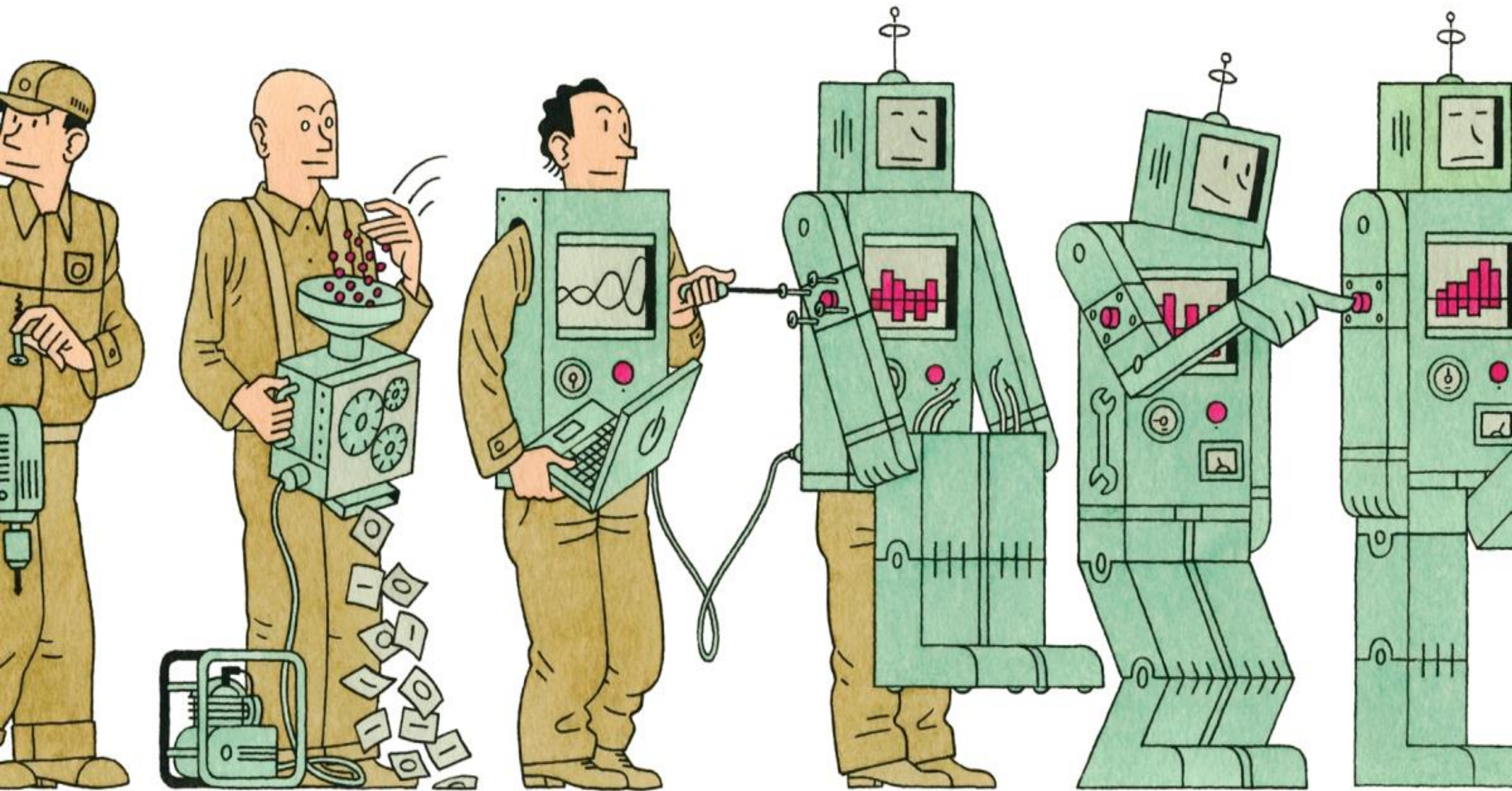
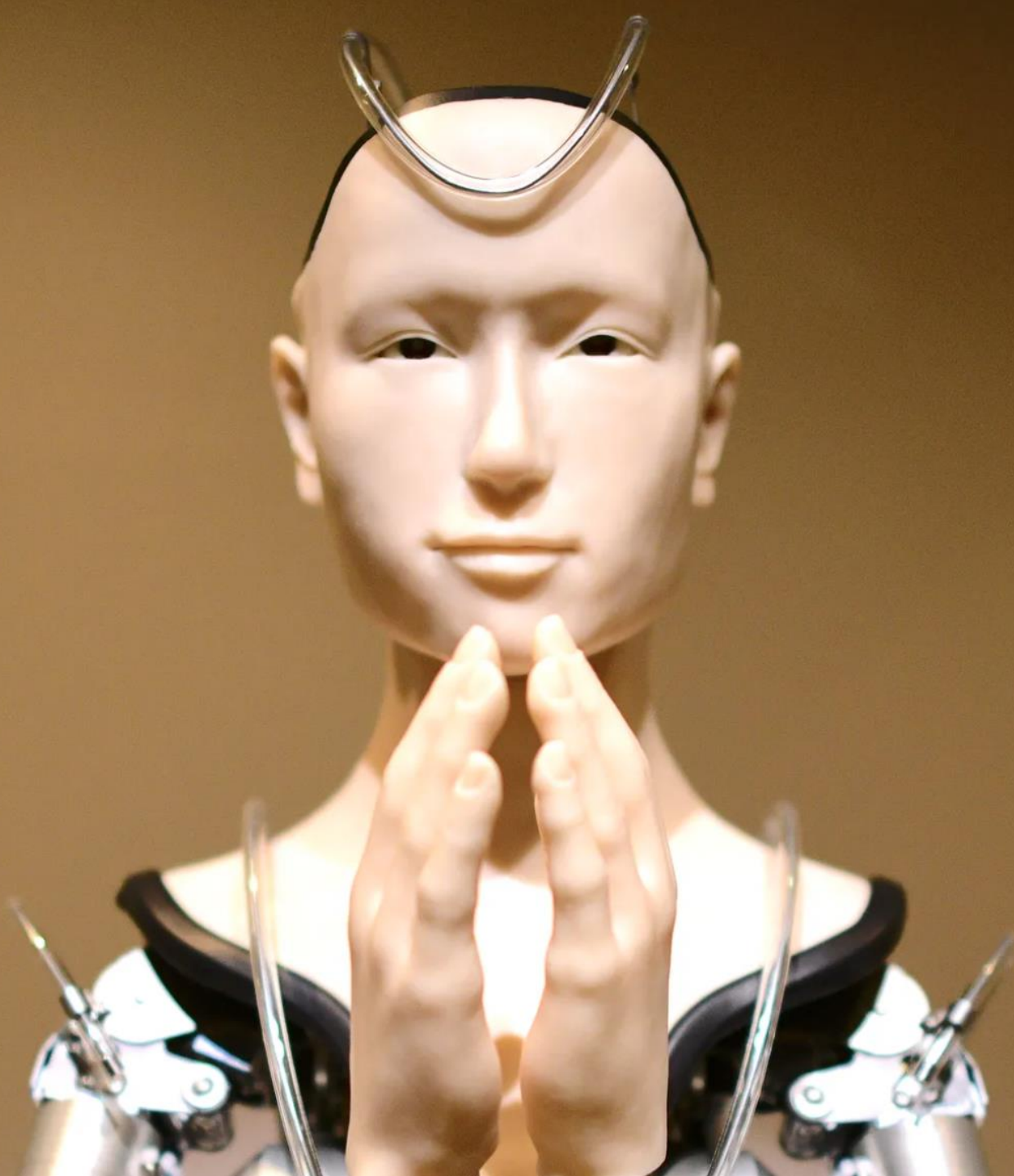


« Globalization
and
Innovation :
the New
Global
Technological
Infrastructure”



Introduction





Should Algorithms be allowed to play God?

