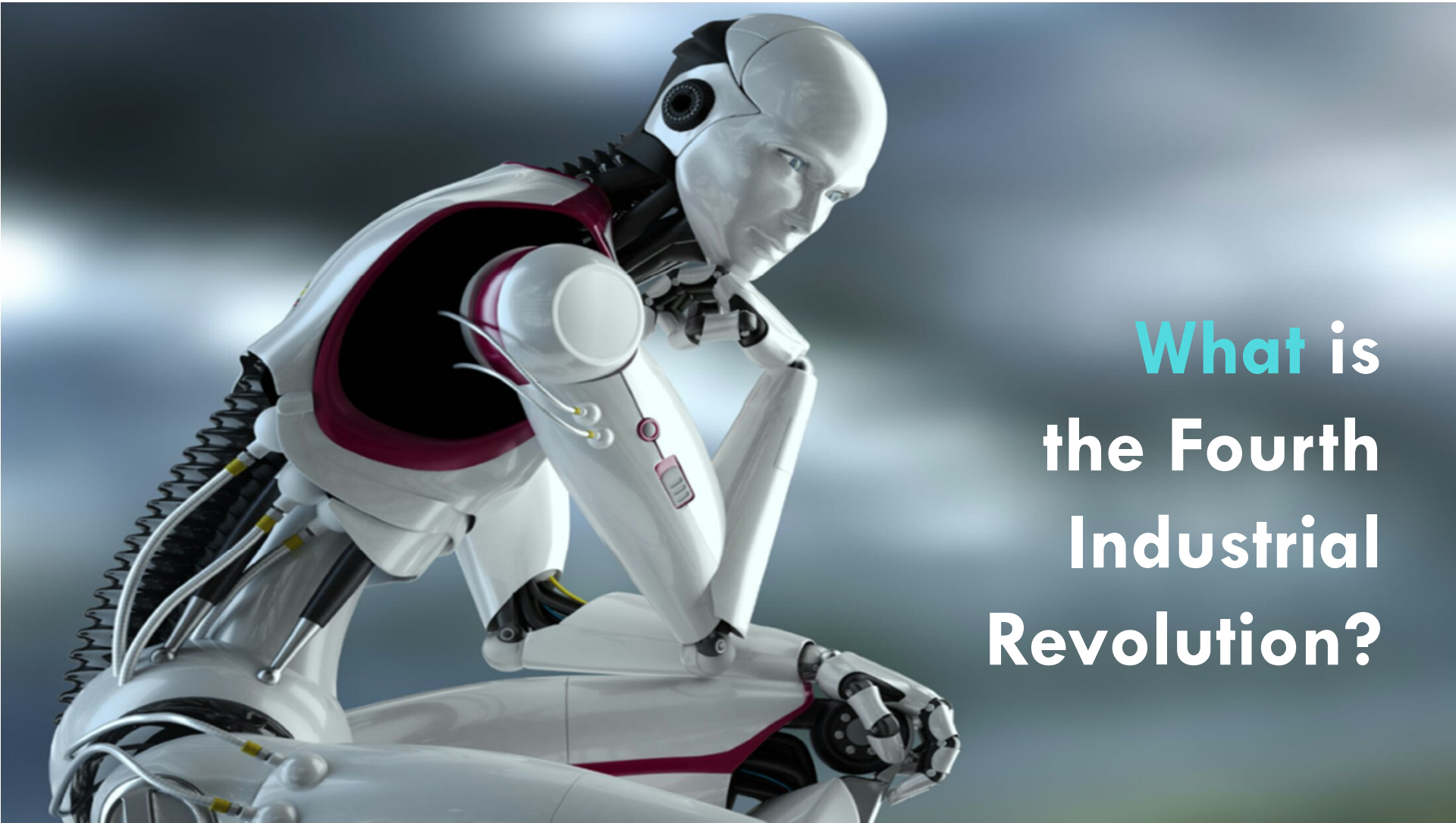


The Fourth Industrial Revolution

Carlos Alejandro Belloni



A futuristic, white humanoid robot with red accents is shown in a thinking pose, resting its chin on its hand. The robot has a sleek, metallic appearance with visible joints and wiring. The background is a blurred, blue-toned environment.

What is
the Fourth
Industrial
Revolution?

The 4IR is characterized by a ***fusion*** of technologies that is ***blurring*** the lines between the ***physical, digital*** and ***biological*** spheres.



Original Image

Image Reconstructed From Bacteria

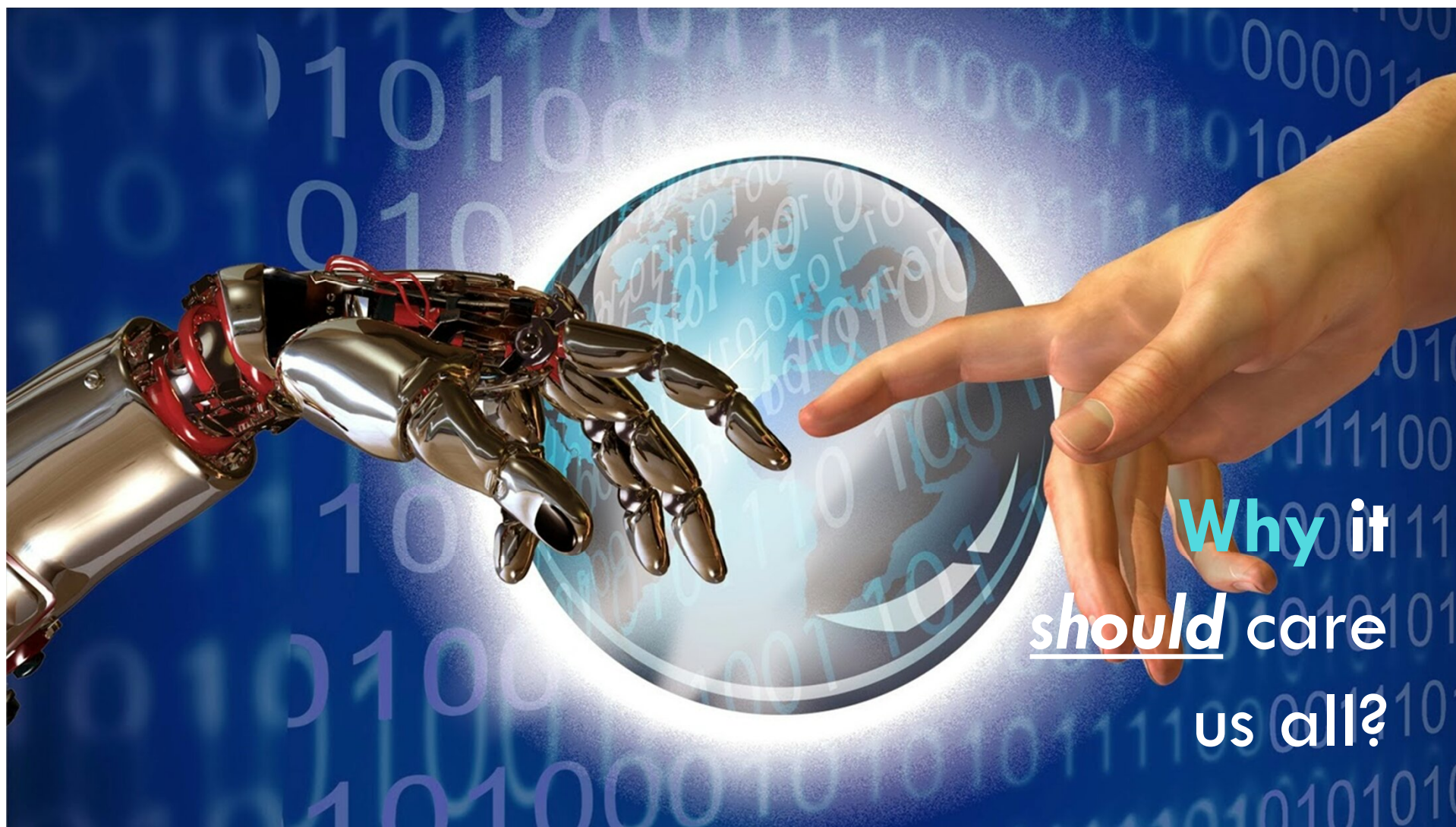
These overlapping technologies will define our lives in the decades to come.

