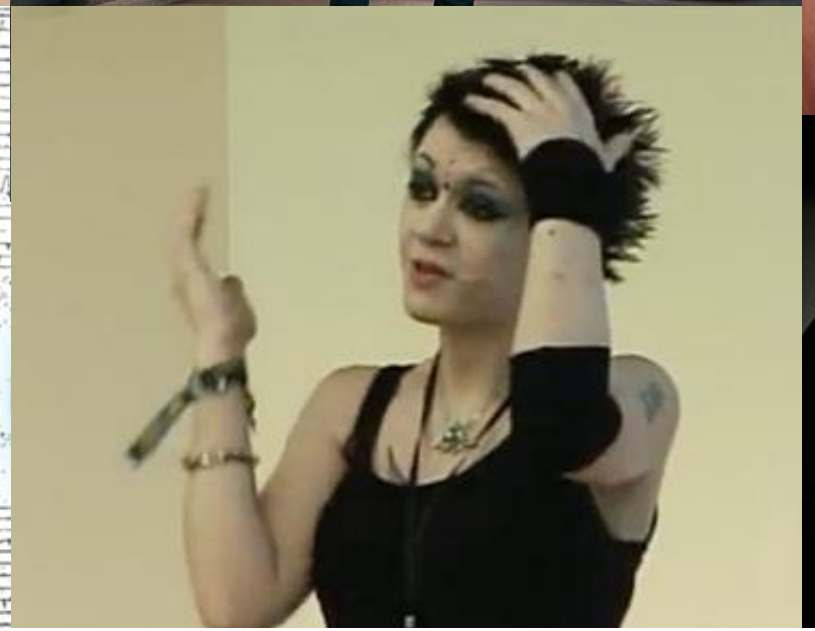
- Exercise
- Nutrition
- Supplements
- Pharmacological
- Meditation

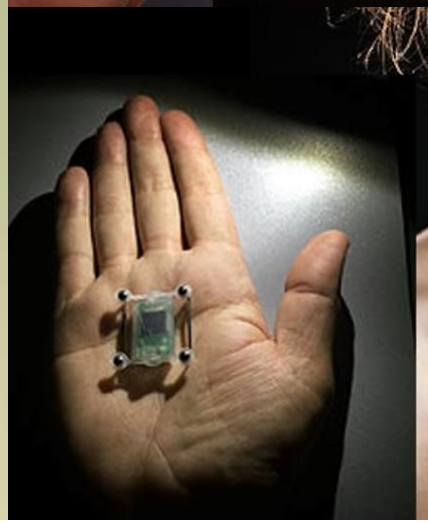
Emergent

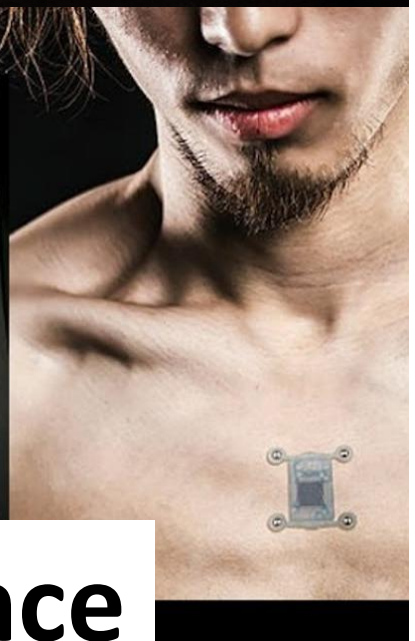
- Self tracking
- Nootropics
- DNA-sequencing
- Blood test
- TDCS