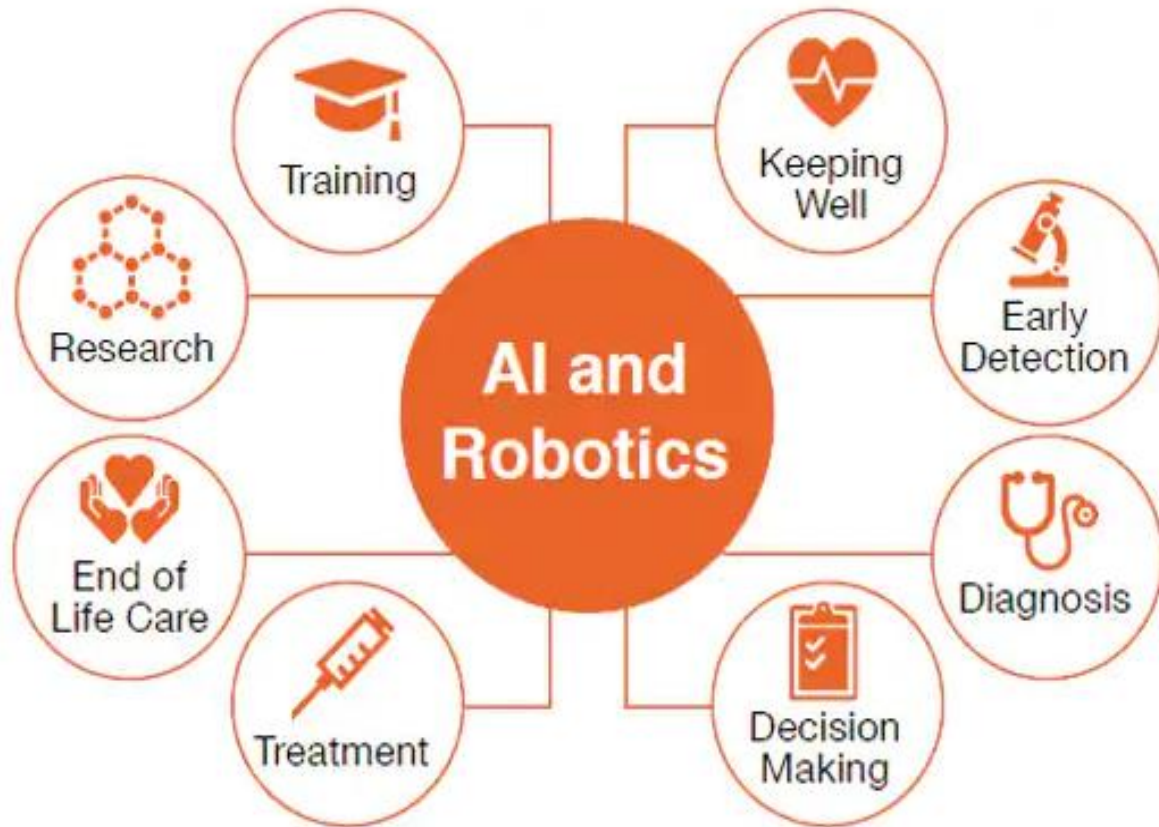
- A new priest named Mindar is holding forth at Kodaiji, a 400-year-old Buddhist temple in Kyoto, Japan.
- Robot priests can bless you, advise you, and even perform your funeral

- In their book "Competing in the Age of AI", Marco Iansiti and Karim Lakhani highlight the importance of creating an AI factory.
- This session is about the new global technological infrastructure. It will emphasize how artificial intelligence has changed the business landscape across the world.
- We will talk about the new business models and the digital transformation of our societies, something the Japanese define as "society 5.0."

Introduction

- The data revolution creates **endless opportunities to confront the grand challenges of the 21st century**. Yet, as the **scale and scope** of data grow, so must our ability to analyze and contextualize it.
- Drawing **genuine insights** from data requires training in statistics and computer science, and subject area knowledge.
- Putting insights into action requires a careful understanding of the potential ethical consequences - for both individuals and entire societies.

Introduction



Transforming healthcare

- Internet of Medical Things (IoMT)
- Next slide: AI can give doctors a 48hour head start on life-threatening illness

Kraft-Heinz And Notco Form Joint Venture To Produce AI-Powered Food Products

- Called The Kraft Heinz Not Company, it will leverage NotCo's patented AI platform to develop the food products, while Kraft-Heinz will offer up its production capabilities and formidable sales channels to help bring the products to market.[In joining forces with NotCo, Kraft-Heinz is partnering up with one of the hottest new brands in the fast-growing alt-milk category.](#)
- [This new JV could serve as a template for other large CPG brands looking to rejuvenate their product lines as more consumers turn to plant-based diets. Many of the old-school brands are ill-equipped to utilize newer product development tools like AI to create new products.](#)



GM Plans 25 Digital Features, Services by 2026

- General Motors aims to turbocharge its non-vehicle revenue by introducing dozens of new fee-based digital features by 2026, including one enabling a car to predict when it will need maintenance, a top executive said on Thursday. "We have 50-some value-added products and services that we'll be rolling out over the next 36 to 48 months," Steve Carlisle, president of GM North America, said at an investor conference.
- The new digital products, including in-vehicle subscriptions, will be supported by GM's Ultifi software and connectivity platform. Ultifi also will enable over-the-air software updates, and help drivers and passengers with tasks such as online shopping.

