Future of Health Care IoT. NOW.

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Today we will…

Set context to our topic.

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Talk about where we’re headed.

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Highlight some examples.

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Talk about where we’re headed.

Highlight some examples.

Discuss how we’re going to get to the future.

IoT in Health Care.

Why do we care?

Why does it matter?

75 billion devices

in use worldwide, 2025


$534.3 billion usd
Global IoT Health Care market, 2025


Technology is an integral part of Health Care
Health care information system
Connected health
Remote patient monitoring

Quantified Thyself

Has Arrived and Is Here to **STAY**

Changing needs. Different set of demands.

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New & Complex Diseases → care transformation; new type of care.

Wellbeing & Prevention → support & enable health goals.

Shifts in healthcare

Today: ‘System’	Future: ‘Person’
Reactive, sick care	Proactive, preventative, predictive
1 size fits all	Personalized
Institution-centered	Decentralized, dephysicalized
Episodic, intermittent, silo’d	Continuous, integrated
Provider	People-powered

New Era of Care has Arrived.

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Patient-centric

Connected and Coordinated

Integrated ecosystem

Our World is Increasingly More Connected.

Smart Sensors.

Smart Networks.

Smart Cities.


Exponentials Have Arrived.
AI
Robots
AR / VR / MR
Autonomous Transport
Genomics
Blockchain

