The Last Machine

ועדת המומחים בנושא התאמת תכניות הלימודים

וחומרי הלימוד למאה ה-21

Yanki Margalit
Dec 2017

thechewu
Chewu

מפגש לימודי בנושא: מגמות בכלכלה ובחברה בישראל

The last machine: Towards the end of work

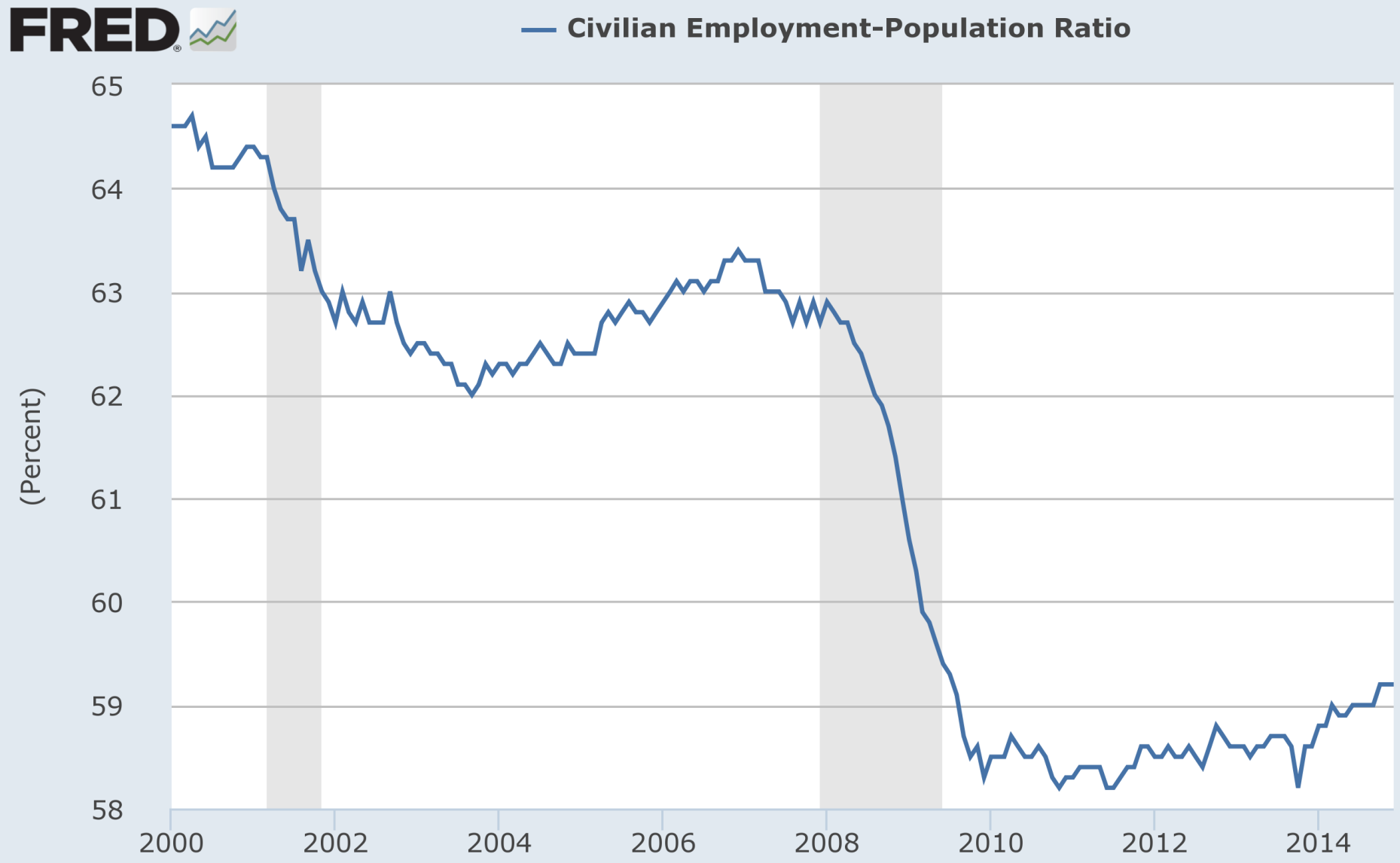
10 techs: The technologies that transform us