Futuristic

- Cybernetic
- Somatic therapy
- Other Genetic
- Viruses as apps for the body



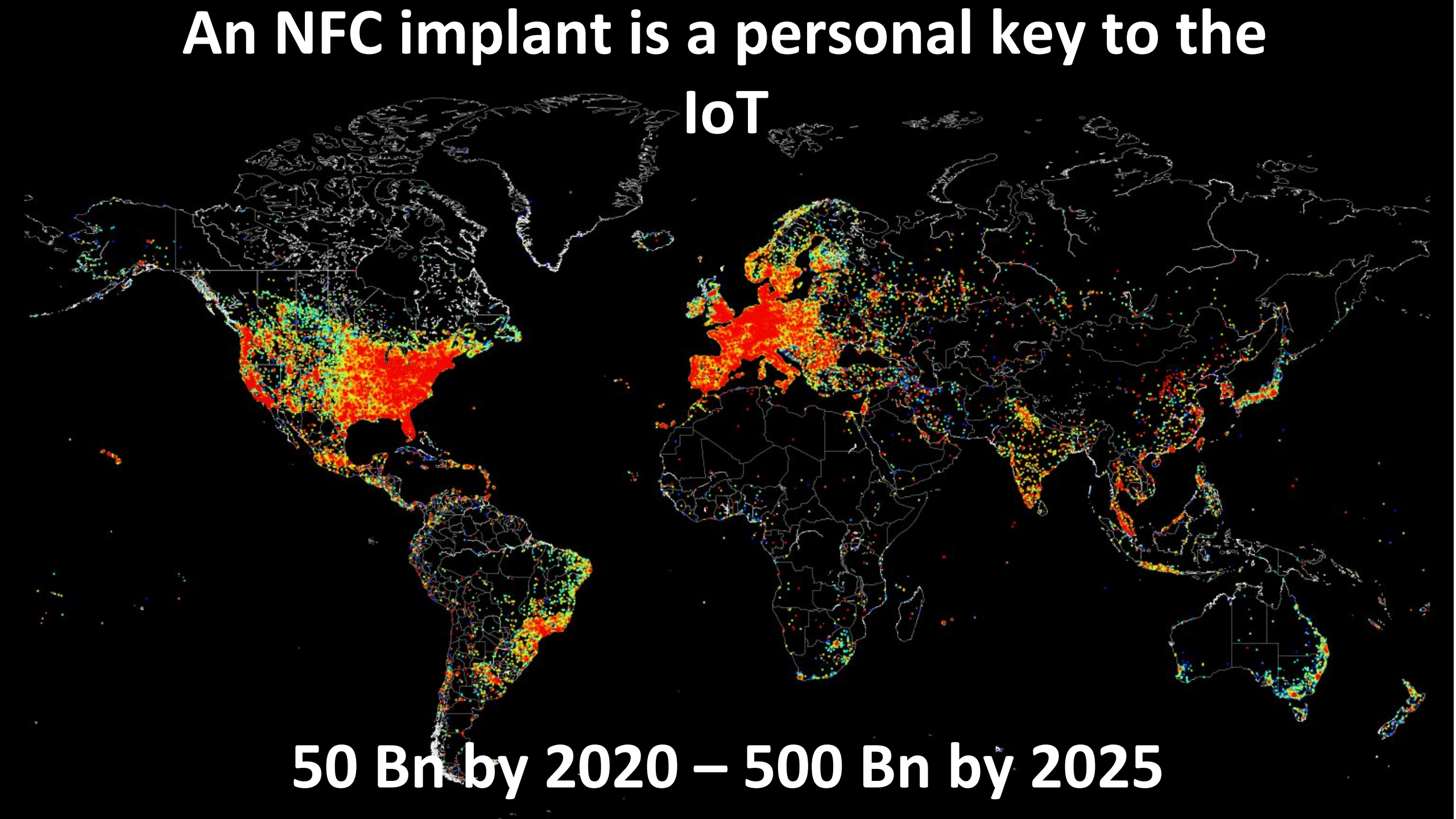




