



Understanding The Exponential



Acknowledgements

DGTAL acknowledges the contribution of these esteemed organizations towards open source tech knowledge sharing for the benefit of the world at large





260 Million years ago

Asteroid hit
earth and they
perished

Only mammals
survived-
Agile, Adaptable

Think 10X- The Exponential



11 November 2019



178 vs 23 years



Think 10X- The Exponential

11 November 2019



Scarcity vs abundance





Energy is scarce ? All about mindset



Everything is energy, including our thoughts





If necessity is the mother of invention, exponential change is the mother of reinvention.

Nick Davis,
Vice President,
Enterprise Solutions & Corporate Innovation at Singularity University

Human development over 250,000+ years...

We the Human has
got that cognitive
bias that linear
mindset

LOCAL + LINEAR

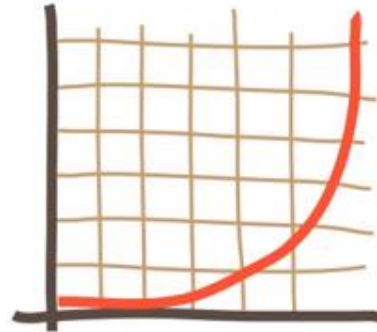
Technology is



EXPONENTIAL + GLOBAL

Dirty street vs dirty sky

LINEAR



EXPONENTIAL

Take 30

LINEAR

paces...

01

02

03

04

05

06

07

08

09

10

11

12

13

30 meters

1 step 1 meter makes
30 steps equal 30 meters

Sensor Explosion



1000x Resolution
1000x Lighter
1000x cheaper

1,000,000,000 x better

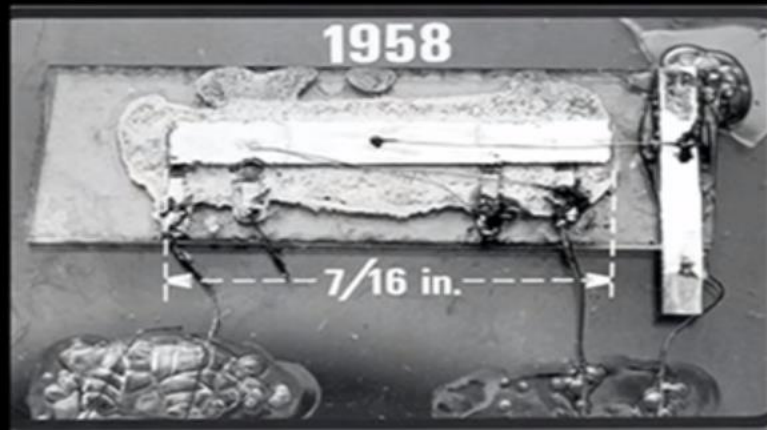
A close-up photograph of a tiny, square, blue camera sensor chip being held between the tips of a person's fingers. The chip is very small, demonstrating the significant miniaturization of camera sensors over time.

1976 – 1st Digital Camera (Kodak) 2014– Mobile Digital Camera
0.01 MP / 3.75 lbs / \$10,000 >10 MP / 0.03 lbs / \$10

← 1,000x Resolution & 1,000 lighter & 1,000 cheaper →

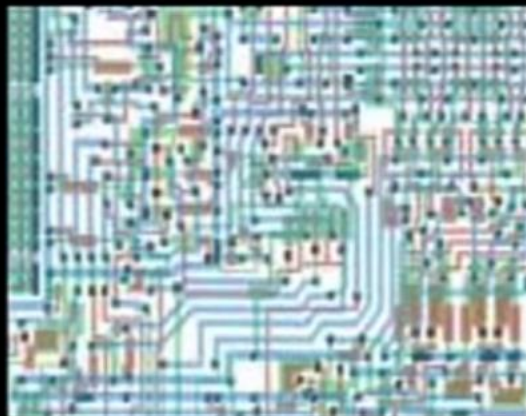
Integrated Circuits

1958: 2 transistors



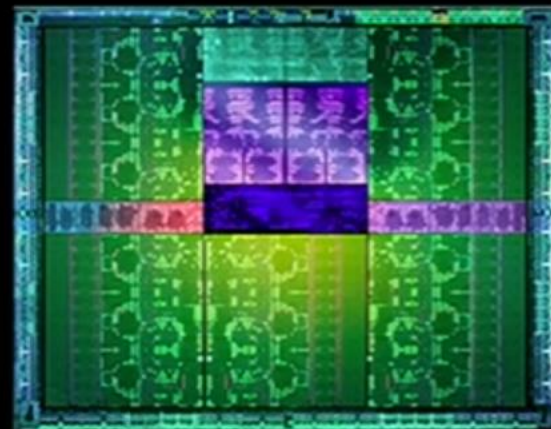
Transistor Count: 2
Gate process length: 1/2 inch
Speed:
Cost of a transistor:

1971: Intel 4004



2,300 transistors
10,000 nanometers
740 KHz (.00074 GHz)
~ \$1 (1968)

2012: Nvidia's GPU



7.1 billion transistors
28 nanometers
7GHz
~ \$.0000001

← 10K (faster) & 10M (cheaper) →
100 Billion-fold improvement (40 yrs)

LINEAR → **EXPONENTIAL**

Exponential Technology

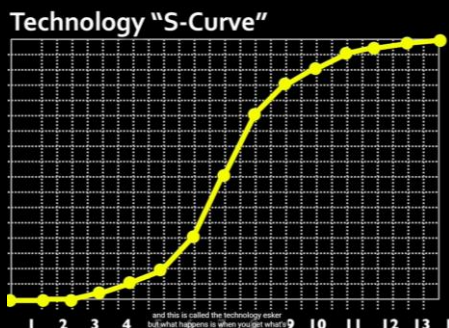
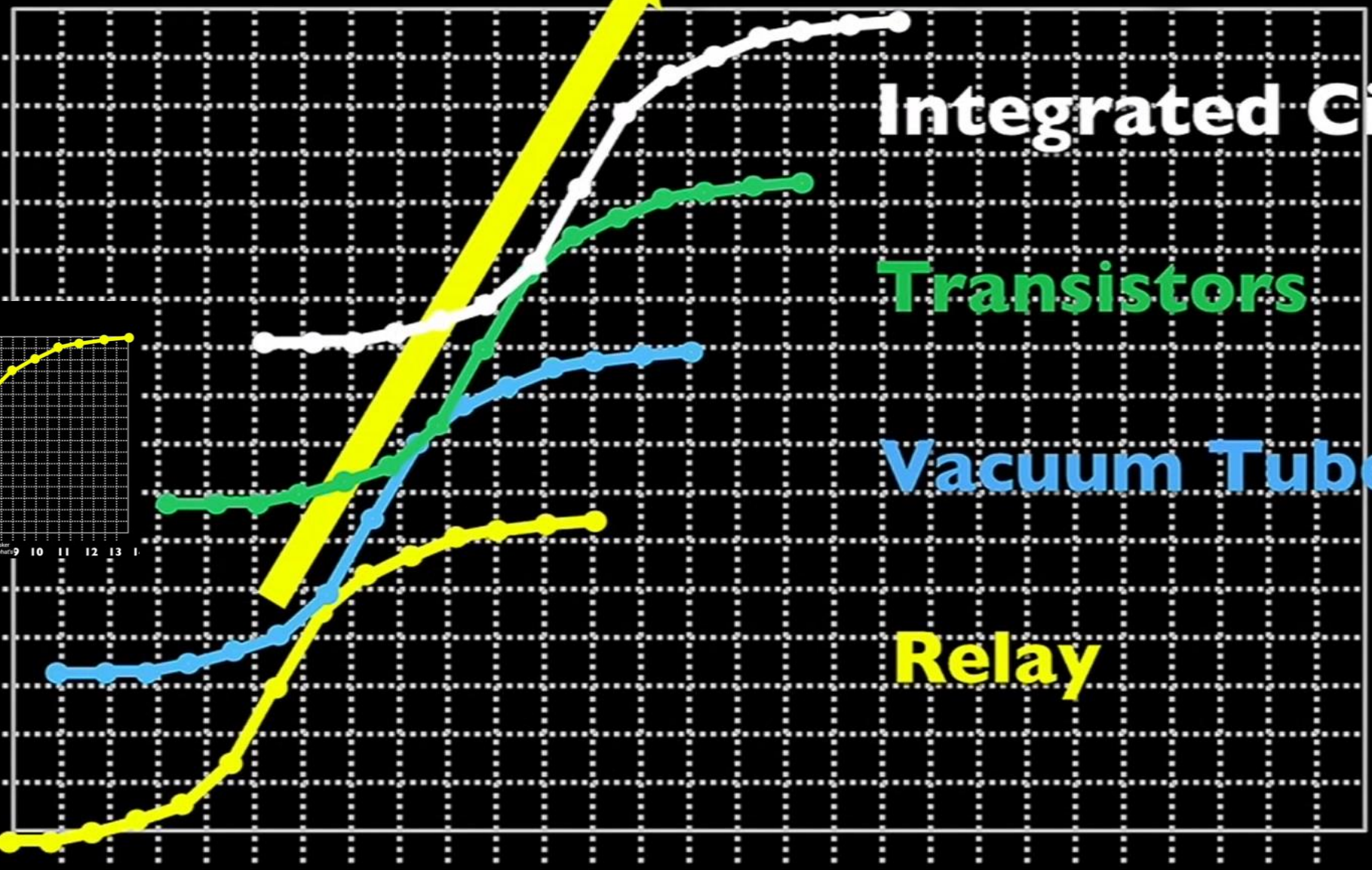
- 1. Computation/
Networks**
- 2. Artificial Intelligence**
- 3. Robotics**
- 4. 3D Printing**
- 5. Synthetic Biology**
- 6. Digital Medicine**



Crowd/Community Tools

- 1. Incentive Competitions**
- 2. (Big) Data Mining**
- 3. Crowdsourcing**
- 4. Crowd Funding**
- 5. DIY Communities**
- 6. Crowd Creativity**

"Nested S-Curves" (5th Computing Paradigm)



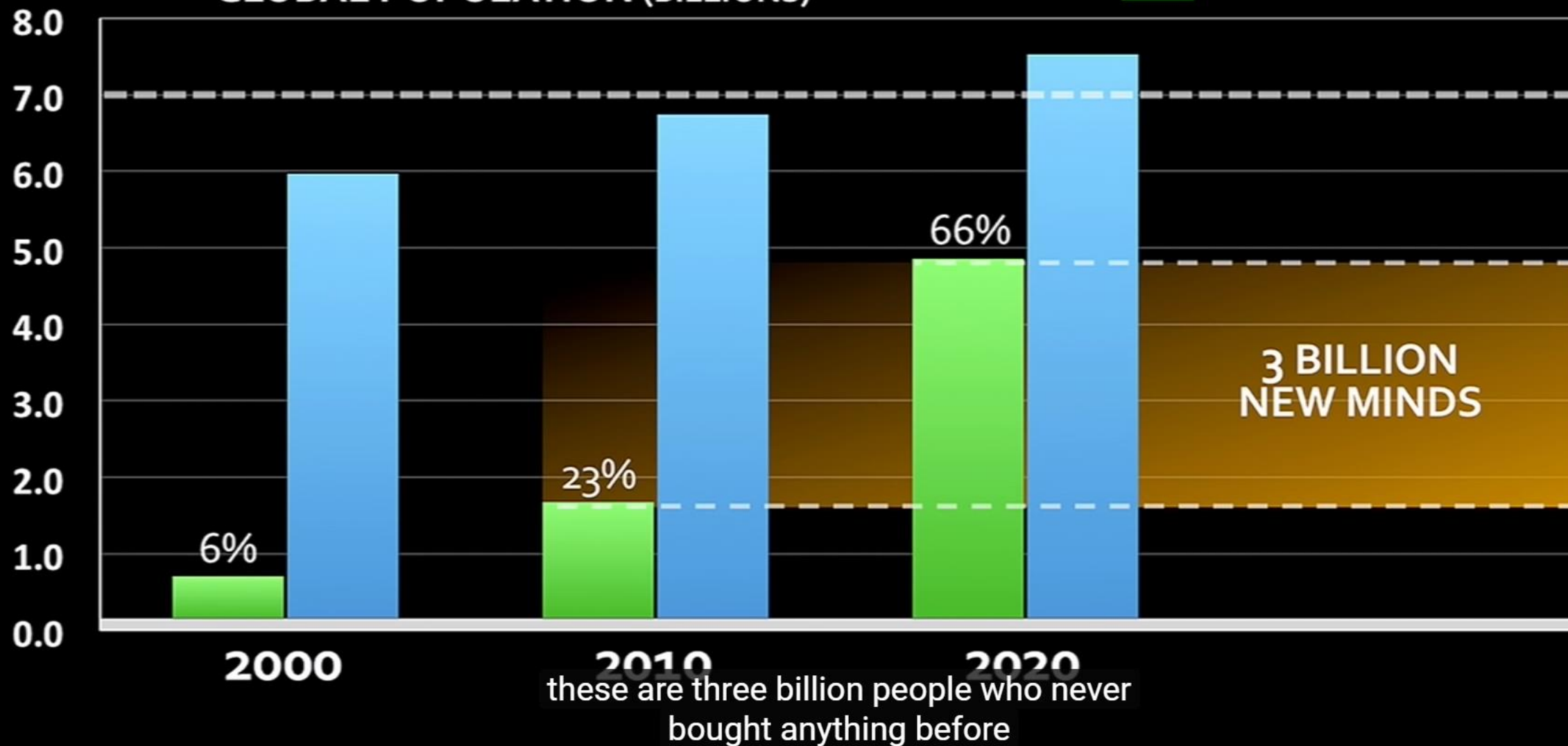
it was a new paradigm coming on and continuing its exponential growth

0 1 2 3 4 5 10 11 12 13 14

FORCE: Rising Billion



GLOBAL POPULATION (BILLIONS)





The Exponential

Computers are the example of an Exponential Technology we're all familiar with – doubling every 18 months or so (MOORE'S LAW).

An Exponential Technology is two things..., it's exponential. In each period it doubles in capability or performance. and on the flip side, it halves in cost in each period.



Is exponential a choice

Past technological innovations- generally served to reduce labor demands and increase profit margins at different stages of a given production chain.

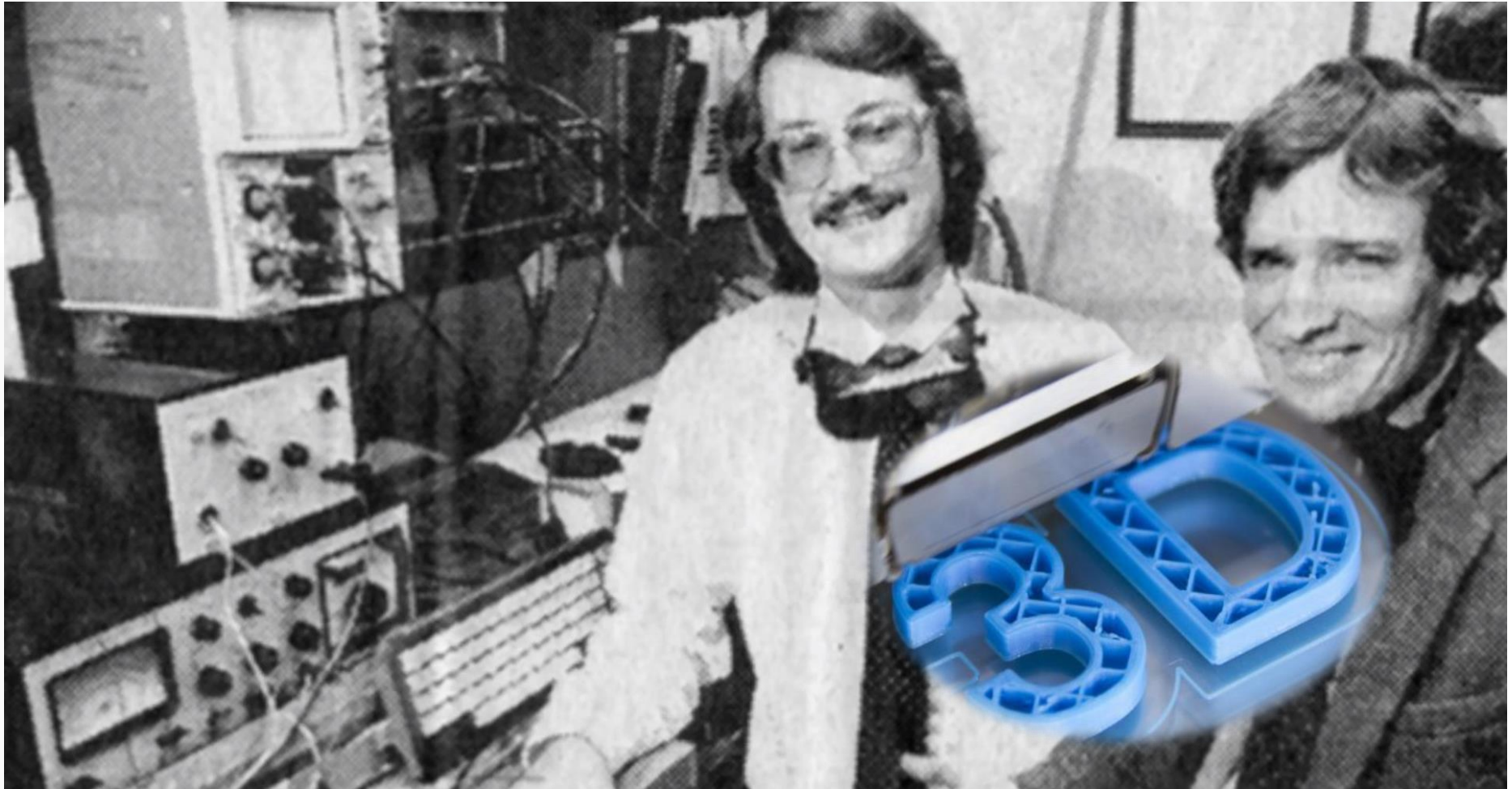
Price-Performance is The Thing in today's world.

