Entre Robôs e pessoas: um olhar para o futuro da saúde no Brasil.
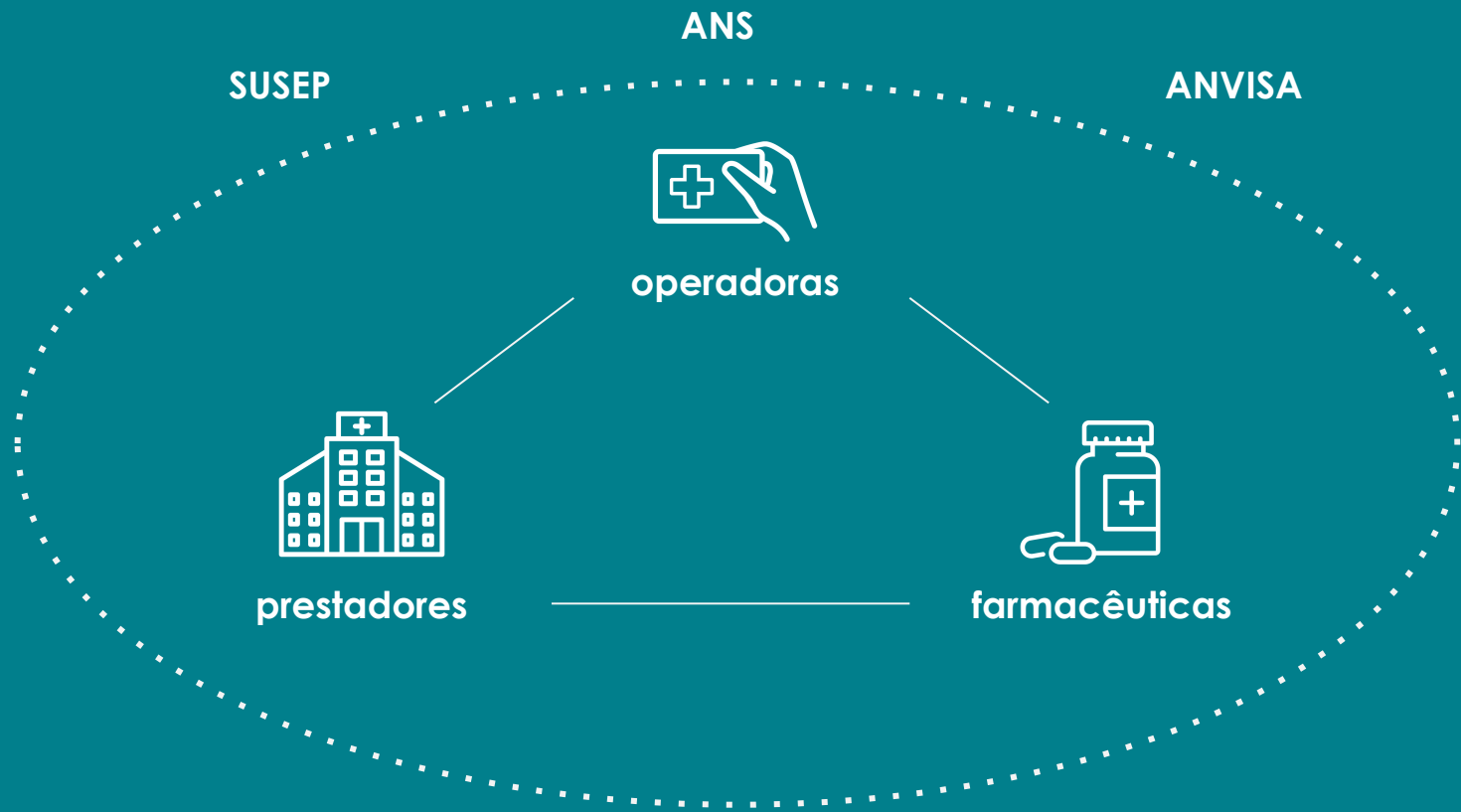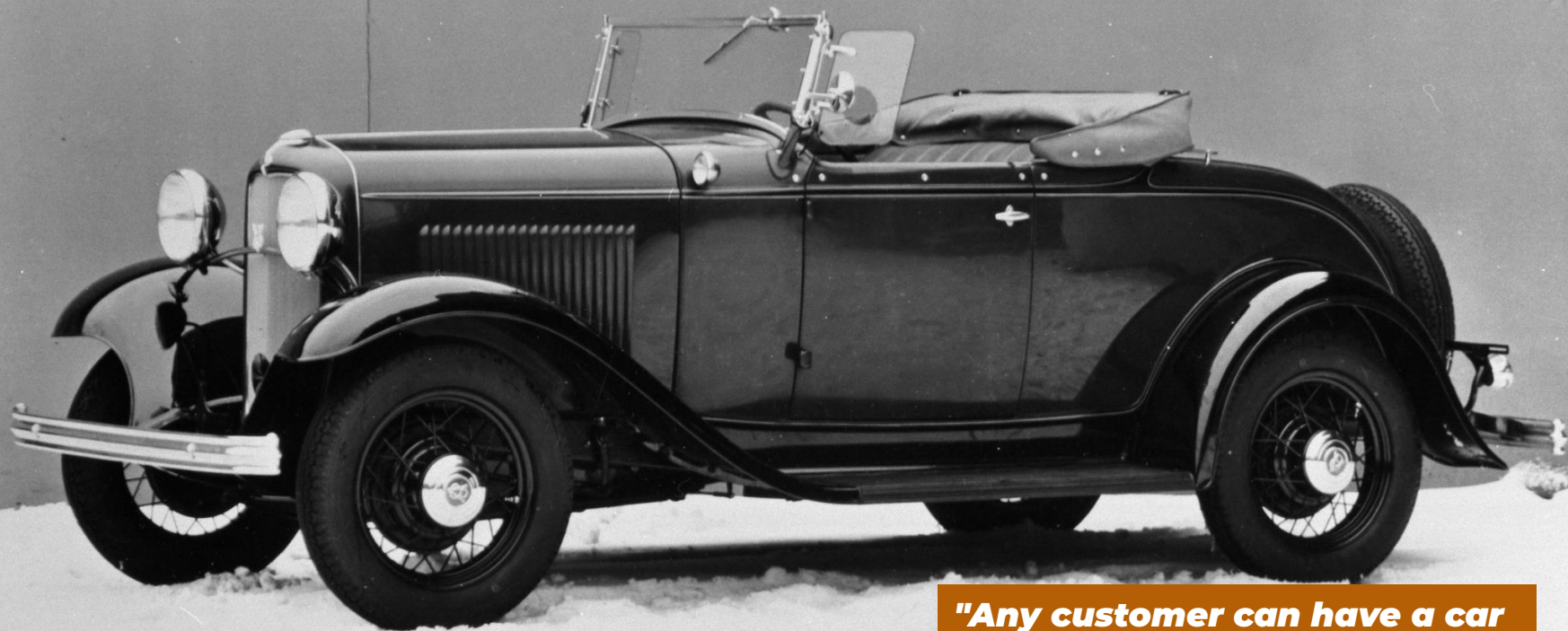
Fabio Calzavara