1

out of

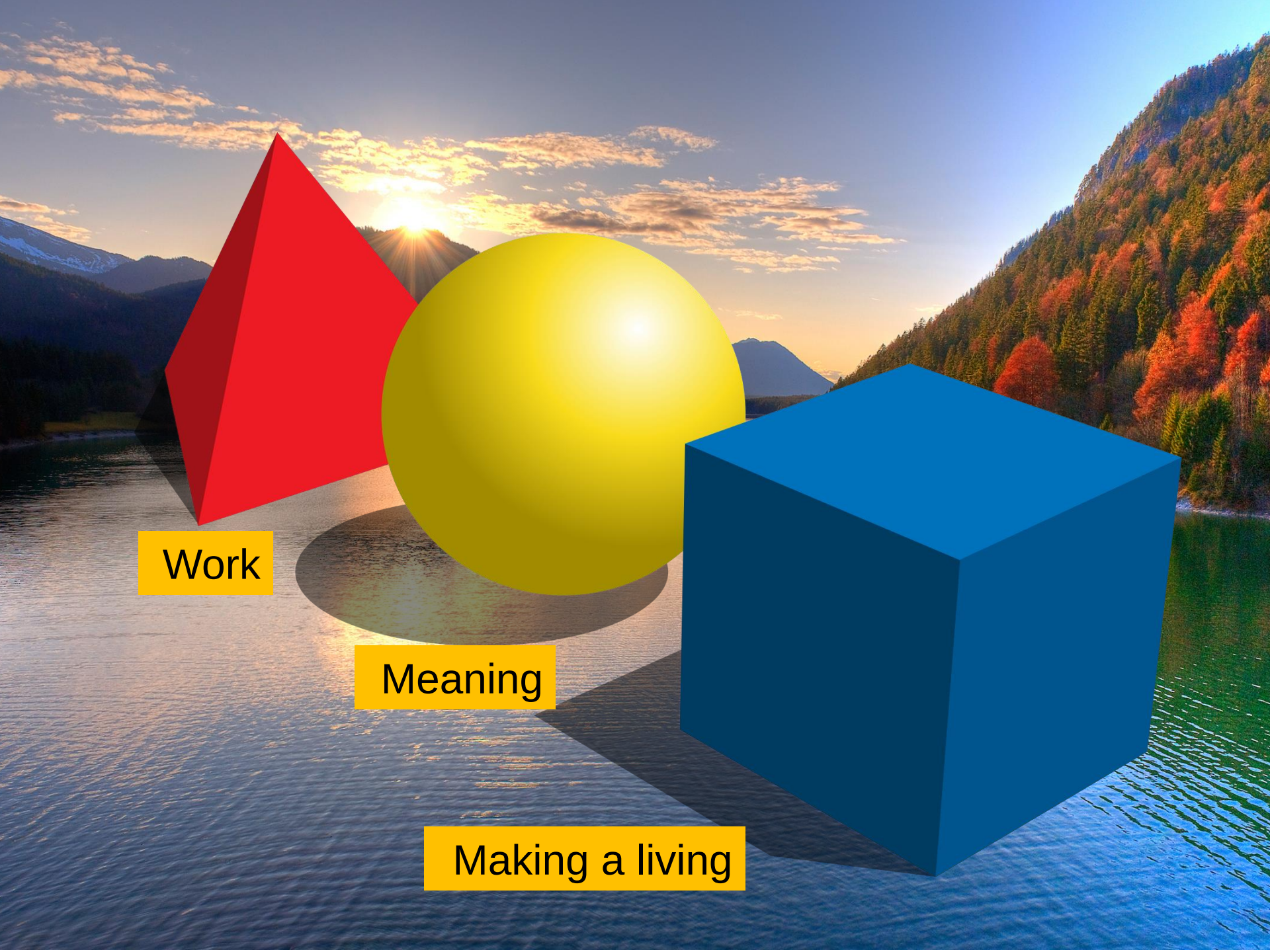
3

Towards 99% unemployment



Source: US. Bureau of Labor Statistics

Shaded areas indicate US recessions - 2015 research.stlouisfed.org


Work
Meaning
Making a living

My prediction:
Next 20 years
2017 – 2037

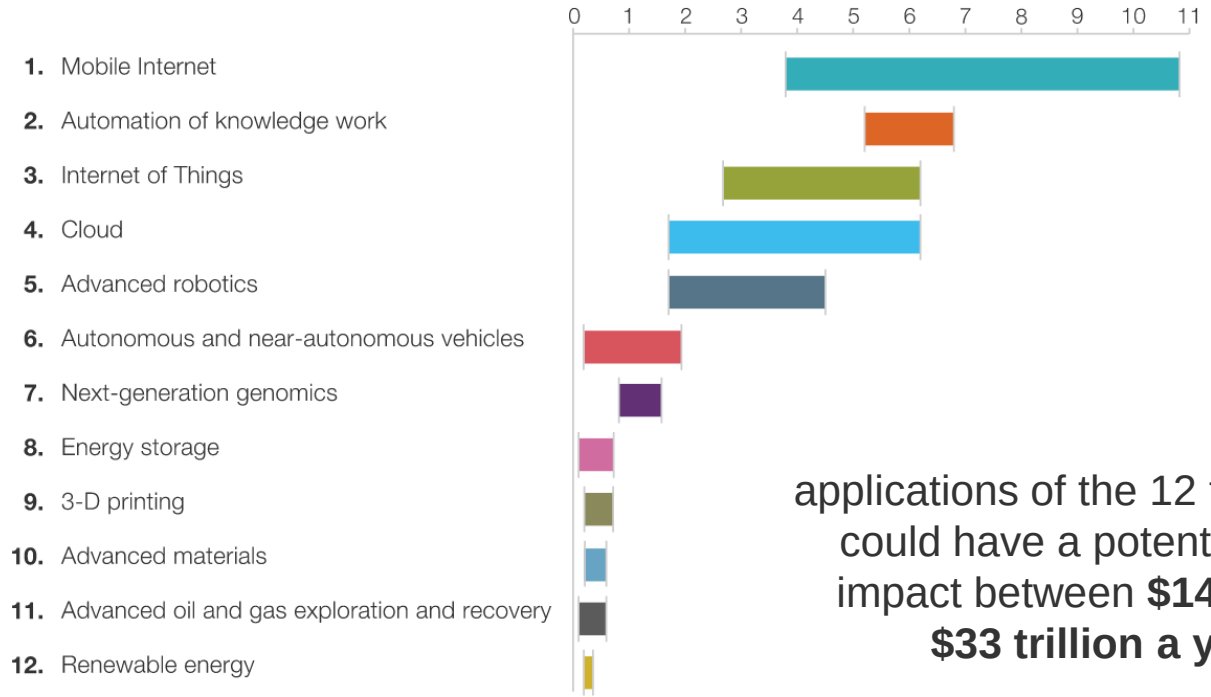
The **S2C Machine – The Last Machine**

Sun 2 Customer

2014 (nom)	78,519,000,000,000
2025	+14-33,000,000,000,000
2027	>100,000,000,000,000

A gallery of **disruptive technologies**

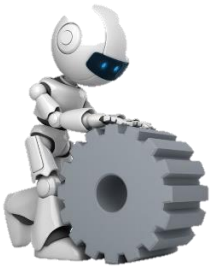
Estimated potential economic impact of technologies across sized applications in 2025, $ trillion, annual



applications of the 12 technologies could have a potential economic impact between **$14 trillion and $33 trillion a year in 2025.**

