Dispelling the Myth of "Non-Disruptive" Disruption

Stephen K. Klasko, MD, MBA
President and CEO, Thomas Jefferson University and Jefferson Health
Distinguished Fellow, World Economic Forum

Jefferson | THOMAS JEFFERSON UNIVERSITY & JEFFERSON HEALTH | HOME OF SIDNEY KIMMEL MEDICAL COLLEGE

WHAT PLANET WOULD HAVE CREATED THIS SYSTEM???

Mayo Clinic furloughs, cuts hours of 30,000 employees to help offset $3B in pandemic losses

COVID-19 pushes Cleveland Clinic to $39.9M operating loss in Q1

AHA report: Hospital financial losses from COVID-19 expected to top $323 billion in 2020

What happened to Hospitals?

MAYO CLINIC	30,000 employees furloughed, $3B loss
Cleveland Clinic	$39.9m loss Q1
All Hospitals	Losses of $323B in 2020

What happened to Insurers?

Anthem	Up 14.9%, $2.3B profit
Cigna	Up 24.6%, $1.8B profit
CENTENE Corporation	100% profit increase
United Healthcare	100% profit increase

2030

“Go ahead, make my day.”

COVID Impact 2030

Healthcare has ~~broken~~ smashed the cost, access, quality and patient experience curve through a series of disruptive events and creative partnerships

HOW DID WE GET HERE?