"Any customer can have a car painted any color that he wants so long it is black"

How it works

You listen and save songs

Spotify users create billions of playlists

Spotify develops your "taste profile"

Spotify identifies similar songs that appears on those playlists

Spotify finds songs that fit your profile, but that you haven't listened to

Discover Weekly

Não precisamos mais escolher entre performance e experiência do cliente

*As **melhores práticas** de saúde estão cada vez mais inseparáveis do **avanço de tecnologias**, de novas **relações transacionais** e das **comunicações digitais**.*

Por que viabilizam **melhores entregas** em:

Educação
Finanças
Entretenimento
Varejo
Commodities
Esportes
Cultura
[...]

Fortunato Depero
New-York-1930.

anos 20

Buddy the robot

Google Home

E a saúde?

Ela vai para o **caminho oposto**: mais do que nunca você será **ativo**. Você terá **controle.**

Humanização é:

Transparência *na informação*
Autonomia, controle, poder de escolha
sobre os serviços.

01
Descentralização da informação

The only smart band in the world that tracks calorie intake and hydration level automatically!

HEALBE GoBe2 smart band

$169

SHOP NOW   BUY ON amazon

FEATURES

Automatic Calorie Intake Tracking

Get a better understanding of your energy balance! Manual calorie counting can be left behind - HEALBE GoBe2 counts digested calories automatically!

Body Hydration Monitoring

HEALBE GoBe2 tracks your body hydration 24/7 and notifies you when to drink water.