- Genetics revolution will allow us to ***reprogram our own biology.***
- Nanotechnology will allow us to ***manipulate matter at the molecular and atomic scale.***
- AI will allow us to create a ***greater than human non-biological intelligence.***



Original Image

Image Reconstructed From Bacteria



Why it
should care
us all?

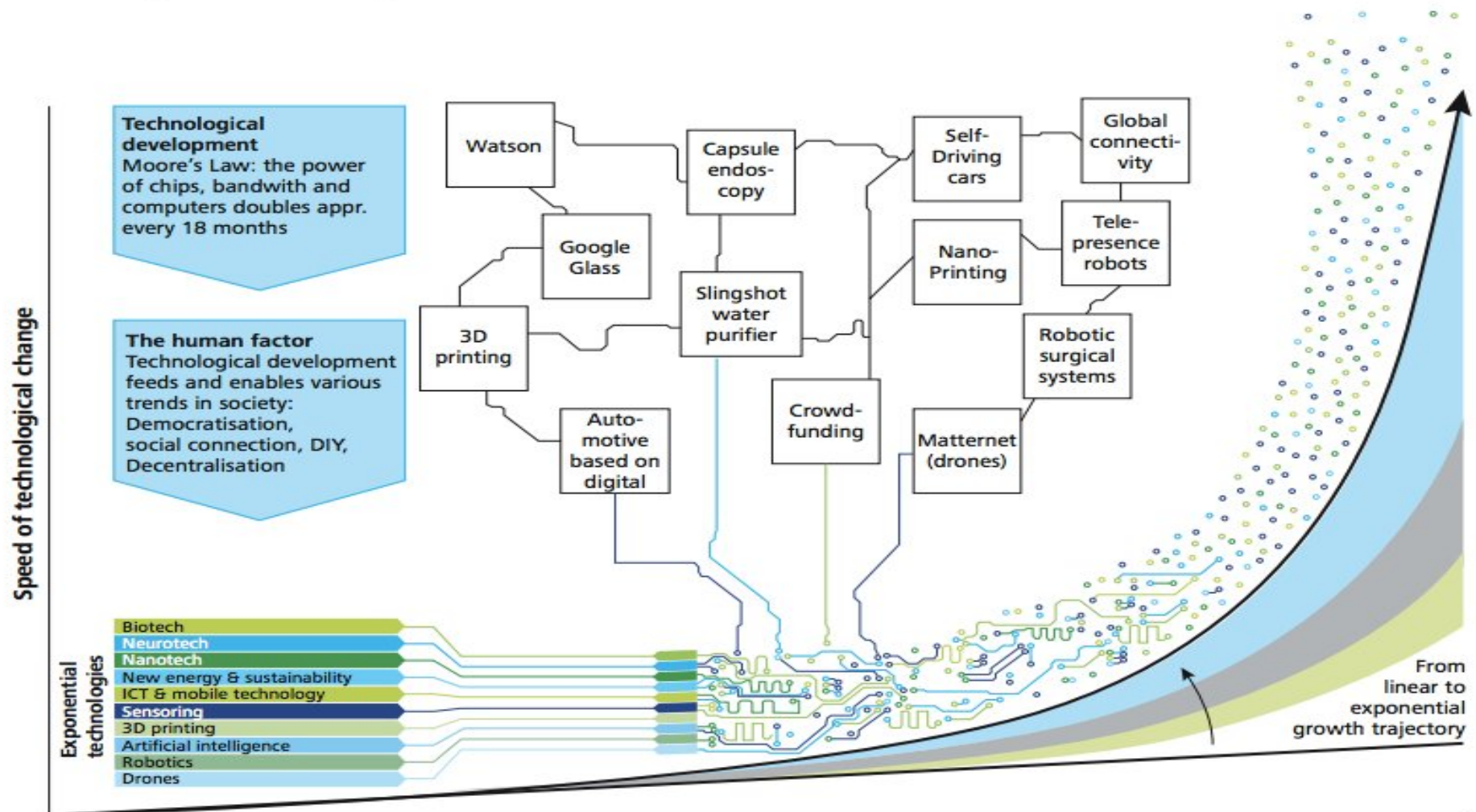
A woman with dark, curly hair is lying on a bed with white sheets, embracing a white, humanoid robot. The robot has a human-like face with a visible eye and a circular sensor on its forehead. The woman is looking down at the robot with a gentle expression. The scene is intimate and suggests a deep connection between human and machine.

**Because it will change everything, not only the idea of
what a human being is but also the very foundations upon
our society is built on.**



How
do we
get here?





10%



15%



45%

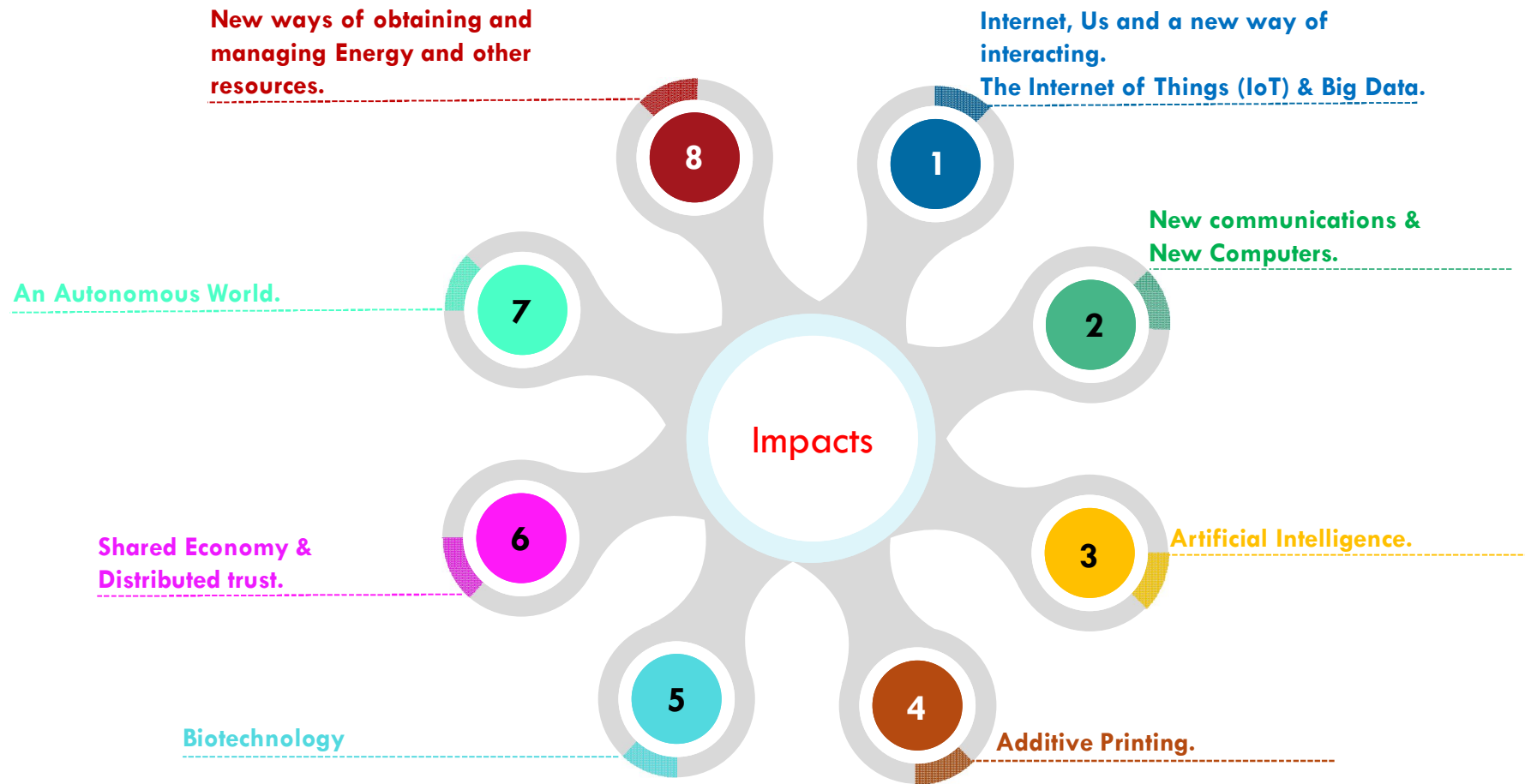


66 million people
were forced to
leave their homes.
23 million persons
are refugees.