According to Exponential Organizations, the cost of 3D printing has dropped by a factor of 400 in the past seven years. Industrial robots cost 1/23 of what they did just five years ago. Drones are 143-times cheaper than they were in 2010, and sequencing the human genome is 10,000-times less expensive than it was in 2009.



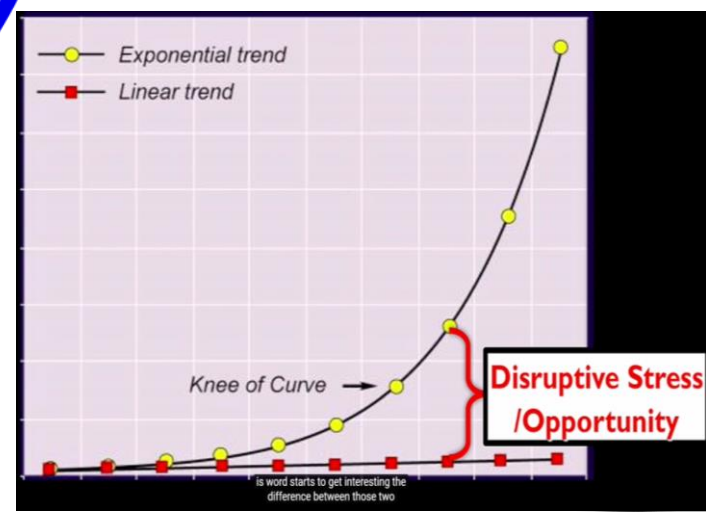
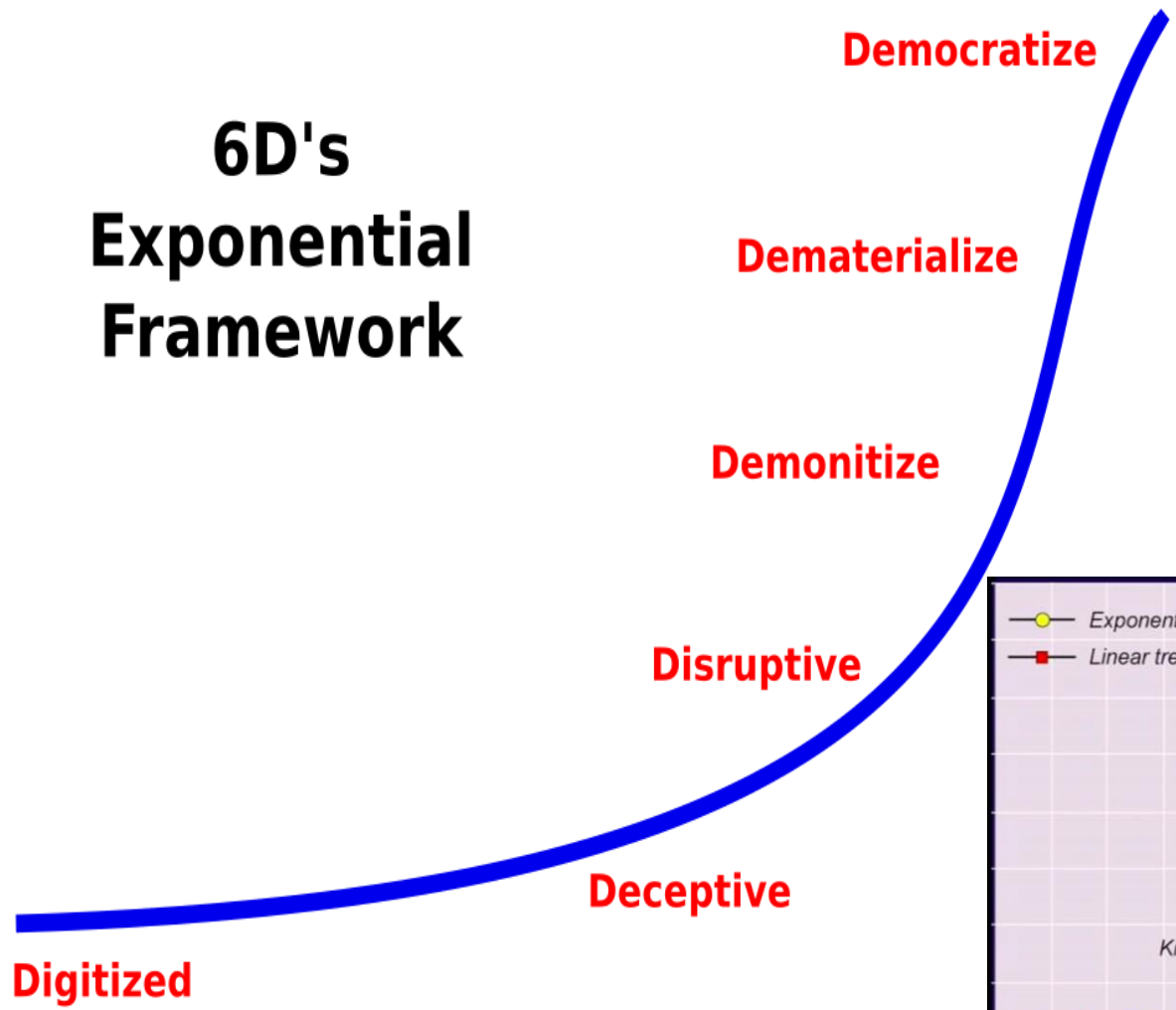
overnight successes” is actually years of hard work

3D
Printing
invented
by Chuck
Hull
40 years
ago



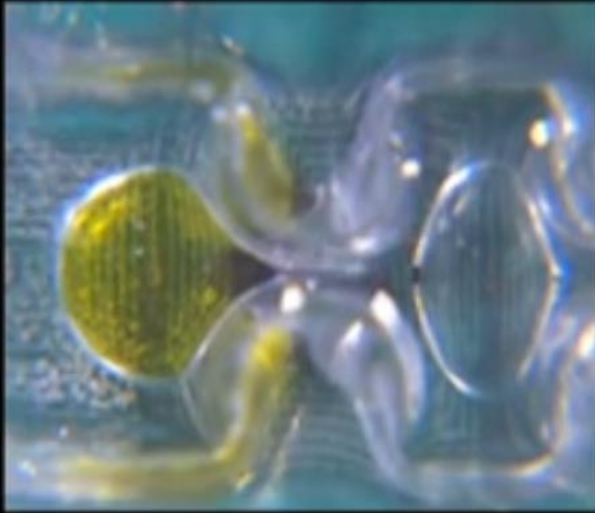
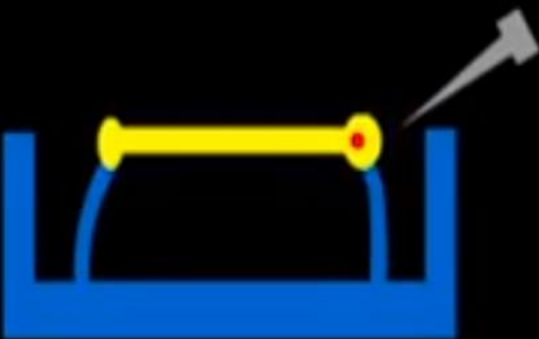
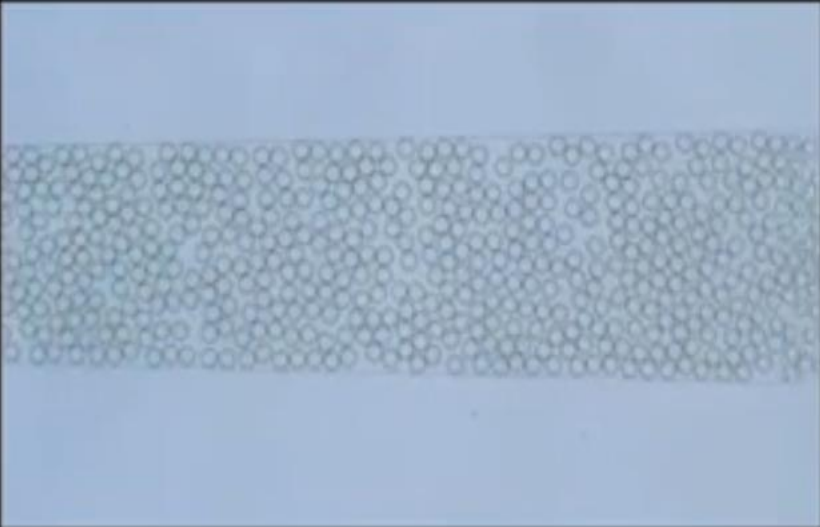


6D's Exponential Framework





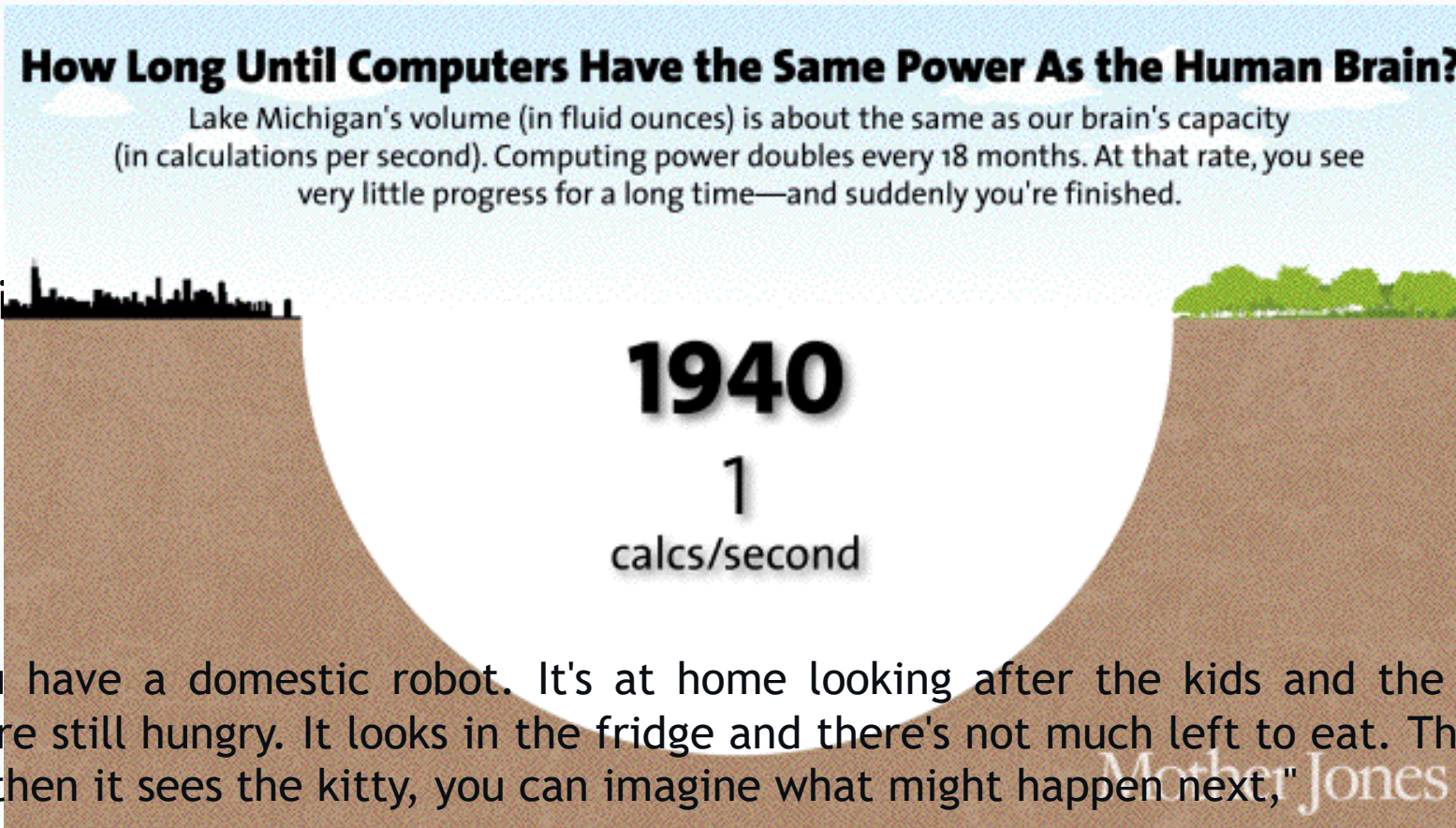
New lab-on-a-chip system quickly identifies health aspects of a person's immune system, Sep 25 2019



Lab on A Chip Video



singularity Artificial General Intelligence



“The fu
much li
Kurzwe

o be pretty
past.” –Ray

“Imagine you have a domestic robot. It's at home looking after the kids and the kids have had their dinner and are still hungry. It looks in the fridge and there's not much left to eat. The robot is wondering what to do, then it sees the kitty, you can imagine what might happen next,”



Acknowledgements & Further reads

- [Exponential Thinking by Peter Diamandis](#)
- [John Hopkins University - Lab On Chip](#)
- [Shanghai allows self-driving cars to carry passengers](#)
- [This “Anti-Solar Panel” Could Generate Power From Darkness](#)
- [New CRISPR class expands genetic engineering toolbox](#)



DGTAL



DGTAL



DGTAL



DGTAL



DGTAL



12 Global Grand Challenges

As per UN convention these grand challenges need to be addressed for achieve Sustainable Development Goals



Disaster Resilience



Energy



Environment



Food



Global Health



Governance



Learning



Prosperity



Shelter



Security



Space



Water



3D printing and digital fabrication

Blockchain

Nanotechnology

Digital medicine

Robotics

Autonomous vehicles

Digital biology and biotechnology

Artificial intelligence (AI)

Augmented and virtual reality (AR, VR)

Networks and computing systems

Drone technology

Data Science

Internet of things

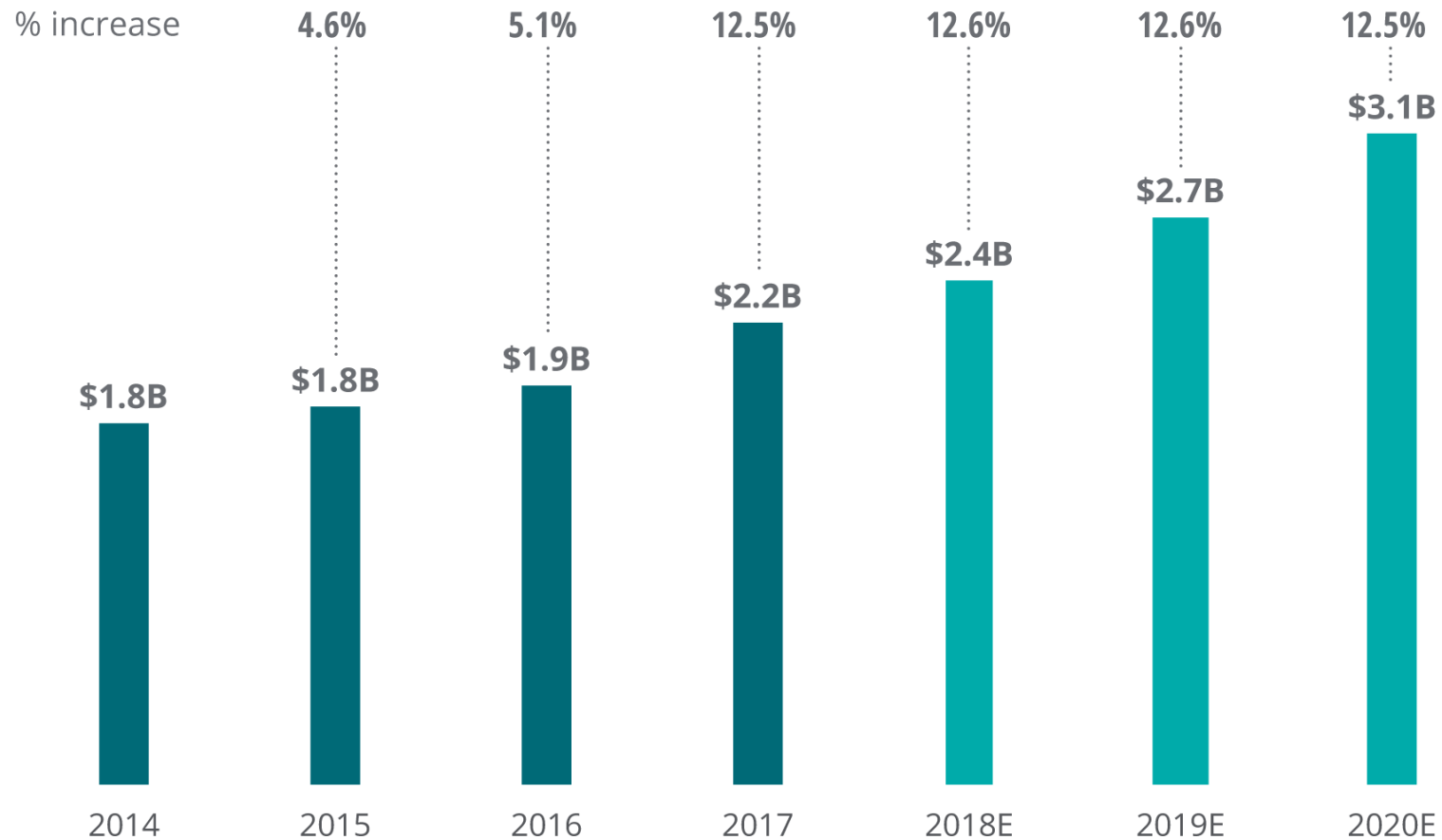
Quantum computing



Growth in the 3D printing market has more than doubled

Global 3D printing revenues among large public companies, US\$ billion, 2014–2020

3D Printing or Additive Manufacturing



Source: Deloitte analysis of public company filings and analyst estimates.