Expanding the human experience

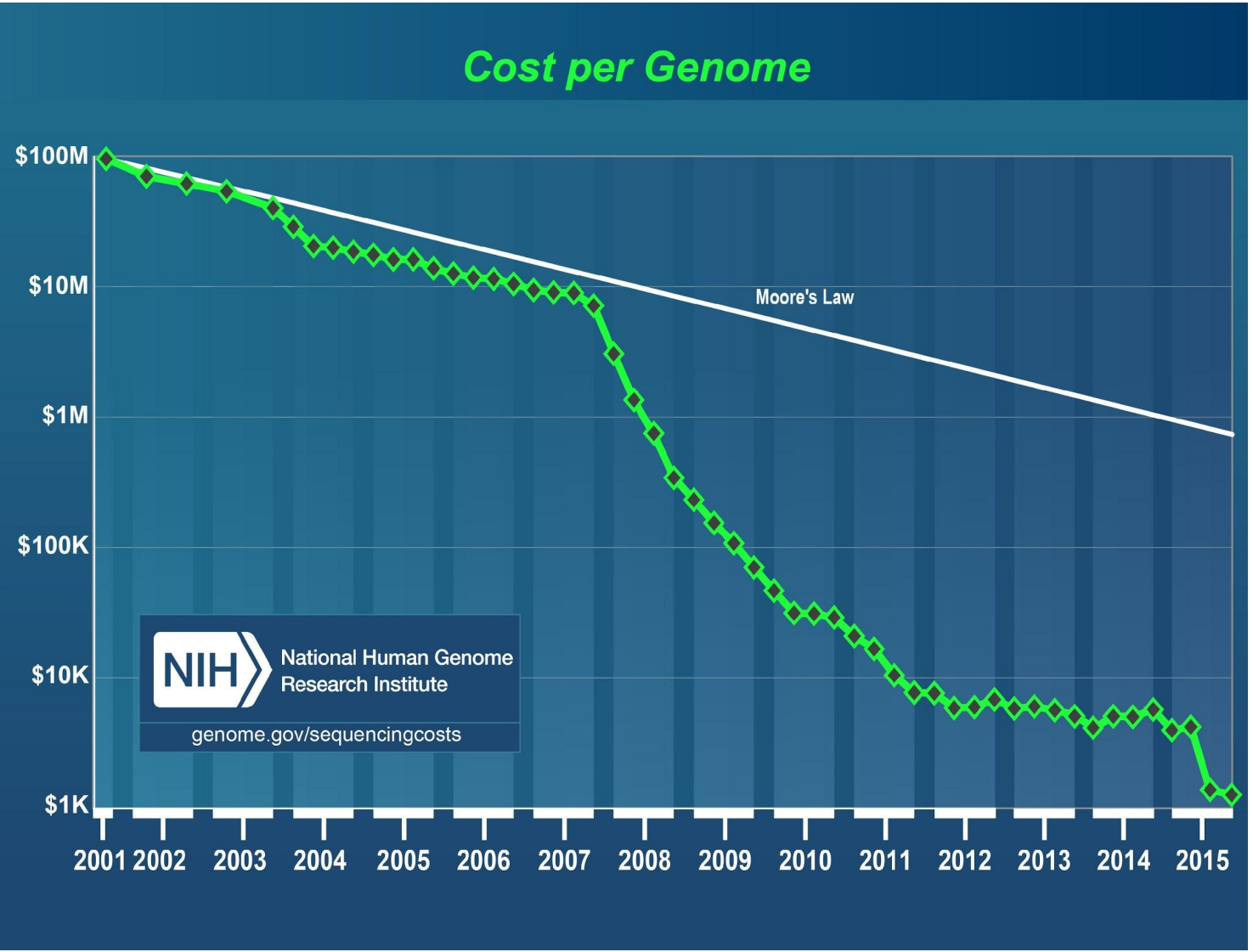
NFC Chip implants: A great way to digitise the junk we carry around in our pockets