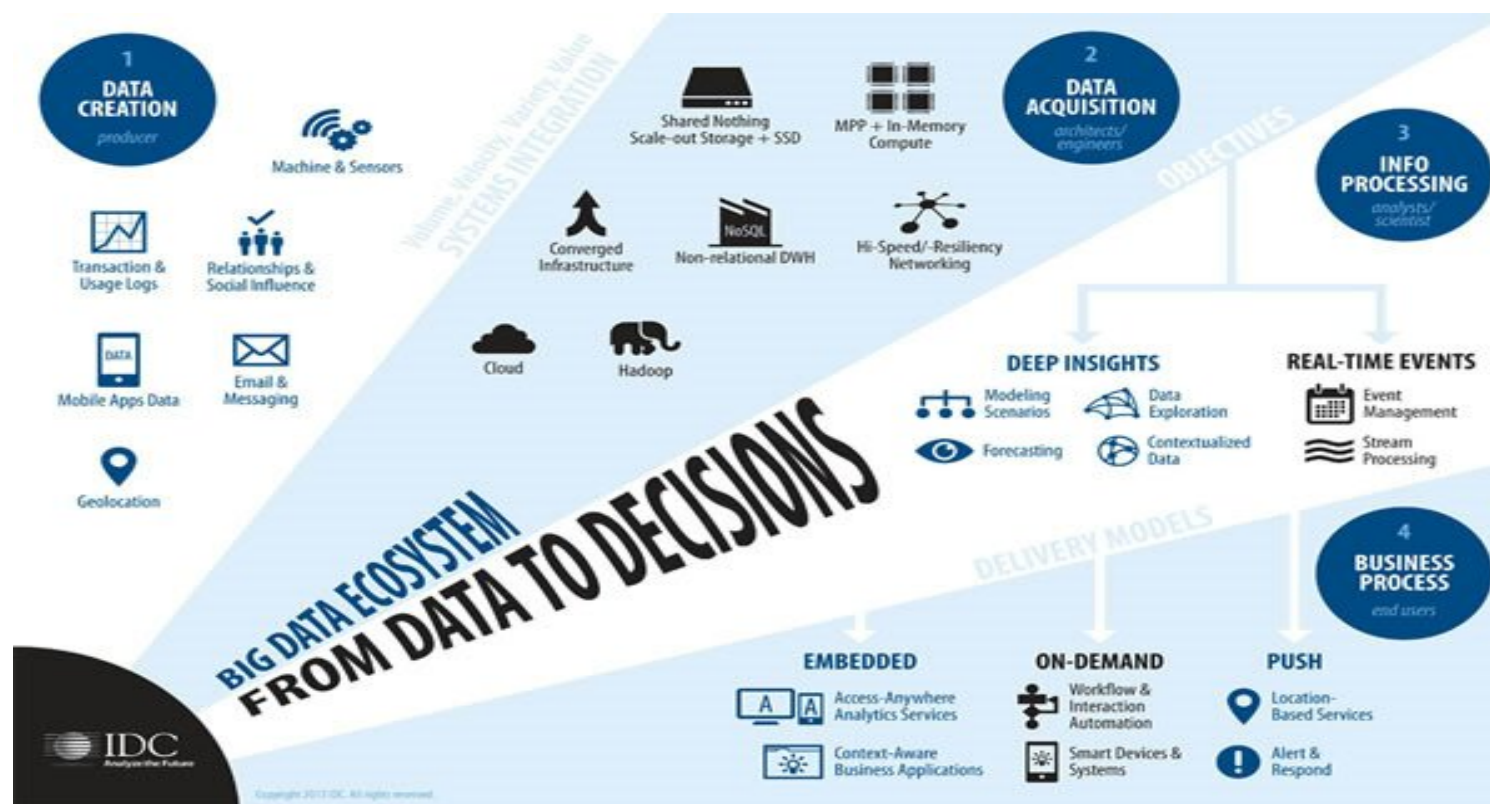


The
importance
of
regulators
and
regulations

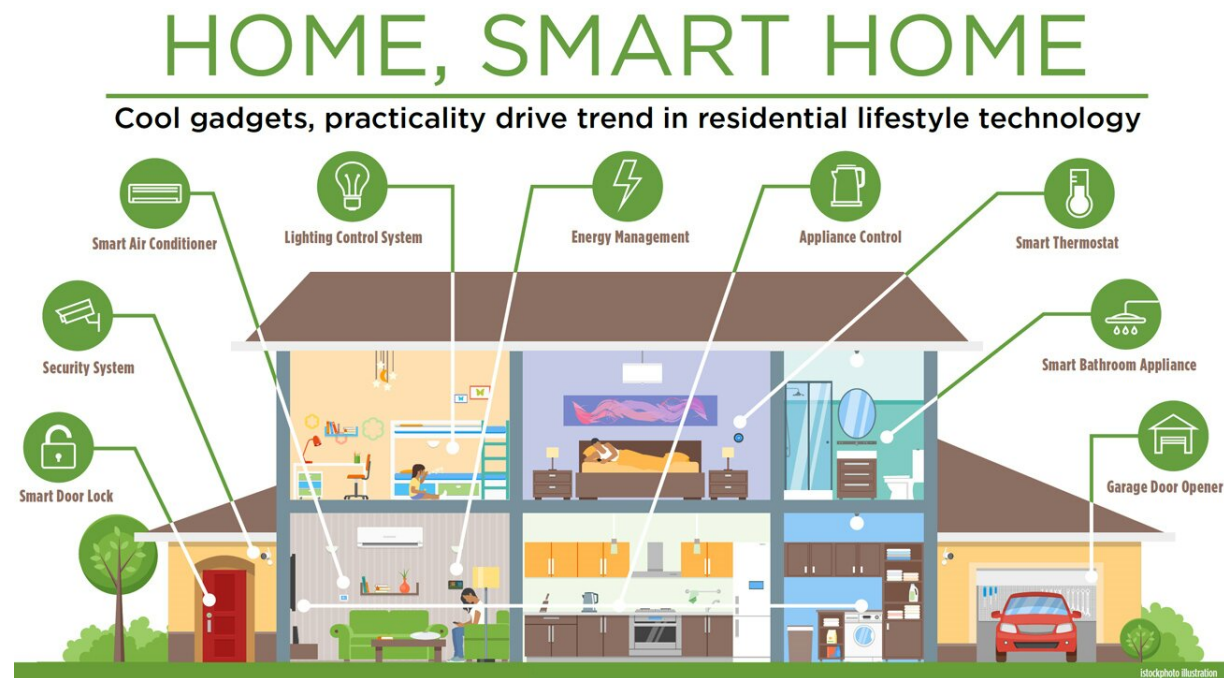


Big Data & IoT...