Deloitte Insights | deloitte.com/insights



Dubai creates world's largest 3D printed building

The project stands almost 10 metres tall and requires half as many people to build as conventional construction



3D Printing



AS POWERFUL AS IT IS REFINED

> EXPERIENCE SV POWER



ABOVE & BEYOND

NEWS & FOX / DIGITAL

SA is home to the world's largest 3D printer

With state-of-the-art 3D printer – the largest in the world – the CSIR plans to secure contracts with international aircraft makers

26 SEPTEMBER 2019 - 05:00 by NAFISA AKABOR



SPECIAL OFFER

READ BUSINESSLIVE FREE FOR 3 MONTHS
Terms & conditions apply

BusinessLIVE

ABOVE & BEYOND

AS POWERFUL AS IT IS REFINED

> EXPERIENCE SV POWER

3D Printing



Have you heard about Craftcloud, our 3D printing & price comparison service? [Learn More](#) ✕

RECENT



Aug 2, 2019
2019 Greatest 3D Printed Houses, Buildings & Structures



May 13, 2019
3D Printed Community for Homeless Coming to Latin America



Feb 20, 2019
3D Printed Homes – 4 Most Fascinating Projects in 2019



Jan 18, [>](#)
Europe's First Concrete Print Opens in Eind



MOST



This website or its third-party tools use cookies, which are necessary to its functioning and required to achieve the purposes illustrated in the [Privacy Policy](#).

ADVERTISEMENT

How Adobe uses...

[GOT IT](#)

3D Printing



Watch the world's biggest 3D printer make a 25-foot boat

By Darren Allan 21 hours ago Printers And Scanners

5,000-pound boat named '3Dirigo' is the largest object ever printed



3D Printing



[Home](#) > [News](#) > [Printers and scanners](#)

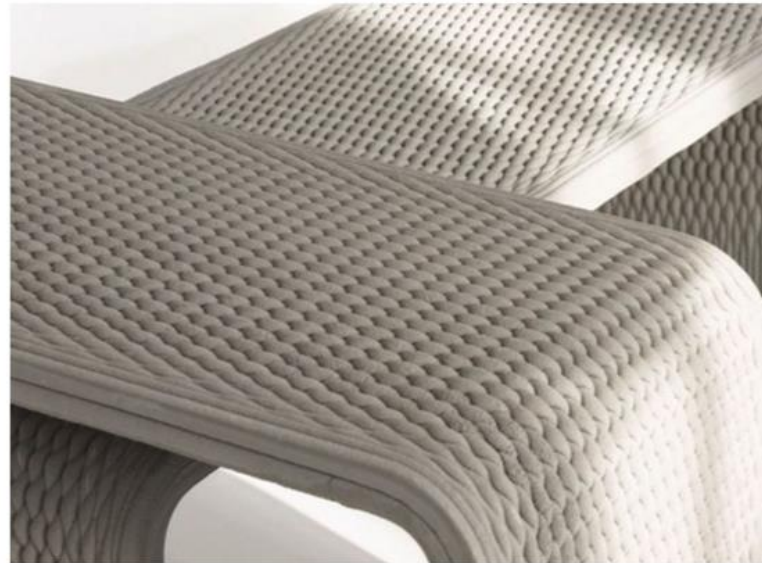
Huge 3D printers could produce Mars-bound rockets soon

By [Darren Allan](#) a day ago [Printers And Scanners](#)

Machine learning tricks will theoretically mean rockets can be made on Mars, eventually



3D Printing



CONCRETE 3D PRINT PRODUCT INDOOR OUTDOOR ARCHITECTURAL ELEMENTS

Concrete as a very textural yet simple material can bring a lot of rich character to differne homes in all sorts of style. Concrete has been cropping out as a sleek but resilient maerial of architectural choice aiming for contemporary look. Create your bespoke element !

[Discover our products](#)

[Download our catalogue](#)



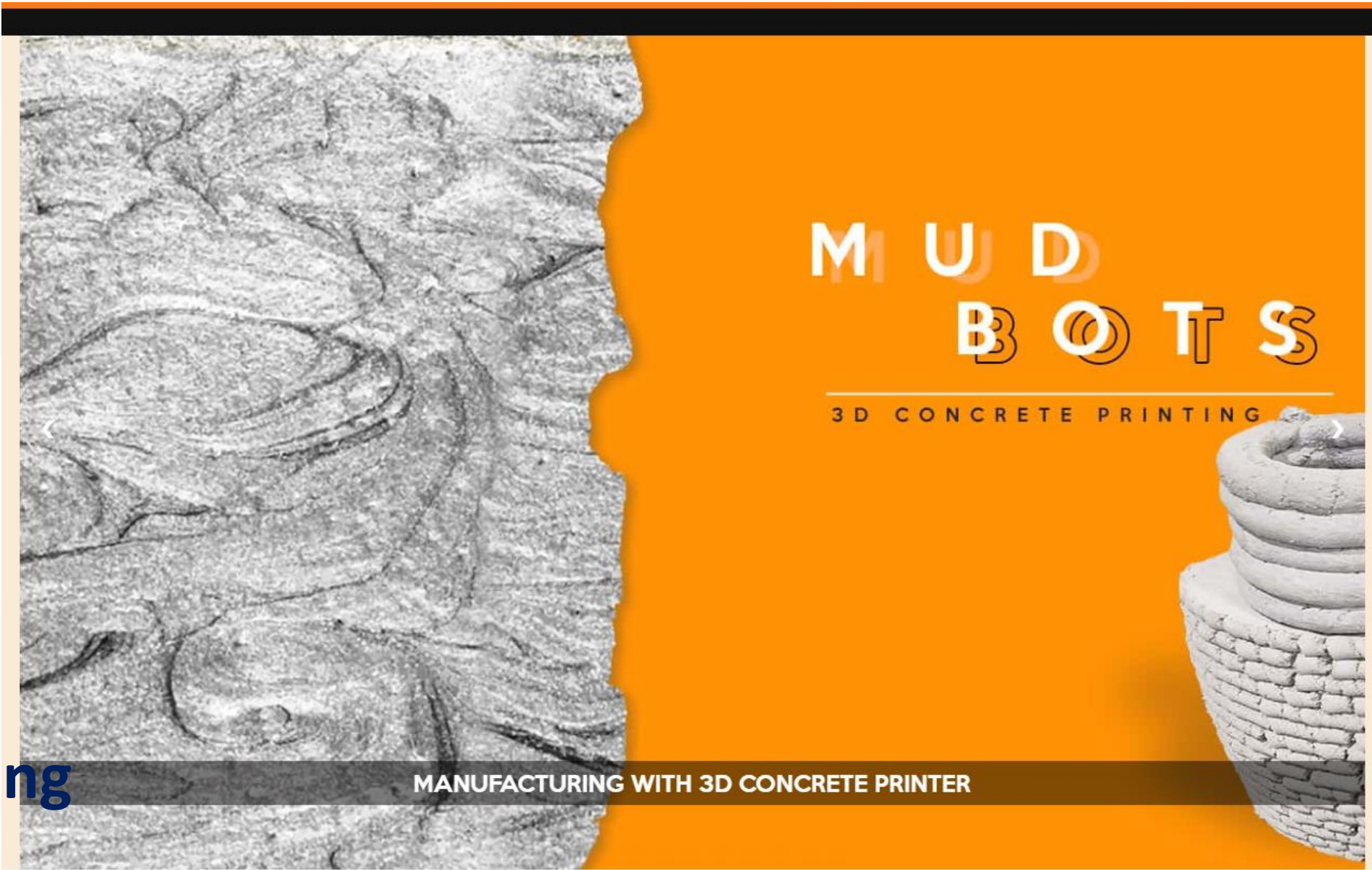
CONCRETE 3D PRINT TURNKEY PROJECT STRUCTURAL ELEMENTS

Developers, architects or main contractors are most welcome to contact us for developing their projects. We offer a turnkey solution from design to construction

[Discover our turnkey projects](#)

[Download our brochure](#)

3D Printing



3D Printing

MANUFACTURING WITH 3D CONCRETE PRINTER



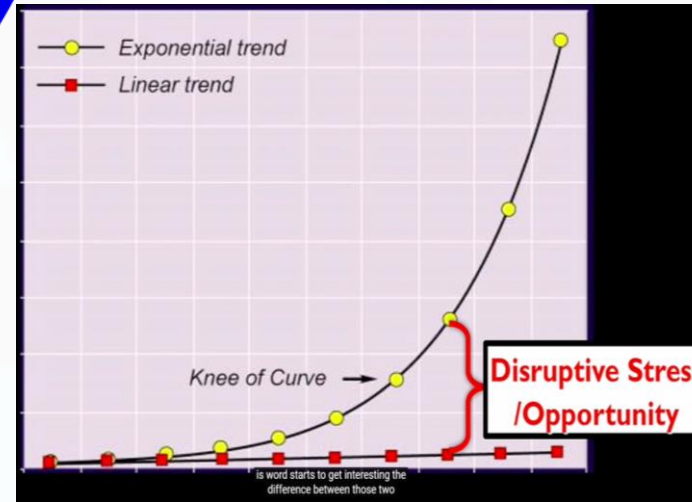
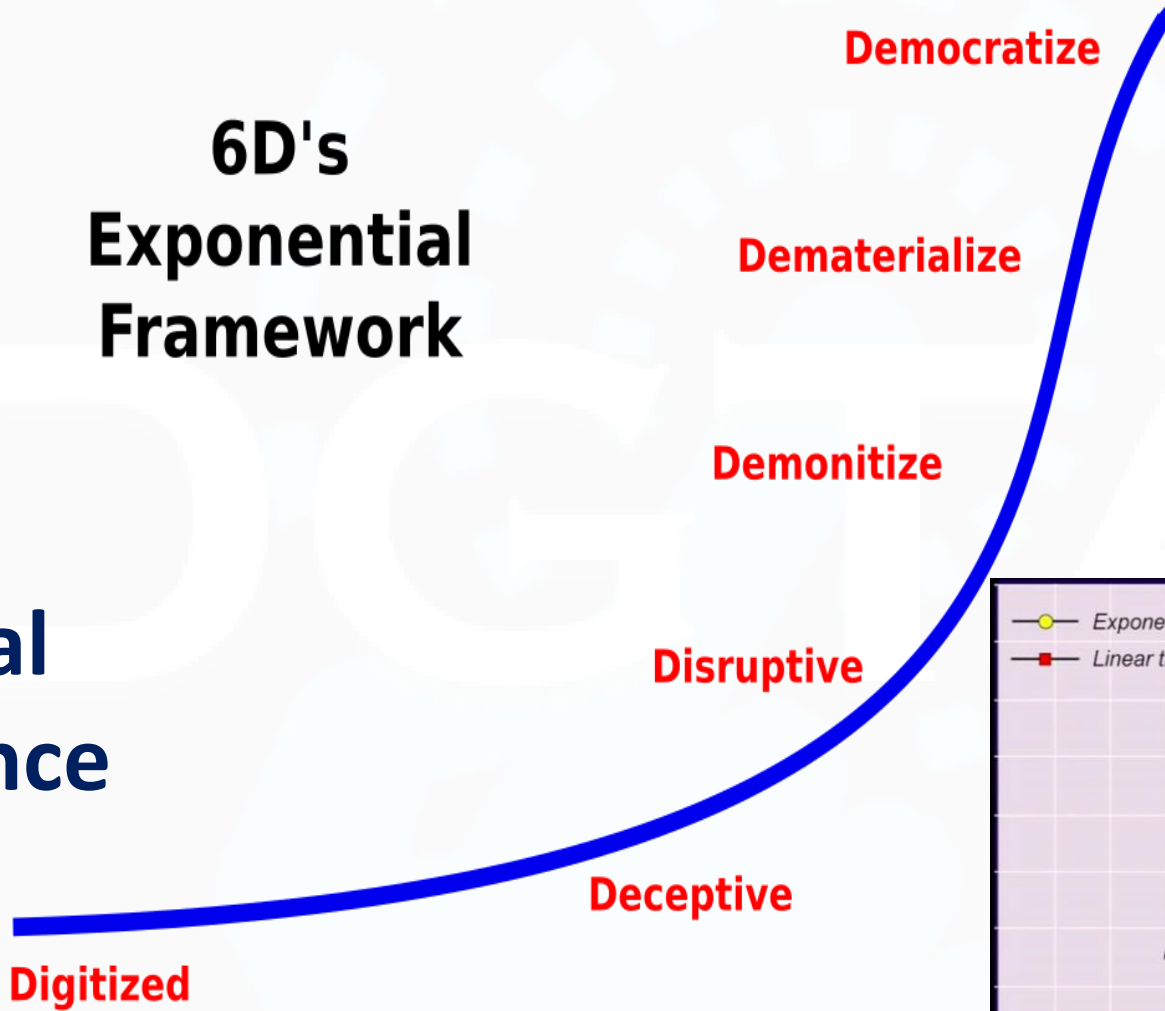
Artificial Intelligence