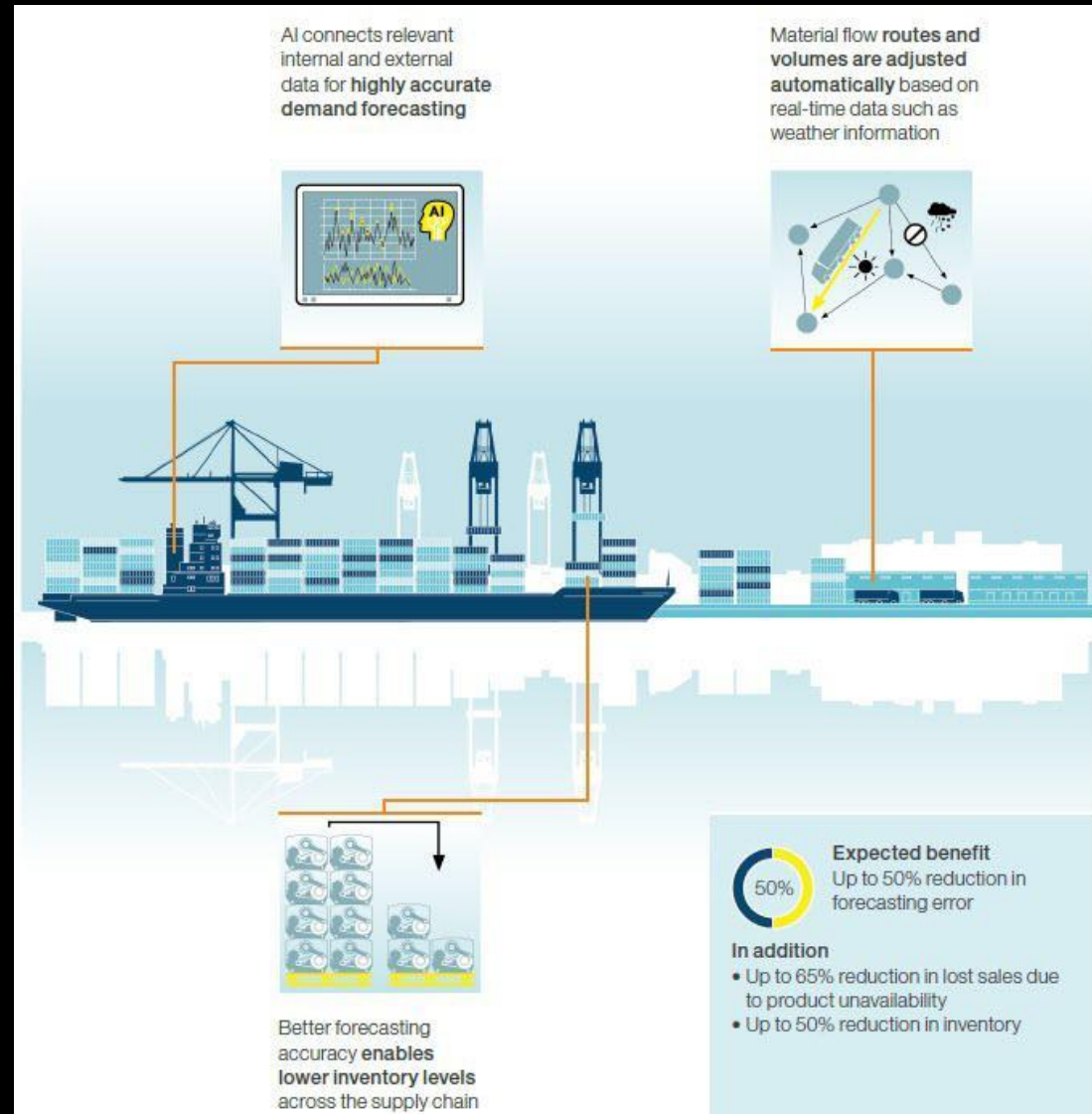
Lloyds Outlines £1 Billion, Three-Year Digitalization Strategy

- [Lloyds Banking Group is to spend £1 billion over the next three years on overhauling its technology infrastructure and self-service capabilities.](#) The long-term strategy, outlined by new chief executive Charlie Nunn, involves porting 20% of its applications to the cloud by 2024 and decommissioning over 15% of legacy applications. The initiative comes after a leaked video emerged late last year of a senior Lloyds executive complaining about the age of its on-site technology which was deemed “not fit for purpose”.

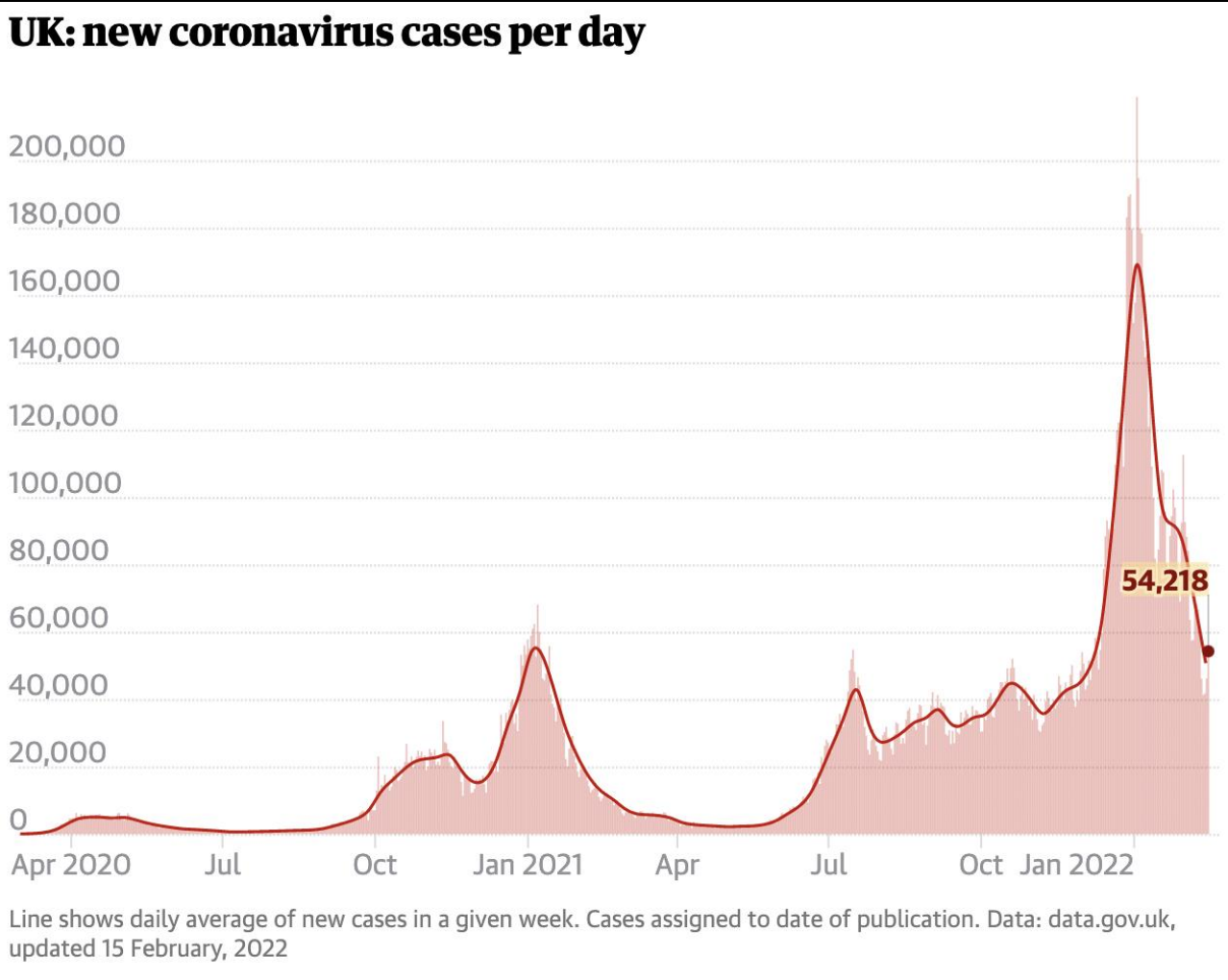


Improving supply chain with machine learning

DHL's research predicting that AI will enable back-office automation, predictive operations, intelligent logistics assets, and new customer experience model

