

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



Innovation In Business

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1403

Business Definition of Innovation:

Innovation : The ability to: 1) conceive
2)develop 3) deliver and

SCALE

new products, services, processes, and
business models for customers

Simply Innovation Is Problem Solving

Innovation has 3 categories

1. Sustaining Innovation

2. Efficiency Innovation

3. Market-creating Innovation



- Not All Innovations Are Created Equal
- Each type plays a unique role for organisations and countries

1- Sustaining Innovation

Improve *existing* products and services

- Selling more product/service with higher margin
- Target people who *already afford* that product/service



Sustaining Innovation

The Toyota **Camry** had been America's **best-selling** car for **19** of the past **20** years.

With the Camry's remarkable success, sales of the Camry have **remained** relatively **flat** since 2000.

- In **1997**, Toyota sold **394,397** Camrys.
- In **2017**, Toyota sold **387,081** Camrys.

2-Efficiency Innovation

To do more with less resources



- They are *process* innovations, focus on *how* the product is made
- Try to free up cash flow and generate **more profitable**
- Rarely add new **jobs** to an economy. In most cases, they **eliminate** more than they create

Efficiency Innovation (Oil & Gas Extraction Industry)

In **1980** :

- There were ~**220,000** employees
- Producing ~**\$8.6** million barrels of oil.

By **2017** :

- # of employees in that sector had fallen to ~**146,000 (>30%)**
- Production increased to over **\$9.3** million barrels a day.

3 -Market-Creating Innovation

It transforms

complicated and **expensive** products and services

into

much **more affordable, accessible, and simpler** ones that

many people ("**Non-consumers**") are **able** to buy and use them.

Market-creating innovations can **ignite** the economic engine of a country.



Sustaining

Doing what we
do today, better

Comfort Zone



Disruptive

Developing what we
will be doing tomorrow

Risk Taking



Every Economy is Made Up of :