Year 1: We change
Year 2: We change the industry
Year 3: We change the world

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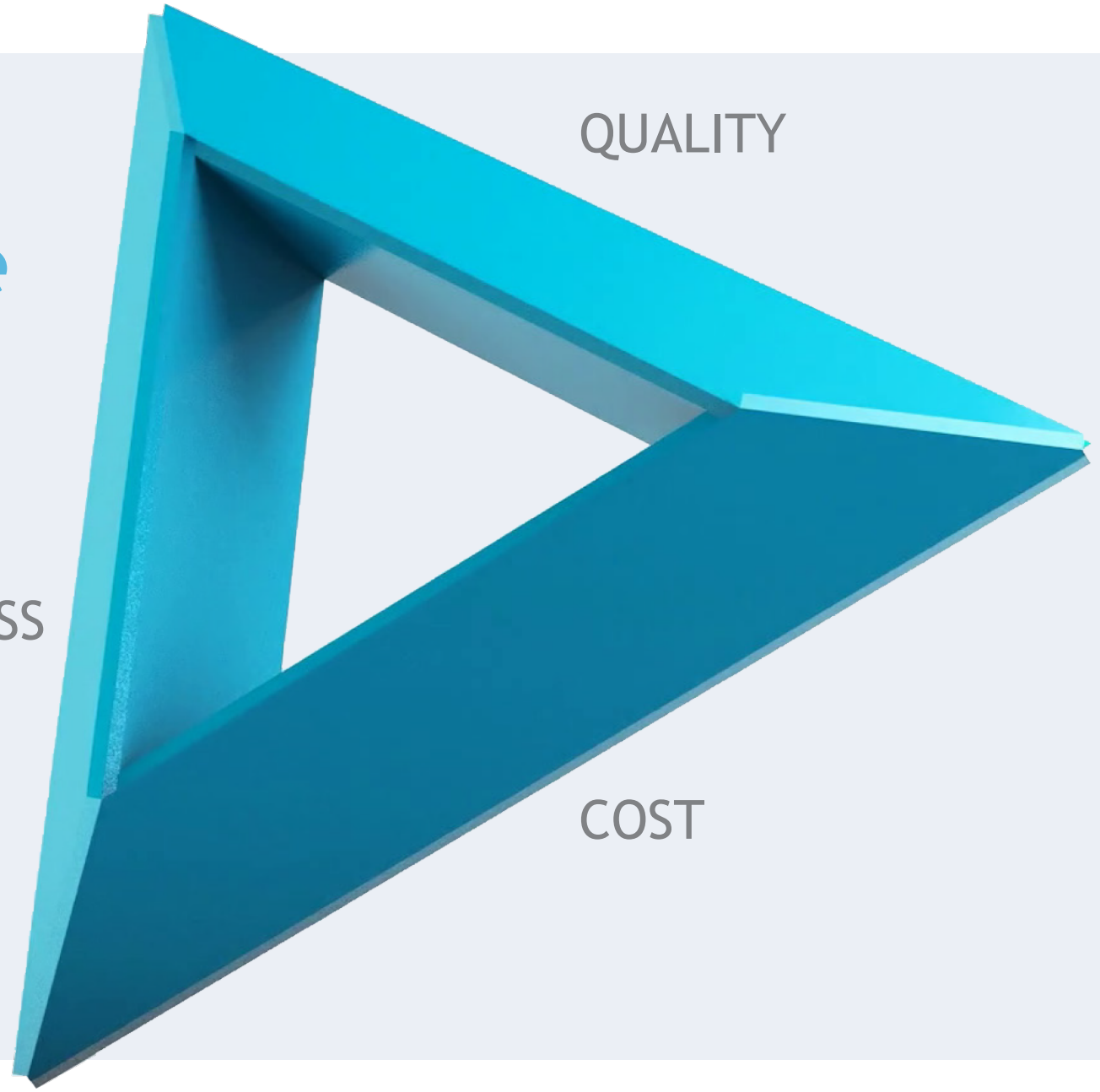
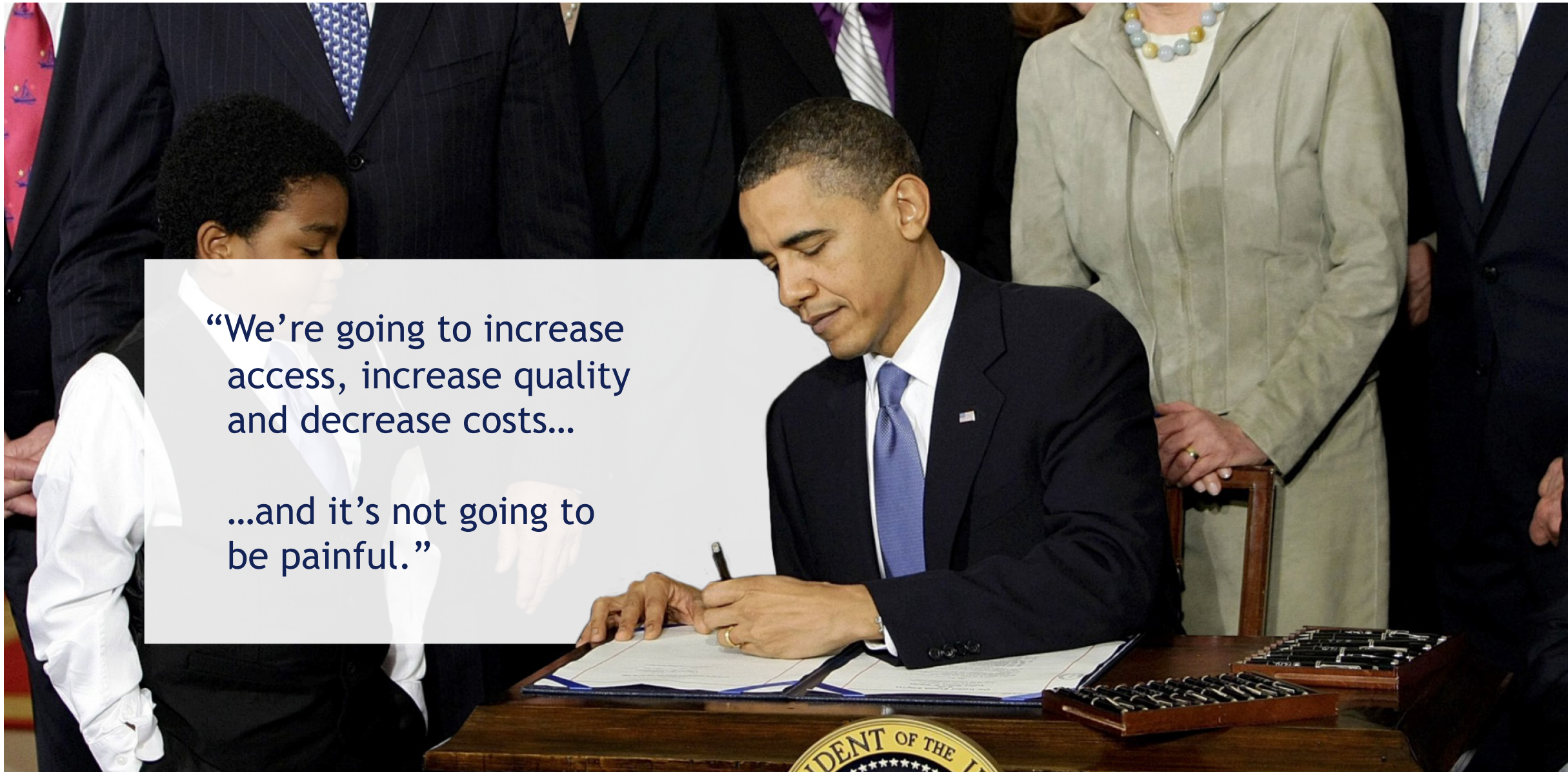
WE CHANGE