...should start changing insurance companies

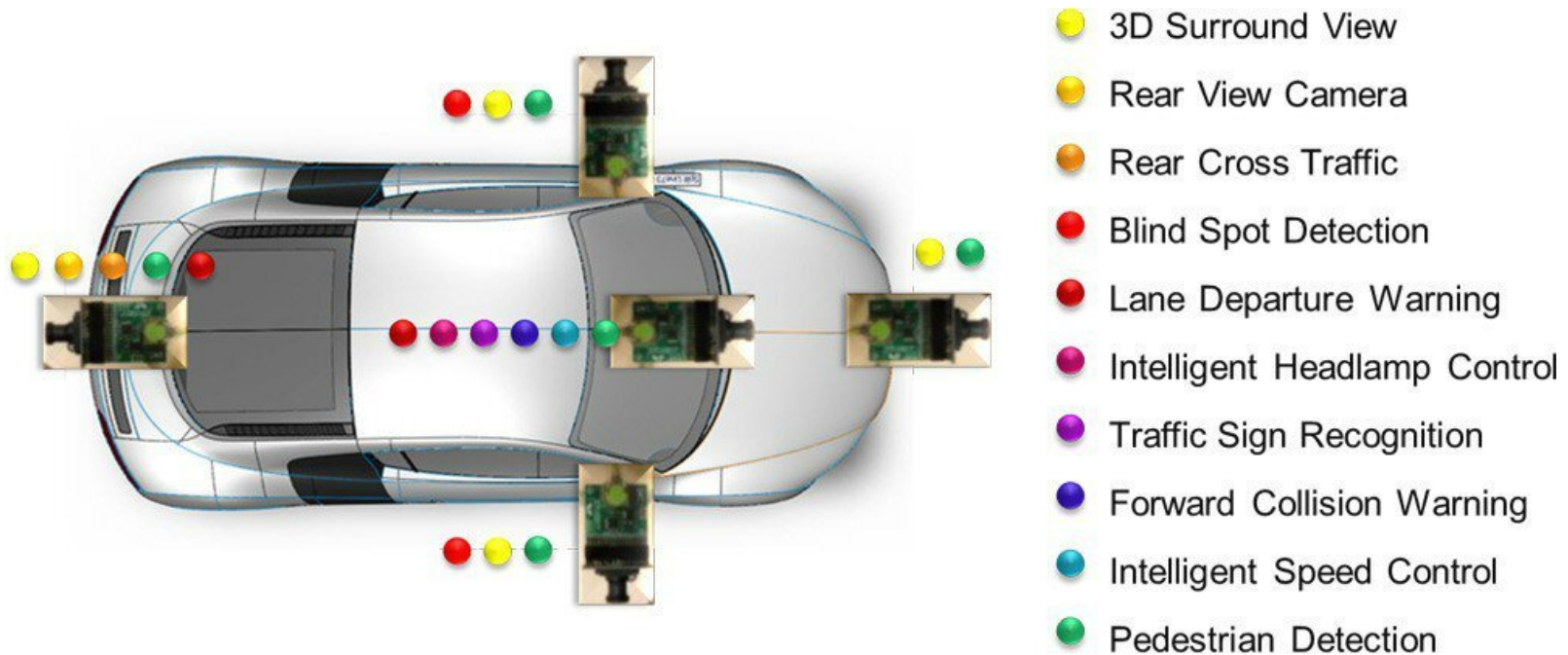


Homes and factories will start to change with the IoT...
...and so it will change (P&C) insurance industry



Smart cars are already changing...

...and so it will change (cars) insurance industry

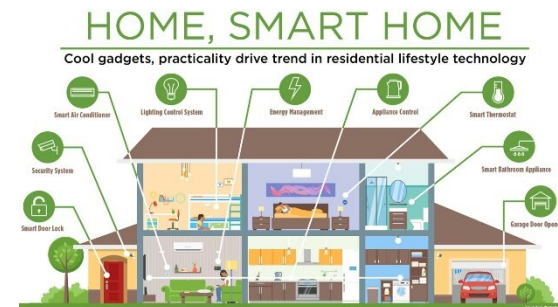
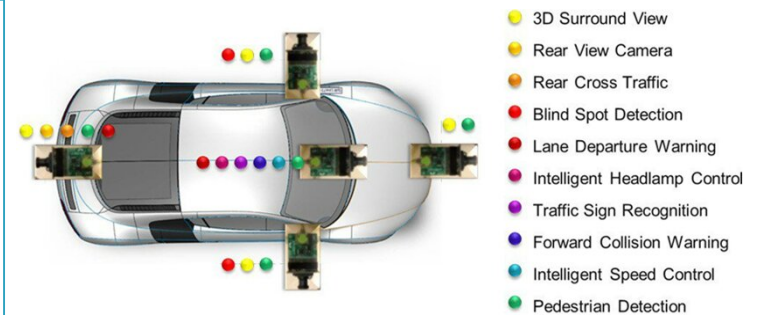


Smart cars are changing...

...and so it will change insurance industry

The product is moving from post-event forensics to pre-event prevention.

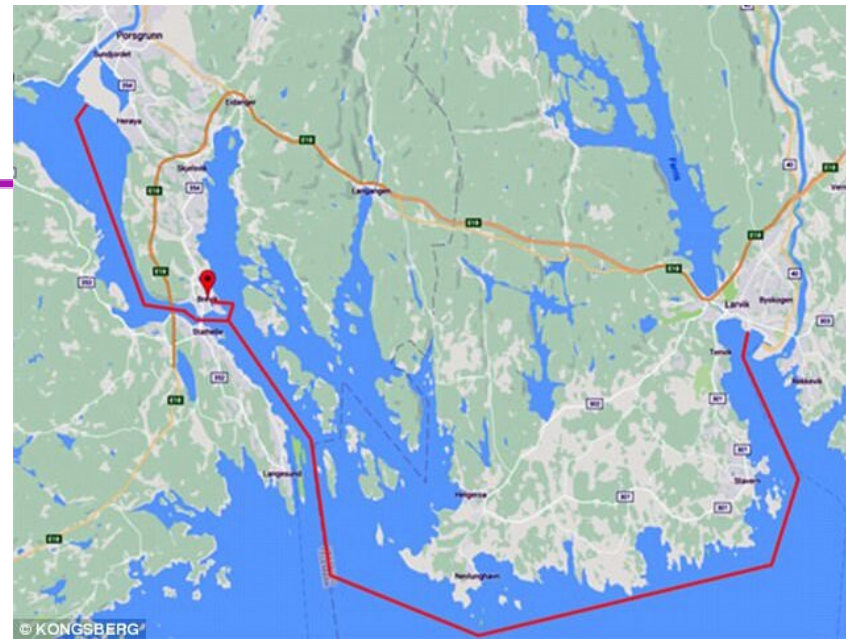
In the future the product will include less and less of the loss compensation element and more services designed to avoid/mitigate losses.







The autonomous ship YARA Birkeland.



Autonomous vehicles will entirely re shape the new economy to come...

4%

"Ownership?"

What about if instead of insuring x billion cars now we will have to insure a few thousand of fleets...

- 
- 3D Surround View
 - Rear View Camera
 - Rear Cross Traffic
 - Blind Spot Detection
 - Lane Departure Warning
 - Intelligent Headlamp Control
 - Traffic Sign Recognition
 - Forward Collision Warning
 - Intelligent Speed Control
 - Pedestrian Detection



Preventing diseases for \$199



Personal Genome Service™

Get to know your DNA. All it takes is a little bit of spit.



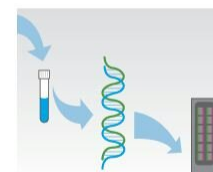
Here's what you do:



1. Order a kit from our [online store](#).



2. Register your kit, spit into the tube, and send it to the lab.



3. Our CLIA-certified lab analyzes your DNA in 6-8 weeks.



4. Log in and start exploring your genome.



Carrier status

Find out if your children are at risk for inherited conditions, so you can plan for the health of your family.



Health risks

Understand your genetic health risks. Change what you can, manage what you can't.



Drug response

Arm your doctor with information on how you might respond to certain medications.



Health tools

Document your family health history, track inherited conditions, and share the knowledge.



Inherited traits

Explore your genetic traits for everything from lactose intolerance to male pattern baldness.



Scientific advances

Keep receiving updates on your DNA as discoveries are made, so your knowledge grows as you do.

Disease Risks (100) ?