Don't rely on your feelings when it's time to drink. Use GoBe2 as an early reminder of dehydration.

Emotions and Stress Level Monitoring

Modern life is incredibly stressful. Use GoBe2 to understand your emotions and keep stress under control.

Healbe

LUMINOSTICS

At-home health testing in minutes.

▶ **Watch Y Combinator pitch (2016)**

Luminostics

Know This Place

This Upstream Report reveals the health and environmental quality of this area with data stories. Although it's not the only factor at play, the environment does affect health, and you have a right to know what's out there.

Check back often! New data stories are regularly added to your Upstream Report as they become available.

New York
NY USA

Air Quality
6 Causes for Concern

Water Quality
1 Factor to Watch

Soil Quality
2 Causes for Concern

Lead Exposure Index
39th Percentile

Upstream Toxicity Index
6.3 Out of 10

Community Health
4 Causes for Concern

Upstream

Sign up to become a supporter!

Stress
Ansiedade
Capacidade cognitiva

Audição
Sinapses
Memória
Visão
Sono

Qualidade água
Origem ingredientes
Quantidade açúcar
Índice gordura

Partículas do ar
Umidade
CO2
Toxicidade do Solo

Leucócitos
Batimentos cardíacos
Colesterol

Performance muscular
Resistência óssea

Hidratação
Controle parasitas
Nutrição
Sinais Vitais

Registros médicos ⟶ **APIs Pessoais**

Centrado em sintomas ⟶ **Orientado por dados**
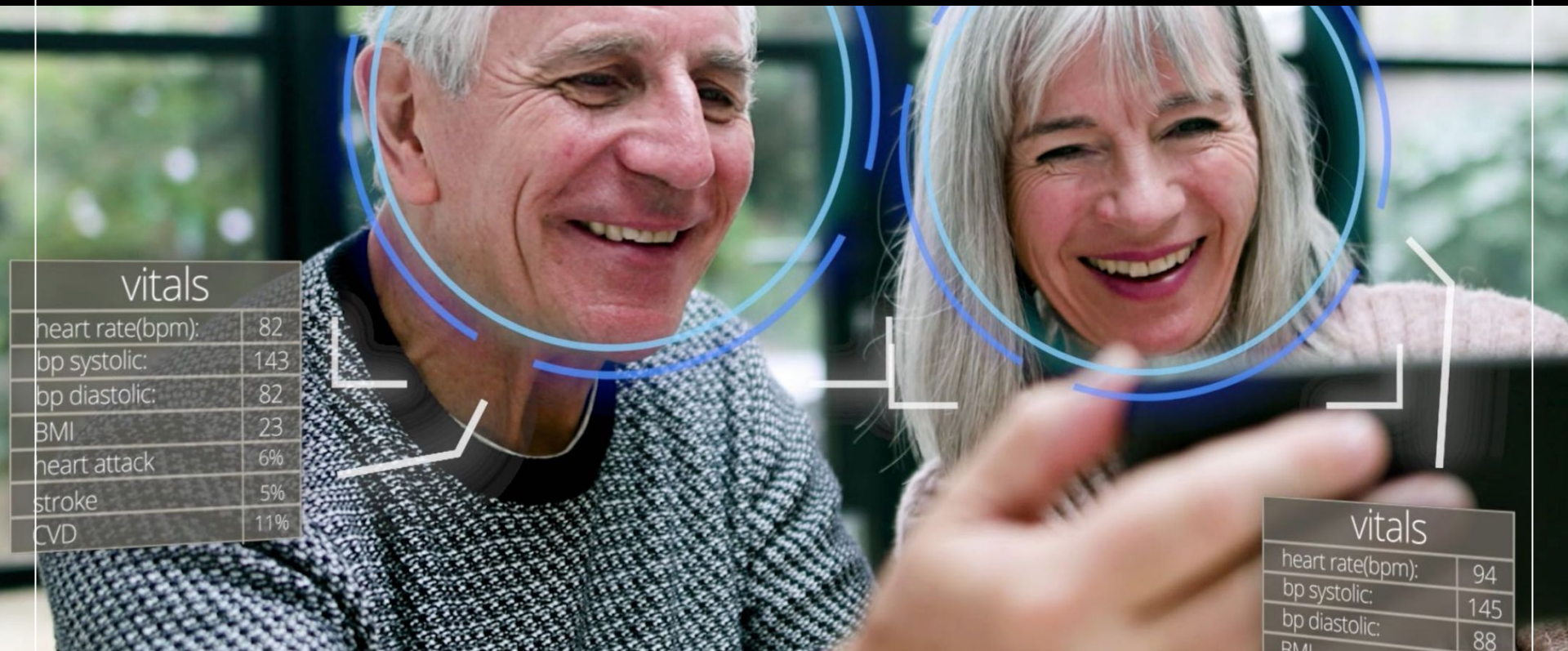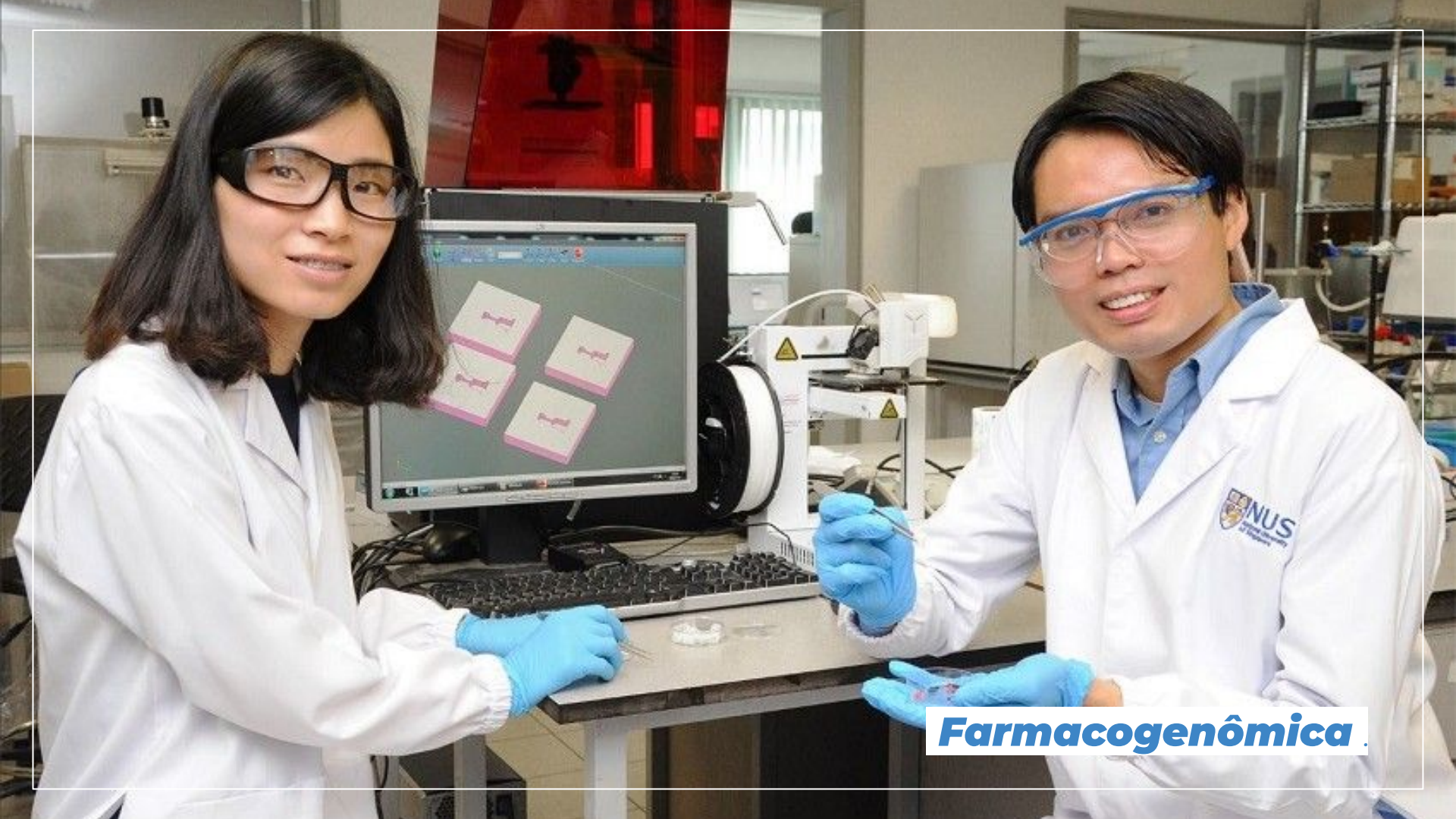
02

Customização em escala

em 2020:

2.314 quatrilhões de gigabytes.