Peter Diamandis 6D Framework



6D's Exponential Framework

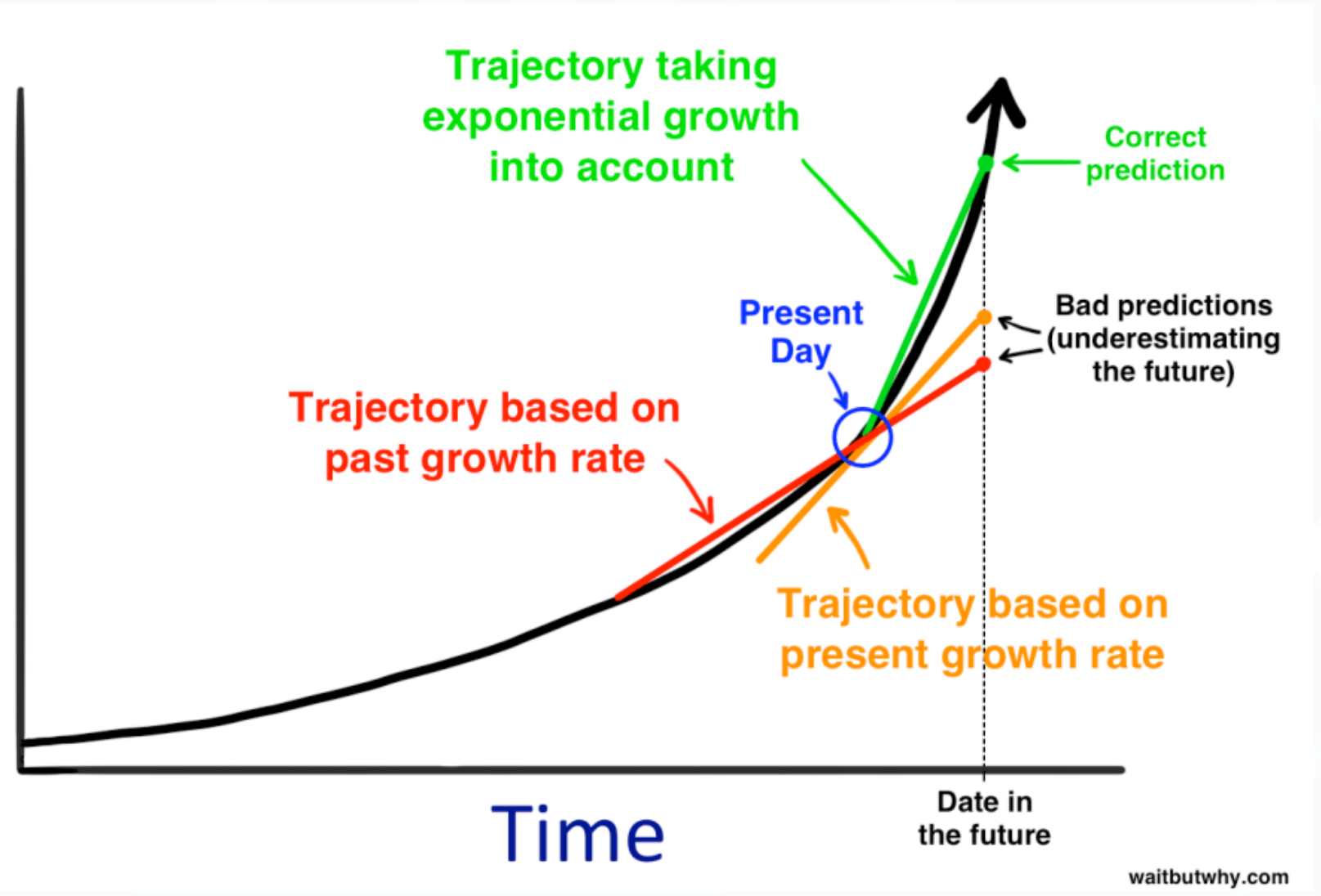
Artificial Intelligence





Artificial Intelligence

Human Progress



Time



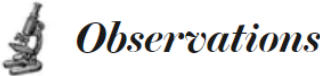
Subscribe

Latest Issues

SCIENTIFIC
AMERICAN®

Cart 0 Sign In | Stay Informed

THE SCIENCES MIND HEALTH TECH SUSTAINABILITY EDUCATION VIDEO PODCASTS BLOGS PUBLICATIONS Q



Artificial
Intelligence

Creativity and AI: The Next Step

Combining two types of machine intelligence could open new frontiers of art

By Arthur I. Miller on October 1, 2019



**C3.ai transforms
Telecom.**

Learn how



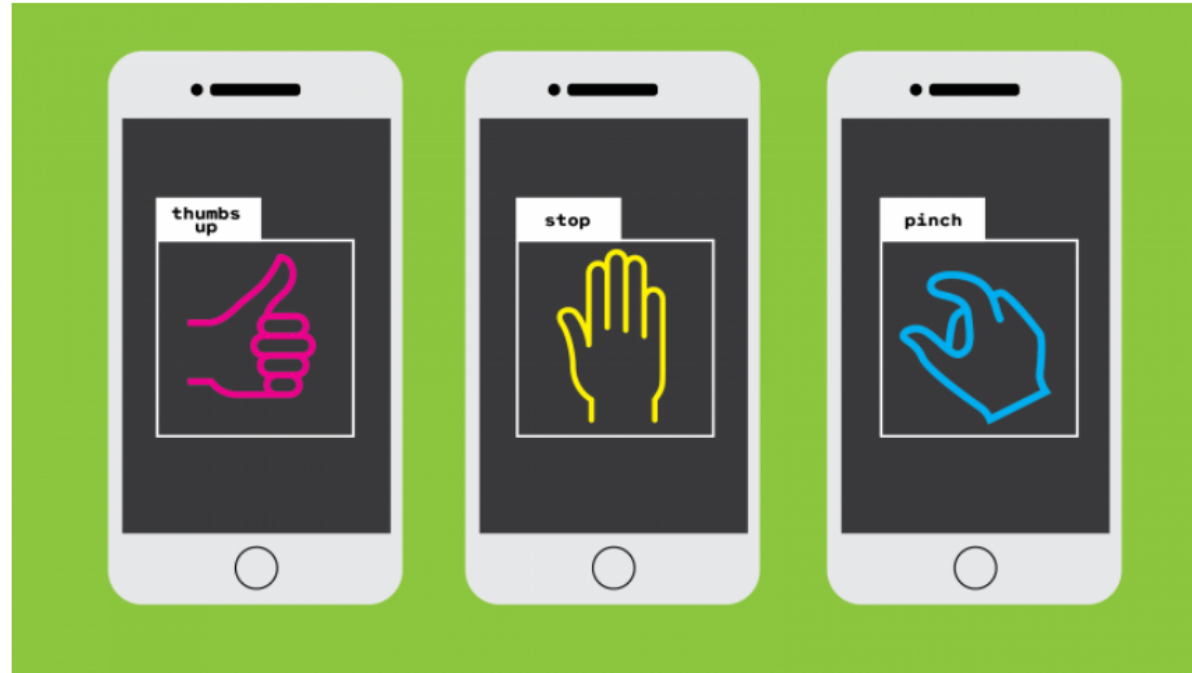
TECH • WORLD SUMMIT A.I.

Artificial Intelligence Could Be a \$14 Trillion Boon to the Global Economy—If It Can Overcome These Obstacles

**Artificial
Intelligence**

Artificial Intelligence Oct 11

Powerful computer vision algorithms are now small enough to run on your phone



Researchers have shrunk state-of-the-art computer vision models to run on low-power devices.

Growing pains: Visual recognition is deep learning's strongest skill. Computer vision



Kelsey Warner
Oct 16, 2019

SHARE



World's first artificial intelligence university to open in Abu Dhabi

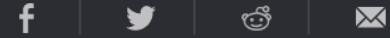
► The Mohamed bin Zayed University of Artificial Intelligence is accepting applications for its first masters and PhD programmes to begin in September 2020





engadget

3 related articles ▾



Latest in Gear



Nissan's dual-motor Leaf test car hints at future EVs

🕒 4h ago



Apple warns iPhone 5 owners to update if they want to stay online

Facebook AI can 'hide' people from facial recognition

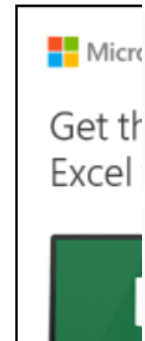
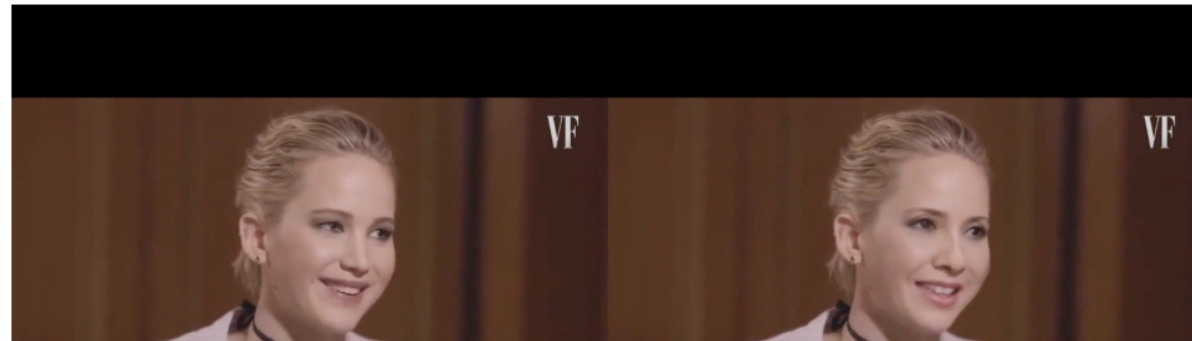
It could help fight deepfakes and other privacy issues.



Jon Fingas, @jonfingas
12h ago in [Internet](#)

Comments

202
Shares

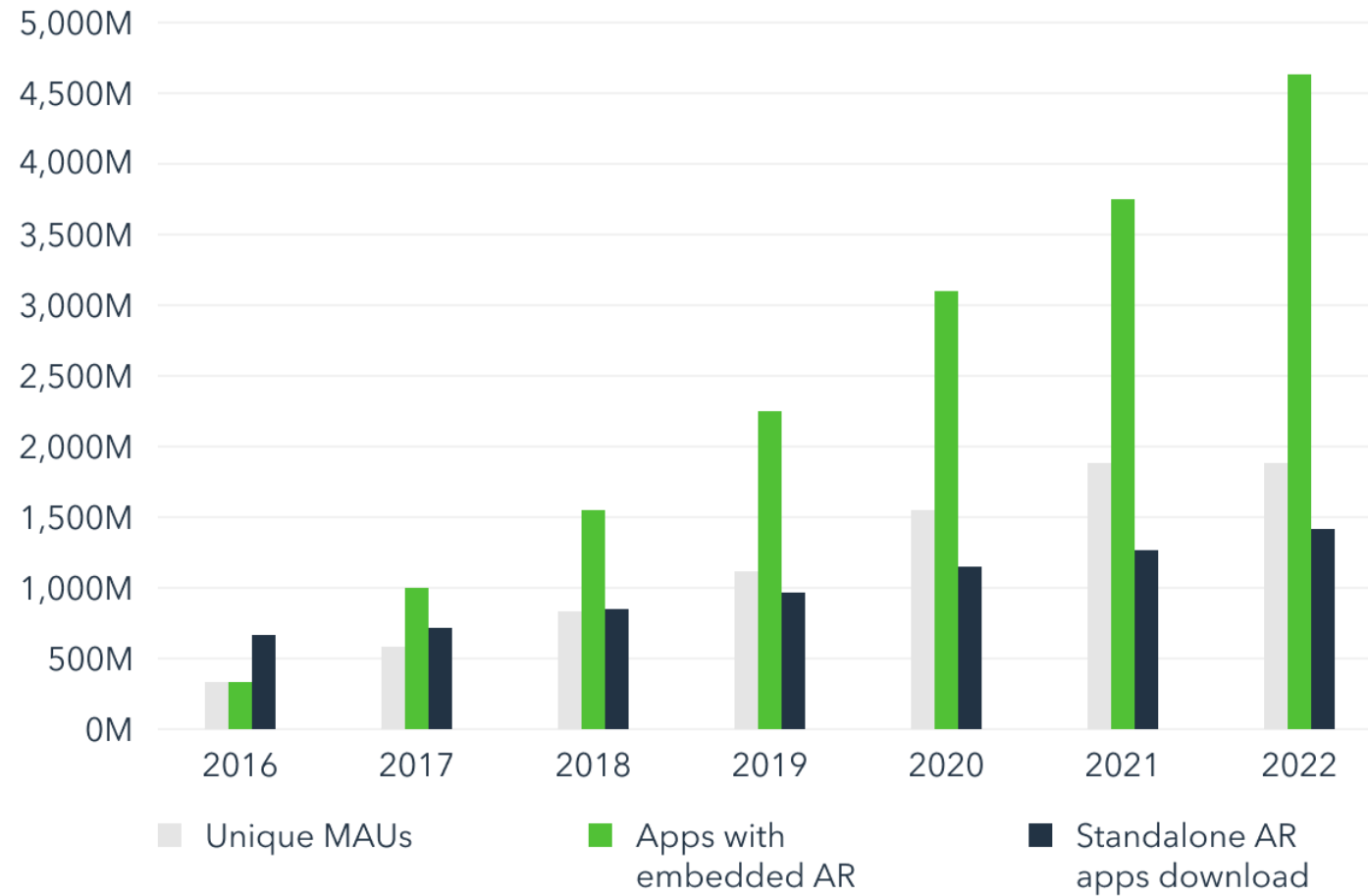


Artificial Intelligence



Augmented Reality and Virtual Reality

CONSUMER MOBILE AR USERS, DOWNLOADS WORLDWIDE

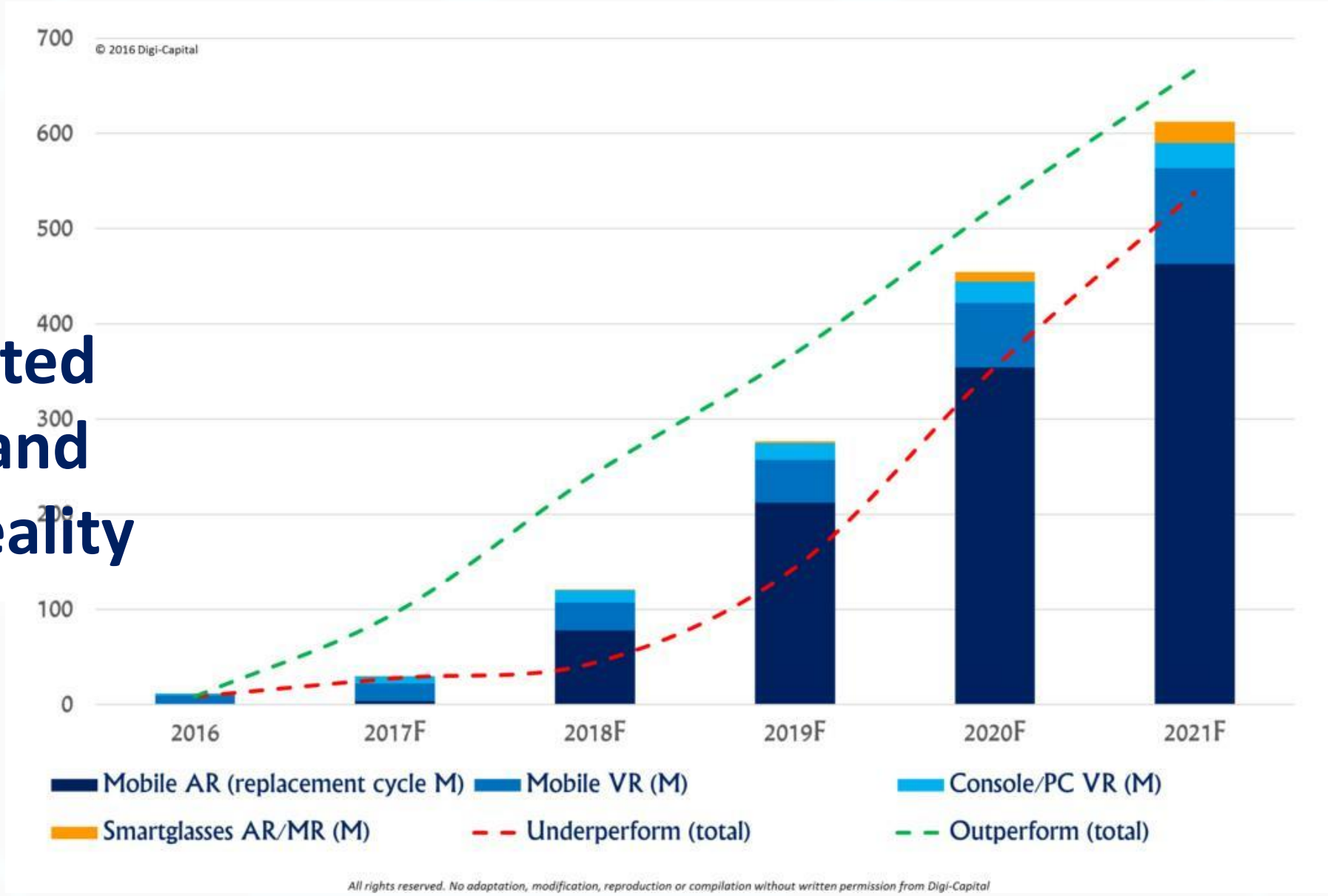


Data source: Tractica



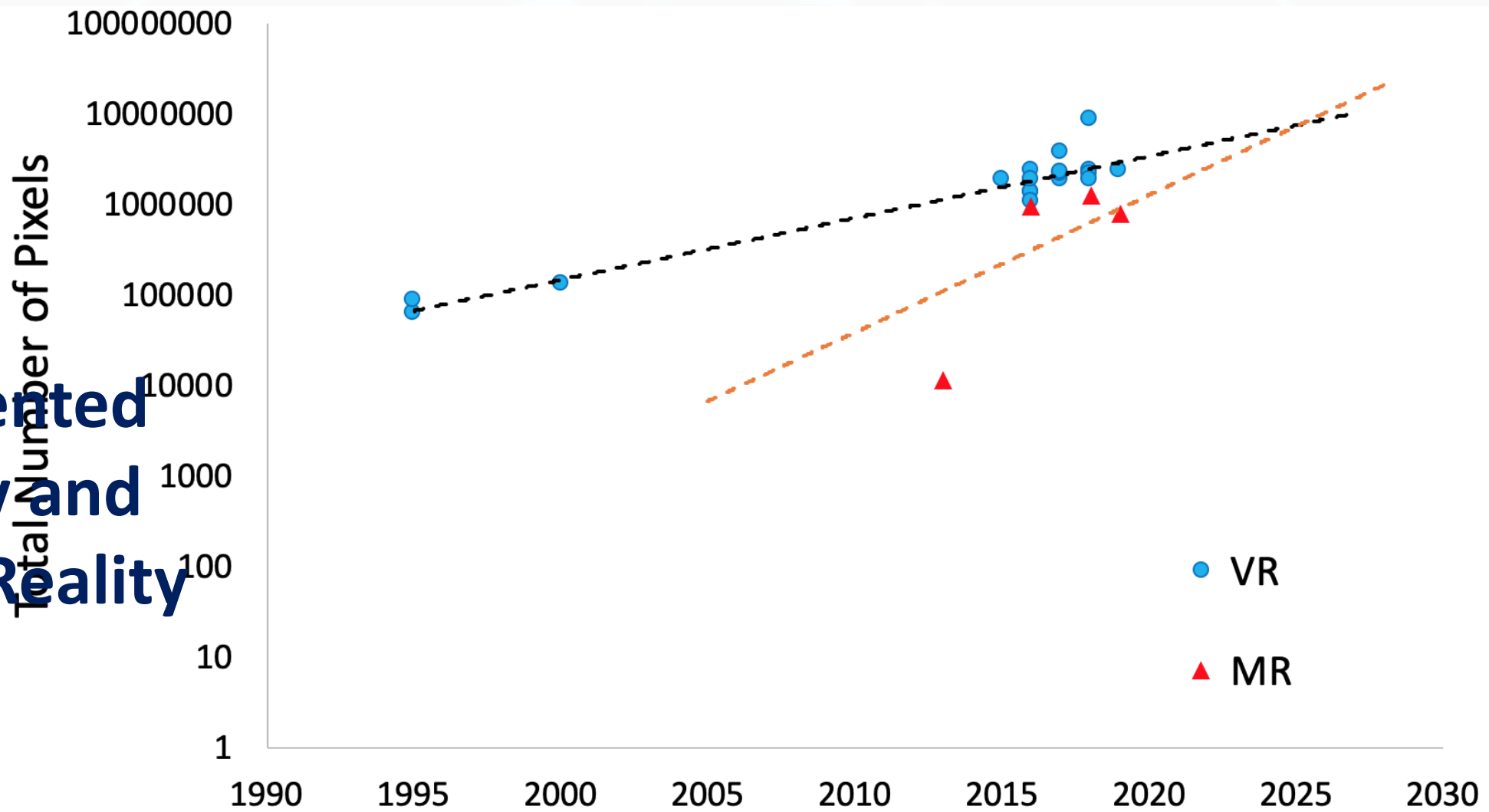


Augmented Reality and Virtual Reality





Augmented Reality and Virtual Reality





TRENDING

iPhone 11

OnePlus TV

Bluetooth speakers

Xiaomi Mi TV

5G

VPN

TechRadar is supported by its audience. When you purchase through links on our site, we may earn an affiliate commission. [Learn more](#)

Home > News > Future tech

Synthetic skin could bring the sensation of touch to virtual worlds

by Mark Wycislik-Wilson 2 days ago Future Tech

Feel the future



Waiting for ap.ljijit.com...