BACK IN 2020

Health Care Reform Has Managed To Confuse Everybody
ACTUALLY I'M NOT A DOCTOR... I'M THE HEALTH-CARE ADMINISTRATOR.
THAT'S OKAY. I'M NOT THE PATIENT... I'M HIS ATTORNEY.

The iron triangle of health care




"We're going to increase access, increase quality and decrease costs…
…and it's not going to be painful."

Beautiful
TERRIFIC
unbelievable
HUGE
HEALTH
PLAN

UnHealthcare: From Sick Care

B2B
WHOLESALE

Providers sell themselves to physician and insurers.

Employers make decisions on behalf of individuals and their families.

HOUSE MONEY

B2C
RETAIL

Providers sell themselves to consumers.

Individuals make decisions on benefits, Providers and course of care.

YOUR MONEY

CVS Health | aetna

Cigna

EXPRESS SCRIPTS

BERKSHIRE HATHAWAY INC.

amazon

JPMORGAN CHASE & CO.

amazon + WHOLE FOODS MARKET

CIVICA

What are People saying? HARRIS POLL

- **81 percent** of the respondents said shopping for healthcare services should be as easy as shopping for other types of services.
- **67 percent** of the respondents said it feels like every step of the healthcare process is a chore.
- **62 percent** of the respondents said the healthcare experience feels like it's intentionally set up to be confusing.
- **56 percent** of the respondents said they know people who will do anything to avoid seeking care because the healthcare experience is so poor.

~~IRON TRIANGLE OF HEALTHCARE~~

…. To Health Assurance

Ability to thrive and not have health get in the way

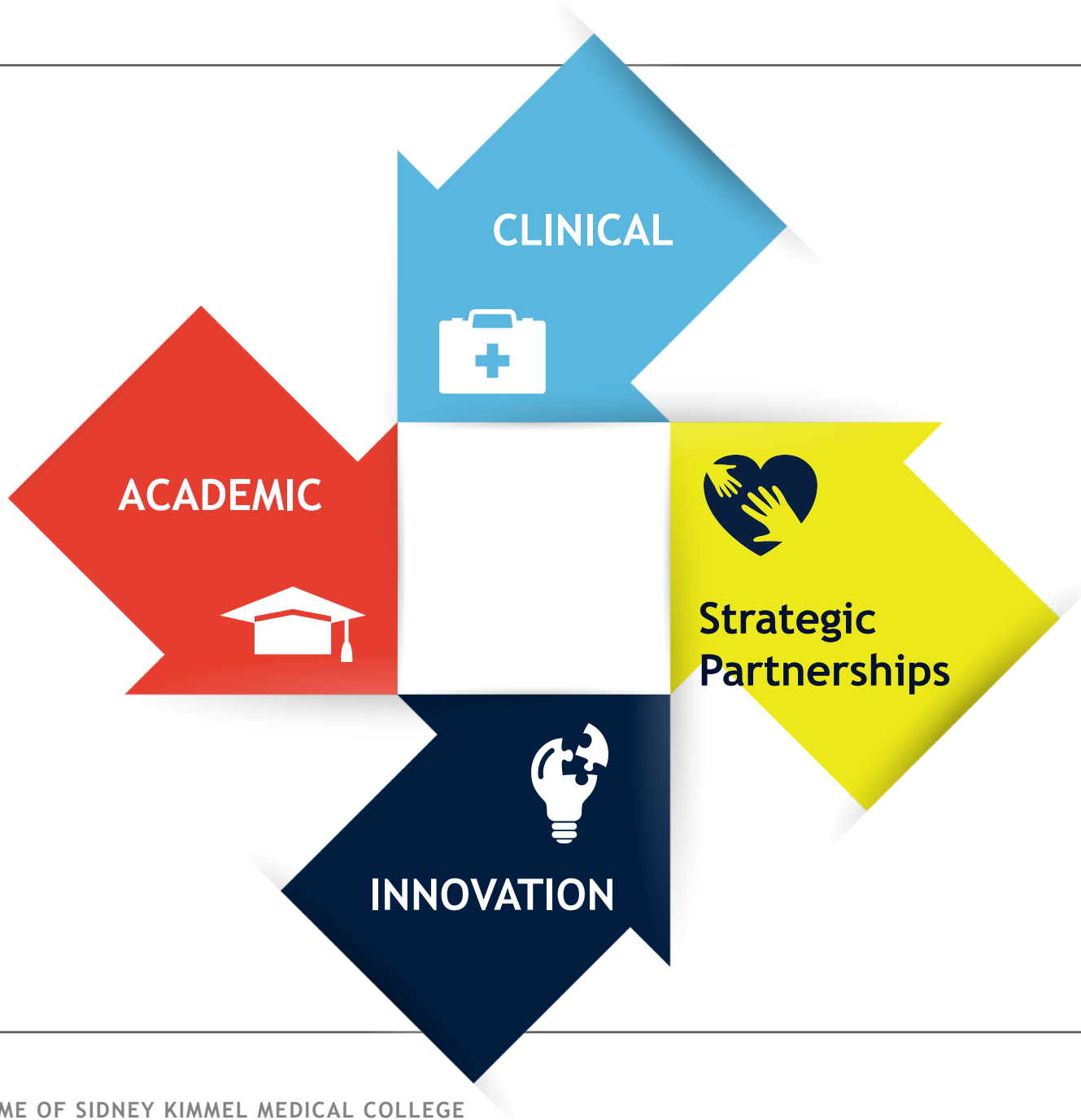
Ability to connect and have human relationships