Exponentials

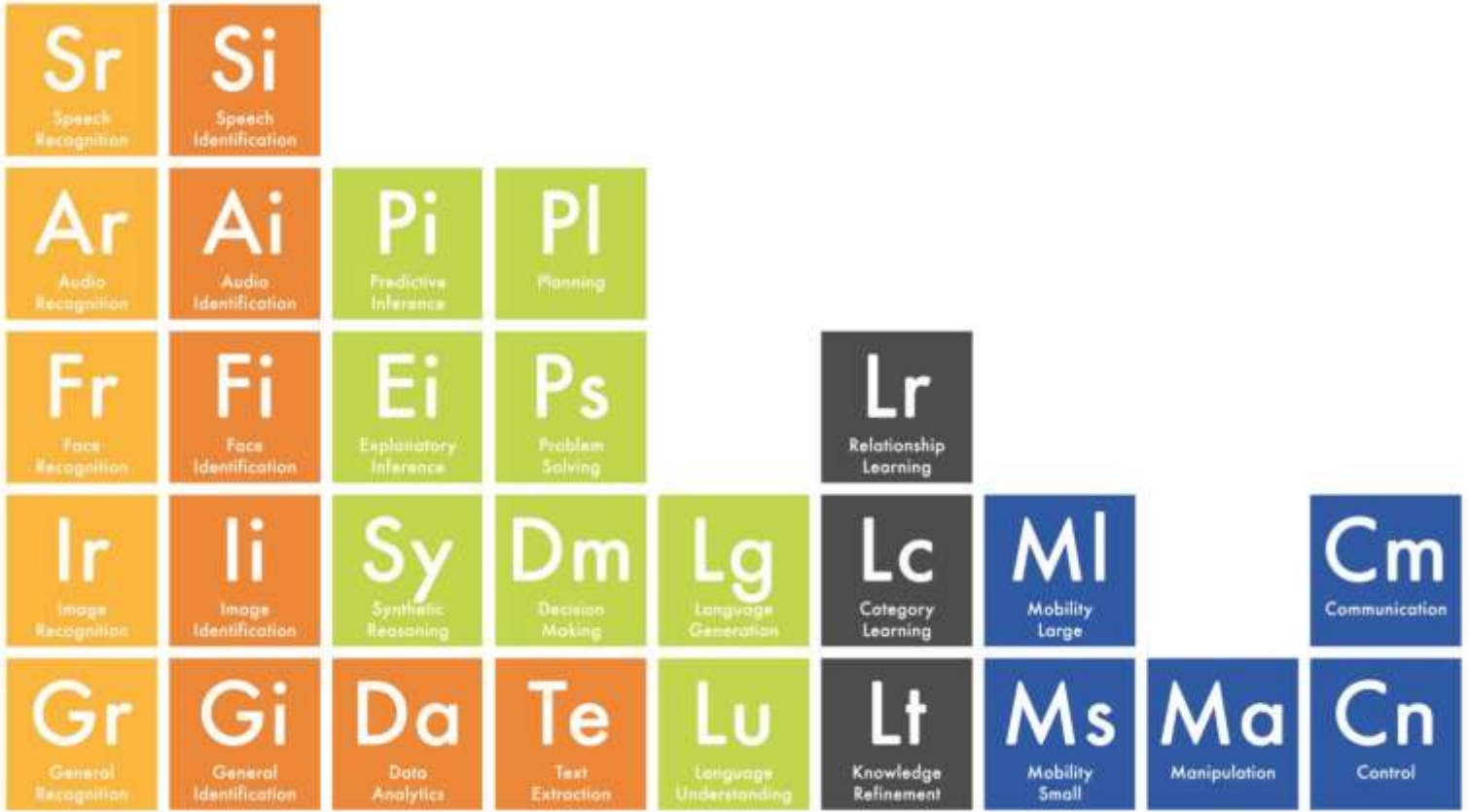
\+ IoT

Next Gen

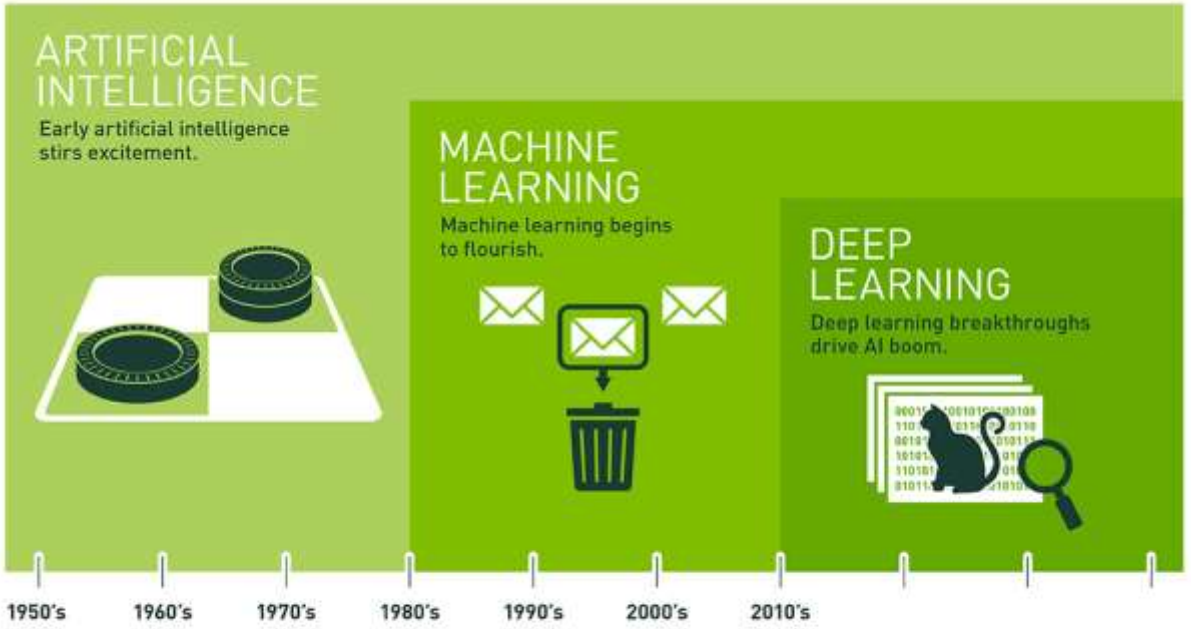
Health Frontier

Let’s dive in on a few of these.

A.I. Today is… many things...



A.I. Today is…



Since an early flush of optimism in the 1950s, smaller subsets of artificial intelligence – first machine learning, then deep learning, a subset of machine learning – have created ever larger disruptions.