TECH DEALS, PRIZES AND LATEST NEWS

Get the best TechRadar India deals, reviews, product advice, competitions, unmissable tech news and more!

No spam, we promise. You can unsubscribe at any time and we'll never share your details without your permission.



BBC

Sign in

News

Sport

Reel

Worklife

Travel

Future

More

Search



NEWS

Home

Video

World

UK

Business

Tech

Science

Stories

Entertainment & Arts

Health

World News TV

Facebook to create VR world called Horizon

© 27 September 2019

Share



Establishing secure connection...

Top Stories

Trump angrily lashes out at impeachment inquiry

2 October 2019

'Grave moment' as N Korea tests submarine missile

3 October 2019

UK PM Johnson reveals Brexit plan

2 October 2019

Features

Augmented Reality and Virtual Reality



PAID CONTENT
Helping Women Achieve Their Maximum Potential
From Ultimate Software



ENVIRONMENT
The Future 50 Sustainability All Stars



INTERNATIONAL
Plunging Costs Make Solar the Renewables Leader as World Struggles to Meet Paris Accord



FINANCE
How Regulators Nearly Killed Off Libra—and Why They Might Yet Have Second Thoughts About the Digital Currency

Augmented Reality and Virtual Reality

A Big Supporter of Virtual Reality Content Just Backed Away. Here's Why Consumer VR Still Isn't a Sure Thing

By [David Meyer](#) October 17, 2019



Seamlessly integrate the most comprehensive data and trusted news to create more value for your clients.

[LEARN MORE](#)



LOOK OUT! (OR NOT) —

Microsoft's DreamWalker VR turns your daily commute into a totally different one

It guides you through real environs while immersing you in virtual ones.

SAMUEL AXON - 10/23/2019, 12:58 AM

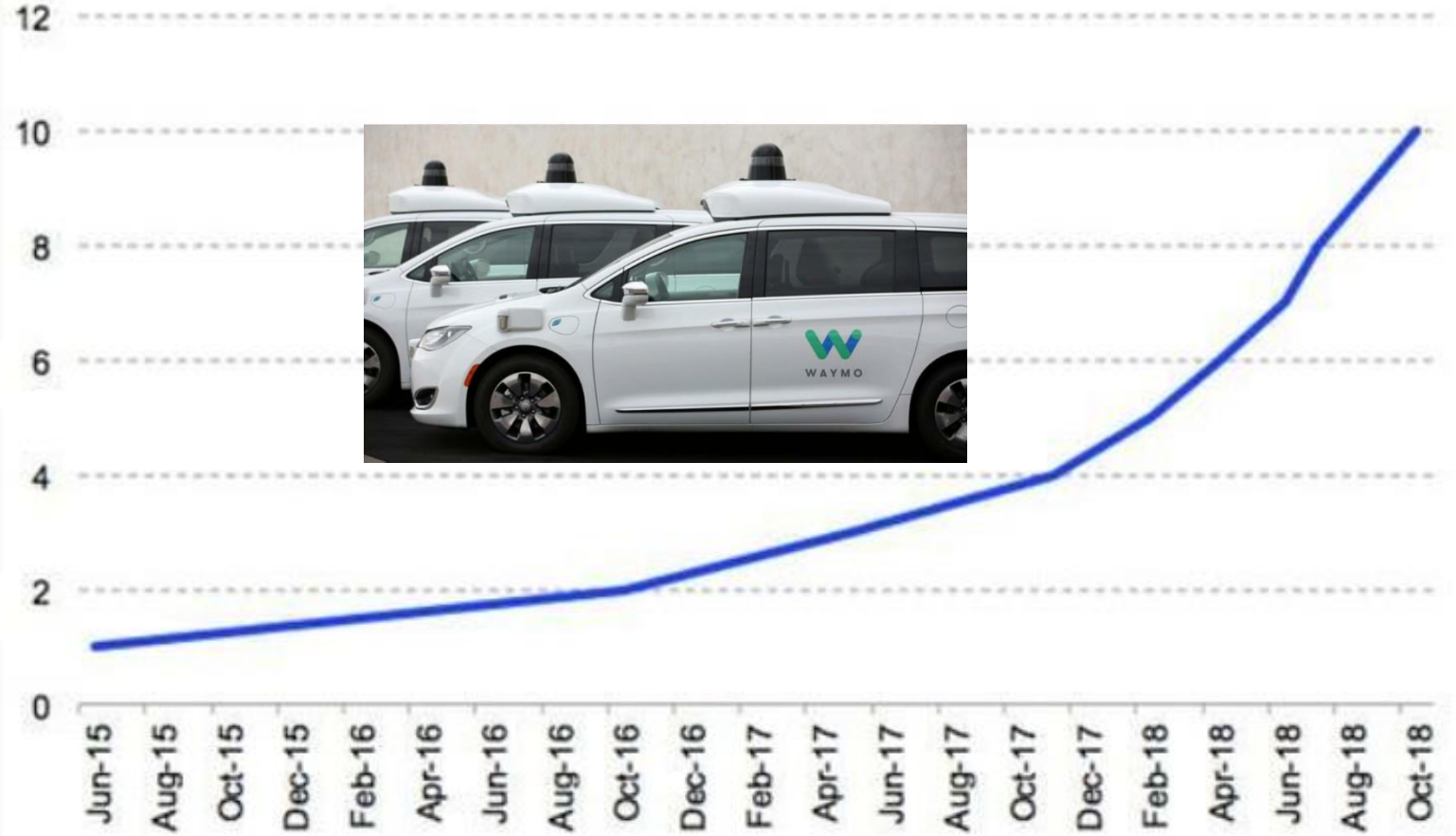
Augmented
Reality and
Virtual Reality





Autonomous Vehicle

Waymo's Self-Driving Experience on Public Roads (in Millions)



MARKET REALIST

Source: Waymo



Autonomous Vehicle

AARIAN MARSHALL

TRANSPORTATION 09.09.2019 12:38 PM

Cities Are Trying—Again—to Plan for Autonomous Vehicles

The bloom is off the rose for self-driving tech among urban transportation officials, who are planning for a future with fewer private cars.



Waiting for pay.google.com...



BL

fm

BD

₹

W

FT

BL Premium

BusinessDay



SIGN IN

REGISTER

MARKETS

OPINION

NATIONAL

POLITICS

COMPANIES

ECONOMY

BUSINESS

WORLD

SPORT

LIFE

MULTIMEDIA & TV

E-EDITION

LOCALLY THOUGHT, GLOBALLY BOUGHT.

LEARN MORE



Autonomous
Vehicle

LIFE / MOTORING

MOTOR BRIEFS

Self-driving taxis roll out in Shanghai

Driverless-car programme paves the way for commercial robotaxis in the future

03 OCTOBER 2019 - 05:11 by MOTOR NEWS REPORTER



SPECIAL OFFER

READ BUSINESSLIVE
FREE FOR 3 MONTHS
Terms & conditions apply

BusinessLIVE

LOCALLY THOUGHT,



Waymo to customers: 'Completely driverless Waymo cars are on the way'



Kirsten Korosec @kirstenkorosec / 12:38 am SAST • October 10, 2019

 Comment



Autonomous Vehicle



Hyundai is investing \$35 billion in autonomous driving and electric cars



By [Julia Horowitz](#) and [Sherisse Pham](#), CNN Business

Updated 1431 GMT (2231 HKT) October 15, 2019

Autonomous Vehicle



► Genesis

TOP STORIES



Hillary Clinton is taunting Trump. But is she seriously eyeing another run?



Donald Trump tweeted that the Fox impeachment poll was 'incorrect....

Recommended by outbrain



Autonomous Vehicle

The race to build a flying electric taxi

By Ben Morris
Technology of Business editor

37 minutes ago



Top Stories

PM aims to push Brexit bill through in three days

Boris Johnson urges Parliament to approve his intensive timetable but opposition MPs want more time.

8 minutes ago

MPs scrutinizing Brexit bill

6 hours ago

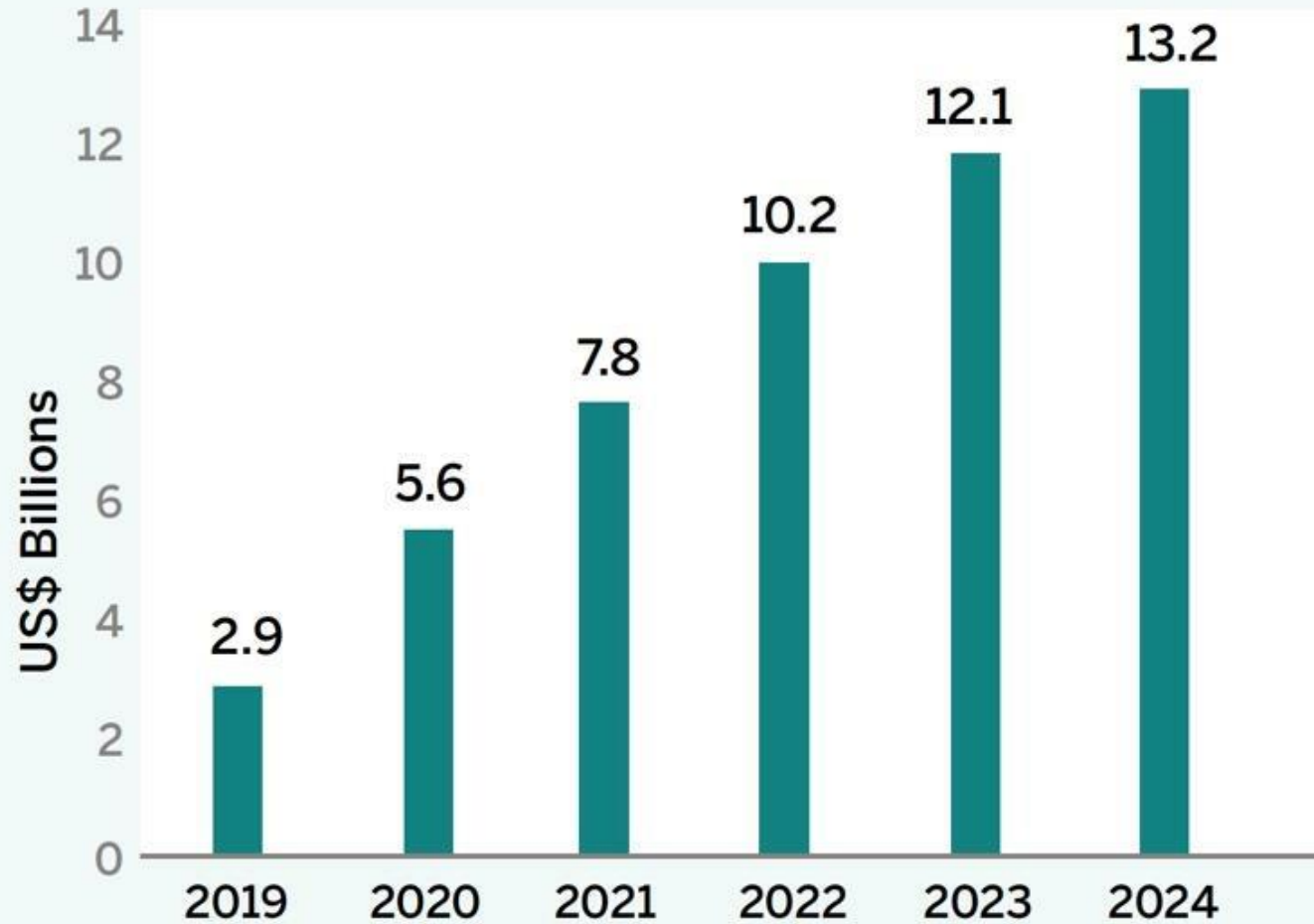
NI firms to declare GB-bound goods after Brexit

1 hour ago



Blockchain

Enterprise Blockchain market growth, 2019-2024





In less than three weeks, Hard Fork Summit is taking over Amsterdam. Don't miss it →

HARD FORK

Blockchain, cryptocurrencies, and insider stories by TNW.

Powered by

Blockchain

INSIGHTS ETHEREUM PAYMENT DIGITAL CURRENCY SUPPLY CHAIN ELECTRONIC MONEY BLOCKCHAIN IKEA FIAT MONEY CRYPTOCURRENCY

IKEA just allowed an invoice to be paid via the Ethereum blockchain

Nordic Store paid for goods using digital Icelandic króna

Waiting for thenextweb.com...



T

Should central banks issue digital currency? Suddenly, it's an urgent question.

MS. TECH; ORIGINAL IMAGES: MAX12MAXX, WIKIMEDIA COMMONS; AP; BANK OF INTERNATIONAL SETTLEMENTS

[Blockchain / Cryptocurrency](#)

Blockchain

Should central banks issue digital currency? Suddenly, it's an urgent question.

Stable digital currencies — and particularly Facebook's plans to launch one — have central bankers playing defense.

by **Mike Orcutt**

Oct 3, 2019



A Revolutionary Blockchain Solution for Cross-Border Business

Blockchain

NEWS PROVIDED BY

OpenExO

Oct 11, 2019, 18:18 ET

SHARE THIS ARTICLE



MIAMI, Oct. 11, 2019 /PRNewswire/ -- We were fortunate enough to catch up with Salim Ismail, a serial entrepreneur who has helped companies like TD Ameritrade, Black & Decker, HP, and Visa move leadership, culture, and management thinking three years ahead in just ten weeks by implementing his methodology for exponential growth.

In our discussion with Salim, we learned about his blockchain-related venture, OpenExO. [OpenExO](#) gives individuals, businesses, and governments the tools they need to succeed in today's world by immersing them in a community of thought-leaders, innovators, futurists, coaches, speakers, and entrepreneurs that help them grow exponentially—just like the companies Salim has assisted.



Blockchain

Blockchain Oct 11

The wheels may be coming off Facebook's digital currency project Libra



Facebook's digital currency plans took a major hit today as Visa, Mastercard, eBay, and Stripe have followed PayPal's example and backed out of the nonprofit Facebook set up to manage the currency.



Blockchain Oct 16



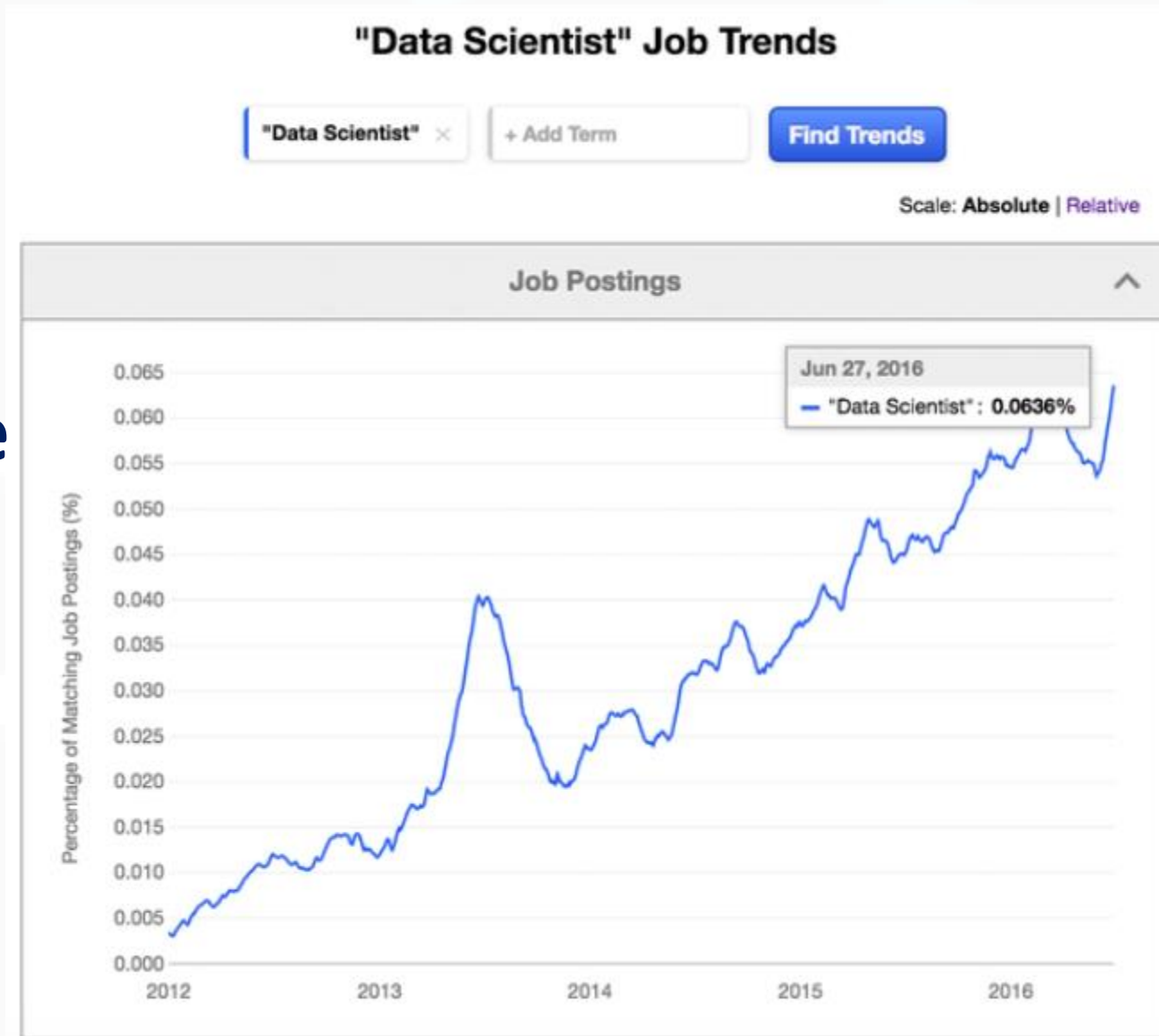
Bitcoin surveillance helped feds take down a massive child abuse site