Ability to easily navigate on their own terms

Ability to understand what they need to do

JEFFERSON PILLARS

OLD MATH: NEW MATH



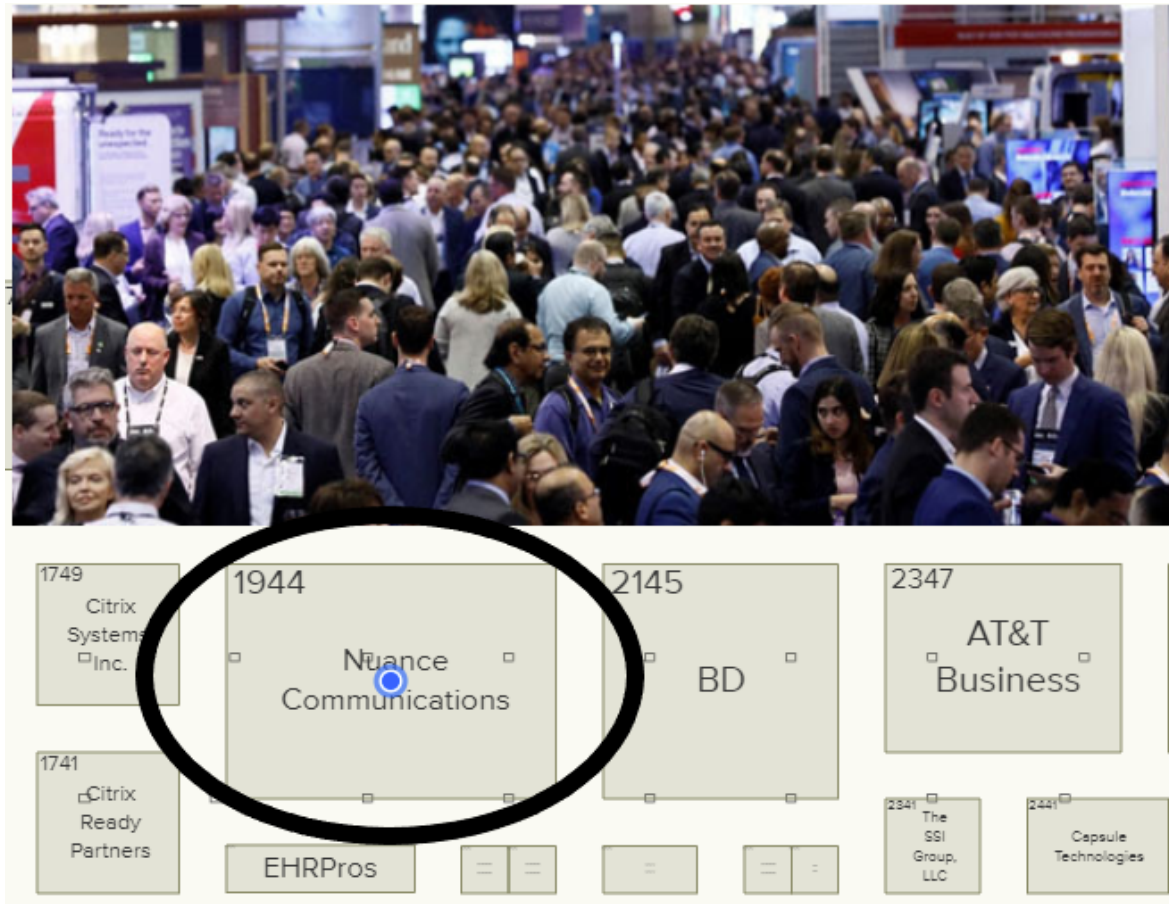
Can a 195 year old AMC make it acting like a start-up company?