SOURCE: McKinsey Global Institute

A simplistic view of the Last Machine



RoboHon
Takahashi

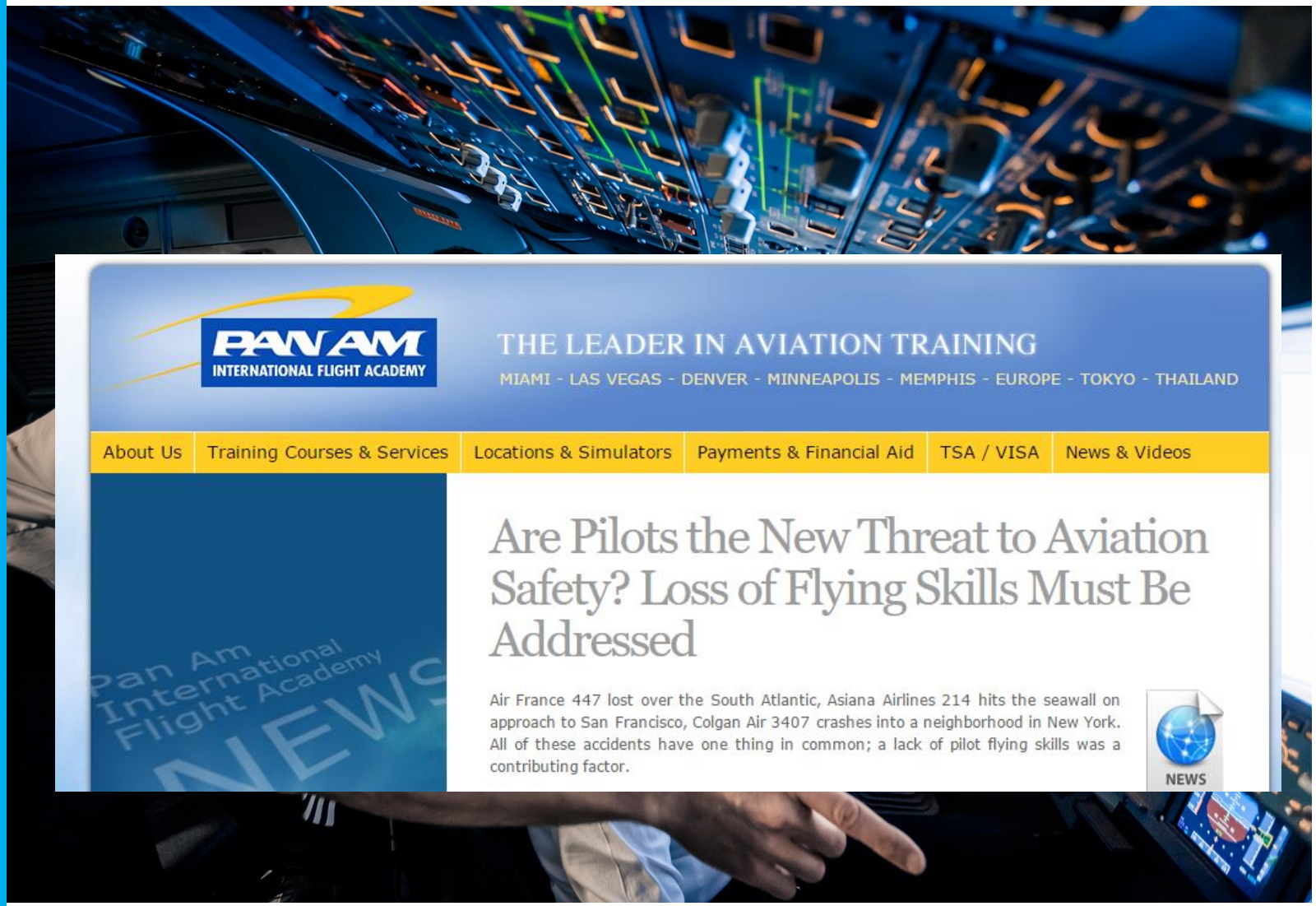
Doron 2017

Communications
Luck Generator
Billing
GPS
Car
Mobile Apps
AI - Optimization

Doron 1834

Doron 2025

Pilots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Are Pilots the New Threat to Aviation Safety? Loss of Flying Skills Must Be Addressed
Air France 447 lost over the South Atlantic, Asiana Airlines 214 hits the seawall on approach to San Francisco, Colgan Air 3407 crashes into a neighborhood in New York. All of these accidents have one thing in common; a lack of pilot flying skills was a contributing factor.
NEWS