Farmacogenômica

03

Cuidado onipresente

grande escala

média escala

pequena escala

neuralogix

7:28 Woke up with sore throat

7:43 Diagnosed

Jay,

Sorry to hear you have a sore throat.
I have some questions for you.
Please get back to me, and I will let you
know what to do to get better.
All the best,
Ida

Today 5:16pm
Sent from Dr. Ida Santana, MD
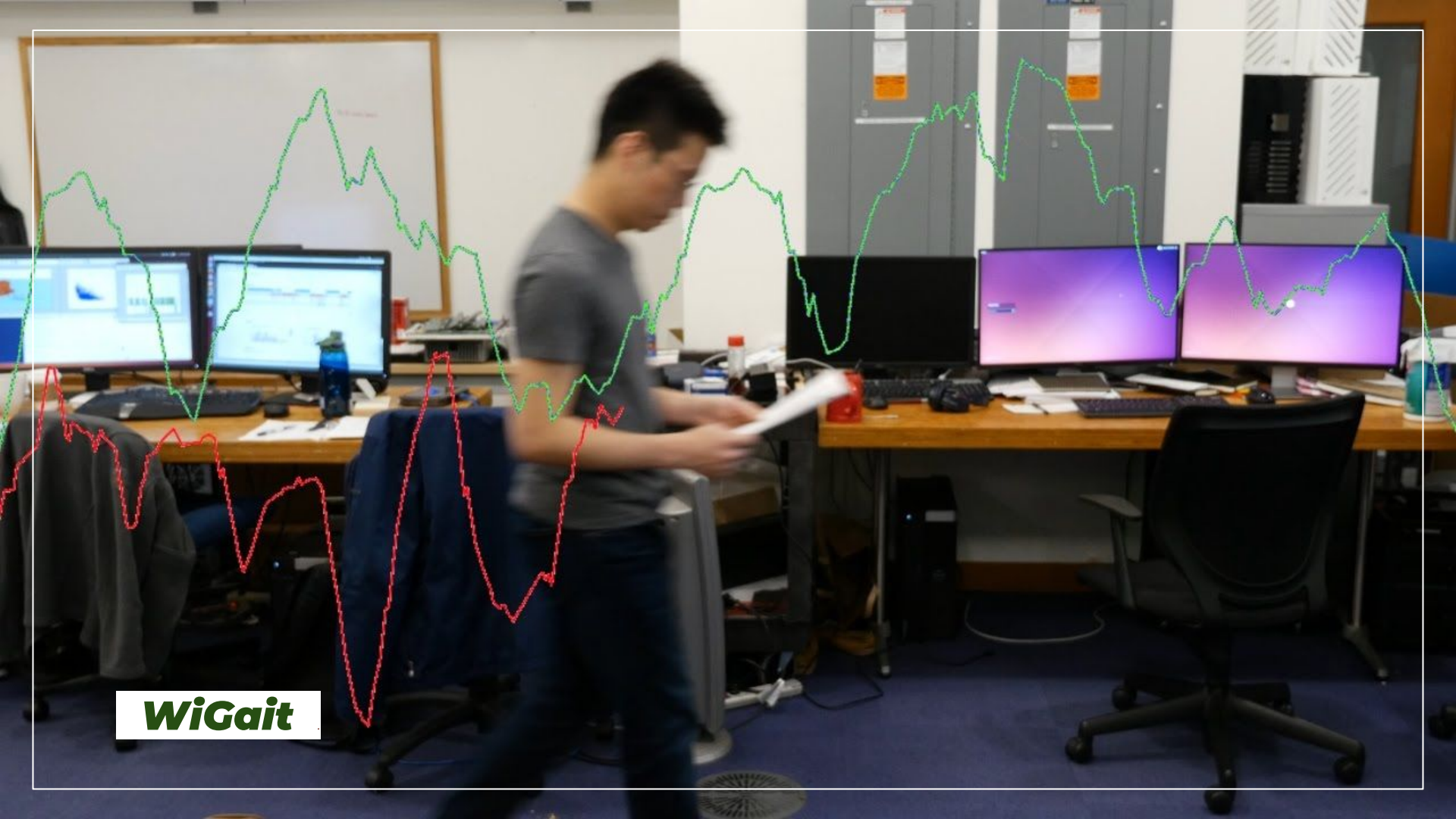
1 How long have you had a sore throat?