↑ Elevated Risks

	Your Risk	Average Risk
Gallstones new	11.1%	7.0%
Restless Legs Syndrome	2.5%	2.0%

[more »](#)

↓ Decreased Risks

	Your Risk	Average Risk
Prostate Cancer ♂	12.7%	17.8%
Alzheimer's Disease new	4.9%	7.2%
Colorectal Cancer	4.2%	5.6%

[more »](#)

[See all 100 risk reports...](#)

Carrier Status (24) ?

Hemochromatosis	Variant Present
Alpha-1 Antitrypsin Deficiency	Variant Absent
Bloom's Syndrome	Variant Absent
BRCA Cancer Mutations (Selected)	Variant Absent
Canavan Disease	Variant Absent
Cystic Fibrosis	Variant Absent
Familial Dysautonomia	Variant Absent
Factor XI Deficiency	Variant Absent

[See all 24 carrier status...](#)

Traits (50) ?

Alcohol Flush Reaction	Does Not Flush
Bitter Taste Perception	Can Taste
Earwax Type	Wet
Eye Color	Likely Brown
Hair Curl	Slightly Curlier Hair on Average

[See all 50 traits...](#)

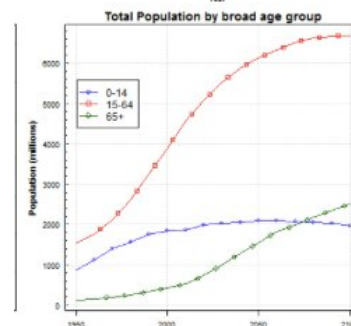
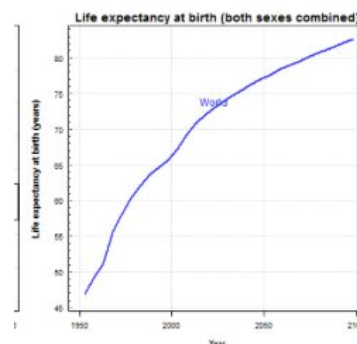
Drug Response (19) ?

Warfarin (Coumadin®) Sensitivity	Increased
Abacavir Hypersensitivity	Typical
Alcohol Consumption, Smoking and Risk of Esophageal Cancer	Typical
Clopidogrel (Plavix®) Efficacy	Typical
Fluorouracil Toxicity	Typical

[See all 19 drug response...](#)

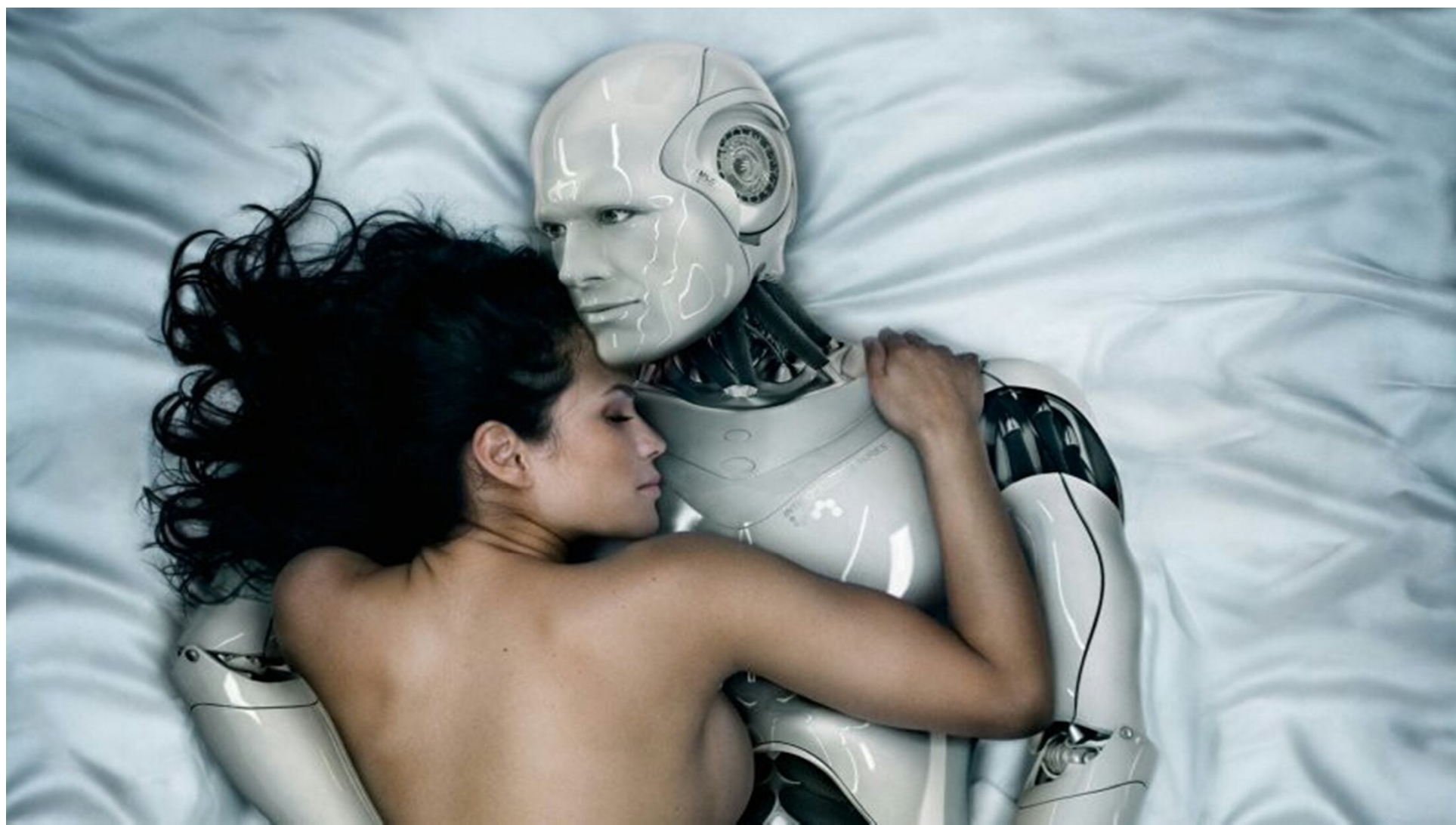
We will start cheating death...