A.I. use in health care

Virtual assistants / Therapists / Digital Humans

Interpretation video feeds and images to search for specific insight

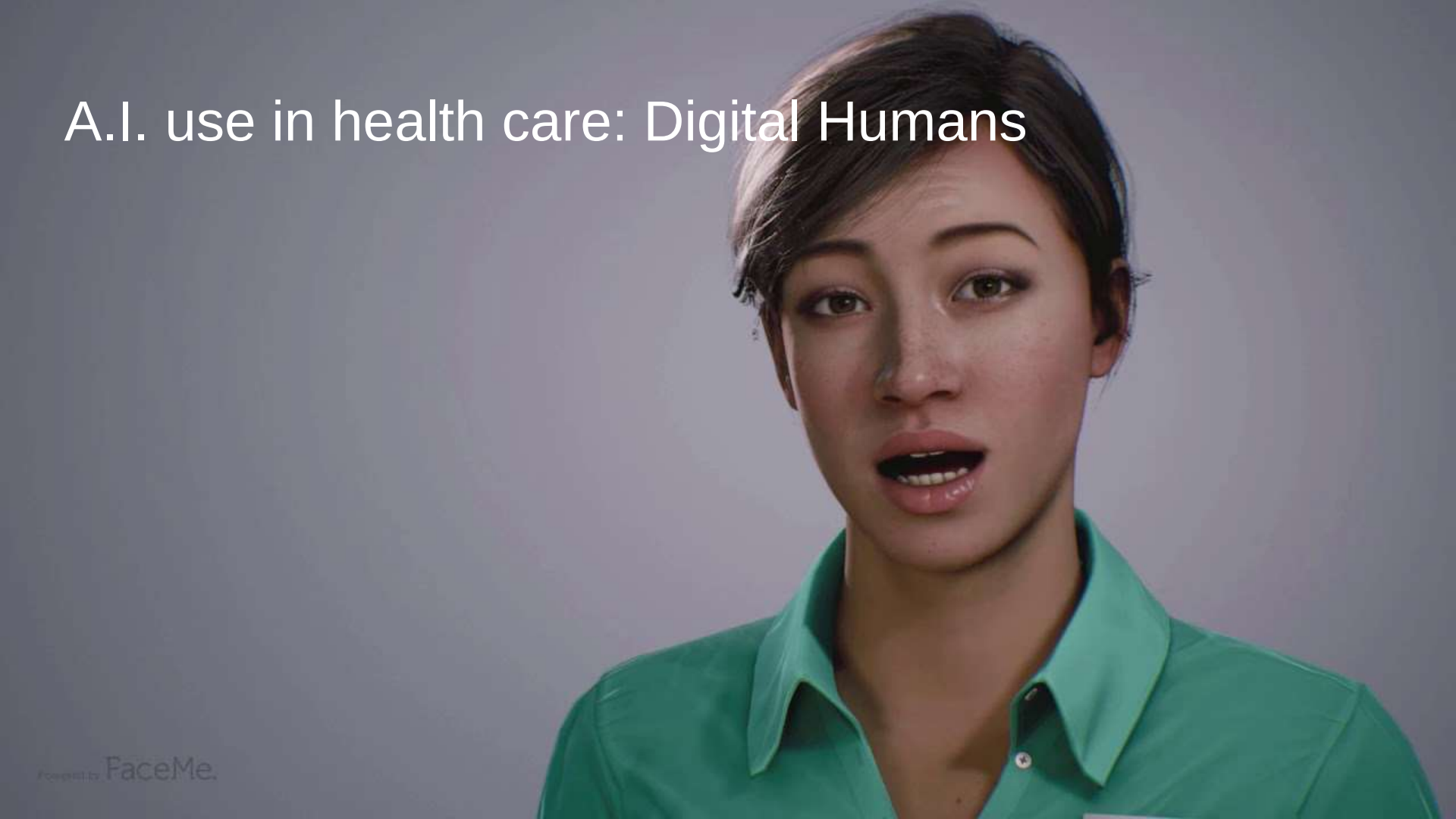
Decision support / Recommendations

Detecting and delivering next-best recommendations based on data gathered by IoT devices

A.I. use in health care: Decision support

A.I. use in health care: Virtual Therapists

A.I. use in health care: Digital Humans



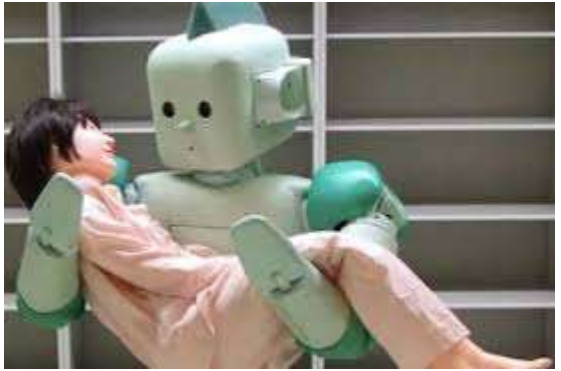
Robots

In Hospital / Care Delivery

Out and About

At Home

Robots In Care Delivery



Robots Out and About

Robots at Home

Immersive Technologies: AR / VR / SR

Augmented Reality

Virtual Reality

Sensory Reality

AR in Health Care

Just in time information for

Surgeries

Medication verification

(a little into the future), Patient Generated Data


Health Check
72
%
HR
89
PB
108/68
99
SpO2
16
RR
36.8
Weather
22 F°
40 %
SUN
MON
TUE
WED
THU
FRI
SAT
News