ASSUMPTIONS

- Paid based on quality, cost patient experience and outcomes
- Hospital stays will be commoditized
- Our doctors and nurses will coexist (cooperate) with deep learning.
- Given the above, we will need to select and educate humans to be better humans than the robots, e.g. foster creativity
- Population health, predictive analytics, and social determinants need to move to the mainstream of clinical care, payment models and medical education

Retreating From Innovation Is Not an Option: Post COVID

- Build on disruption introduced by the pandemic
  - Remote monitoring
  - Virtual care delivery and rounds
- Set up structure to prevent innovation regression
  - Schedule a “minimum” number of virtual patient visits in each department
  - Prevent “backsliding”
- Establish innovation partners with different yet complimentary skills
  - **Don’t be a “vendee” be a partner**


1749
Citrix Systems Inc.
1944
Nuance Communications
2145
BD
2347
AT&T Business
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Citrix Ready Partners
EHRPros
2341
The SSI Group, LLC
2441
Capsule Technologies

LIVER WYMAN
NOMIES OF UNSCALE: RETHINKING COMPE
ANTAGE IN A CAPITAL-LIGHT WORLD
Glen Tullman
CEO, Livongo
Hemant Taneja
Managing Director, General Catalyst
Stephen K. Klasko,
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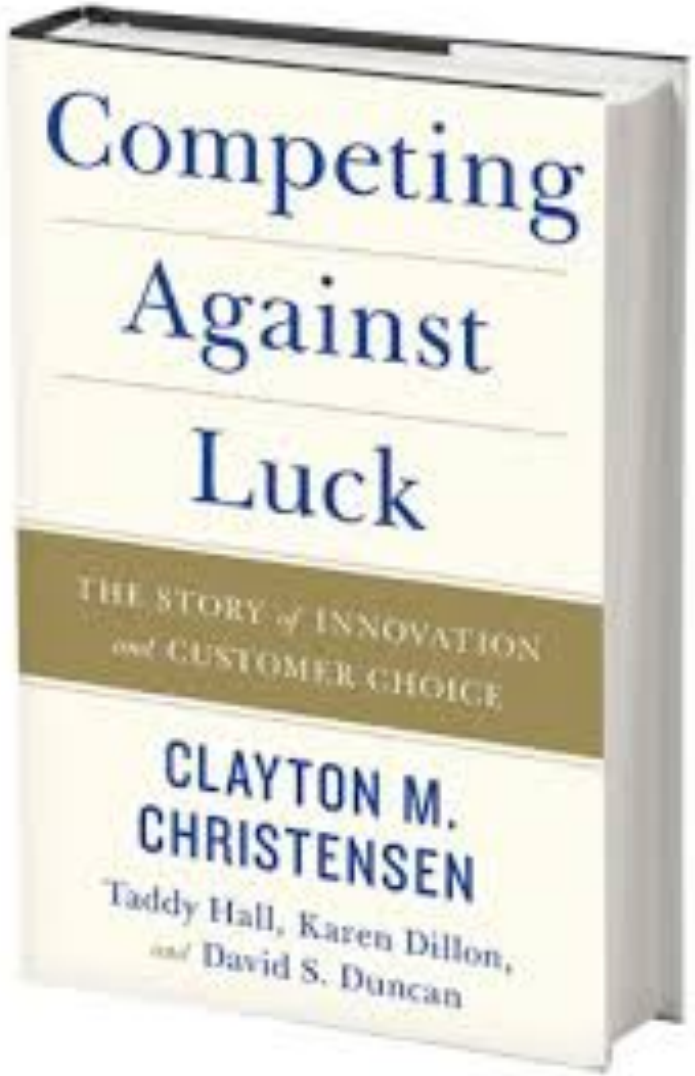
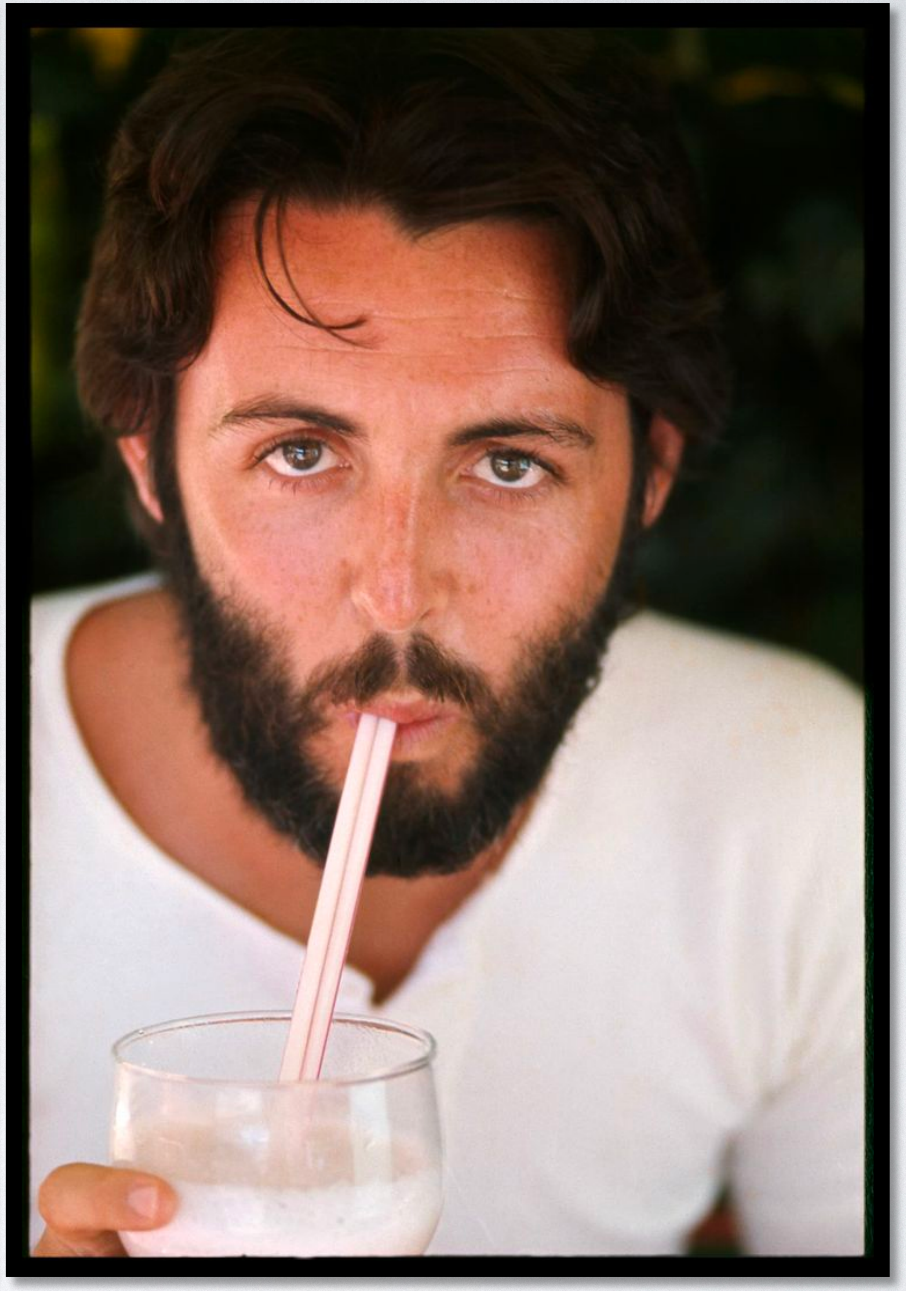

Competing
Against
Luck
THE STORY of INNOVATION
and CUSTOMER CHOICE
CLAYTON M.
CHRISTENSEN
Taddy Hall, Karen Dillon,
and David S. Duncan

#JTBD
Life + Business



Emergency

minute clinic
The care you need on your schedule
Welcome to Minute Clinic.
Team Members Only
Come on in.