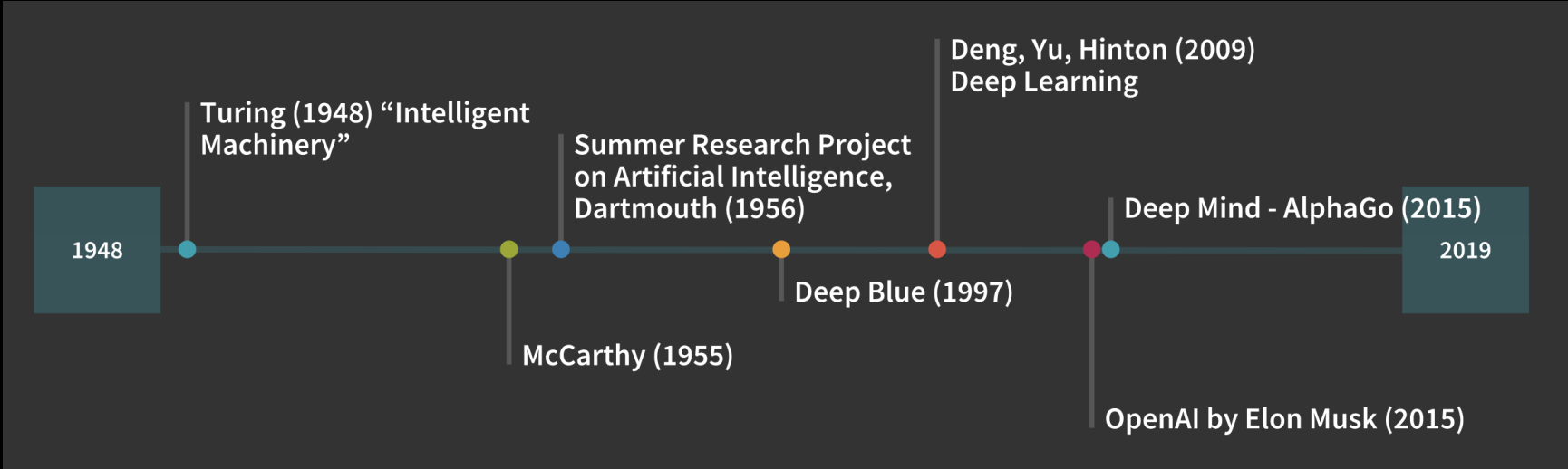


How 15000 covid cases went unreported because of Excel error

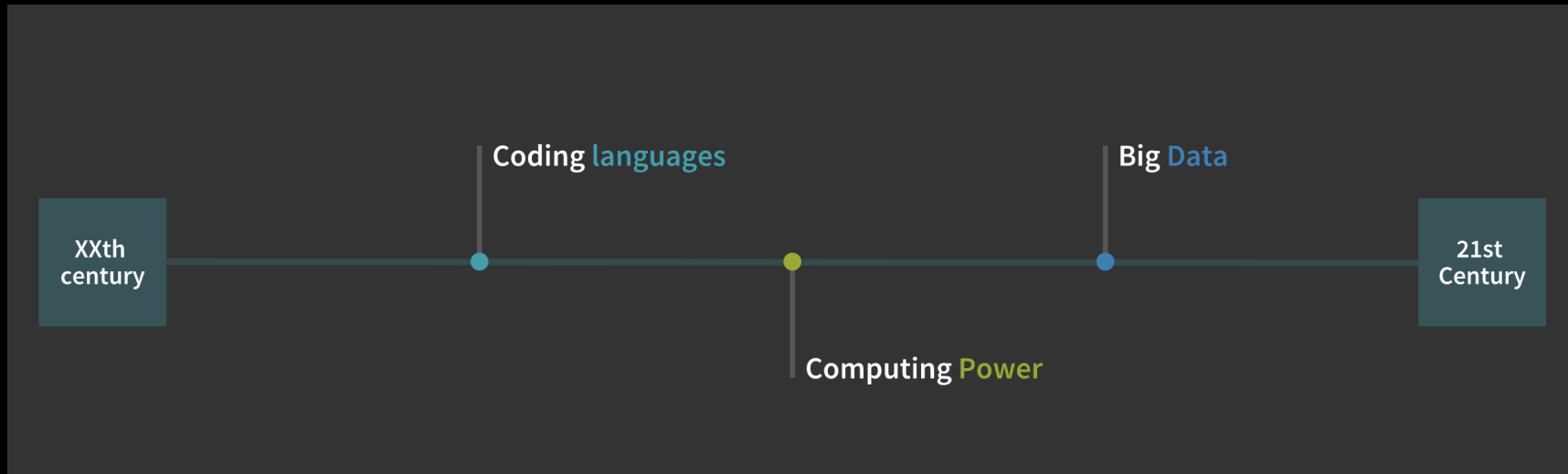


1. The Artificial Intelligence Revolution

The A.I. revolution



The A.I. revolution



Market size
(\$ bn, 2015 or latest available)



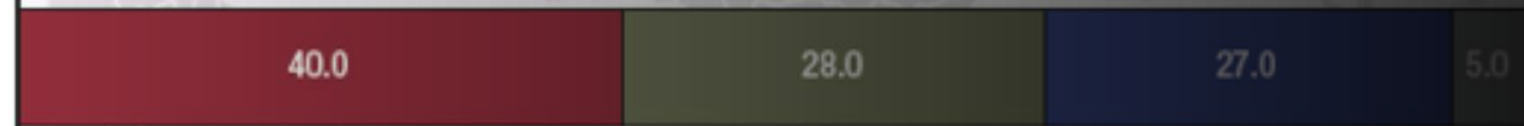
Advanced robotics
\$35 bn
revenues robotic systems¹



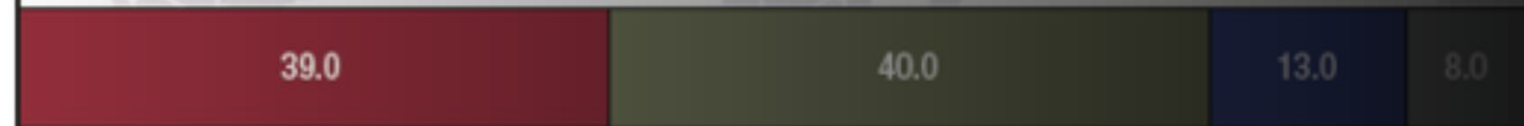
Artificial intelligence
\$8 bn
revenues cognitive systems²