Google
NOVARTIS


WEIGHT
CONDITION
TUBE SIZE
TUBE DEPTH
00:00
140
99
45
37.1
EPINEPHRINE
GLUCOSE 10%
VOLUME
BEGIN SCENARIO

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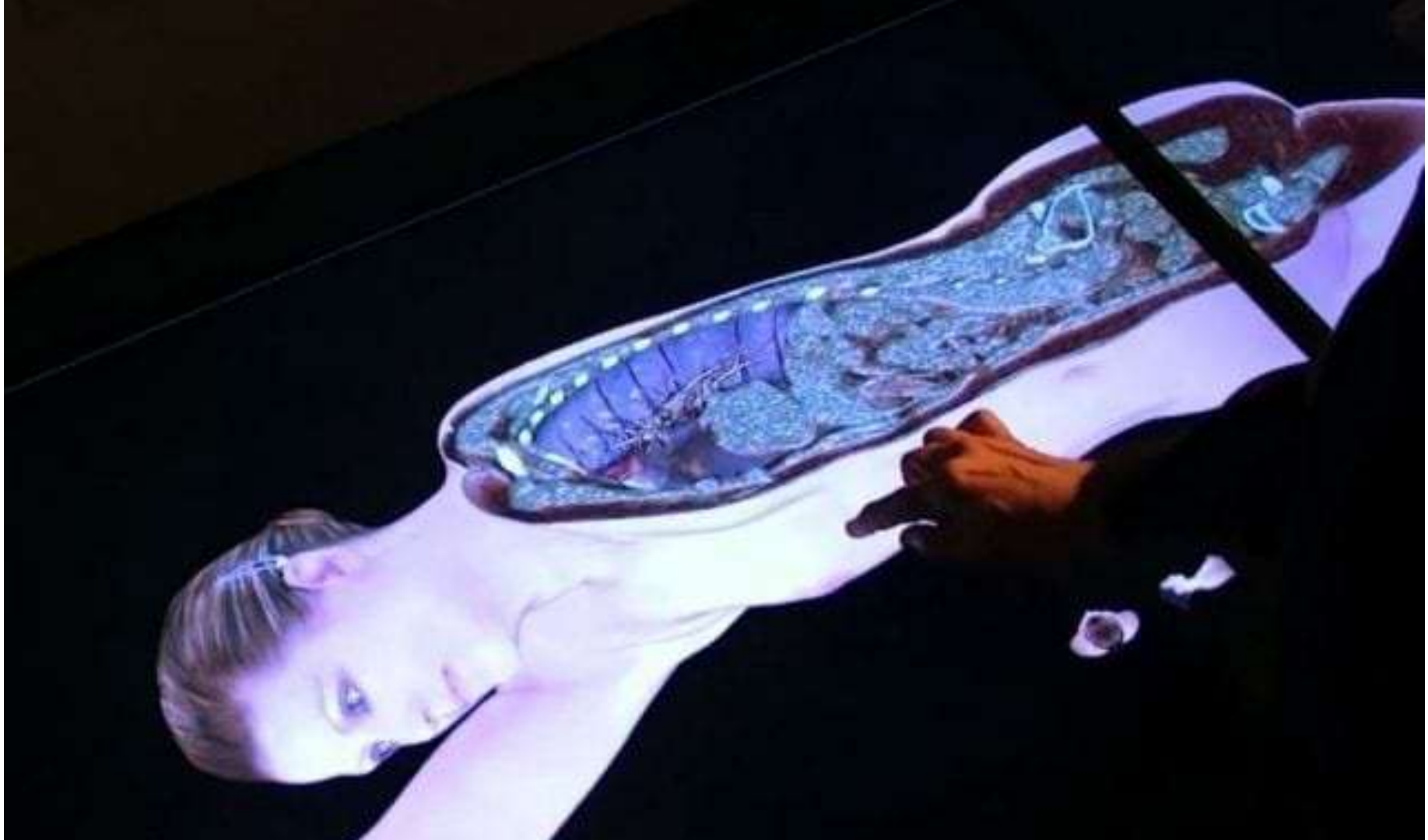