UN-SCALED

20th century principles of mass production and economies of scale are ceding to mass personalization and rentable scale

airbnb

WARBY PARKER

UN-HEALTHCARE

Costly "sick care" is giving way to affordable, personalized, and preemptive care with genomics, sensors and AI-based digital therapies.

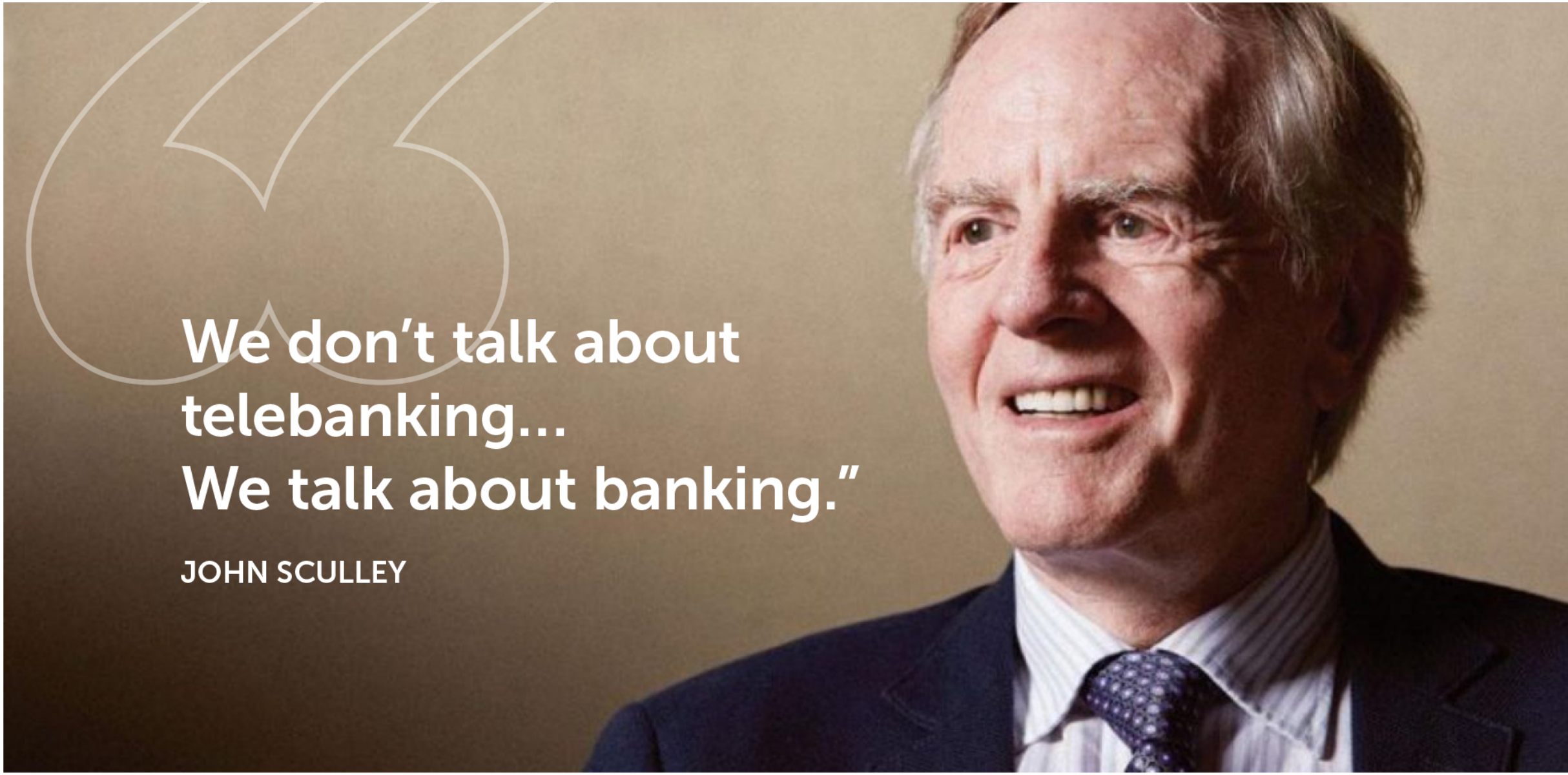
commure

ambulnz™

"We're delivering
Star Wars
technology in
Fred Flintstone's
delivery system."
– Dr. Freda Lewis-Hall

To meet the needs of patients to access their healthcare in the flexible manner in which they consume every other consumer good.

To redefine Jefferson Health based on our care and caring rather than our location.


We don’t talk about
telebanking...
We talk about banking.”
JOHN SCULLEY