Consumers

Are able to purchase
and **use existing**
products or services
in the market

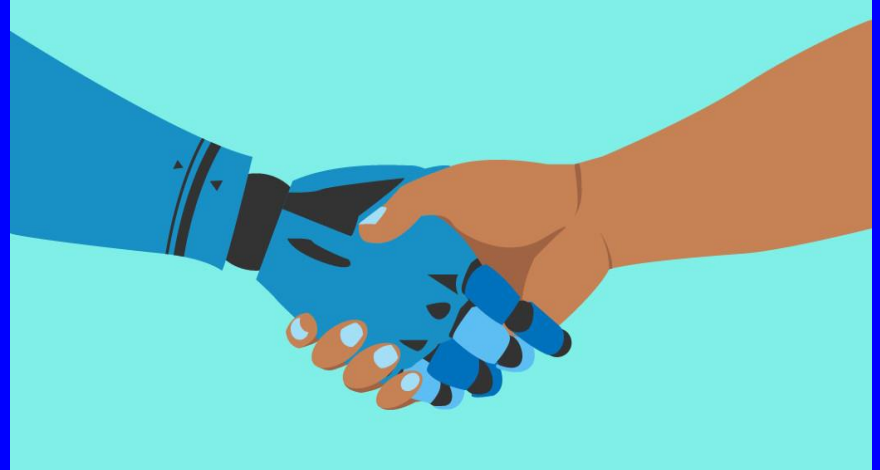
Sustaining and
Efficiency

Non-Consumers

Are **unable** to afford
existing solutions

Market-creating
innovations are targeted
at the Non-consumers

HUMAN-AI SYMBIOSIS



AI: not quite new

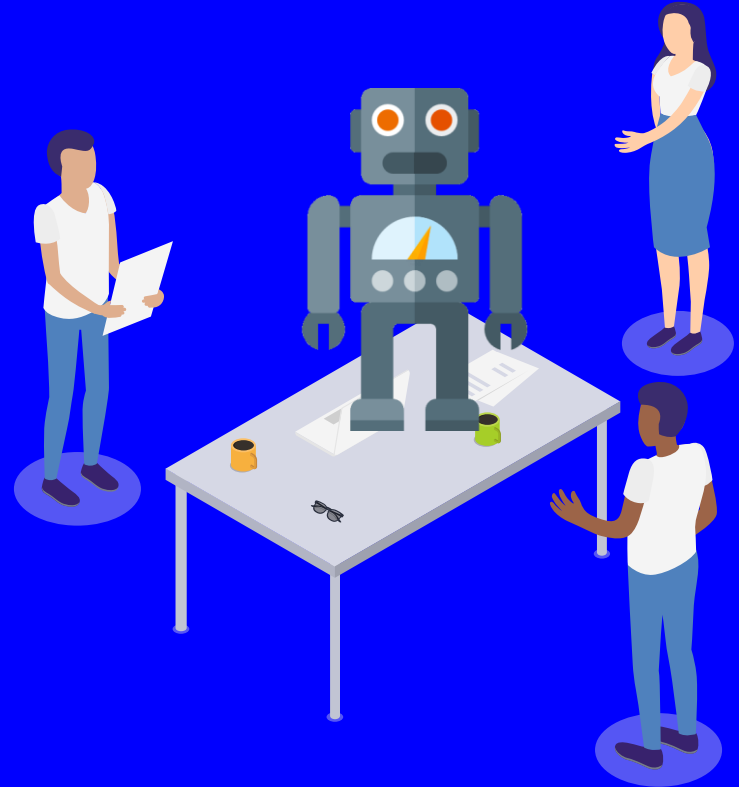
Dartmouth workshop

- ▶ Summer 1956
- ▶ John McCarthy: “Thinking machine” >> AI
- ▶ Playing games, learning English and etc
- ▶ e.g., Expert systems with symbolic logic with clear rules and definitions



Augmentation narrative (partnership)

- ▶ Mutual learning >> mutual augmentation
- ▶ Mutual learning in ChatGPT?



Coopetition:

What Will Working with AI Really Require?

by Mohammad Hossein Jarrahi, Kelly Monahan, and Paul Leonardi

Harvard Business Review, June 2023

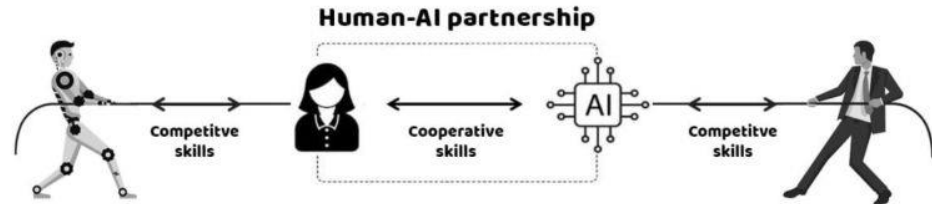


Figure 1: "Coopetition" between humans and machine

	Cooperative skills	Competitive skills
Human	<ul style="list-style-type: none"> • Data-centric skills • AI literacy • Algorithmic communication 	<ul style="list-style-type: none"> • Emotional intelligence • Holistic and strategic thinking • Creativity • Critical and ethical thinking