An NFC implant is a personal key to the IoT

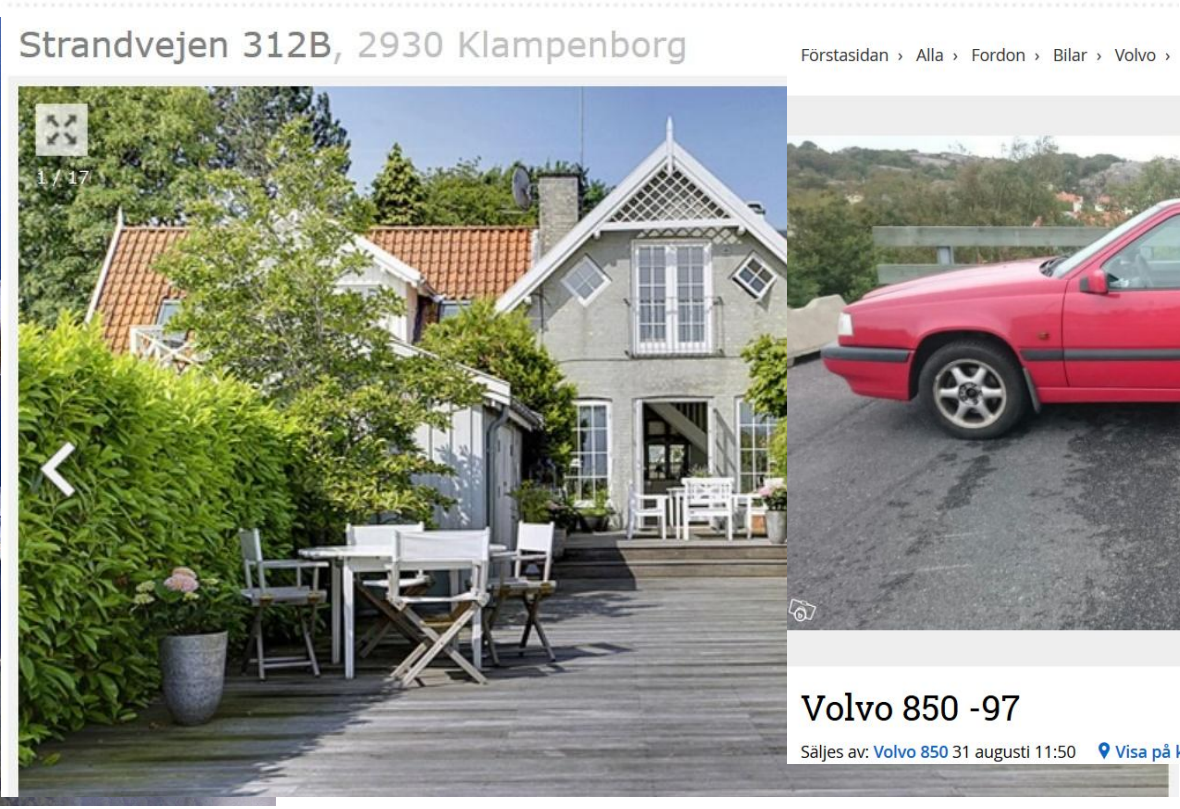


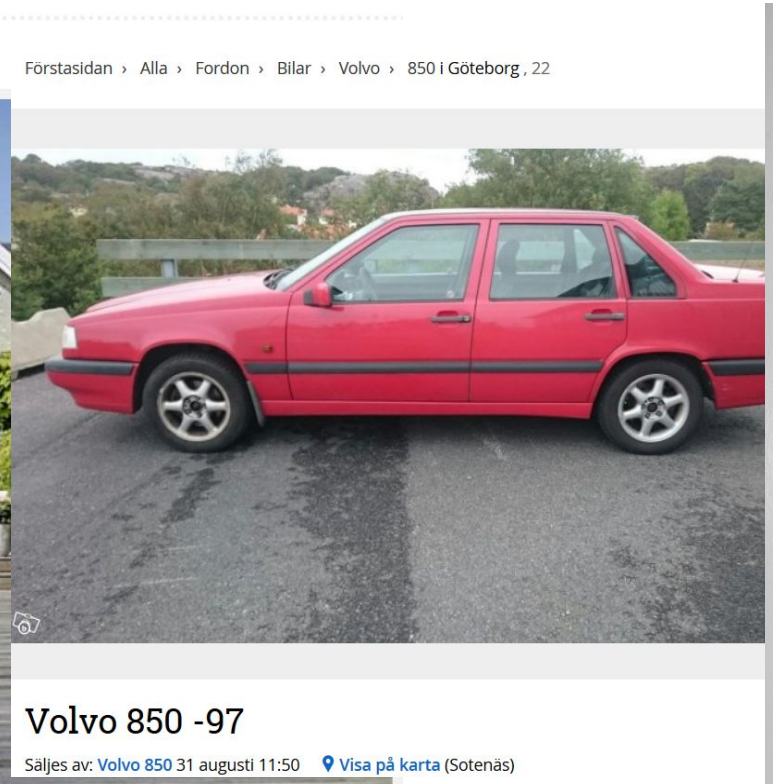
50 Bn by 2020 – 500 Bn by 2025

Beyond bionics – digital biology



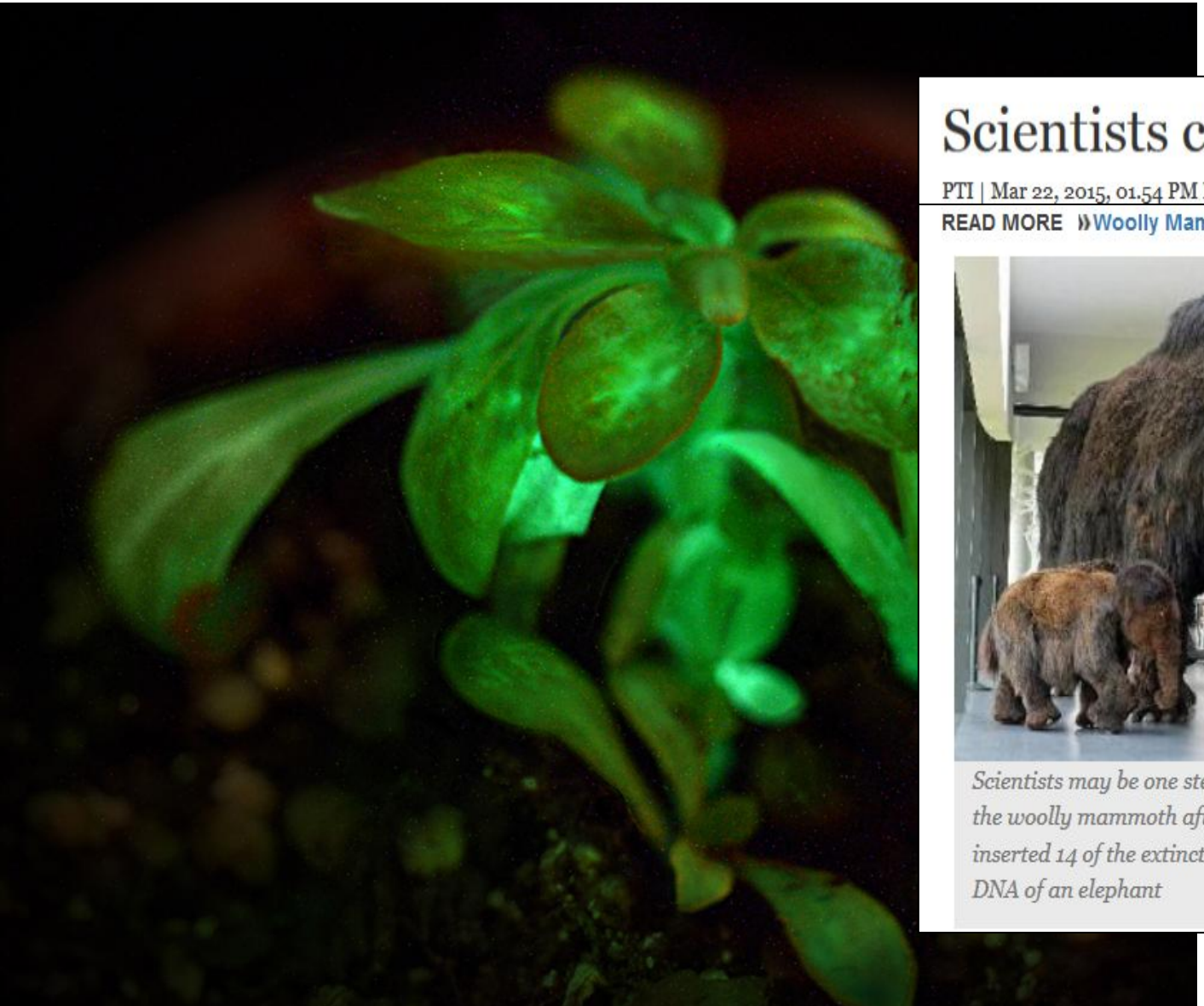
Price of sequencing a human genome





2001 2008 2016 2022

Programming language: CRISPR-CAS9



Scientists closer to recreating woolly mammoth

PTI | Mar 22, 2015, 01.54 PM IST

READ MORE »Woolly Mammoth | harvard | Genes | Elephant | DNA

Scientists may be one step closer to recreating the woolly mammoth after they have successfully inserted 14 of the extinct animal's genes into the live DNA of an elephant