3D printing
\$5.2 bn
revenues products and services¹



Wearables
\$0.7 bn
revenues enterprise wearables



North America Europe Asia-Pacific Rest

1. Distribution based on units sold in 2015.

2. Estimates for Asia-Pacific and Rest based on International Data Corporation (IDC) data;

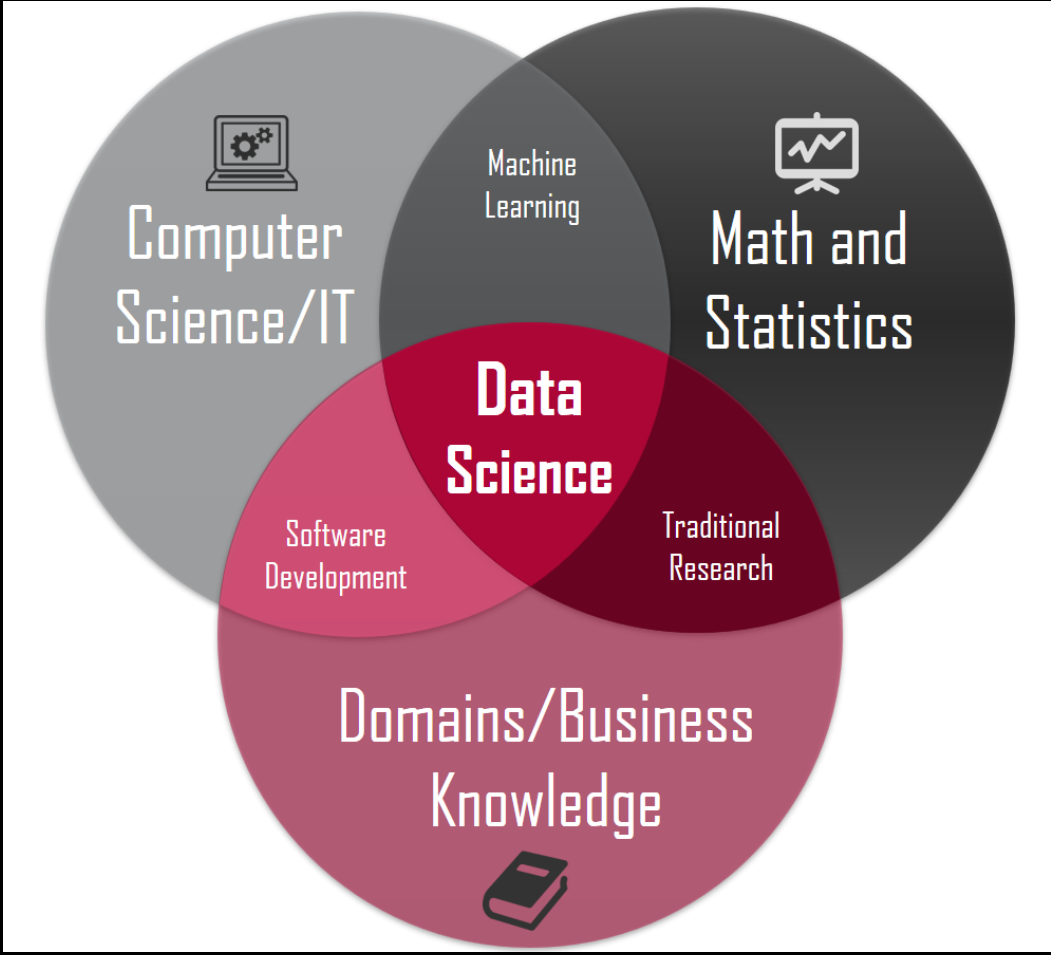
Source: International Federation of Robotics, Wohlers Associates, Technavio, IDC, expert interviews, A.T. Kearney


The A.I. revolution

The A.I. revolution

... to Society 5.0

- The era of data is upon us. It is proliferating at an unprecedented pace, reflecting every aspect of our lives and circulating from satellites in space through the phones in our pockets.





2. IR 4.0 and its impact on the global economy

Architectural revolution

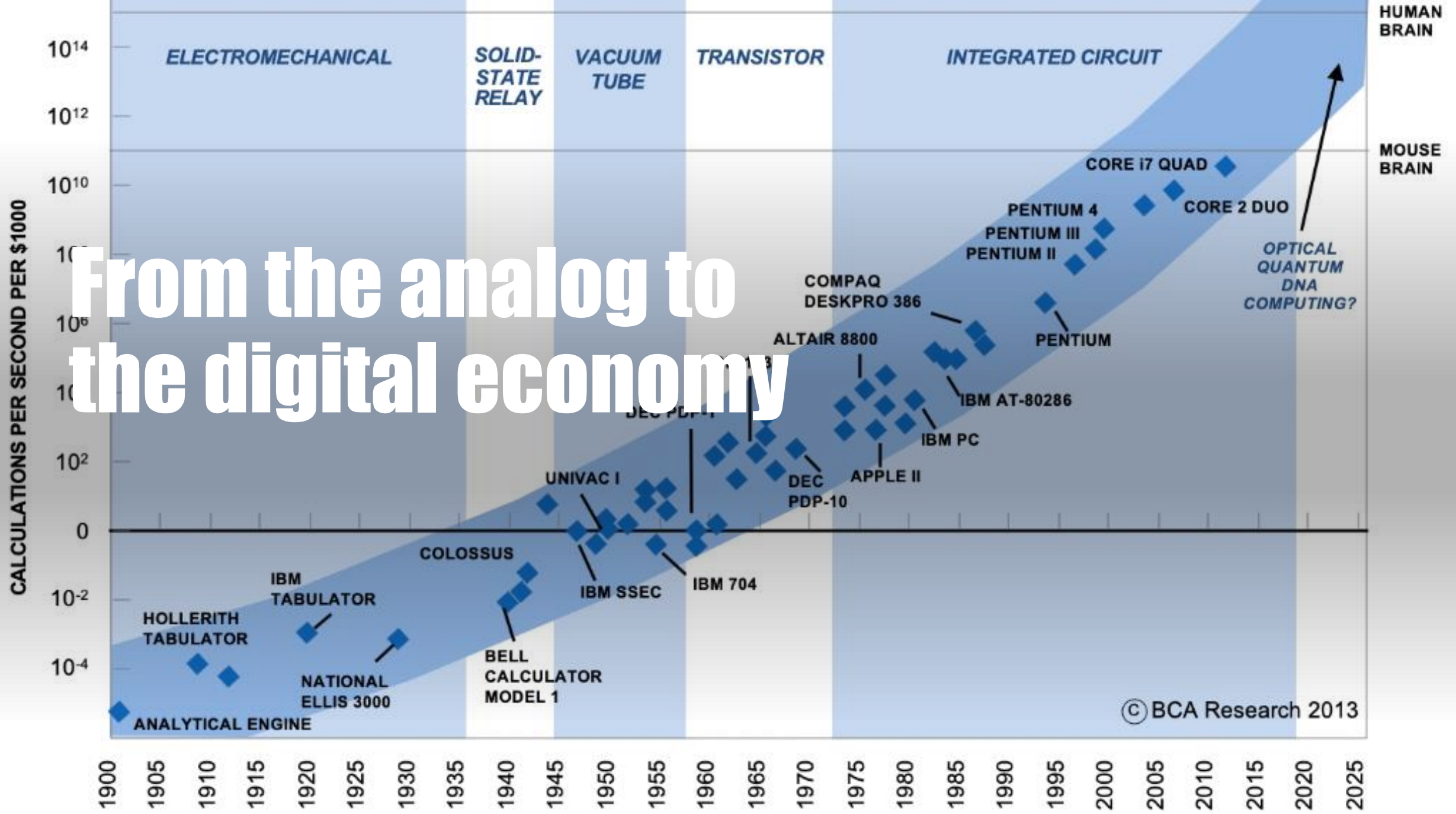
- architectural innovation for companies
- architectural innovation for governments (Government 4.0)

IR 4.0 and its impact on the global economy

The A.I. revolution for businesses

- Thanks to A.I., the **time** is of the utmost importance. In a way, time is “extended” thanks to the convergence of algorithms, computing power and data.
- As a result, **information arrives at a point closer to the point where a decision** can be made.
- The **predictive power** is gained and uncertainty is transformed into “ambiguity”. A bit like a radar capable of reading through thick cloud cover.
- A.I. will add \$13 trillion to the global economy over the next decade (Fountaine, McCarthy and Saleh 2019).