Blockchain



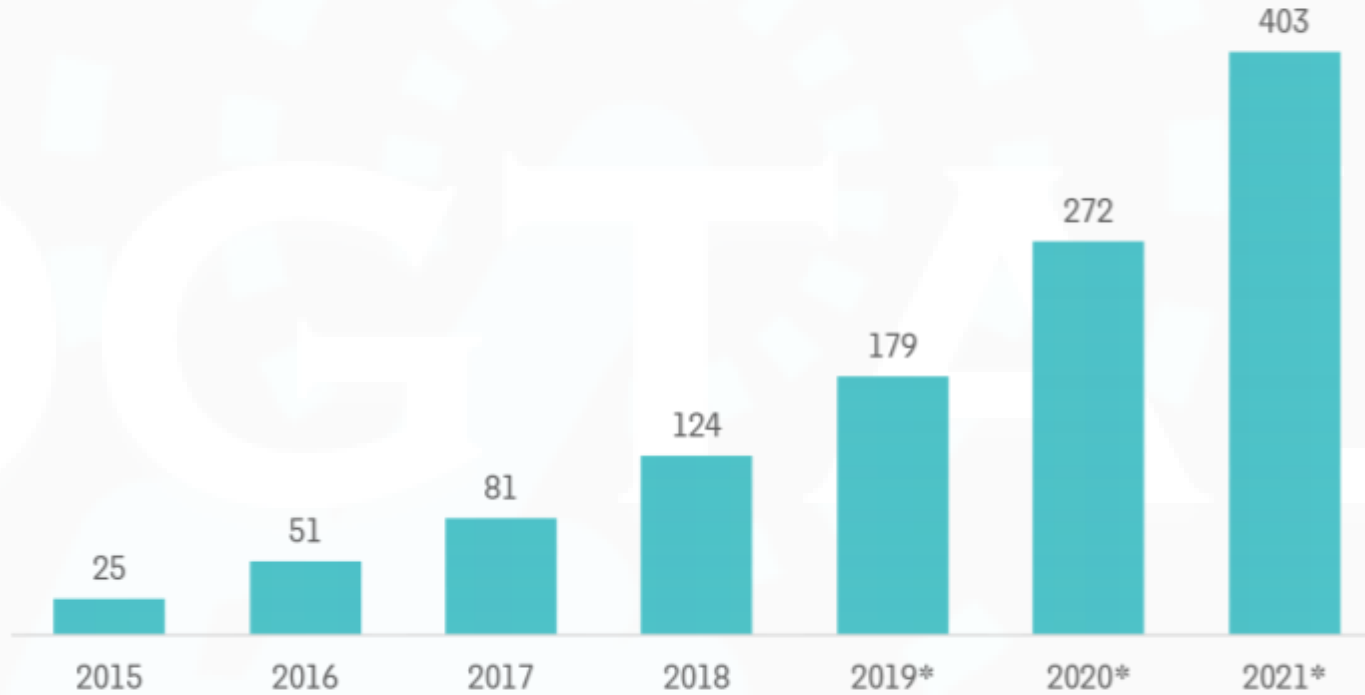
Data Science





Data Science

Volume of Big Data in Data Center Storage, in Exabytes,
Global, 2015 – 2021*

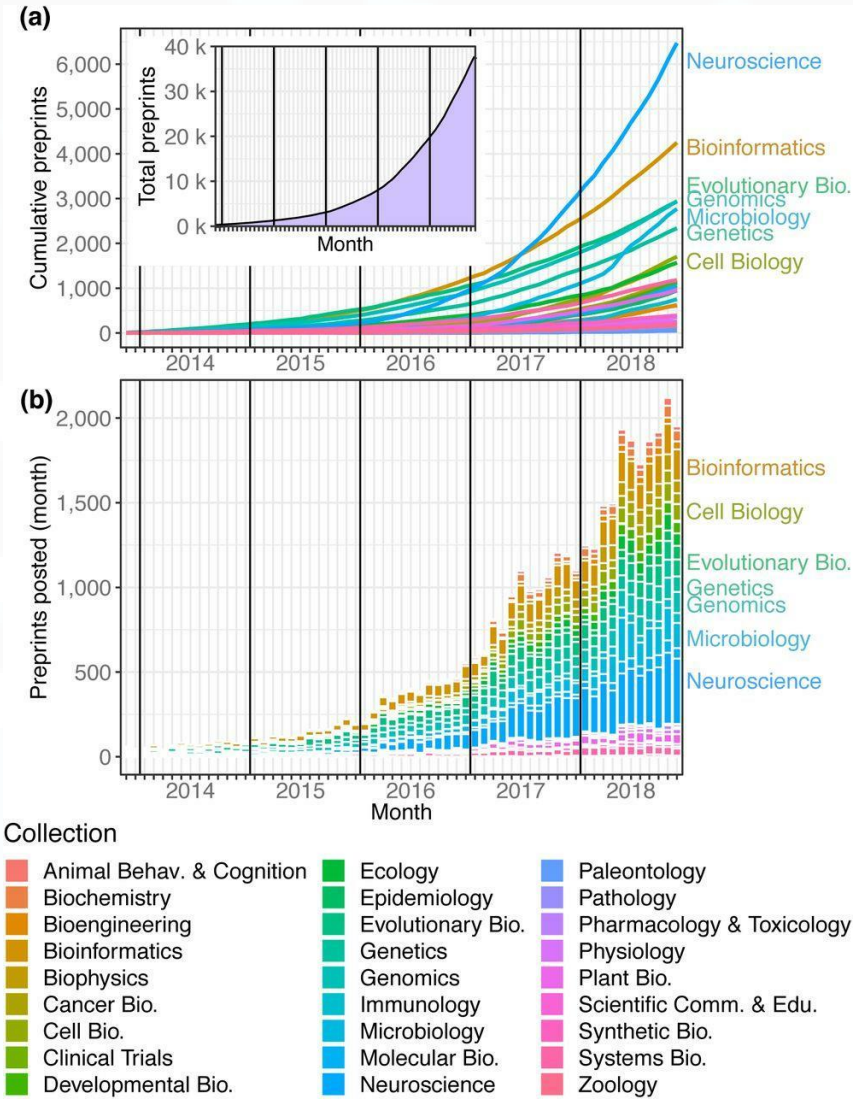


*Forecast
Source: Cisco Systems





Digital Biology and Biotechnology





ADVERTISEMENT  University of Shanghai for Science and Technology invites Global Talents  上海理工大学 UNIVERSITY OF SHANGHAI FOR SCIENCE AND TECHNOLOGY ADVERTISEMENT

Help us improve our products. [Sign up to take part.](#)

nature > the pharmacogenomics journal > articles > article

MENU ▾ The Pharmacogenomics Journal

Article | [Open Access](#) | Published: 03 October 2019

Towards precision medicine: interrogating the human genome to identify drug pathways associated with potentially functional, population-differentiated polymorphisms

Maulana Bachtiar, Brandon Nick Sern Ooi, Jingbo Wang, Yu Jin, Tin Wee Tan, Samuel S. Chong & [Caipiao G. Lee](#) ✉

The Pharmacogenomics Journal (2019) | [Download Citation](#) ↓

Search E-alert Submit Login

Download PDF ↓

Sections Figures References

Abstract

Introduction

Materials and methods

Results

Discussion

Code availability

Digital Biology and Biotechnology



Paralysed man moves in mind-reading exoskeleton

By James Gallagher
Health and science correspondent

🕒 4 October 2019

f 🗨️ 🐦 ✉️ Share

**Digital Biology
and
Biotechnology**





Digital Biology and Biotechnology

PHYS.ORG ☰ Topics Week's top Latest news

Nanotechnology Physics Earth Astronomy & Space Technology Ch

Home / Chemistry / Materials Science ☆ PDF 🖨️

🕒 SEPTEMBER 30, 2019

Make like a leaf: Researchers developing method to convert carbon dioxide

by University of Sydney

- f** 209
- 🐦** 34
- in** Share
- ✉️** Email



Digital Biology and Biotechnology

International Space Station

First meat grown in space lab 248 miles from Earth

Israeli company successfully cultures bovine cells on
International Space Station

**Rebecca
Smithers**
Mon 7 Oct 2019
14.30 BST

f t e 433



▲ Bovine cells onboard the International Space Station were grown into small-scale muscle tissue using a 3D printer. !Shutterstock



MENU ▾

nature
International journal of science

Subscribe



Search

NEWS • 21 OCTOBER 2019

Super-precise new CRISPR tool could tackle a plethora of genetic diseases

The system allows researchers more control over DNA changes, potentially opening up conditions that have challenged gene-editors.

Heidi Ledford

**Digital Biology
and
Biotechnology**



WIRED

BUSINESS CULTURE GEAR IDEAS SCIENCE SECURITY TRANSPORTATION

SIGN IN

SUBSCRIBE

MATT SIMON

SCIENCE 10.22.2019 08:00 AM

Scientists Are Literally Spinning Up Lab-Grown Meat

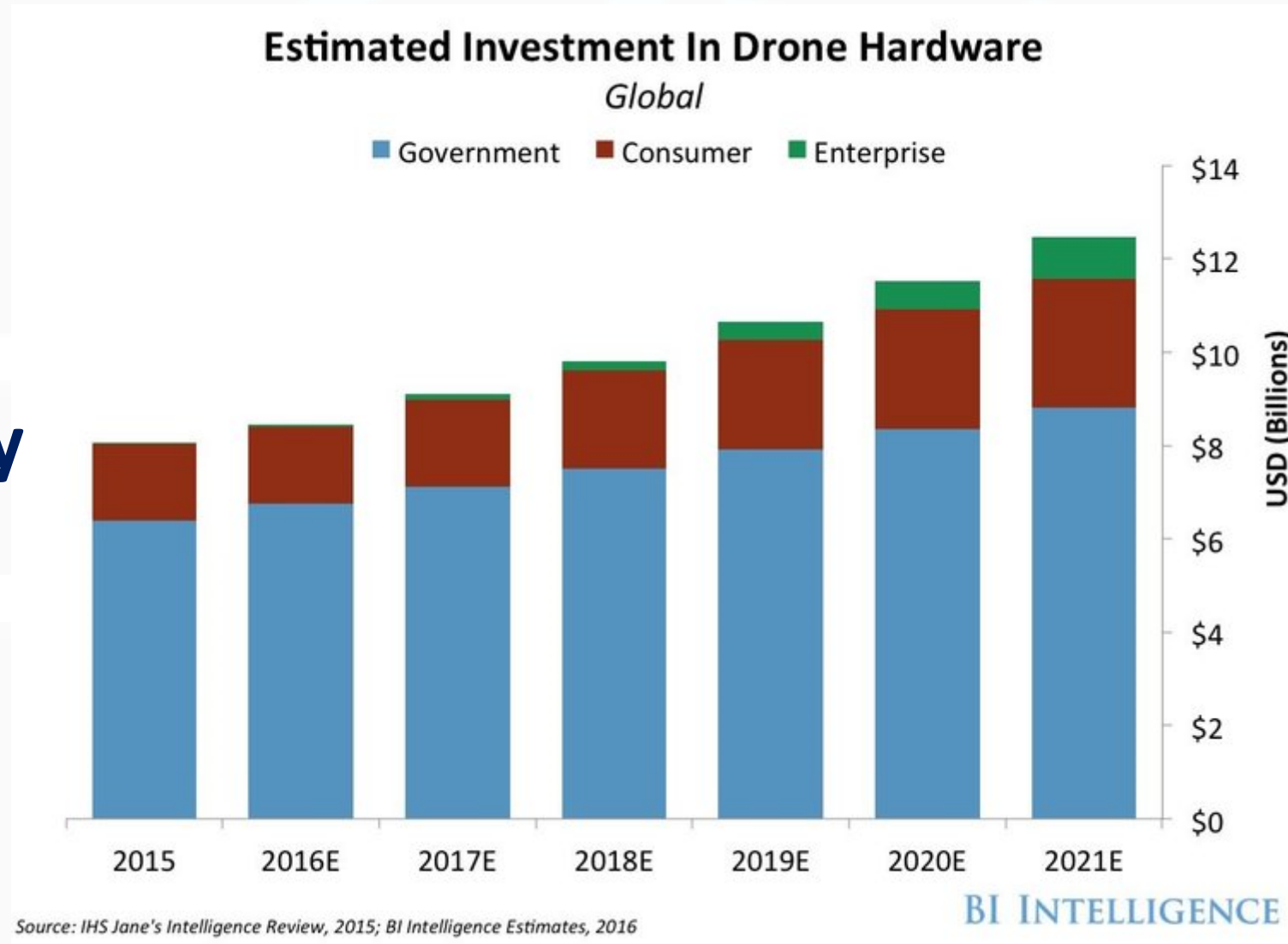
Researchers take inspiration from cotton candy to make a gelatin scaffolding, which could help realize the dream of more sustainable steaks and chicken breasts.

**Digital Biology
and
Biotechnology**





Drone Technology



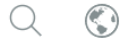


Drone Technology

Smart Cities 1h

UPS has won approval to run the first drone delivery airline in the US





Drone Technology

BUSINESS INSIDER | TRENDING

Watch: South Africa's first crop-spraying drones can legally fly from today – saving farmers millions

Jay Caboz , Business Insider SA
Sep 30, 2019, 04:25 PM



Waiting for www.google.com...



China's stealth drones and hypersonic missiles surpass – and threaten – the U.S.

Despite starting technologically well behind America, China has developed new systems faster and more cheaply to fend off the U.S. in East Asia.





Drone Technology

🏠 > News

Rogue drones to be targeted by new hi-tech 'detect and destroy' unit set up by Home Office