AI	<ul style="list-style-type: none"> • NLP • Explainability • Adaptability and personalization • Context awareness 	<ul style="list-style-type: none"> • Analytical capacities • Generativity • Performance at scale

Figure 2: Cooperative and competitive skills of humans and AI in new work arrangements

Chess

Human-AI partnership

- ▶ Kasparov (grandmaster): The best chess player was neither AI nor human but “*centaurs*”



IBM Deep Blue (1997)

چگونه می‌توانیم چشم‌اندازهای پیش‌روی کشور را محقق کنیم؟

زمانی که بتوانیم برای عموم خدمات با کیفیت و کم‌هزینه را

برای کالاها و خدمات فراهم کنیم.

تحصیل

خودرو

اینترنت

تغذیه سالم

مسکن

تسهیلات مالی

درمان

مخابرات

...

what to do?

هدف:

Health

Inclusion

«بهره مندی عادلانه» همه مردم به خدمات مورد نیاز
سلامت، در همه جا، با قیمت ارزان، با کیفیت بالا، با
کمک «خود ملت»

خدمات درمانی با کیفیت بالا و هزینه کم و در مقیاس زیاد

چگونه خدمات ارزان، با کیفیت و مقیاس پذیر

ارائه دهیم؟

Delivering High-quality Low-cost **X**
at Scale

HOW TO DO?