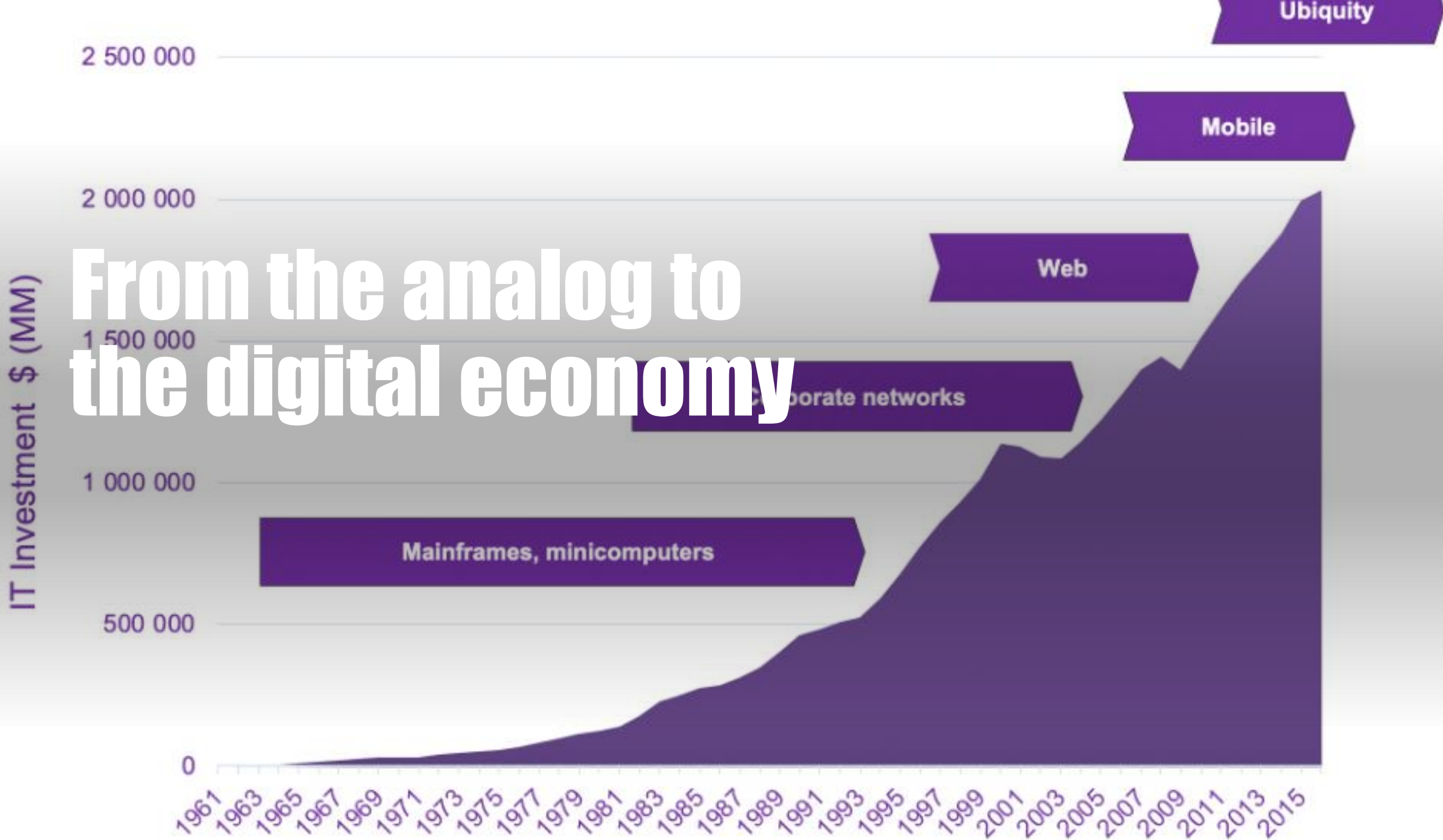
From the analog to the digital economy



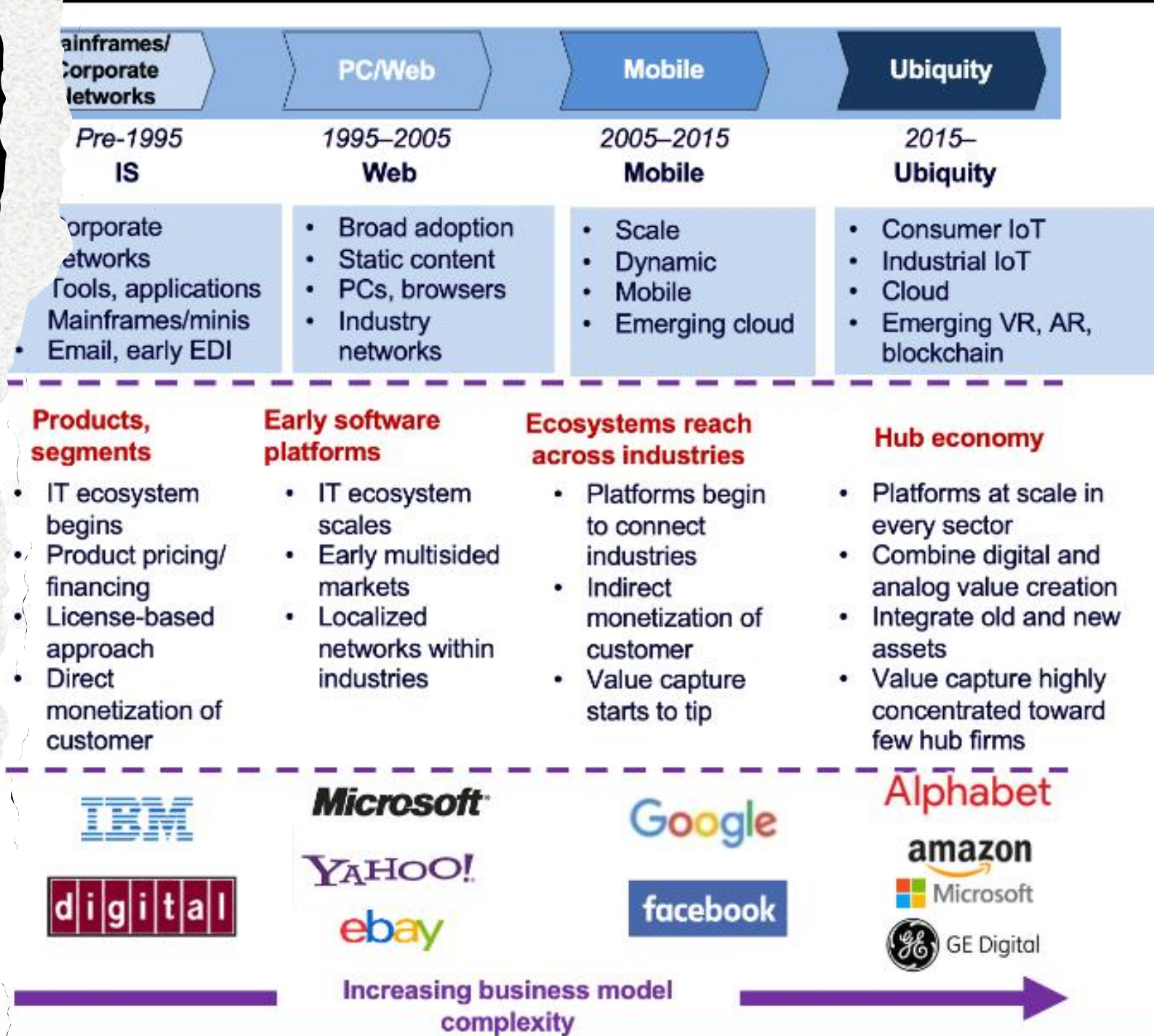
© BCA Research 2013

SOURCE: RAY KURZWEIL, "THE SINGULARITY IS NEAR: WHEN HUMANS TRANSCEND BIOLOGY", P.67, THE VIKING PRESS, 2006.