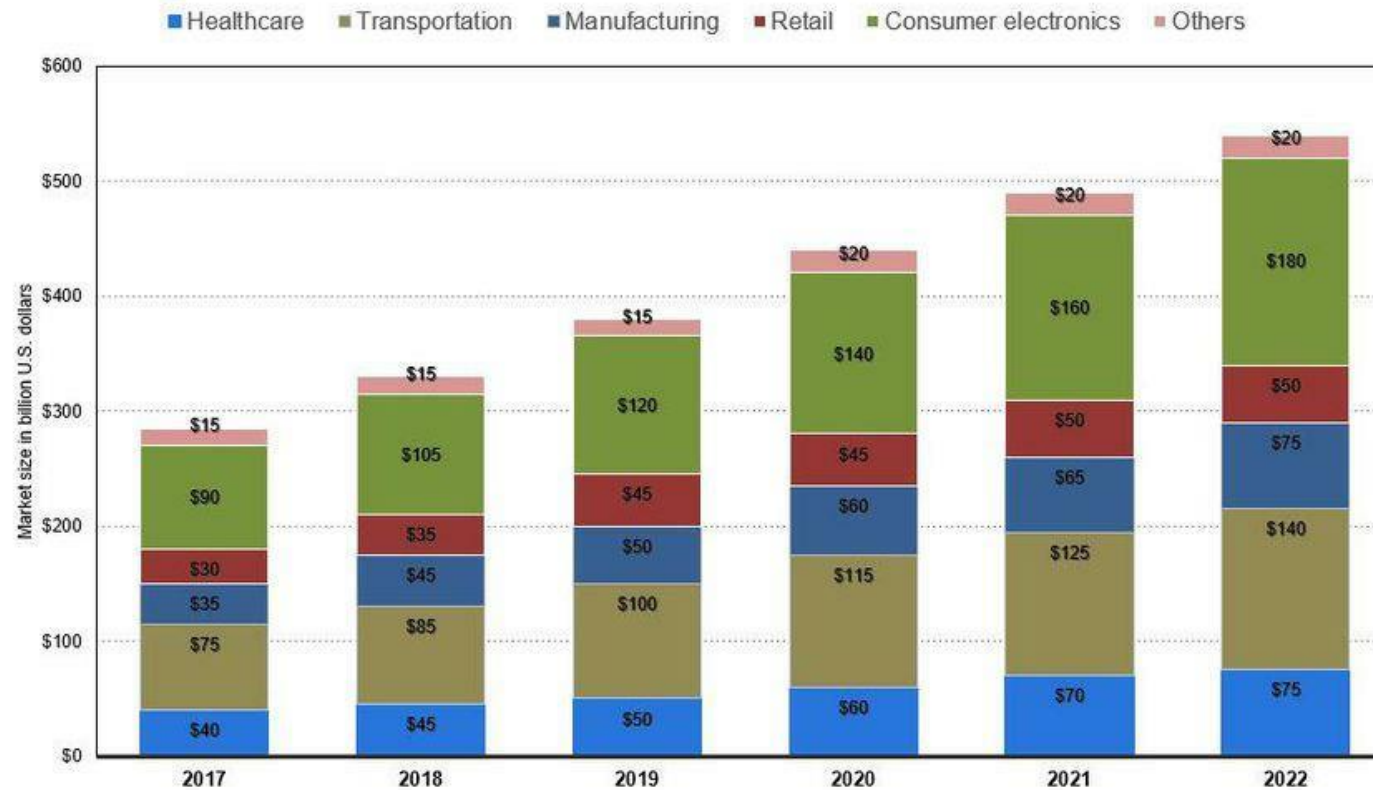




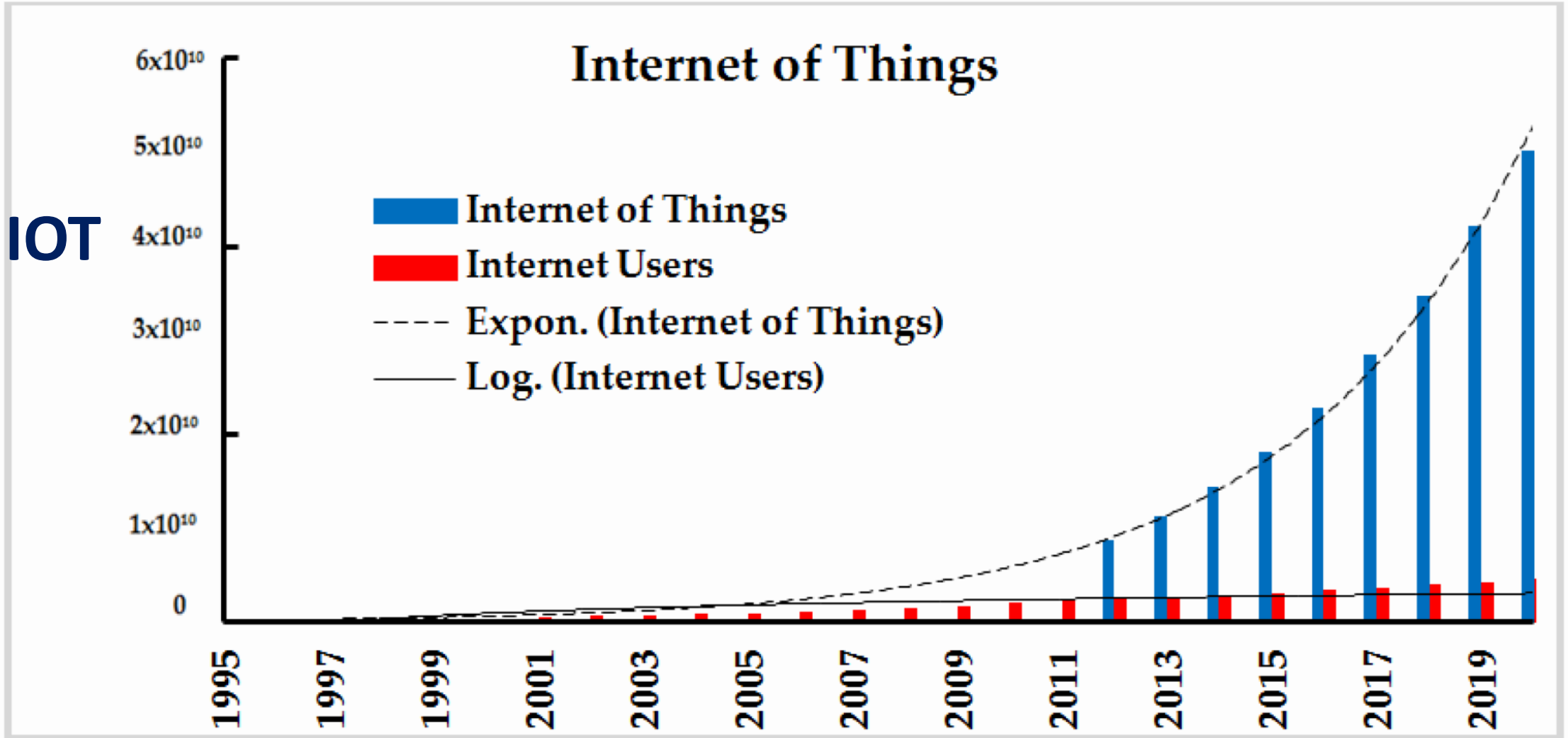
IOT

IoT Market Revenue by Application in North America 2017-2022

Size of the Internet of Things (IoT) Market by Application in North America from 2017 to 2022 (in billions of U.S. dollars)



statista





IOT

Home / Engineering

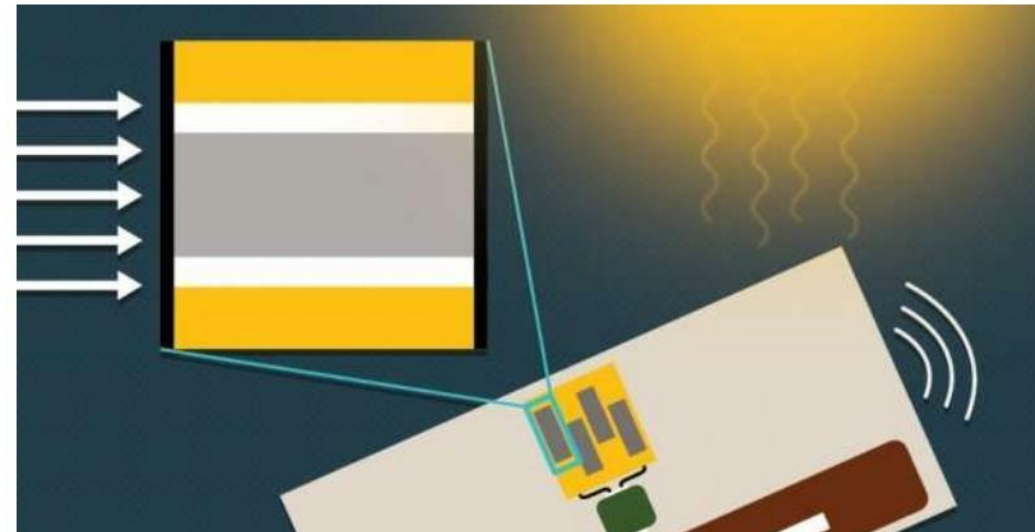


🕒 SEPTEMBER 27, 2019

Photovoltaic-powered sensors for the 'Internet of Things'

by Rob Matheson, Massachusetts Institute of Technology

- 172
- 31
- Share
- Email





IOT



Business

Will the rise of IoT and slowing of Moore's Law contribute to climate change?

DEAN TAKAHASHI @DEANTAK OCTOBER 19, 2019 8:45 AM



CISCO

Thinking about multicloud?
All you need to know.

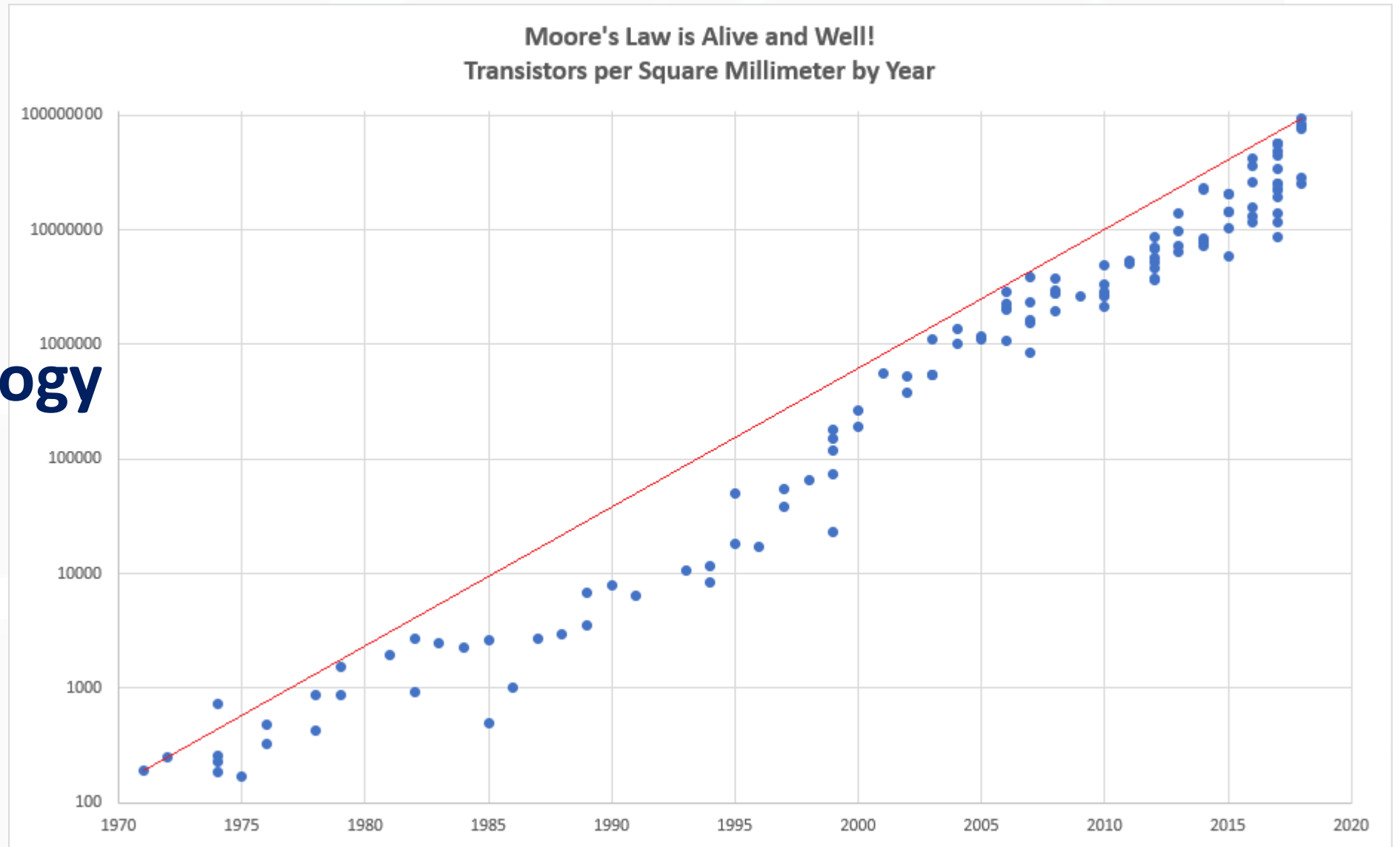
[Get the info](#)

Most Read





Nanotechnology





Nanotechnology

Home / Nanotechnology / Nanophysics
Home / Nanotechnology / Nanomaterials



f 102

t 25

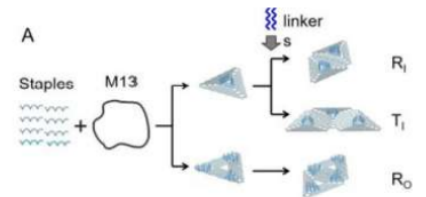
in Share

✉ Email

OCTOBER 2, 2019 **FEATURE**

Quantizing single-molecule surface enhanced Raman Scattering with DNA origami metamolecules

by Thamarasee Jeewandara , Phys.org



Fast & Flawless 3D Scanning



Scan Objects in Full Color 5 Minutes or Less with True Portability and Unrivaled Accuracy.



Featured

Last Comments

Popular

Quantizing single-molecule surface enhanced Raman Scattering with DNA origami metamolecules

Waiting for a.tribalfusion.com...



Nanotechnology



1971 - 2,300 transistors at \$1 each

2017 - 4.4 billion transistors at less than a millionth of a penny each

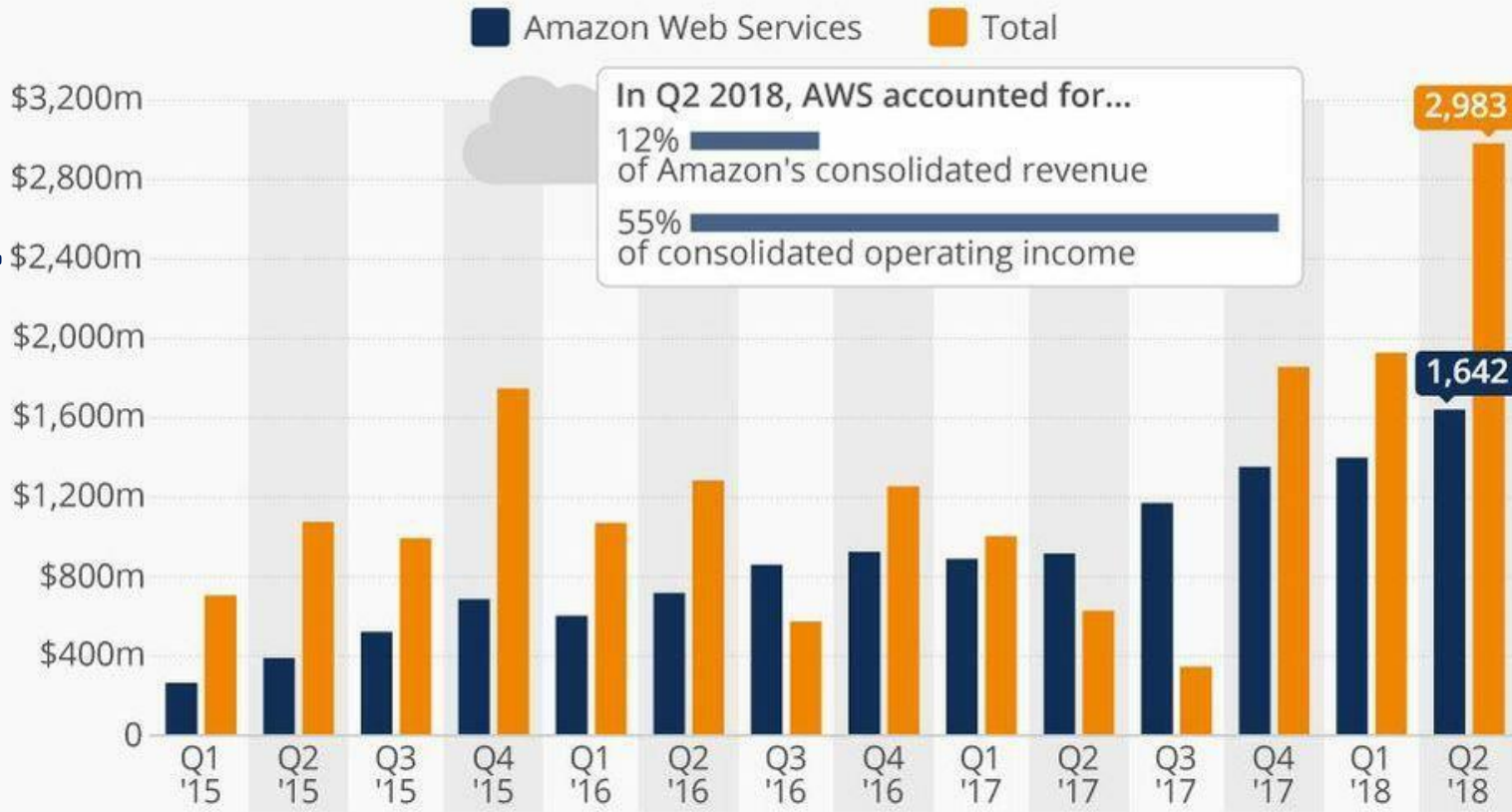
2025 - 72 qubits



Networking & Computing

Cloud Business Drives Amazon's Profits

Amazon's quarterly operating profit (in million U.S. dollars)



@StatistaCharts Source: Amazon

statista



How Adobe uses LinkedIn Sponsored Content to tell its brand story

See how

Networking & Computing

Cloud computing could be key to speeding up Africa's development

Cloud computing – the delivery of sophisticated information technology capabilities over the internet – could play a crucial role in both innovation and efficiency in Africa.

by The Conversation — 2019-10-02 19:45 in Science

Discovery Save on car insurance Get more than R7* per litre of fuel back!

