

# Is AI eating healthcare?

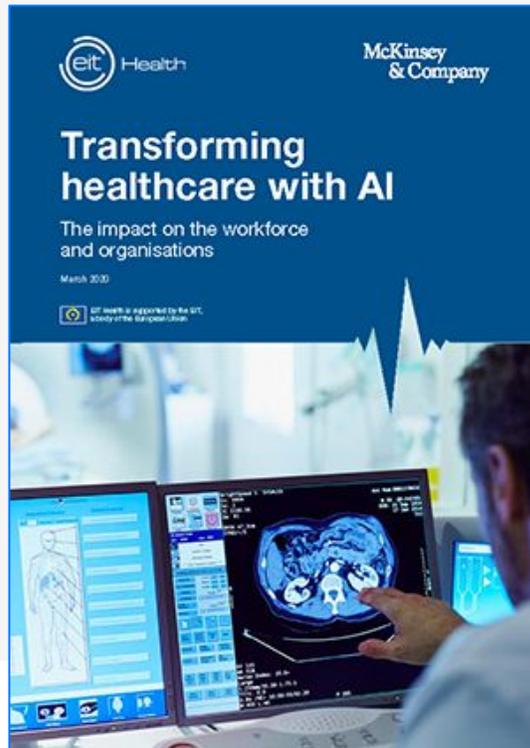
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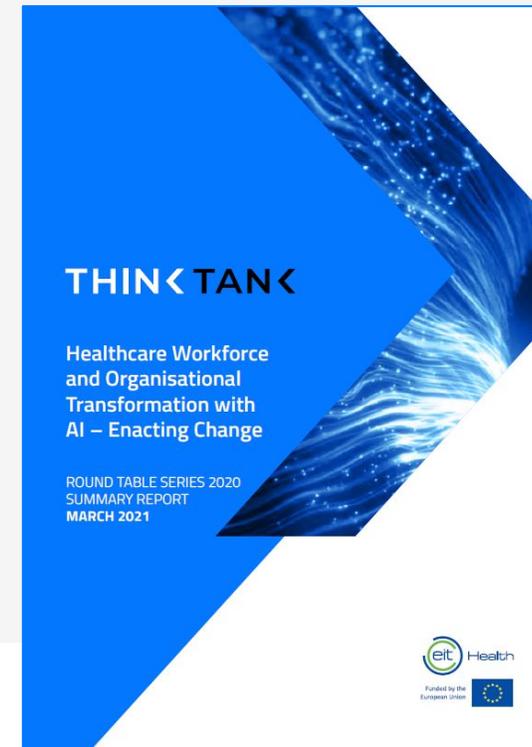


# TRANSFORMING HEALTHCARE WITH AI: The impact on the workforce and organisations

## EIT Health – McKinsey joint report on Artificial Intelligence



March 2020



March 2021

# Our key findings

## HOW WILL AI IMPACT THE WORKFORCE?

- AI solutions will destroy activities/tasks more than they will make jobs disappear.
  - More impacted: diagnostics processes, areas where biomedical imaging plays a role, etc.
  - Less impacted: activities where human intervention plays a role (surgery)
- AI will not replace doctors/nurses, it will augment them.
- HPCs will need to be re-skilled to work alongside with machines. A new “Humans x Machines” value equation needs to be defined.

## WHICH IS THE RIGHT ORGANIZATIONAL MODEL?

- 100% Decentralized model: Each healthcare institution should have an AI solution in place (*similar to what has happened to the EHRs*)
- Mixed model
- 100% Centralized model: Only the National or Regional Health System should acquire