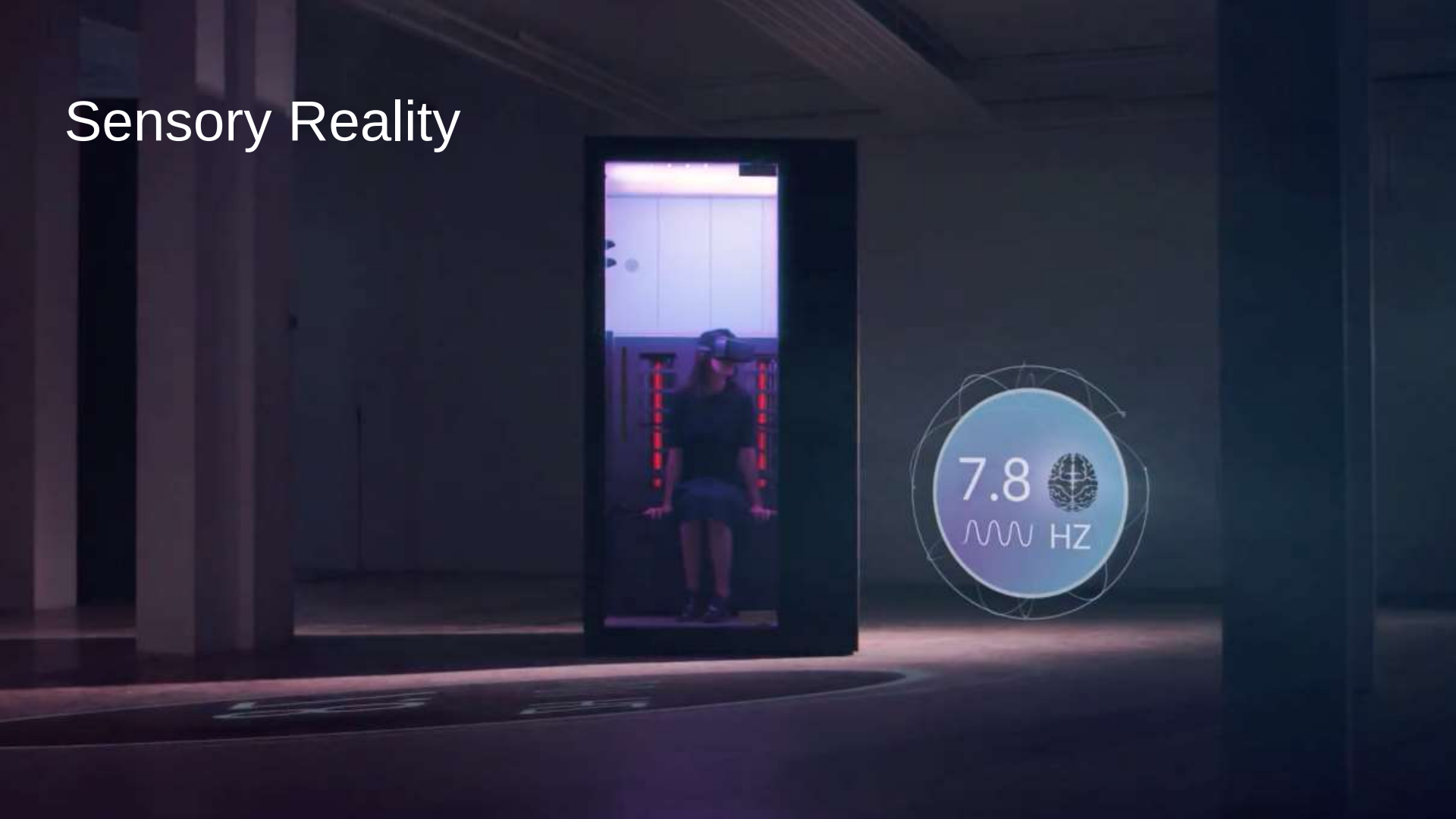
VR in Health Care

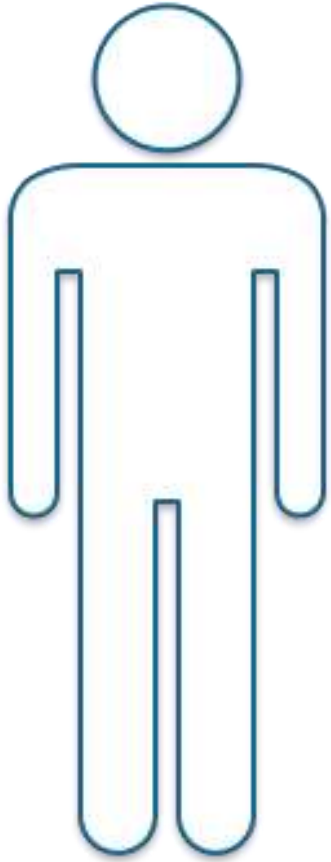
Delivering a new time and place

Pain management

Reduce isolation

Sensory Reality

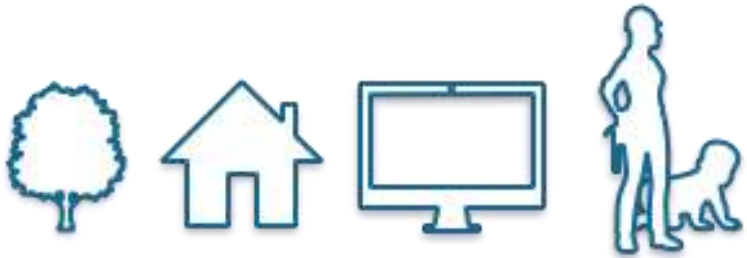




1) Body and vitals

2) Activity

3) Environment



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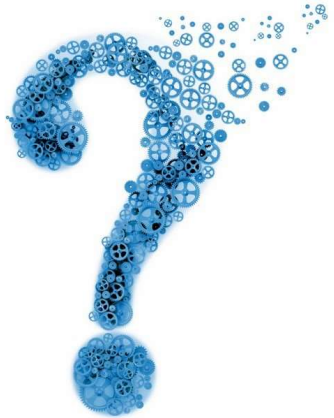
Almalki et al. 2017 JMIR https://www.jmir.org/2017/11/e378

HOW do we mainstream?

WHAT IS the secret sauce?



#1. Start with a use case.

What is the problem at hand

Who are you solving for

How will your solution be unique in the market

#2. Quell the objections.

ROI

Technology maturity

Security & Privacy

#3. Build your case for IoT.

IoT has the unique ability to:

Deliver real-time insight

Capture massive amount of data that tells the whole story

Smart IoT lets you act before action is needed: Prevention. Mitigate.

But in order for IoT to really mainstream, we need

Policy change

Global Standard

Interoperability

Consumer participation

Privacy protection

Let’s open this up for conversation

Prompt 1: What hurdles do we need to overcome as an industry for IoT devices to mainstream in health care

Prompt 2: What use case are you exploring today

Prompt 3: What are you working on today

Prompt 4: Where do you see the industry in 3 / 5 / 7 years

THANK YOU!

Follow the conversation

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References

https://www.healthdatamanagement.com/list/five-top-trends-for-the-iot-in-2019

1**0 examples of the Internet of Things in healthcare:**

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digital iot medicine

IoT in Health Care. Why do we care?

Why does it matter?

The global internet of things (IoT) in healthcare market size is expected to reach USD 534.3 billion by 2025, expanding at a CAGR of 20.2% over the forecast period.

Driven by growing adoption of healthcare information systems, rising initiatives supporting connected health, and ongoing trend of remote patient monitoring. Rising adoption of smart wearables for health monitoring and self-assessment is also positively impacting the market.

Global healthcare providers are transforming themselves into patient-centric and connected and coordinated entities to create an integrated ecosystem. Rising adoption of IoT in healthcare systems ensures improved treatment outcomes, reduced costs and errors, improved patient experience, and lessening time of disease management with real-time data monitoring. Thus, demand for IoT solutions is increasing globally in order to manage various operations in healthcare.

An increasingly more connected world.

Technology revolution has created a world with:

Smart Sensors.

Smart Networks.

Smart Transportation.

Smart Cities.

AI.

Nanonized devices so small. No longer visible to the naked eye.

Less intrusive. Sensors blending in the backgrounds.