صنعتی سازی

To Do More With Less

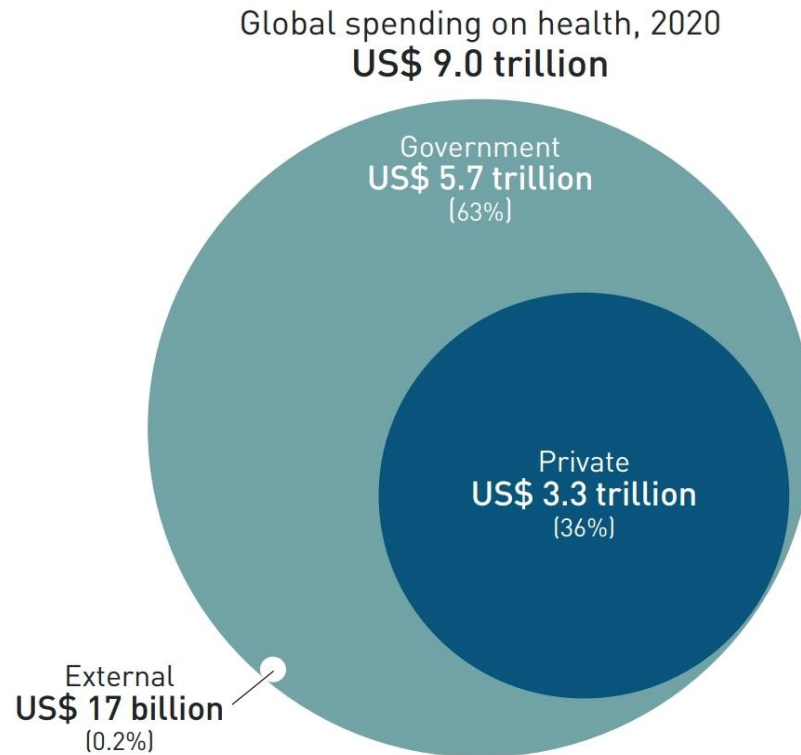
رشد بهره‌وری از طریق **صنعتی سازی** ممکن خواهد شد.

با افزایش بهره‌وری ما با **نهاده کمتر**، خروجی **بیشتر** خواهیم داشت.

اقتصاد کلان بهداشت و درمان



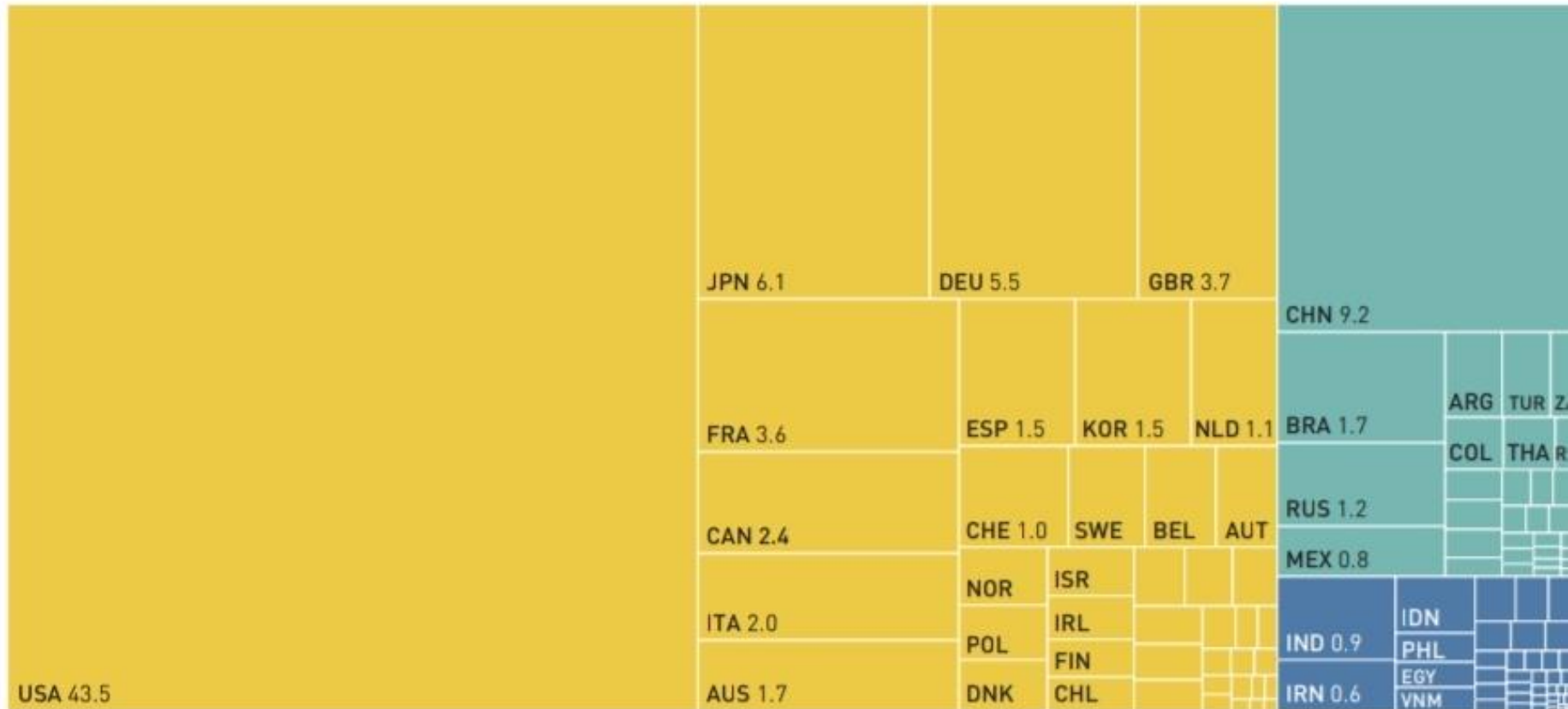
FIGURE 1.1 In 2020, global spending on health reached US\$ 9 trillion