Max limits, Ts&Cs apply. Auth FSP



Networking & Computing

US news

Pentagon awards \$10bn cloud computing deal to Microsoft, snubbing Amazon

Donald Trump said in August his administration would 'take a very long look' at contract, after public swipes at Amazon

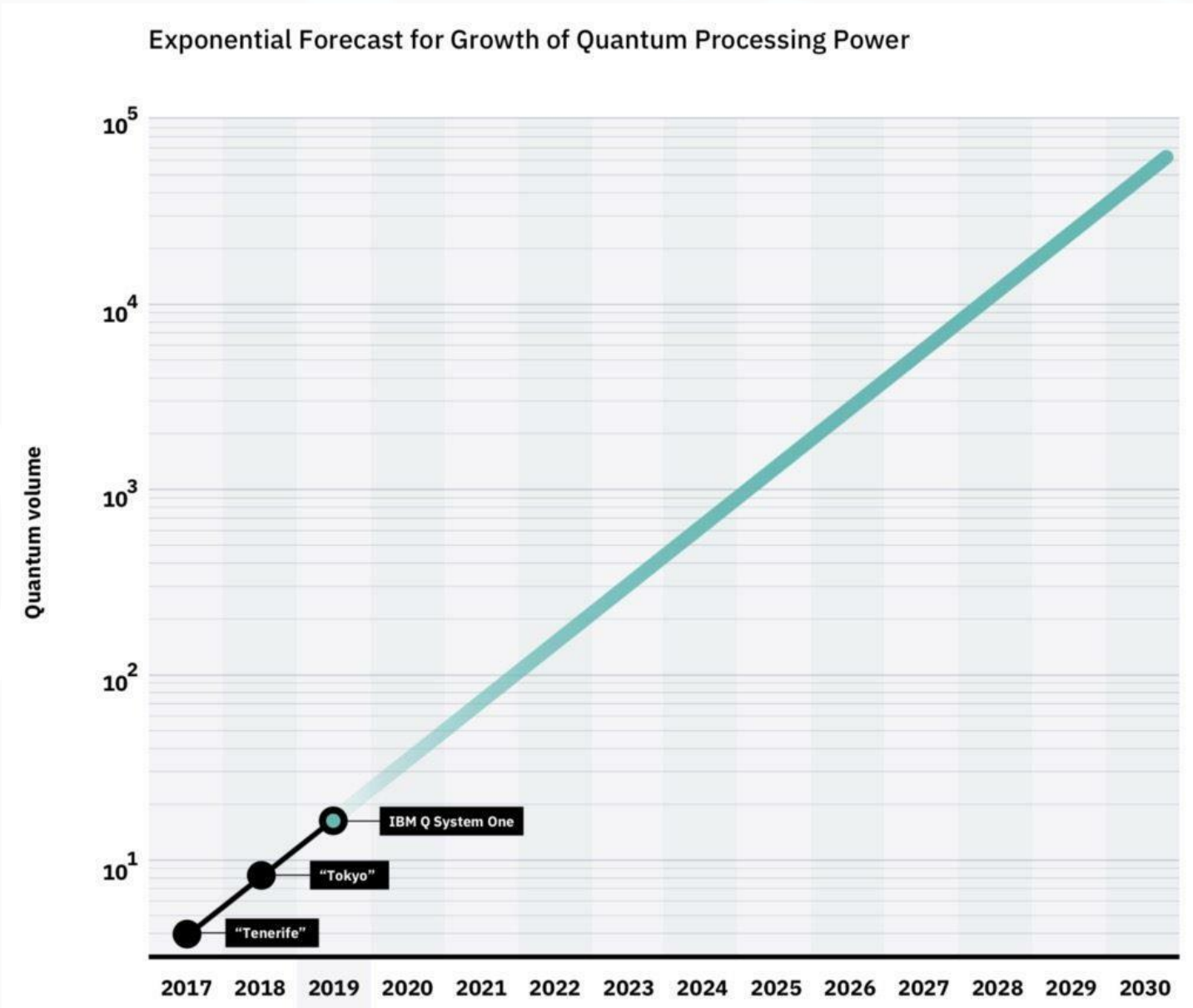
Agencies

Sat 26 Oct 2019
07:12 BST





Quantum Computing





IOP Publishing



Buyer's Guide | Jobs

Sign in | Register



physicsworld



Magazine | Latest | People | Impact | Collections | Audio and video

TOPICS



quantum computing

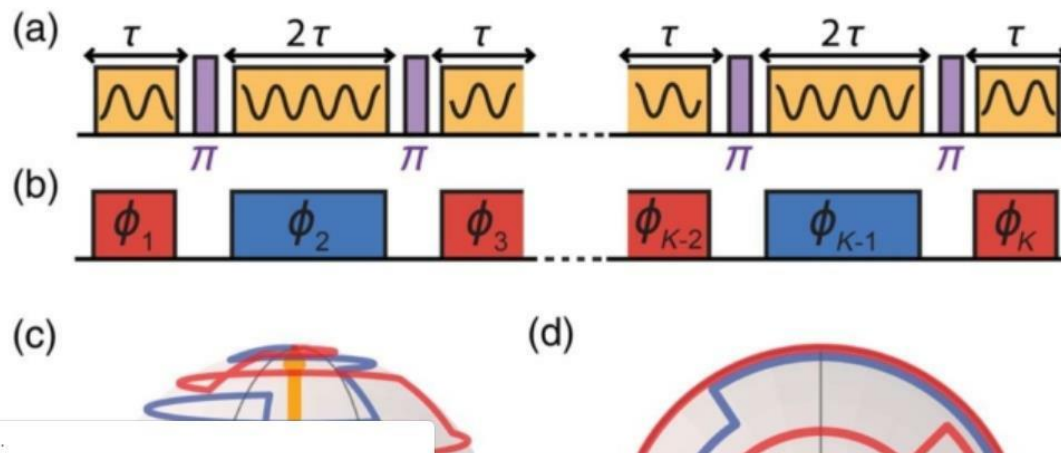
Quantum Computing



QUANTUM COMPUTING | RESEARCH UPDATE

127-qubit register breaks new ground in quantum computing

02 Oct 2019 Arso Ivanovic

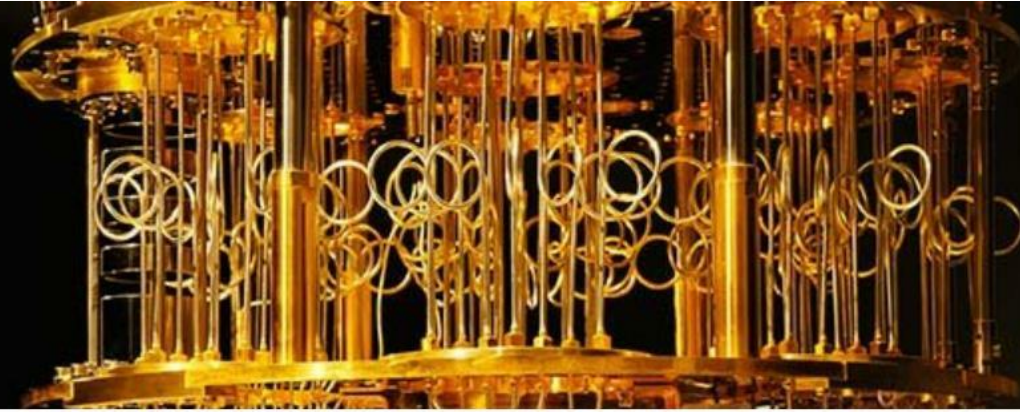


Advertisement

GOLD SUPPLIERS



Waiting for www.google.com...



Barclays demonstrates proof-of-concept quantum clearing algorithm

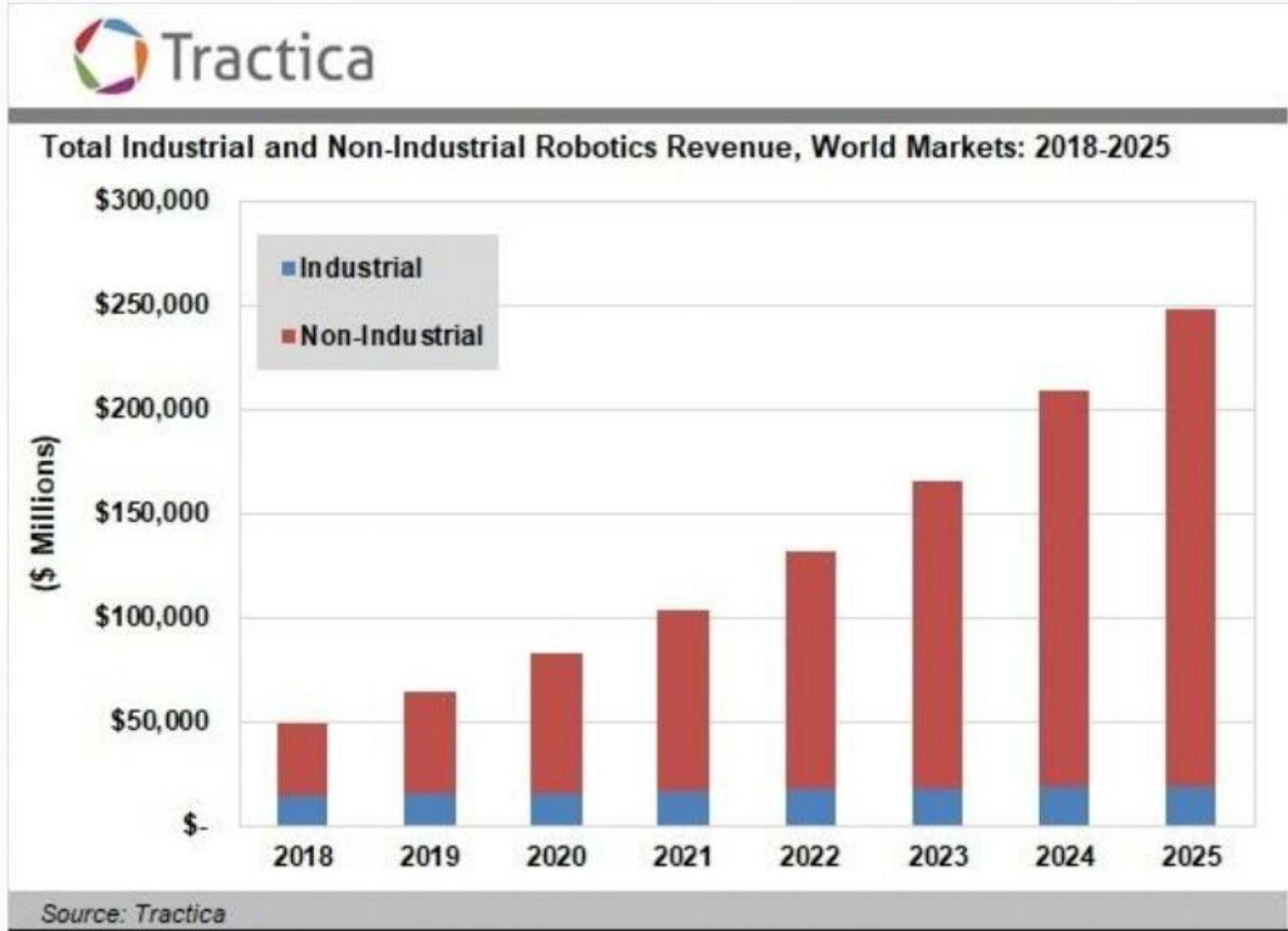
Barclays and IBM researchers publish paper on a quantum computing algorithm for securities transaction trading



Quantum Computing



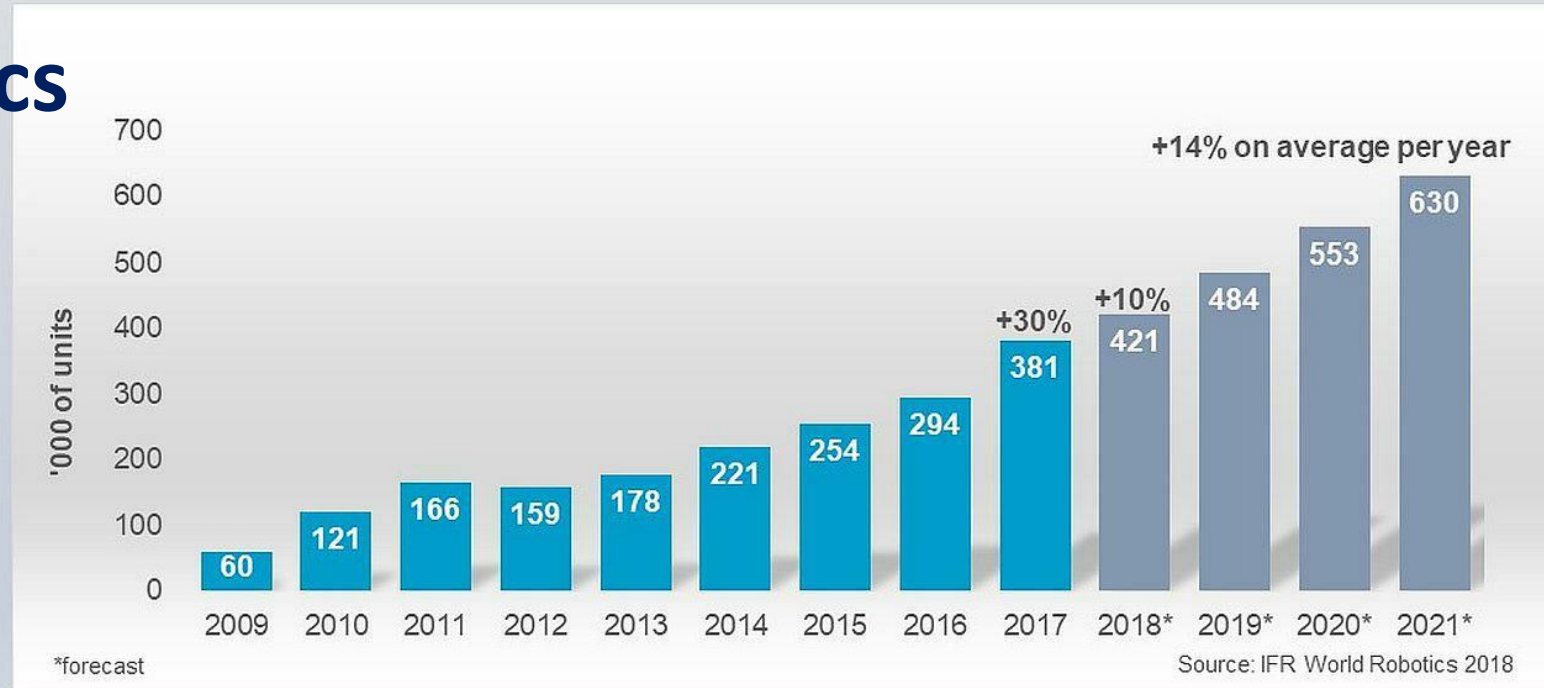
Robotics





Estimated annual worldwide supply of industrial robots 2009-2017 and 2018*-2021*

Robotics





Robotics

Home / Robotics
Home / Machine learning & AI



f 198

t 18

in Share

✉ Email

🕒 SEPTEMBER 30, 2019 **FEATURE**

SwarmTouch: A tactile interaction strategy for human-swarm communication

by Ingrid Fadelli , Tech Xplore





Technology

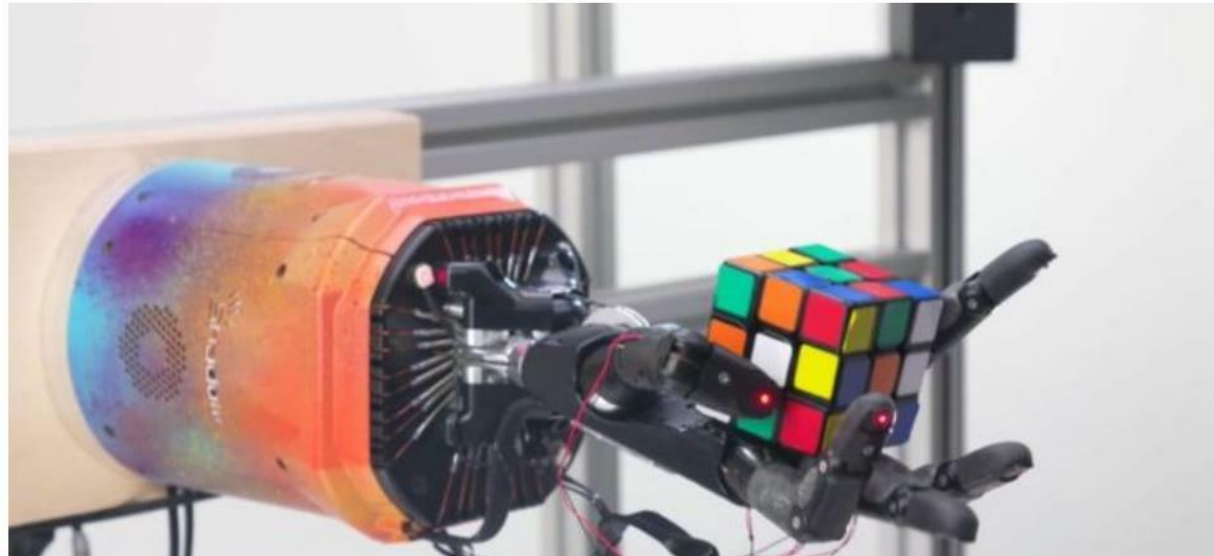
Robot hand solves Rubik's cube, but not the grand challenge



Dave Lee
North America technology reporter

🕒 15 October 2019

f 🗨️ 🐦 ✉️ Share



Robotics



MIT develops a way for robots to grasp and manipulate objects much faster

Darrell Etherington @etherington / 3 days

Robotics





Want \$125k? Just Donate Your Face to Some Humanoid Robots

Take your money and don't ask questions.

Robotics



By Courtney Linder Oct 18, 2019





Robotics

TechRepublic. SEARCH Q Developer Top DaaS providers Security More Newsletters Forums Resource Li

MWC19 Los Angeles: First-ever humanoid robot powered by cloud artificial intelligence

How Adobe uses LinkedIn Sponsored Content to tell its brand story [See how](#)



by **N.F. Mendoza** in **Artificial Intelligence** on October 23, 2019, 2:37 PM PST

CloudMinds XR-1 5G humanoid robots perform intricate manual tasks at the Sprint exhibit at MWC19 Los Angeles.

Who needs to use that delicate tiny sewing staple, when there's now a robot that can thread a needle for you? CloudMinds XR-1, 5G Humanoid Robots with vision-controlled grasping tech and intricate manual tasks, interacted with guests at the [Sprint](#) exhibit at the [Mobile World Congress 2019 Los Angeles \(MWC19\)](#) in Los Angeles

WHITE PAPERS, WEBCASTS, A

Tech Pro Research: IT Guide to Deep Learning White Papers from TechRe [LEARN MORE](#)

Artificial intelligence e Downloads from TechRep [LEARN MORE](#)



DGTAL

Thank You