... so how it would affect (Life) insurance industry



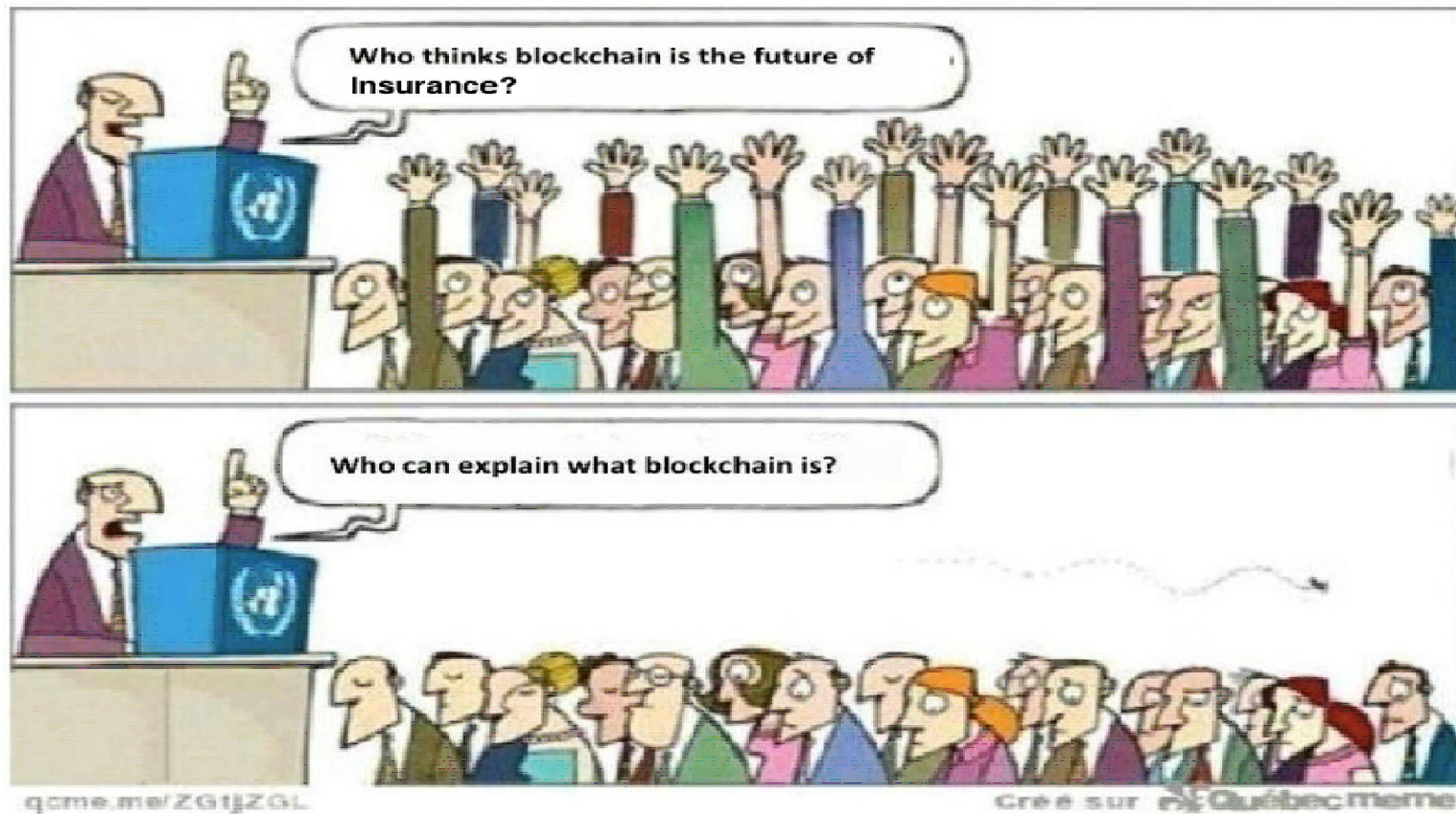
- 3 3D Bio - Printing
- 3 Use of AI in medicine
- 3 Predictive genetic testing...
- 3 might lead to adverse selection through asymmetry of information. .





Last but not least...

... what about Blockchain?



Last but not least...

... what about Blockchain?



THE GROUP

REINSURANCE

PRIMARY INSURANCE

INVESTOR RELATIONS

MEDIA RELATIONS

CAREER

» Home » Media Relations » Other Company News » 10 September 2017

Other Company News

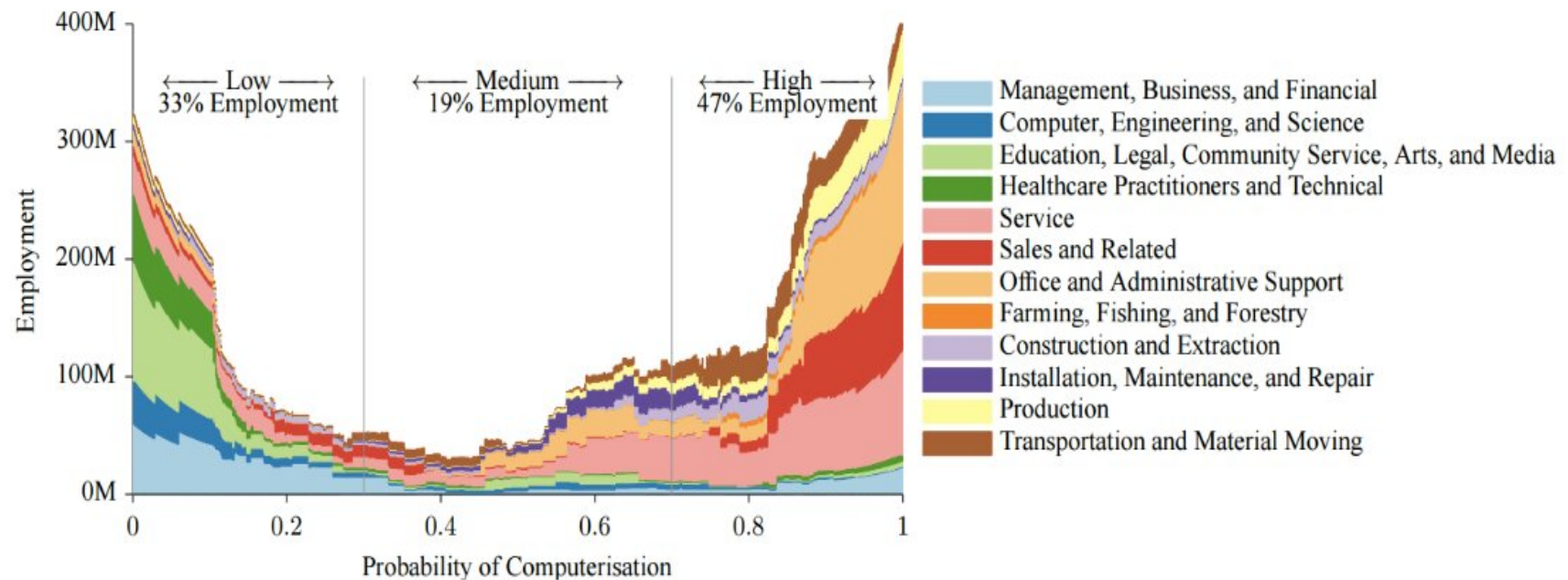
You have access to the database of Munich Re company news. To find information quickly, you can choose from among the following search options:

10 September 2017

B3i launches working reinsurance blockchain prototype

B3i, the Blockchain Insurance Industry Initiative, announces launch of market beta-testing of its reinsurance blockchain prototype.

And what about AI?



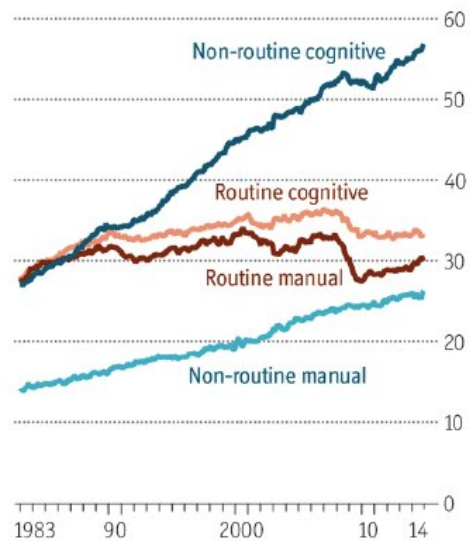
* Distribution based on 2010 job mix.

Source: Frey, C.B. and M.A. Osborne, "The Future of Employment: How Susceptible Are Jobs to Computerisation?", 17 September 2013

And what about AI?

Think

United States employment, by type of work, m



Sources: US Population Survey; Federal Reserve Bank of St. Louis

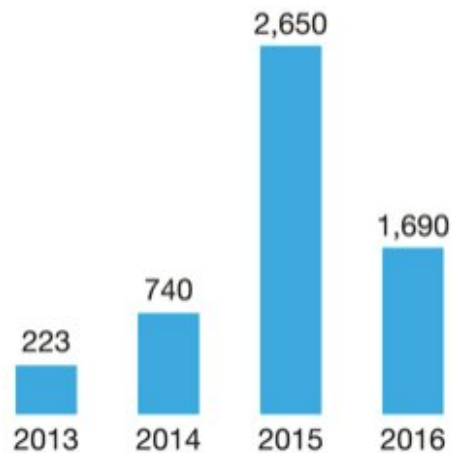
Economist.com



The incipient world of InsurTech...

The growth of insurtechs.