LONDON : Scientists may be one step closer to recreating the woolly mammoth after they have successfully inserted 14 of the extinct animal's genes into the live DNA of an elephant.

Researchers analysed DNA from mammoths preserved in Arctic permafrost and then used the results to reproduce exact copies of 14 mammoth genes.

These were integrated into the elephant genome, where they functioned as normal DNA.

George Church, professor of genetics at Harvard University, used a new technique known as Crispr that allows scientists to make precision edits to DNA, replacing sections of elephant DNA

The Telegraph

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British scientists granted permission to genetically modify human embryos

The Francis Crick institute will genetically edit the leftover embryos from from IVF clinics

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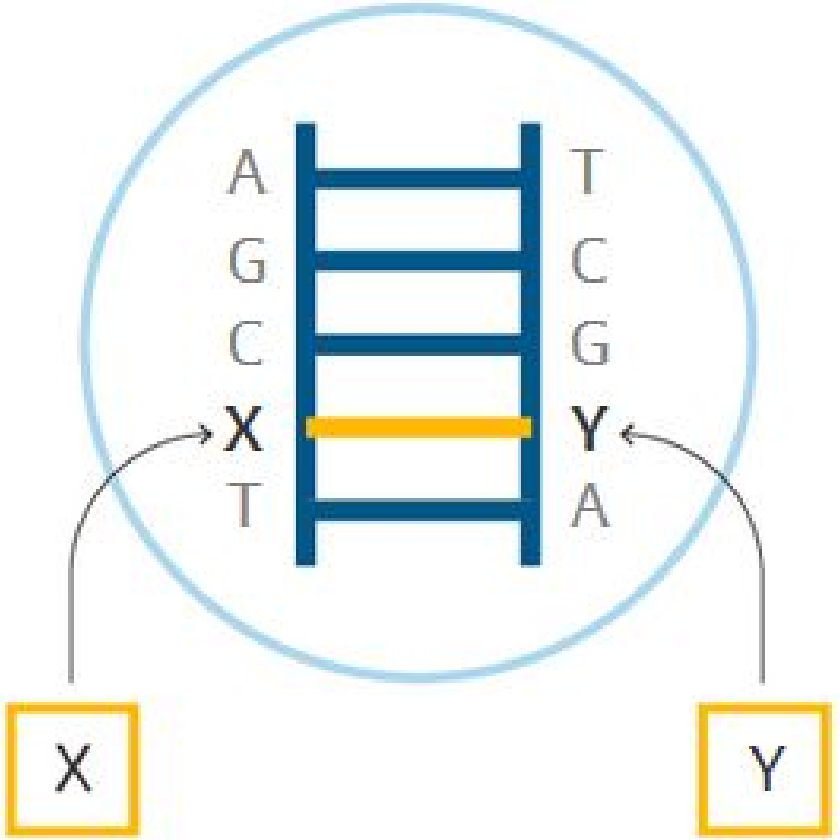
Categories of human gene therapies

- Genomic prediction
- Stem cell therapies
- Somatic therapies
- Hybrid therapies
- Mithocondria replacement
- Germline therapies

Synthetic life – bacteria (2010), yeast (2017)