# Software is eating the world (Marc Andreessen, a16z, August 2011)

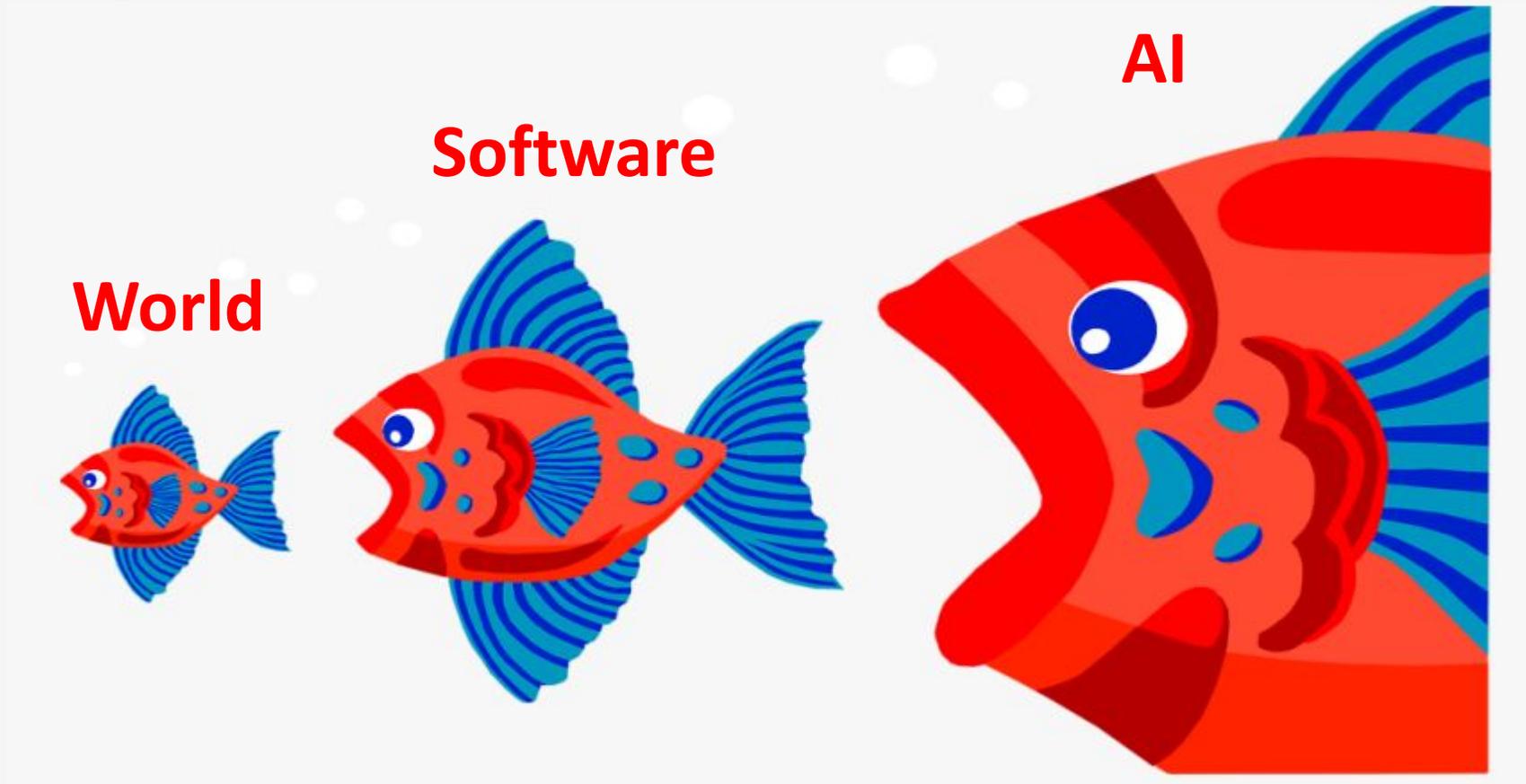
“**Software is eating the world,**” wrote Marc Andreessen, co-founder and general partner of venture capital firm Andreessen Horowitz, in an essay published in The Wall Street Journal in 2011.



In the past decade, **software-based solutions supplanted products and services traditionally delivered through other means.**



## Who is eating what...?



**“Software is eating the world”**

Marc Andreessen, a16z (2010)

**“Software is eating the world, but AI is going to eat software”**

Jensen Huang, Nvidia CEO (2017)

## Is AI eating the world? Software alone can't finish the job...

The difference from one industry to another is *how much of the industry it can digest*.

### HARD TO DIGEST IN HEALTHCARE

- **Regulation.** Healthcare is a complex and heavily regulated industry...
  - ...where some key regulations are not clear (MDR) or are missing (AI, data, etc.)
- **Tangibility.** In 'hard' industries that are heavily tangible, whether due to personnel needs, physical infrastructure, language barriers or whatever else, software sometimes runs up against problems in digesting its meal.
- Software needs **digestive pills** so as to eat industries that are more regulated and/or more tangible.

What are the **DIGESTIVE PILLS** in healthcare to helping software digest the world?



# What are the digestive pills to facilitate that software eats the world of healthcare as well...?

## IT Legacy systems

- Hospitals have their EHR (Electronic Health Records). It is usually the most expensive part of the IT budget (both in implementation and in maintenance every year).

## IT Budget in hospitals is low

- The amounts spent by healthcare providers and national/regional health systems on IT and Information Systems is usually between 1 and 2% of their total budget. It is impossible to “switch” to better solutions without heavily investing in IT.

## Talent shortage

- Hospitals and National/Regional Health Systems: difficult to attract top talent into these jobs.
- Pharma companies: low attrition rates and very stable jobs, as well as bad reputation. Combined, makes it more difficult to attract talent
- For software to eat the world, you need certain type of expertise in pharma and hospitals that are not currently there.
- Training (upskilling and reskilling) will play an important role if we want to fully benefit.