Insurance tech funding, \$ million

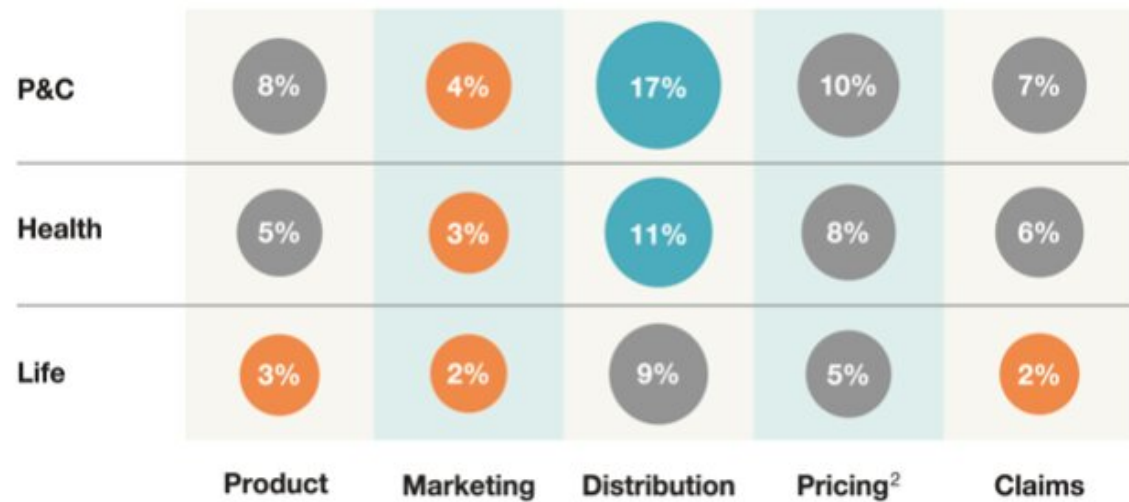


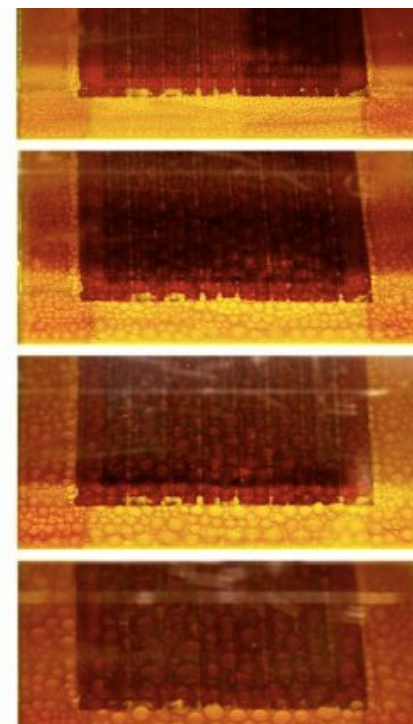
McKinsey&Company | Source: CB Insights

Where insurtechs are focusing.

Number of innovations as % of total in the database¹

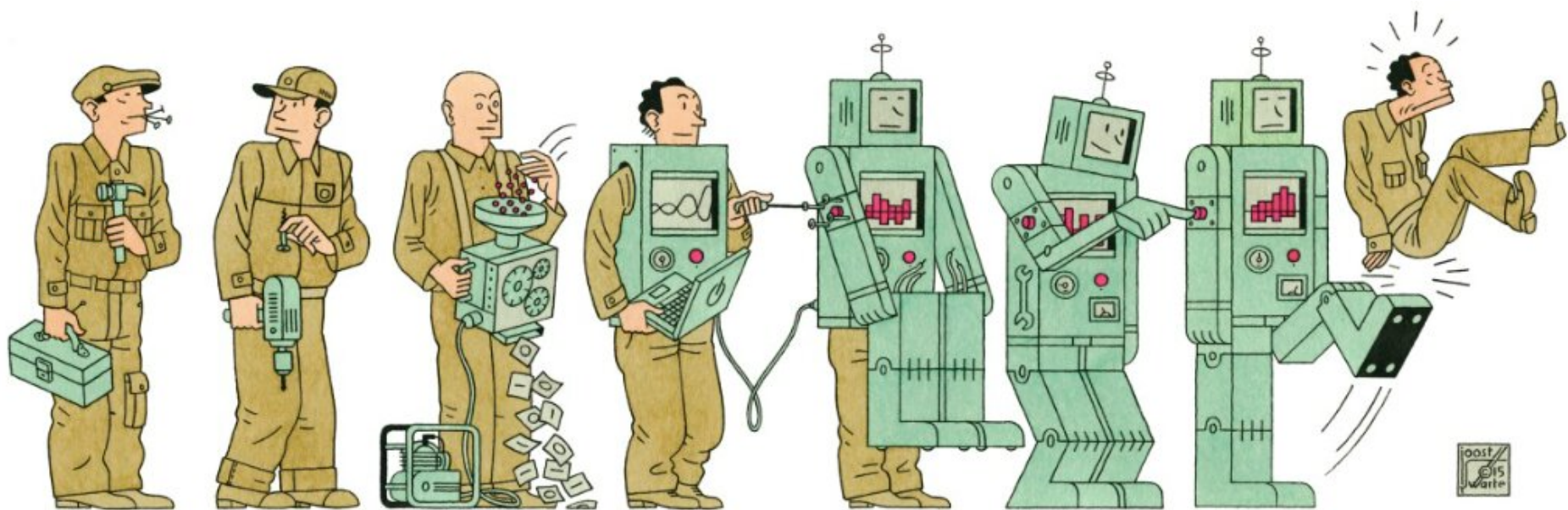
Share of innovations in Insurtech database
● <5% ● 5–10% ● >10%



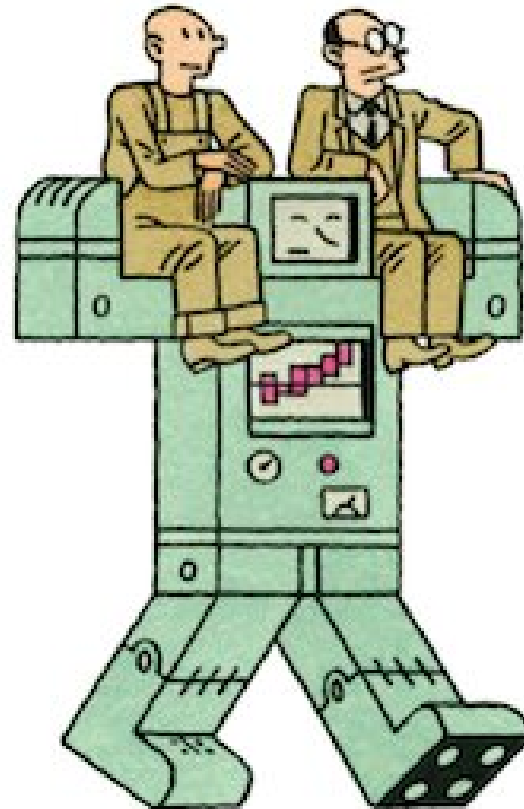
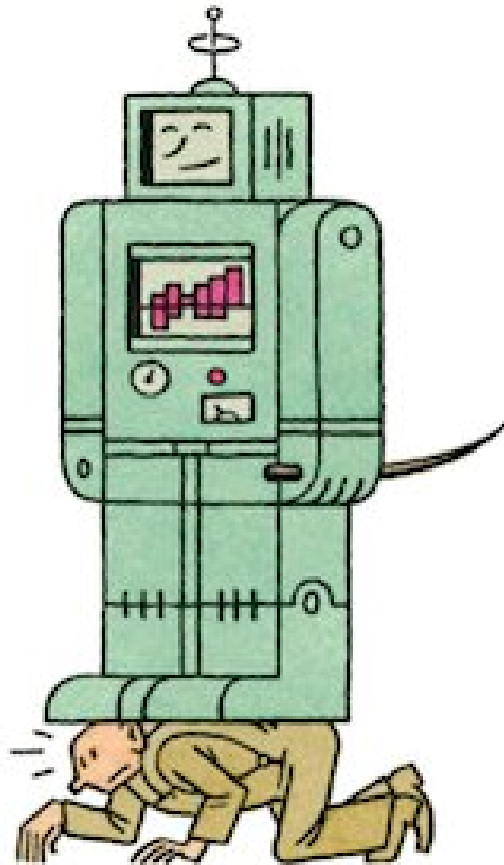


Who
will be
impacted?