Doctors

IBM's Watson AI saved a woman from leukemia

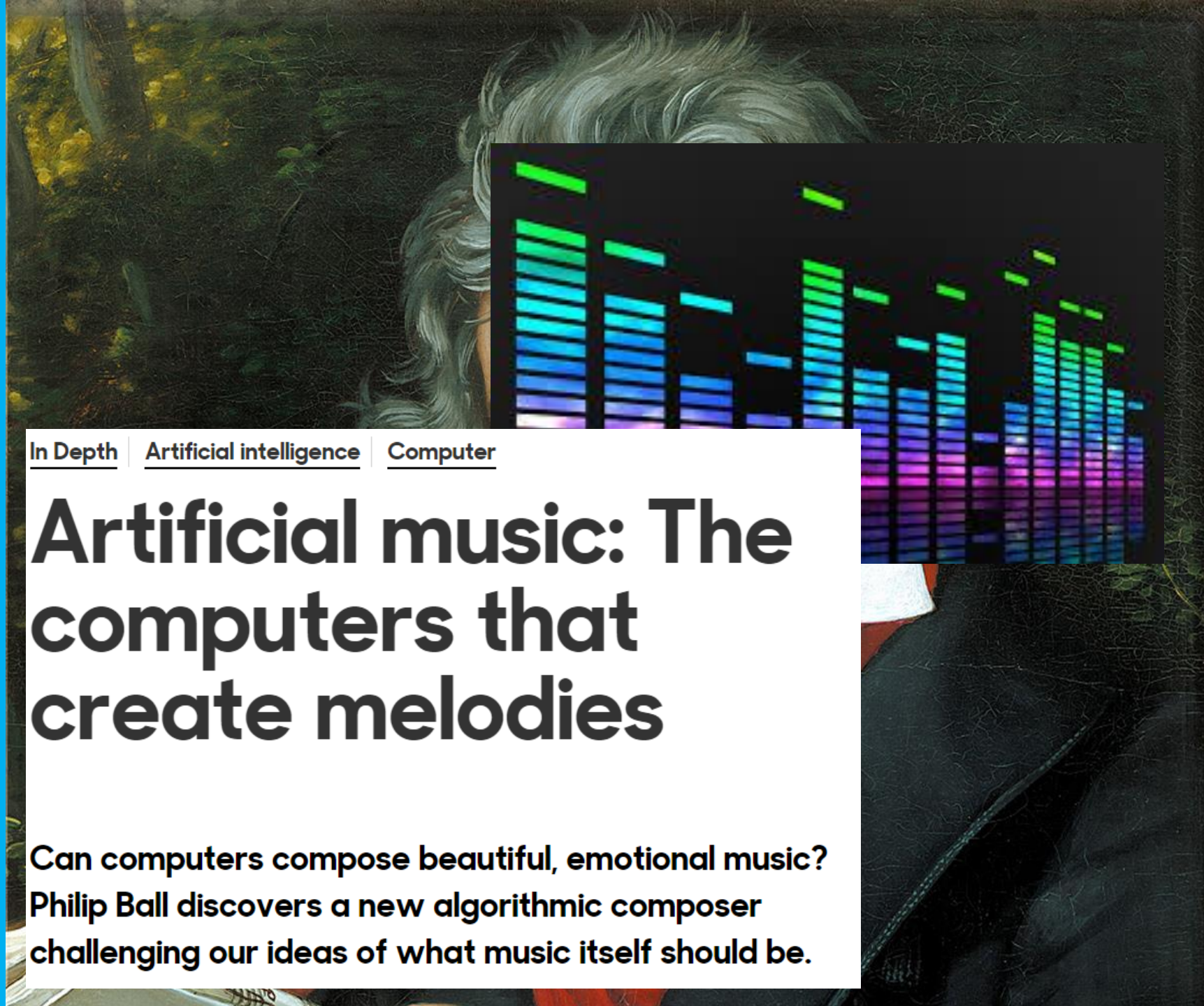
It discovered a rare illness that doctors had missed.

Jon Fingas , @jonfingas
08.07.16 in Medicine

7
Comments

10083
Shares

Composers



In Depth | Artificial intelligence | Computer

Artificial music: The computers that create melodies

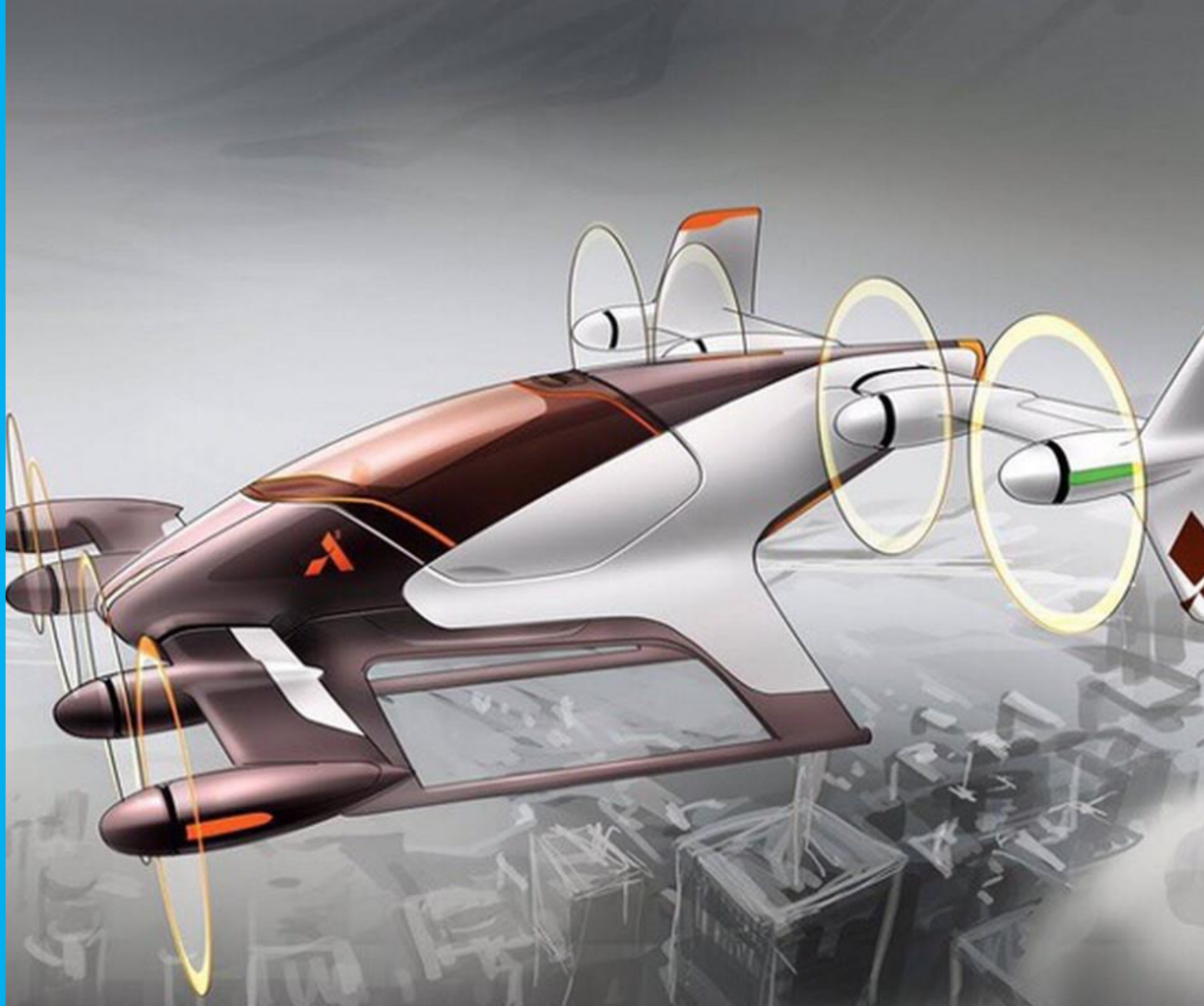
Can computers compose beautiful, emotional music? Philip Ball discovers a new algorithmic composer challenging our ideas of what music itself should be.