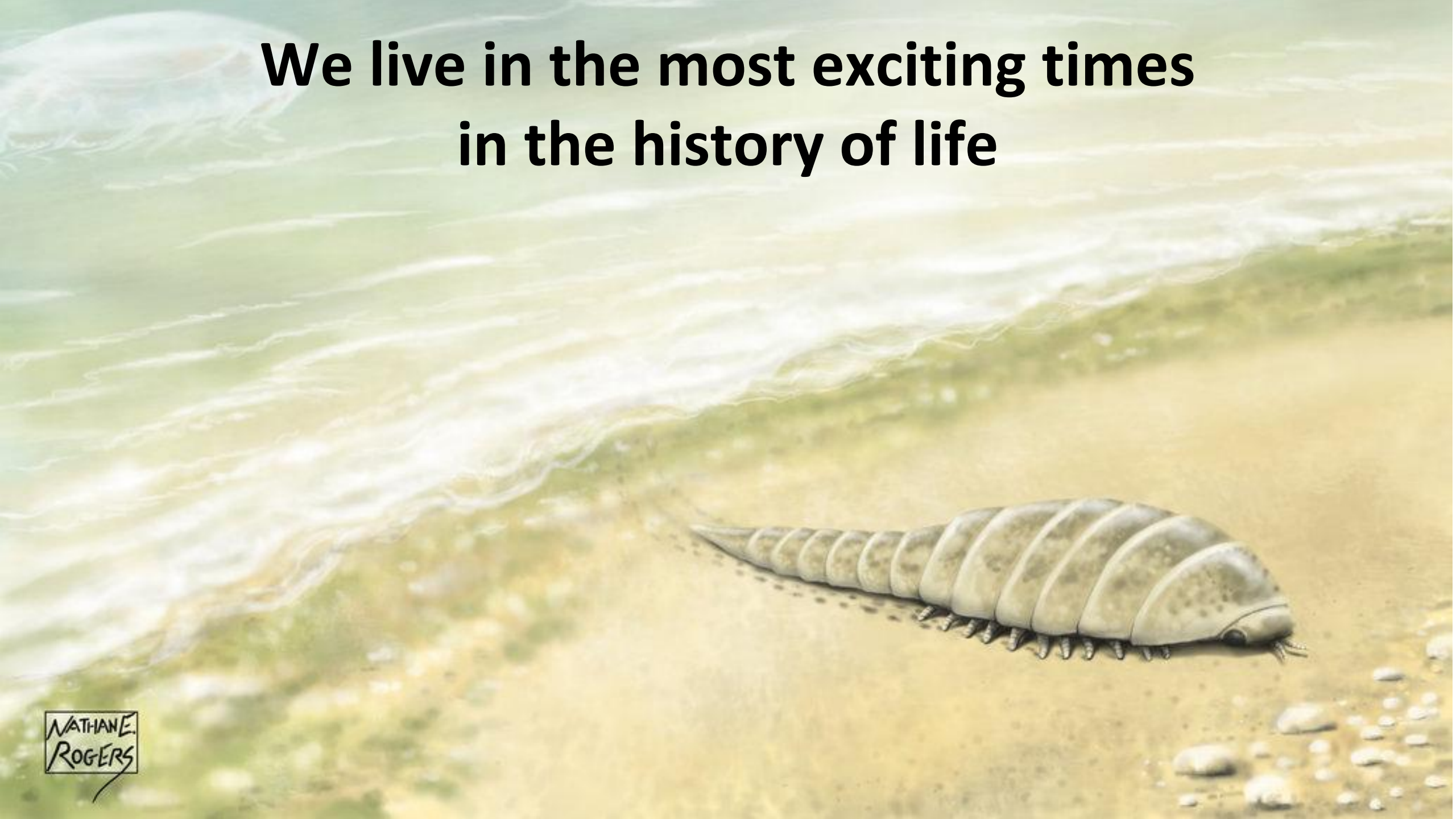
Adaptive, evolving neural network: AlphaGo

Champion professional Go player Lee Sedol (right) makes a move in his match against Google's artificial intelligence program, AlphaGo, at the Google DeepMind Challenge Match in Seoul, South Korea, Wednesday.