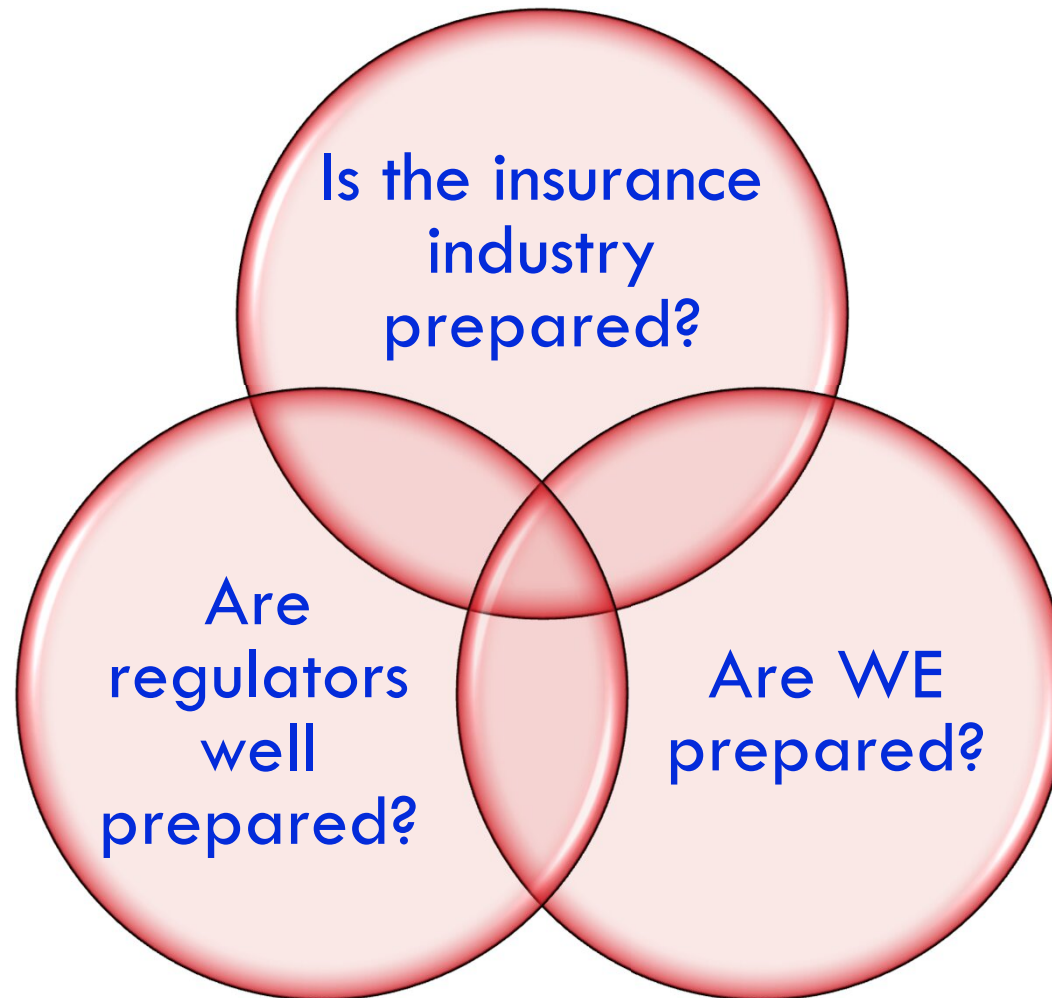


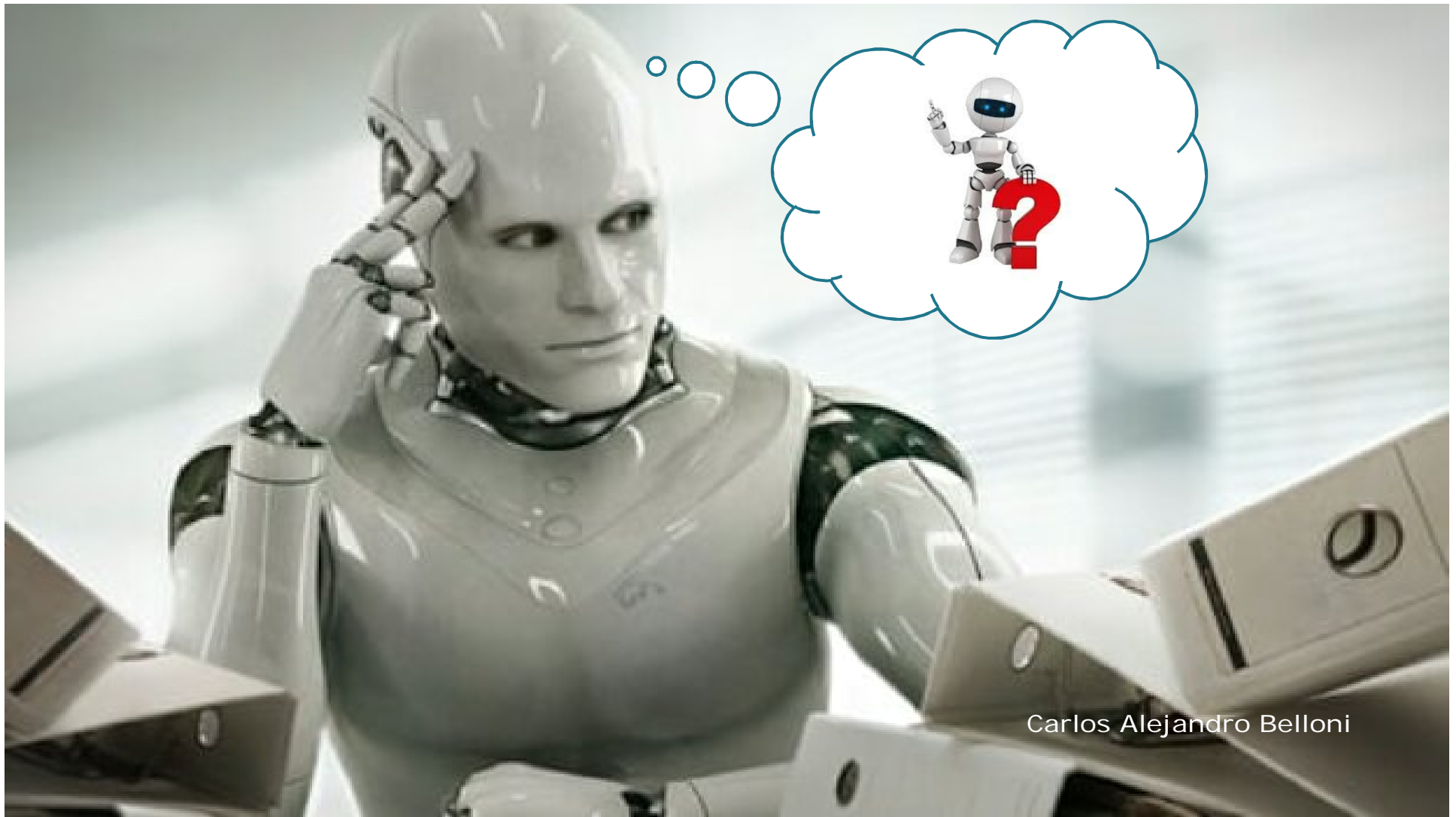


We have to
figure out
how to avoid
being
displaced by
technology...



...and
instead, how
we can get
the most of it
for everyone.





Carlos Alejandro Belloni

Test Resolution Slides



Aspect Ratio Test

(Should appear
circular)

- To present in true widescreen, you'll need a computer and, optionally, a projector or flat panel that can output widescreen resolutions.
- Common computer widescreen resolutions are 1280 x 800 and 1440 x 900. (These are 16:10 aspect ratio, but will work well with 16:9 projectors and screens.)
- Standard high definition televisions resolutions are 1280 x 720 and 1920 x 1080.
- Use the Test Pattern on the next slide to verify your slide show settings.

Widescreen Test Pattern (16:9)

Aspect Ratio Test

(Should appear
circular)

16x9

4x3