From the analog to the digital economy



From the digital economy to the platform economy



From the digital economy to the platform economy

- Does the story end here?
- A CHANGE IN BUSINESS MODELS

It's
a GIG
WORLD

THERE

The Platform Economy

IF YOU'VE EVER RENTED AN AIRBNB ROOM OR CALLED FOR AN UBER DRIVER—you're among the millions of Americans engaging in the ever-growing "gig"

WORK IT!

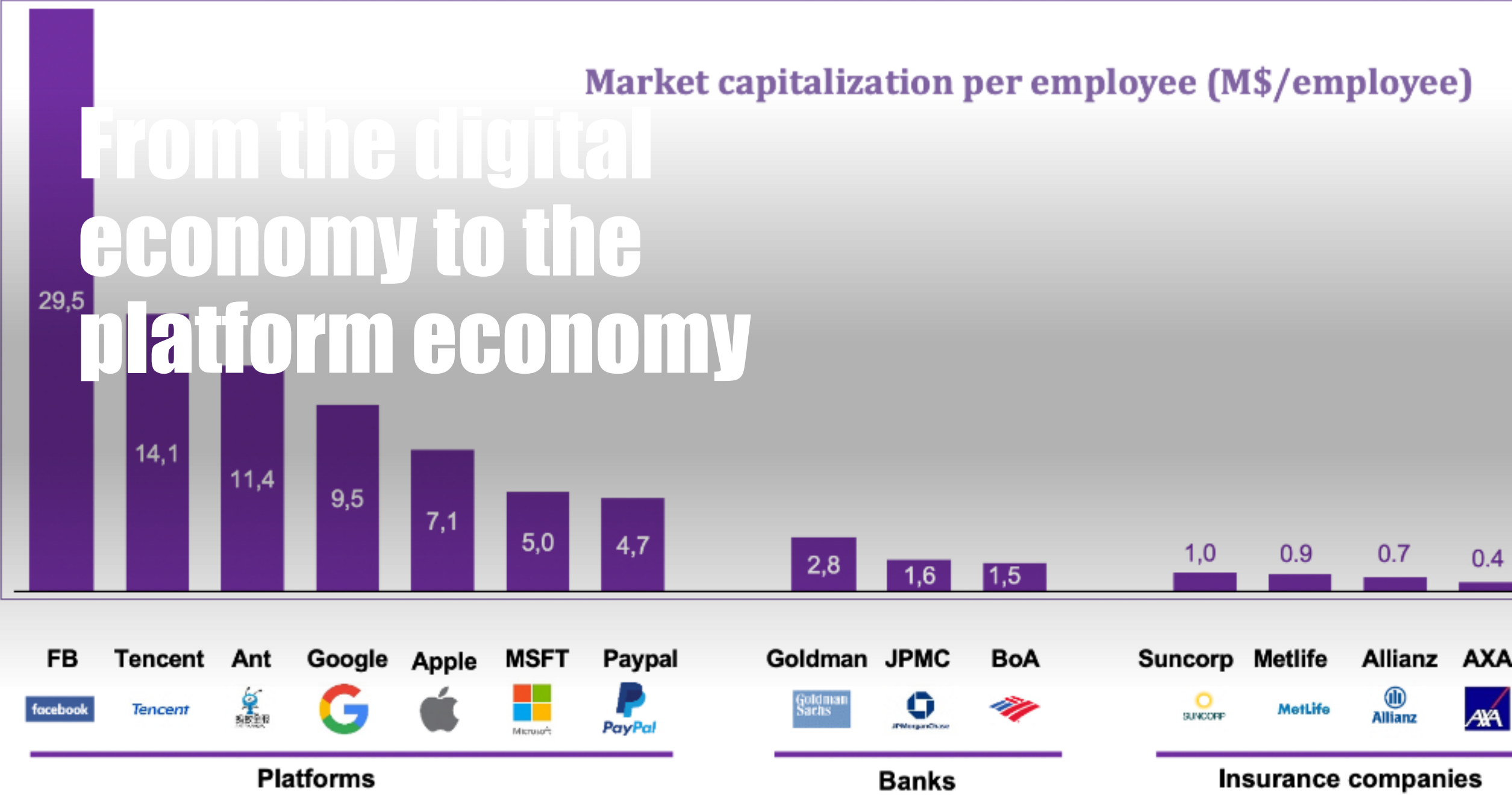


From the digital economy to the platform economy

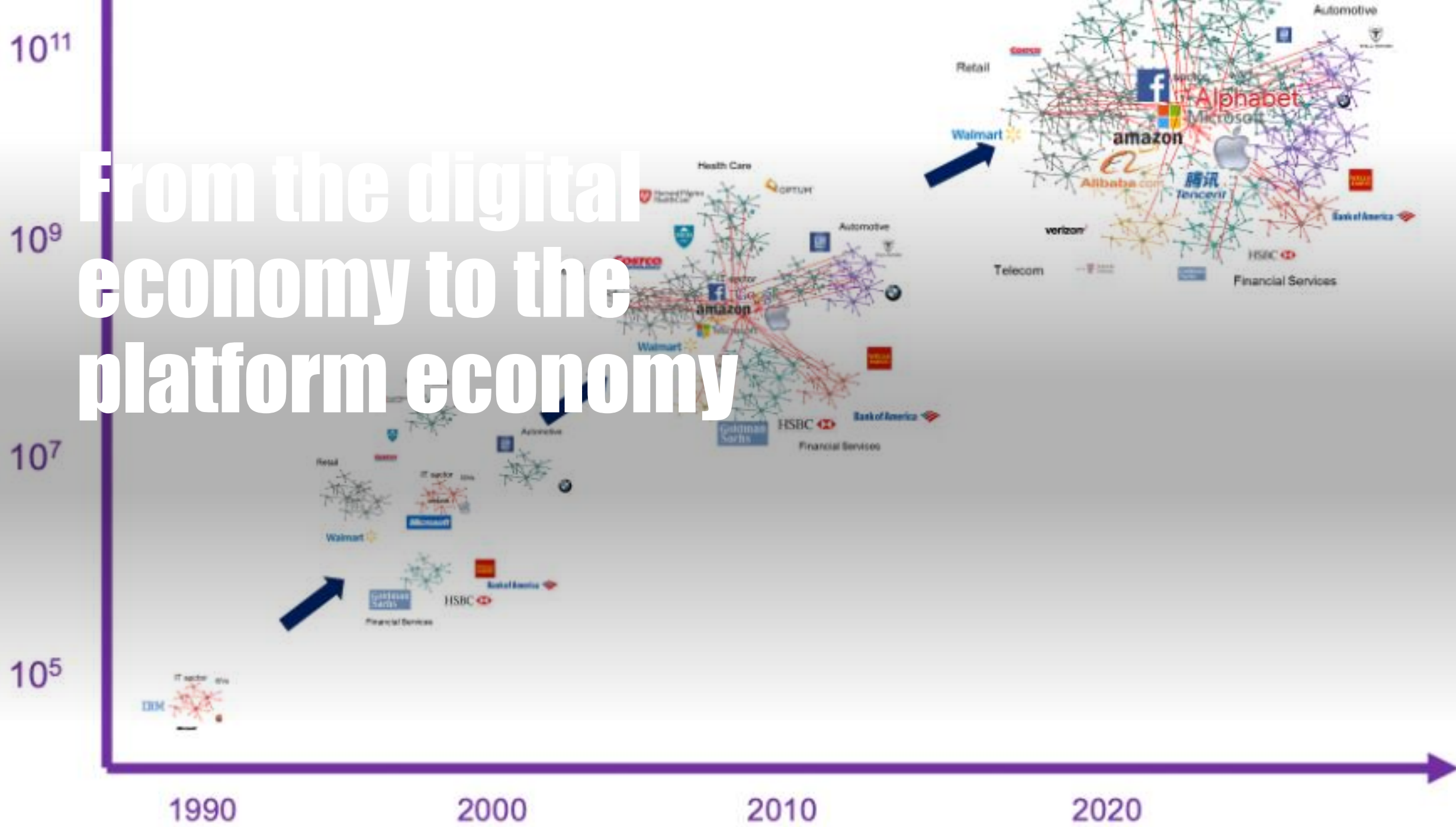
- The notion of Keystone Player (Iansiti and Levien, 2004)
- Economies of scale + economies of scope + network effects + data network effects + ... = the new monopoly power?

Market capitalization per employee (M\$/employee)

From the digital economy to the platform economy



From the digital economy to the platform economy



Platform economics in nutshell



Digital
White Sharks



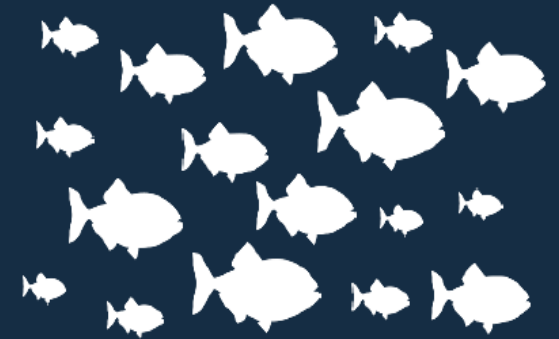
- At the top of the food chain -



Digital
Swordfish