Chefs

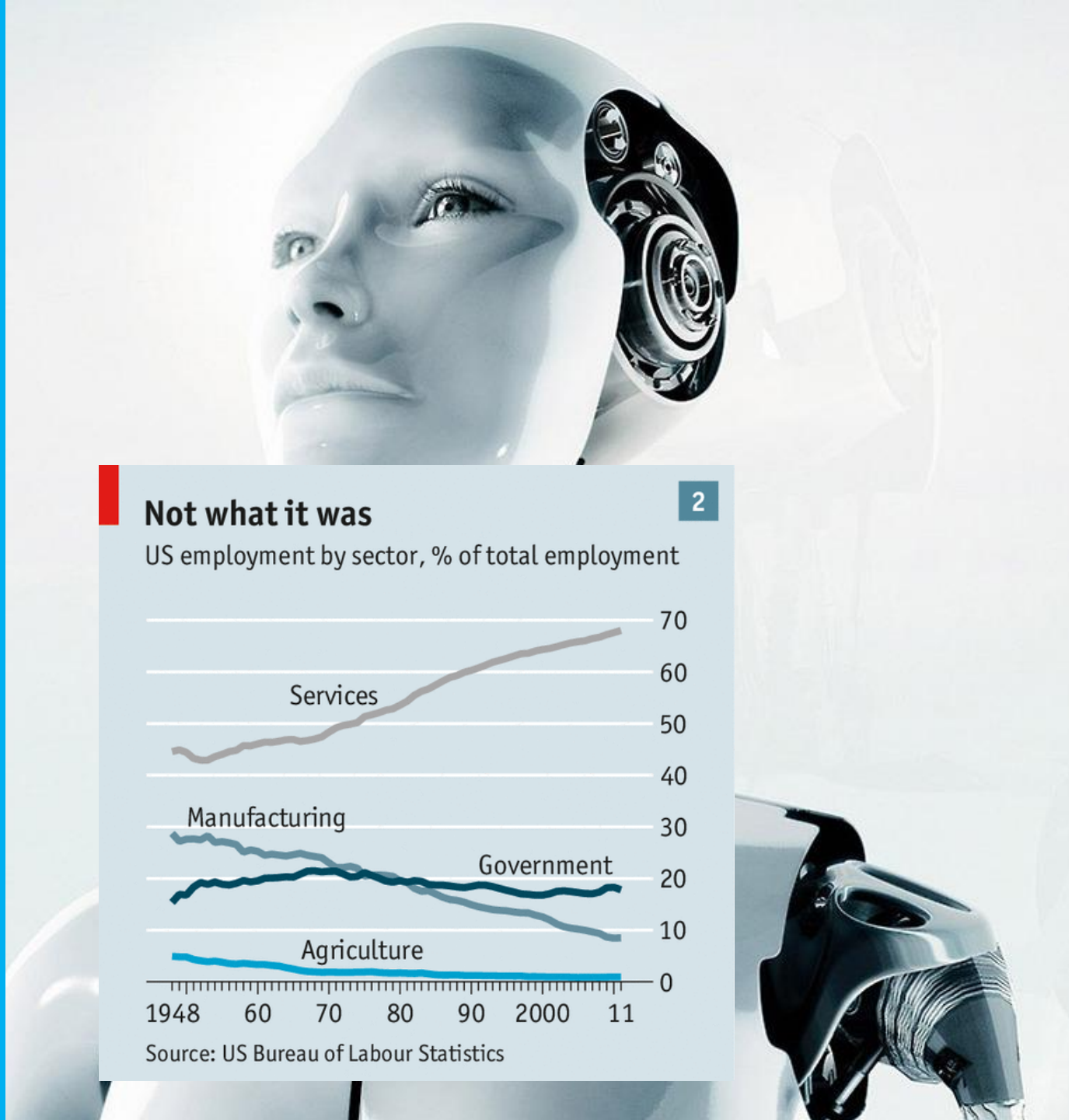
A fresh look at Robots & AI

Robots 1

Robots 2



A new wave is coming?