LEE JIN-MAN / AP

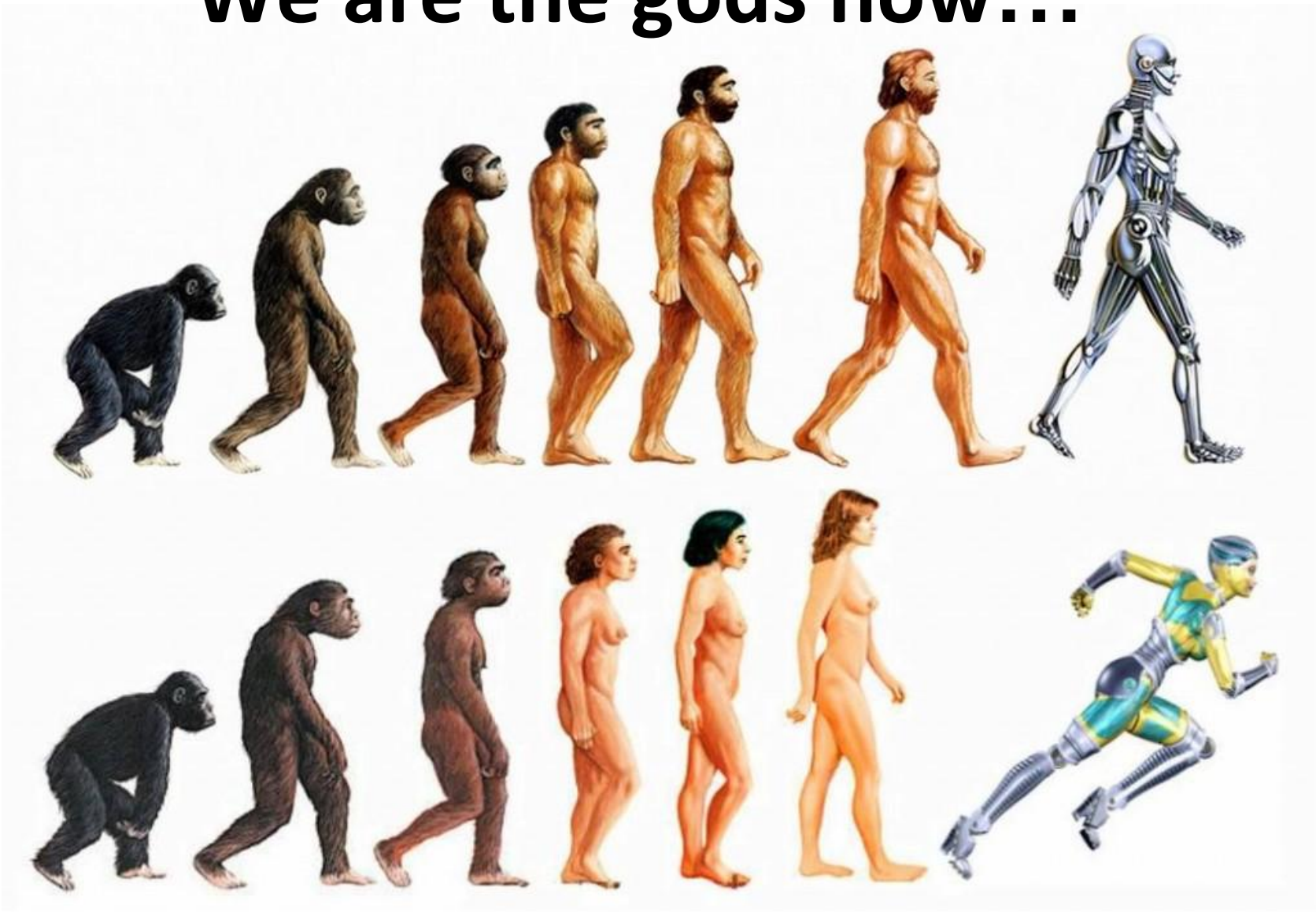
Mars is the only planet inhabited by robots

We live in the most exciting times in the history of life



We are breaking out

We are the gods now…



…so what do you want to create?