Data source: WHO Global Health Expenditure Database, 2022.

Higher health spending in response

FIGURE 1.2 High income countries accounted for over 80% of health spending in 2020



Share of global spending on health, 2020 (%)

Data source: WHO Global Health Expenditure Database, 2022.

۷,۱۰۰ میلیارد دلار

۹,۰۰۰ میلیارد دلار

ارتباطات. ۲۵۰۰

نظامی ۲۲۰۰

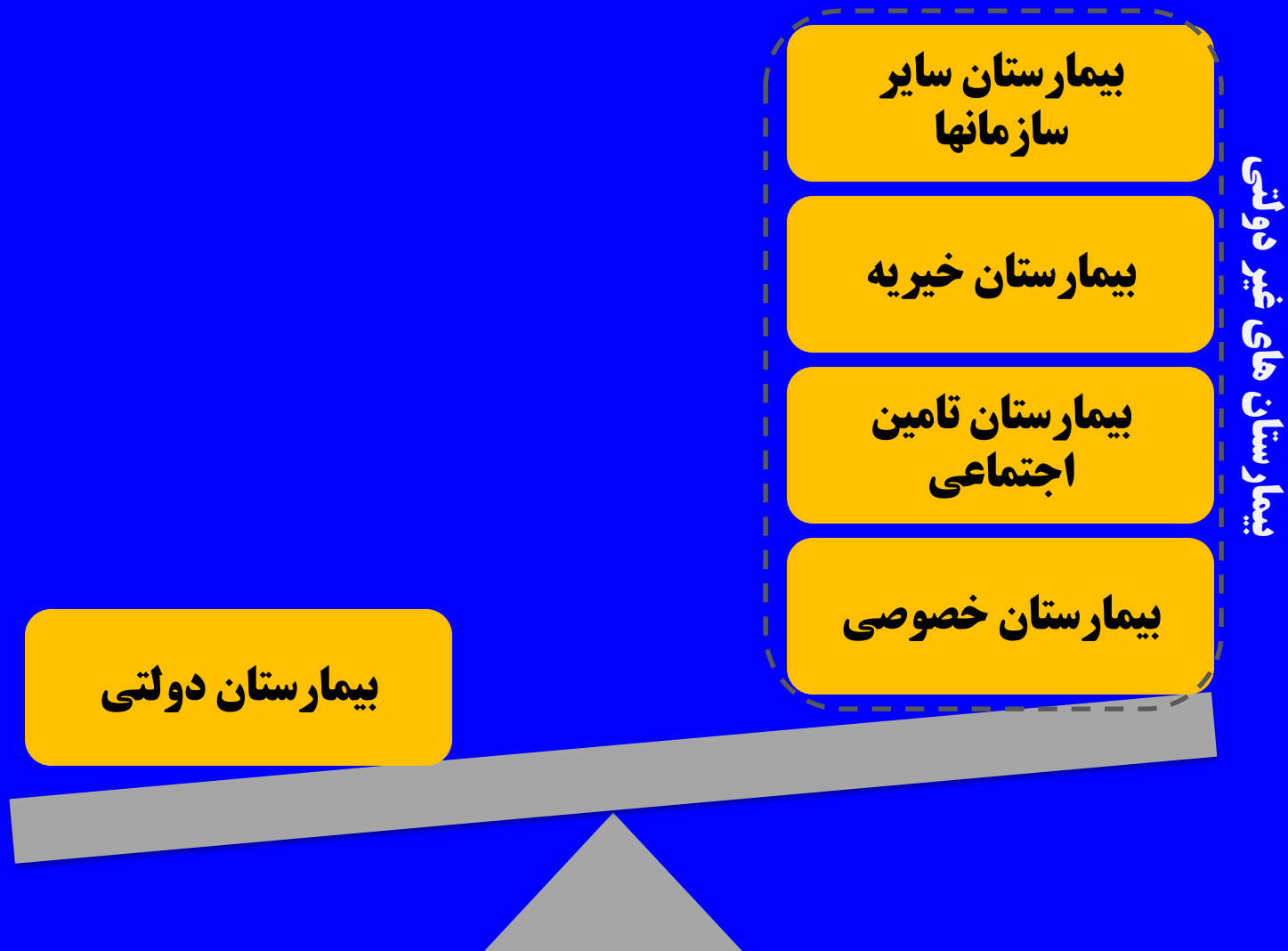
نفت ۳,۲۰۰

هزینه سلامت

۹,۰۰۰

هزینه های سلامت حدود ۱۰ % GDP دنیا را شامل می شود.

حدود ۶۰٪ خدمات بستری توسط بخش دولتی در کشور انجام می شود



تصویر کلی از اندازه اقتصاد سلامت - سال ۱۴۰۲



نورم گروه‌های اساسی در ۴ ماهه ابتدایی ۱۴۰۳

(واحد: درصد)