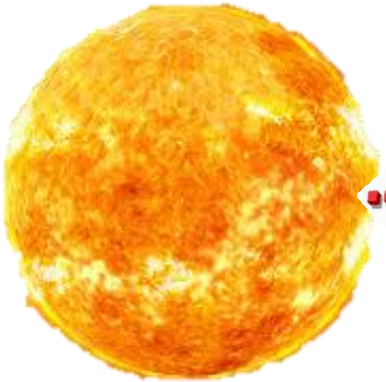


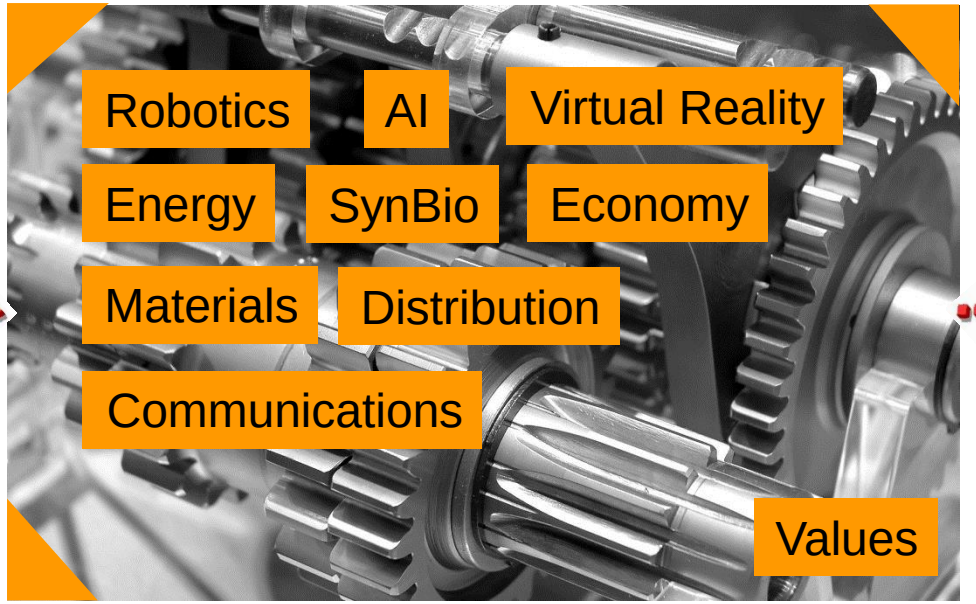
Not what it was 2

US employment by sector, % of total employment

Source: US Bureau of Labour Statistics

The Last Machine





Is it a good thing?

The hard questions

- Who owns the grid?
- How do you make money?
- Do you need to make money?
- Who gets what?
- What about innovation, creativity, human values and challenges?
- Will everybody enjoy this wonderful human creation?
- What about security? Terror? Cyber? Privacy?
- What does it mean to be human?
- What are the values of the S2C Machine?

The future is already here — it's just not very evenly distributed. William Gibson

Technology is not a tool it is a partner

1. Mars colonies

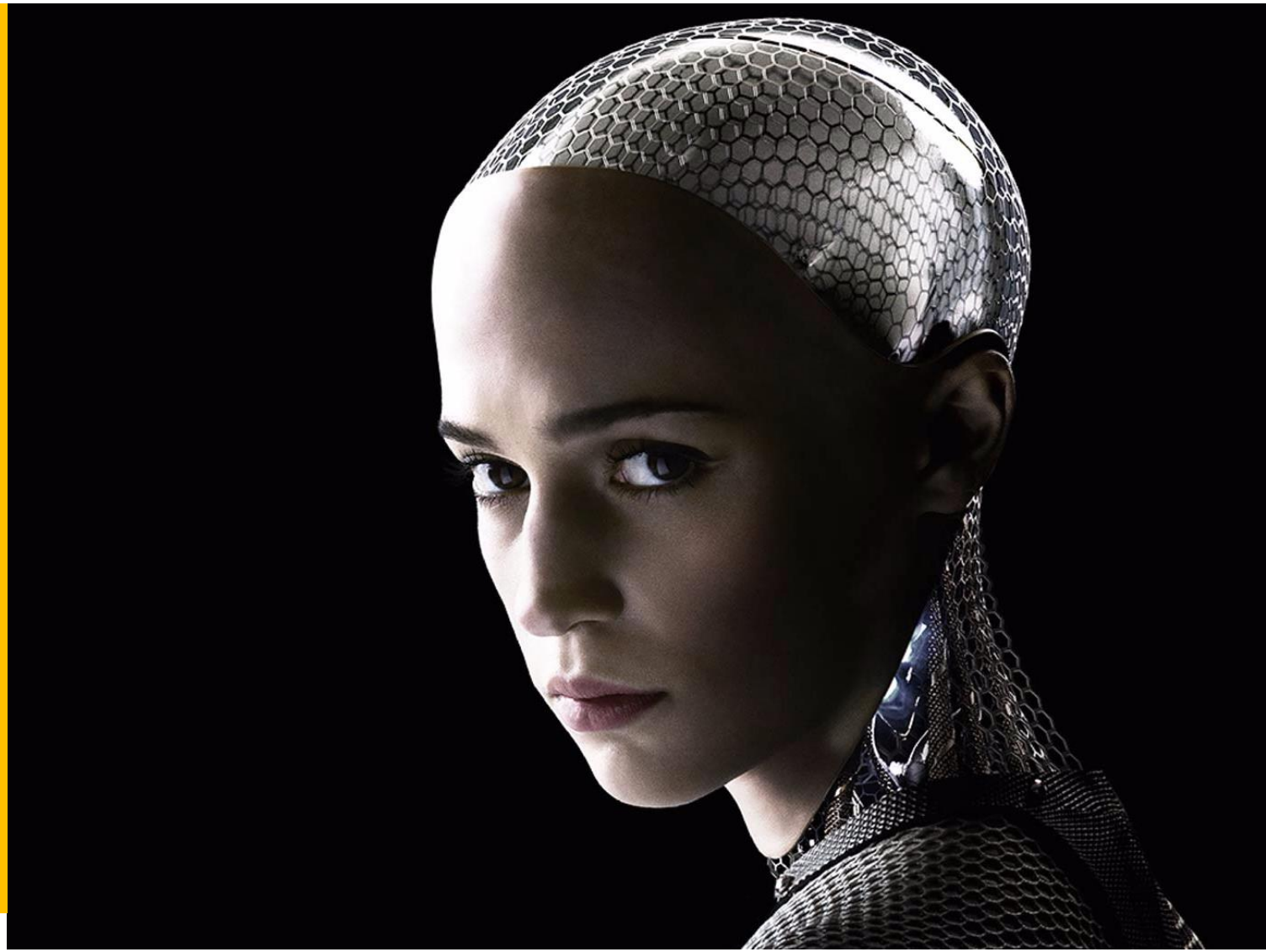
approximate true-color rendering of the central part of the "Columbia Hills" was made using images taken by NASA's Mars Exploration Rover Spirit panoramic camera.