Your answer

2 Are your neck glands swollen or tender?

Your answer

3 Are you fatigued? Do you feel exhausted? If so, for
how long?

Your answer

4 Do yo

sherpaa

04

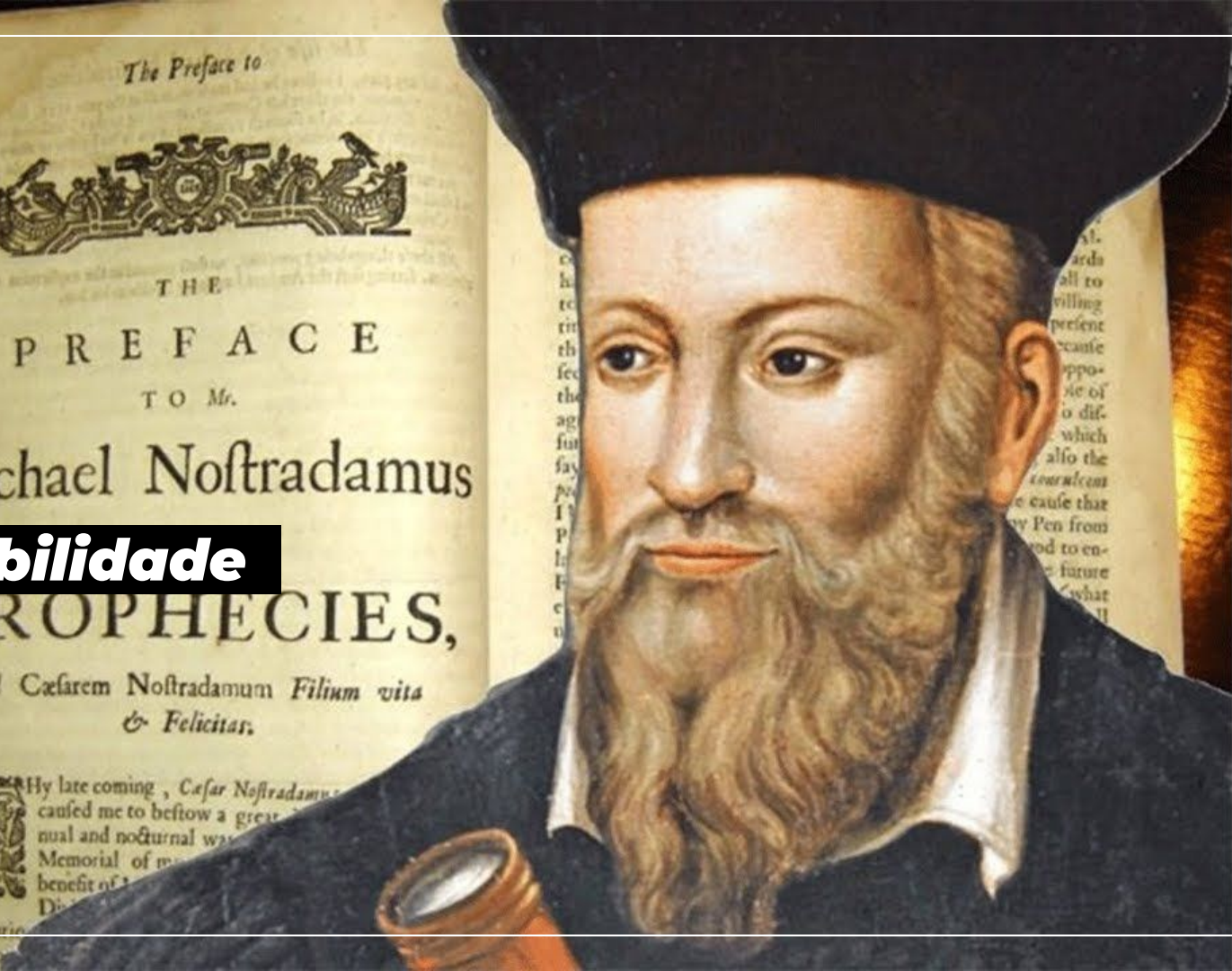Previsibilidade

Northeastern University (Empatica)