- Big, fast, rarely get eaten -



Digital
Piranhas



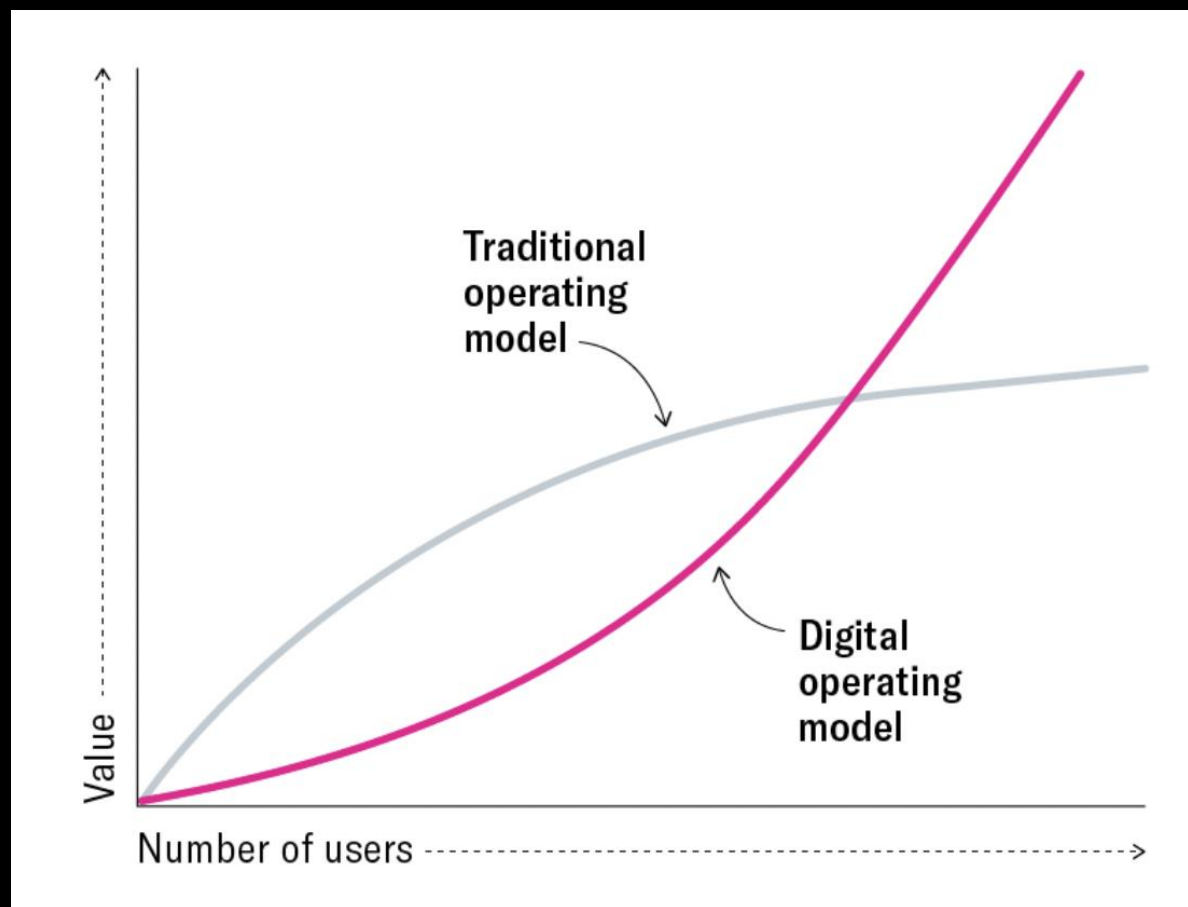
- Small but aggressive for prey -

From the digital economy to the platform economy

From rupture to collision

In grey: similar companies with diminishing returns to scale

In pink: key players / Digital Natives with increasing returns to scale



From the digital economy to the platform economy

From rupture to collision

- The question of the digital natives: the A.I. factories.
- The question of network effects and data network effects

Why Google is going to sell pizzas

Google Express, Uber Eats, Domino Pizzas, etc.

- Improvement of existing business models
- Development of new business models



Conclusion

Name _____

Signature _____

Date _____

Conclusion

- A.I. and data: how to become a 21st-century manager

“AI is not going to replace managers but managers that use AI will replace those that do not,”

Rob Thomas, senior vice president of IBM's cloud and data platform

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