2. Autonomous cars*

*cars will not be cars

3.
AI smarter than people*

* For some this is true already



4. Reality redefined *

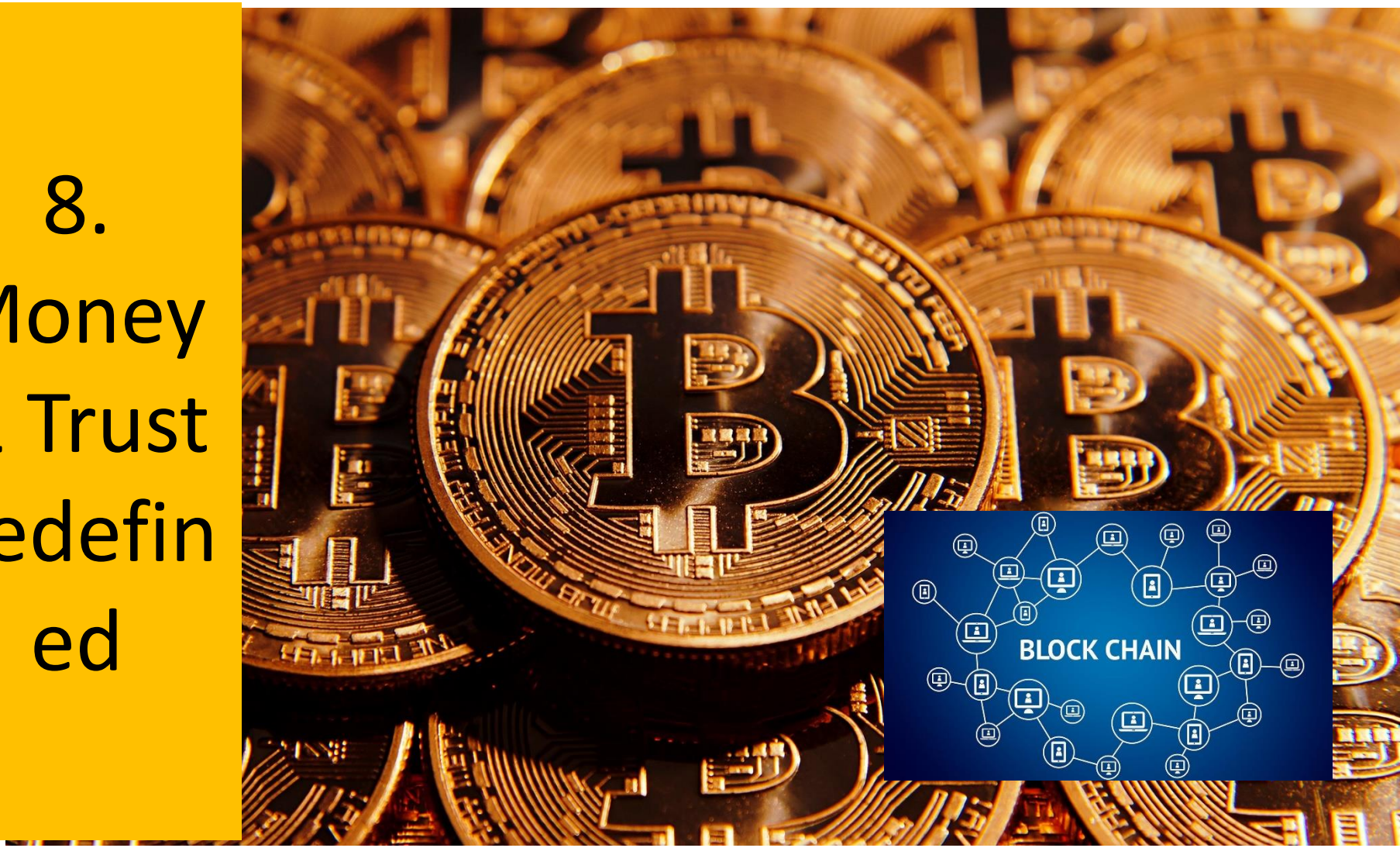
*Augmented & Virtual

5.
Energy
Is free

6.
Food is free