Guardian Connect

01

Descentralização da informação

02

Customização em escala

03

Cuidado onipresente

04

Previsibilidade

mais
tempo

mais
saúde

BINGO

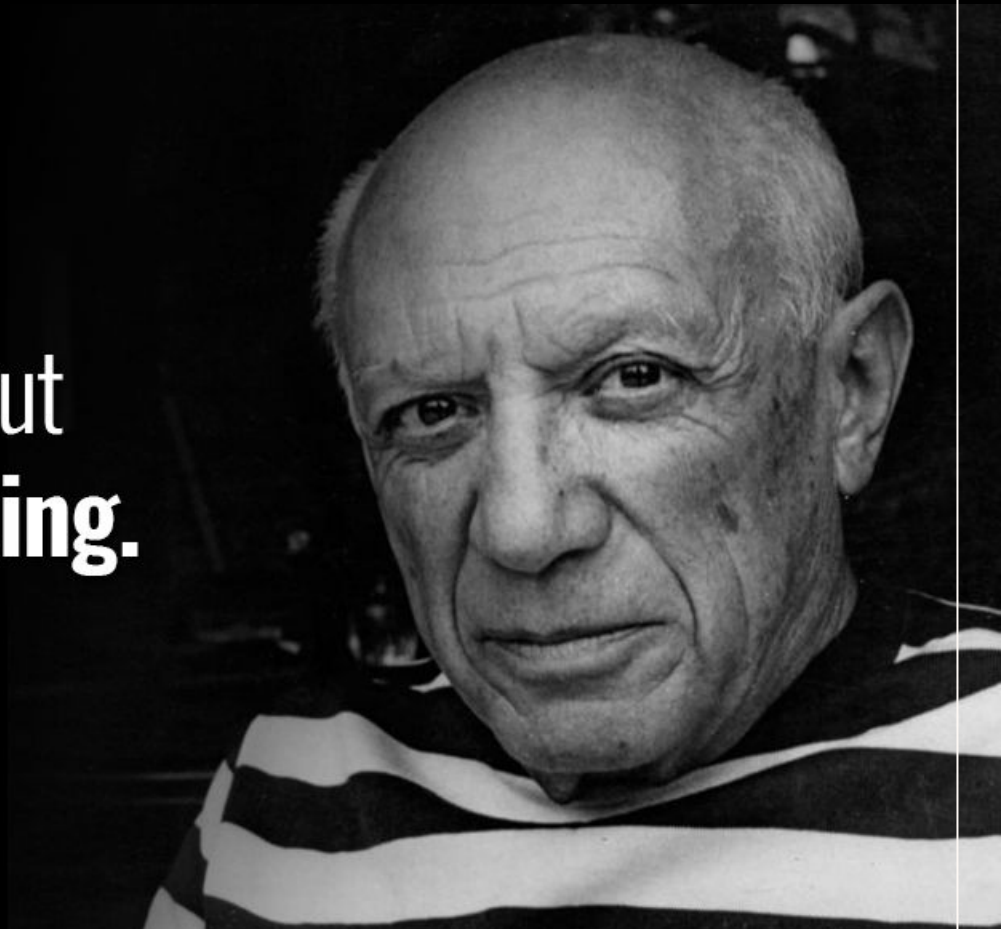|				
Inteligência artificial	Algoritmo	Big data	Disruptivo	Sinergia
Data science	Jornada do cliente	Transformação digital	Machine learning	Start-up
Deep learning	Empatia	FREE	Inovação	Escalável
Sprint	Chatbot	Chatbot	SEO	Experiência do cliente

Inspiration exists, but you have to find it **working.**

- Pablo Picasso

Obrigado!

Fabio Calzavara

📷 fabiofbc

in fabio_calzavara

M fabiofbc@hotmail.com

A Snapshot Of The Healthcare Consumer

Places A Premium On Personalization

A personalized experience from a provider is the **#1** US customer priority in healthcare.

Consumer Priorities in Health Care Survey. Deloitte, 2016

Takes An Active Role In Managing Their Health

28%

of surveyed consumers used technologies to monitor and manage their health, compared with **17%** in 2013.