کاربرد هوش مصنوعی در

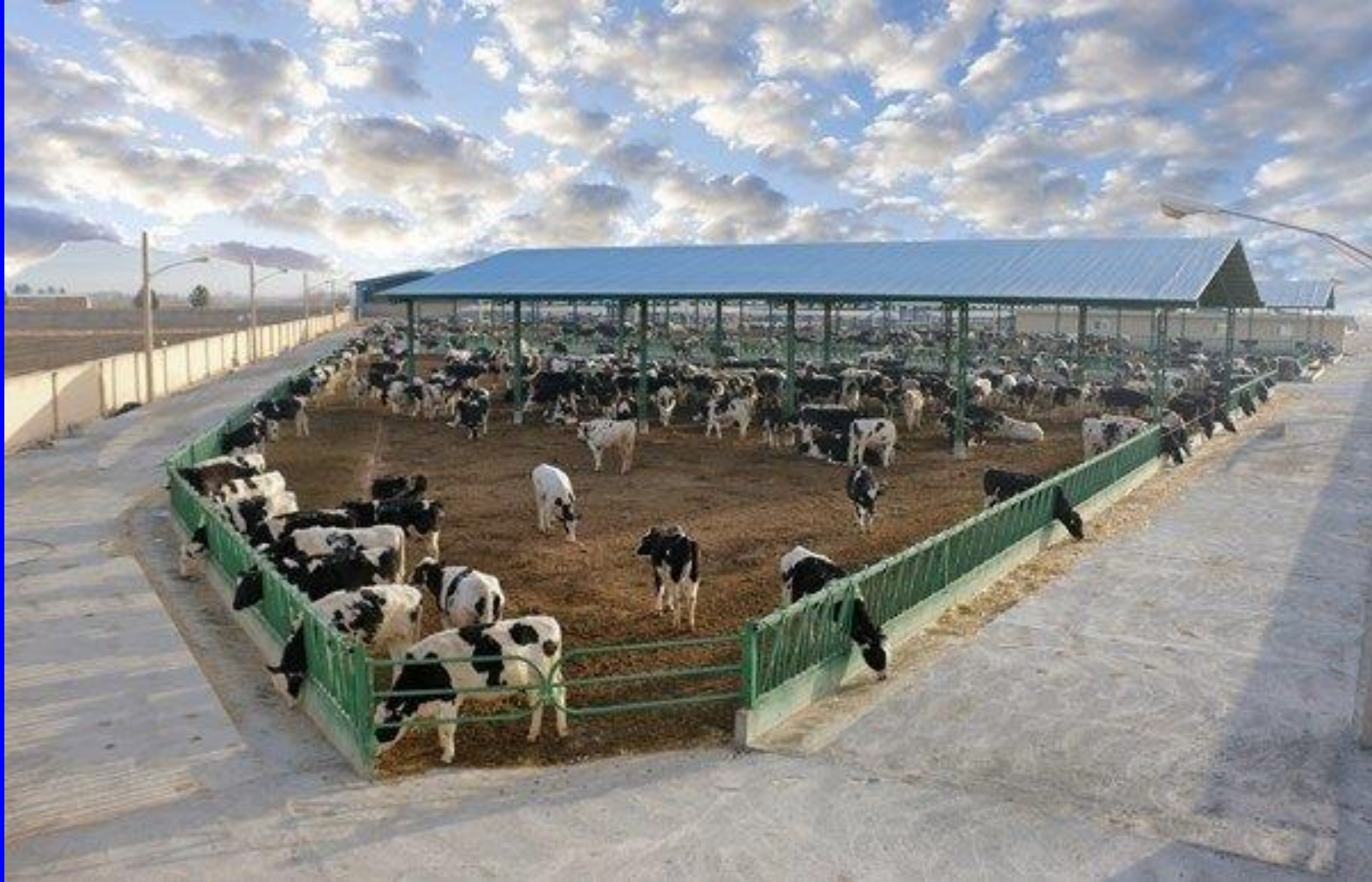
صنعت بهداشت و درمان

صنعتی سازی پیش نیاز پیاده سازی هوش مصنوعی



دامداری سنتی

۱۲۰۰ گرم نهاده ← یک کیلو گرم شیر



دامداری صنعتی

۶۰۰ گرم نهاده ← یک کیلو گرم شیر



کدام بستر قابلیت پیاده‌سازی هوش مصنوعی را خواهد داشت؟

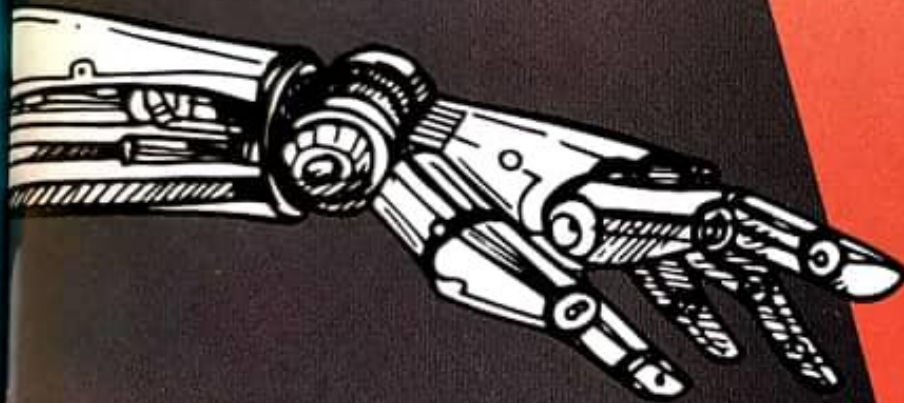


“کارایی AI در گرو ایجاد تحول است”

Paradigm Shift



Senior executives need to be comfortable with both the digital and the transformation side.



**THE DIGITAL
SIDE (TECHNOLOGY-SIDE)**



**THE TRANSFORMATION
SIDE (PEOPLE-SIDE)**

با تشکر از توجه شما

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