7. Work, making a living & meaning

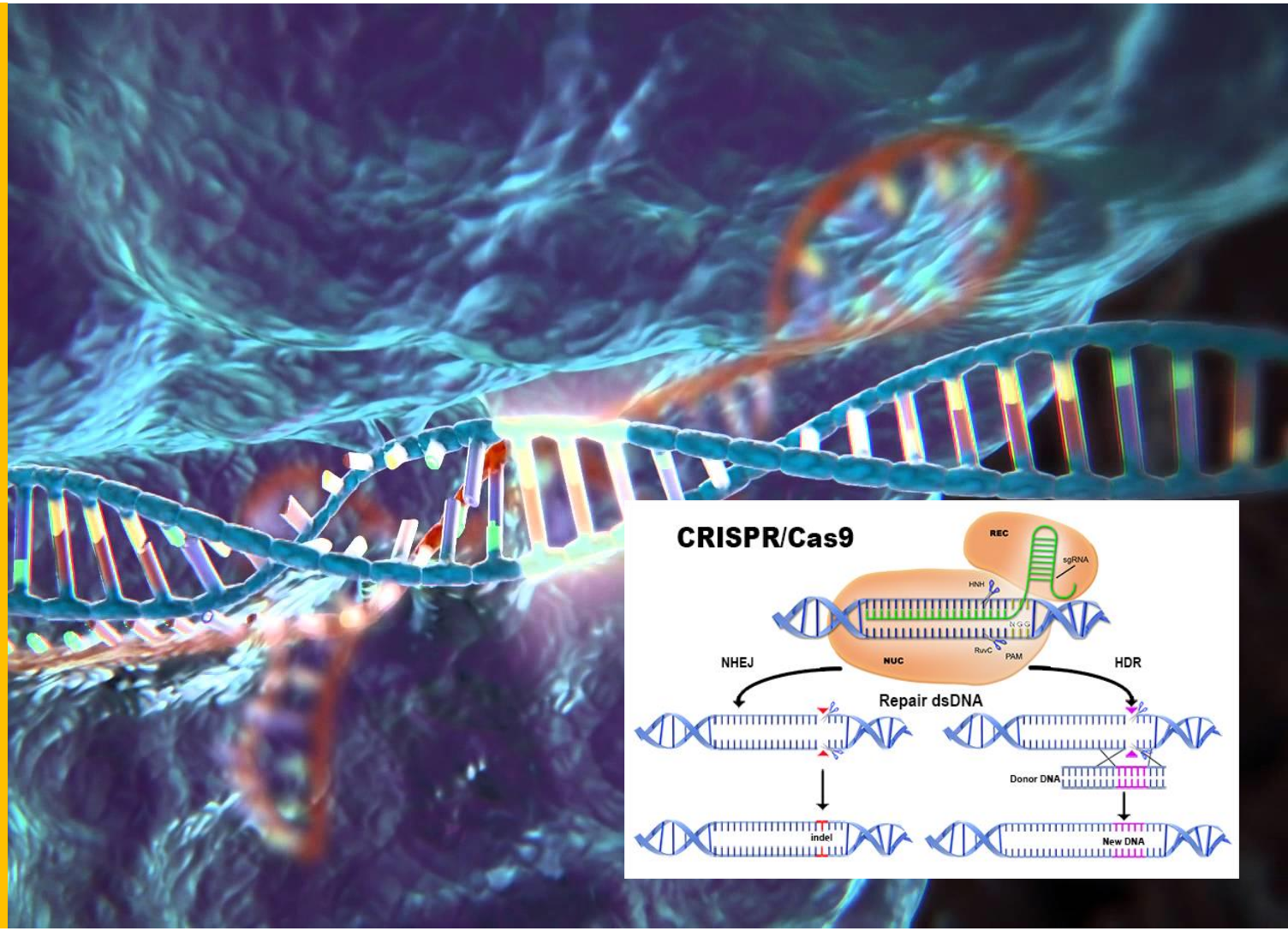
8. Money & Trust Redefined

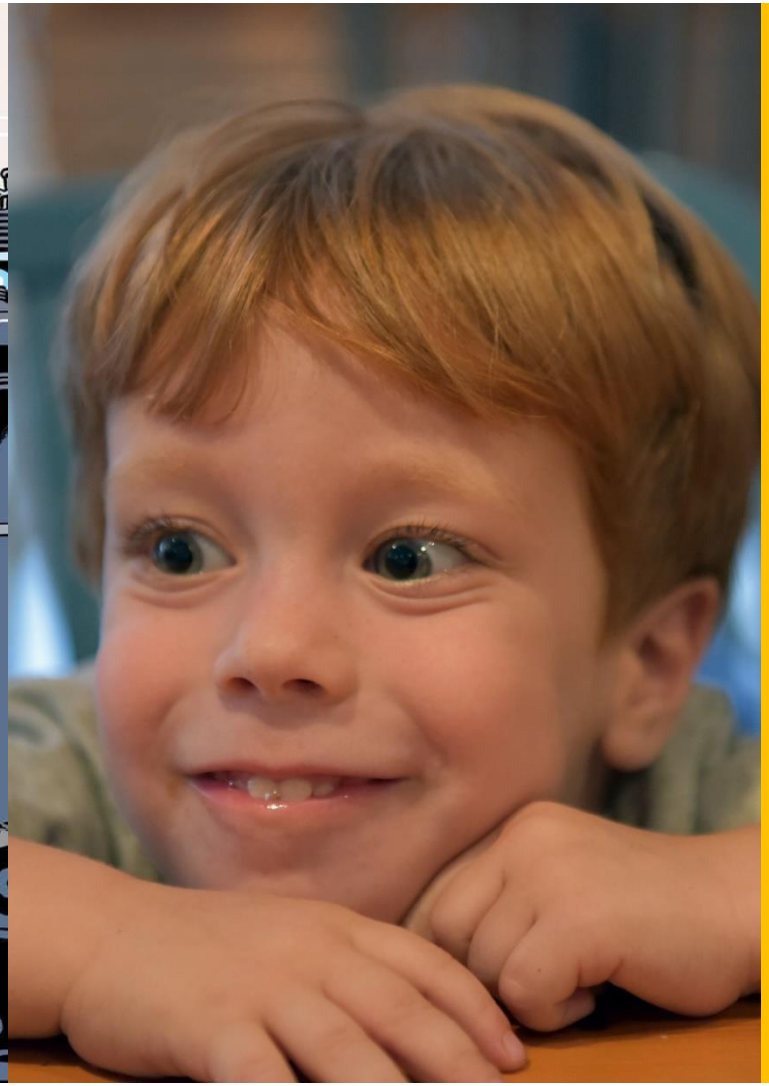


9. Sex, family & Gender Redefined

10.
Life is
programmable*

* see CRISPR





Respon
sibility