Global Life Sciences Sector Outlook. Deloitte, 2017

Wants Their Data To Inform Their Experience

78%

of health-insured patients who own wearables want their doctors to have access to health data from these devices so providers can have more up-to-date views of their health (**44%**), use health data trends to be able to diagnose conditions before they become serious or terminal (**39%**), and give more personalized care (**33%**).

Connected Patient Report. Salesforce, 2016

Expects Providers To Have Access To A Complete Picture Of Their Health

78%

of patients believe it is important for any health institution, regardless of type or location, to have access to their full medical history in order to deliver high-quality care.

Patient Expectations of Medical Information Sharing. Transcend Insights, 2017

72%

of patients expect their doctors to easily share important information about their medical history - whenever or wherever they needed care.

Patient Expectations of Medical Information Sharing & Personalized Healthcare. Transcend Insights, 2017

Believes They Should Play A Role In Determining The Care They Receive

62%

of patients believe they should have full access to their records.

Connected Patient Report. Salesforce, 2016

75%

of consumers seek a partnership with their providers to determine the most effective treatment decisions.

What Matters Most To The Health Care Consumer? Deloitte, 2016
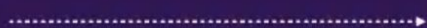
@PSFK
#FutureofHealth

psfk

6 Digital Transformations In The Healthcare Industry

Patient Records ·······▶ Personal APIs

Symptom-Centered ·······▶ Data-Focused

Doctor Assessment ·······▶ Cloud Diagnosis

Over The Counter ·······▶ Custom-Made Medications

Acute Treatment ·······▶ Omni-Care

Healthcare Silos ·······▶ Clinical Intelligence

12 Trends Driving Precision Care

LIVING DATABASE

1. Contextual Footprint

2. Networked Vitals

3. Pocket Laboratory

DYNAMIC ANALYSIS

4. Deviation Detection

5. AI Consultations

6. Networked Microscope

PRECISION TREATMENT

7. Genetic Prescriptions

8. Internal IV

9. Microbiome Building

10. Scaled Customization

11. Technology Rx

12. Machine Coaching

Tap into the existing sensor infrastructure of wearables, mobile and IoT devices to create a unified ecosystem of environmental and contextual monitoring, allowing for real-time behavior adaptations.

Aggregate personal data by syncing various databases together to have a more holistic understanding of personal behavior to easily identify problems before they arise.

Use sensors that are already embedded in mobile devices to analyze individual behavior and draw conclusions on their behalf to inform first-level decision making.

Analyze what variables are key drivers to users' lifestyle decisions and behaviors. Consider how you can create supplementary resources around these areas to support and encourage key behaviors.

Set up a follow-up alert system that categorizes results based on their importance and urgency.

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#FutureofHealth

psfk

04
Deviation Detection

Training always-on monitoring technologies to recognize deviations from a patient's normal health baselines that may indicate vulnerabilities to disease or illness.

Invest in systems that can aggregate various databases

in order to analyze and make connections between different data streams, providing insights about patient behavior and comparing it to the global population.

Create an infrastructure that allows healthcare providers, hospitals and medical facilities to share their data anonymously

with each other to build a more comprehensive snapshot of the population healthcare.

Treat AI enabled chatbots as part of the team by assigning medical personnel to oversee,

manage, review their work and provide feedback, so they can learn from their human counterparts.

Employ extensive security measures to protect patient data and personal information
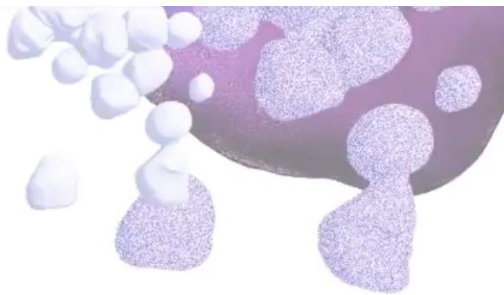
by tracking their day-to-day activity in the background to identify any deviations from the normal patterns of behavior.

Encourage individuals to establish long-term health goals

and provide in the moment assistance to help them to stay on track and course correct when needed.

@PSFK
#FutureofHealth

psfk

5 Strategies Driving Data-Driven, Precision Healthcare

01

Build 360 Degree
Data Profiles

02

Leverage AI Nurses
& Ambient Tech To
Humanize Care

03

Augment Human
Expertise With
Cognitive Analysis

04

Supplement Care
Through A System
Of Health IoT

05

Deliver Custom
Treatment Through
Dynamic Manufacturing