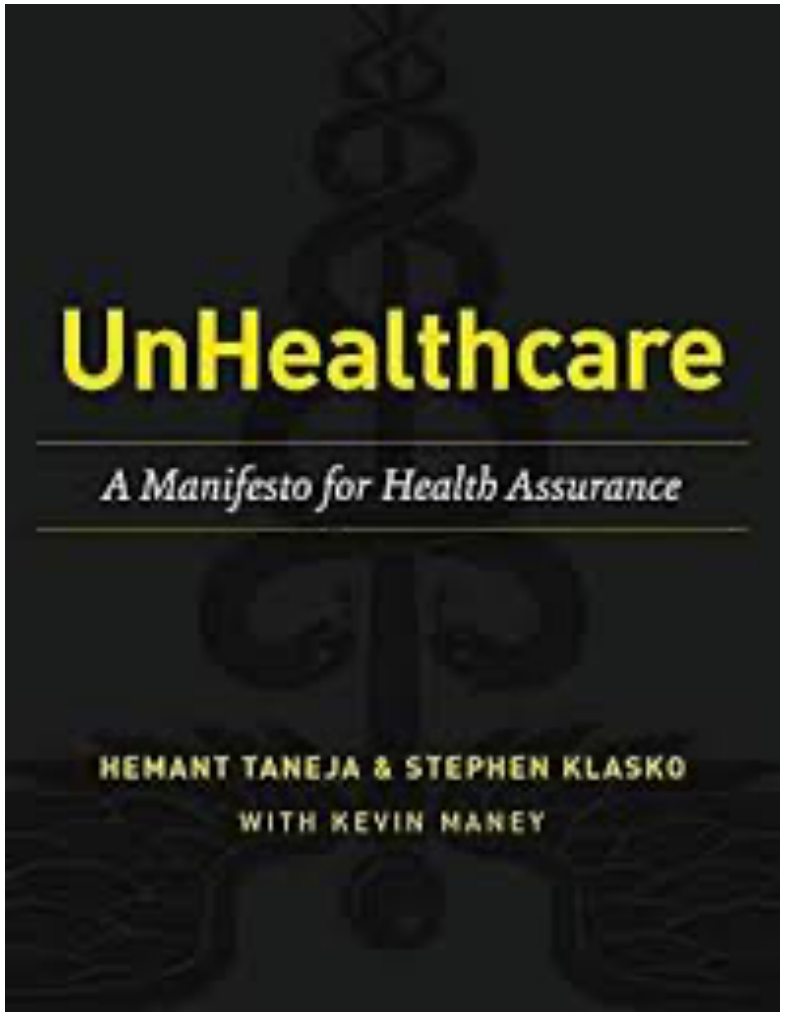
AN OBSESSION TOWARD MAKING WHAT'S DIFFICULT.

Teladoc HEALTH | Livongo®

IN HEALTCARE EASIER

Long Ideas | Healthcare

Teladoc And Livongo: Made The First Move In Telehealth; Huge Upside



CARES

CREATE APPLY RECENTER EVOLVE SCALE

Health Assurance: When Patients are People

Create a strong sustainable partnership between technologists and providers to remake medicine's role in society

Apply data and technologic advances to deliver the best preventative, supportive and least intensive care possible

Re-center the healthcare experience to focus on the relationship between the needs of individual people and their care providers

Evolve the payor-patient-provider system to one where incentives are aligned across all constituencies

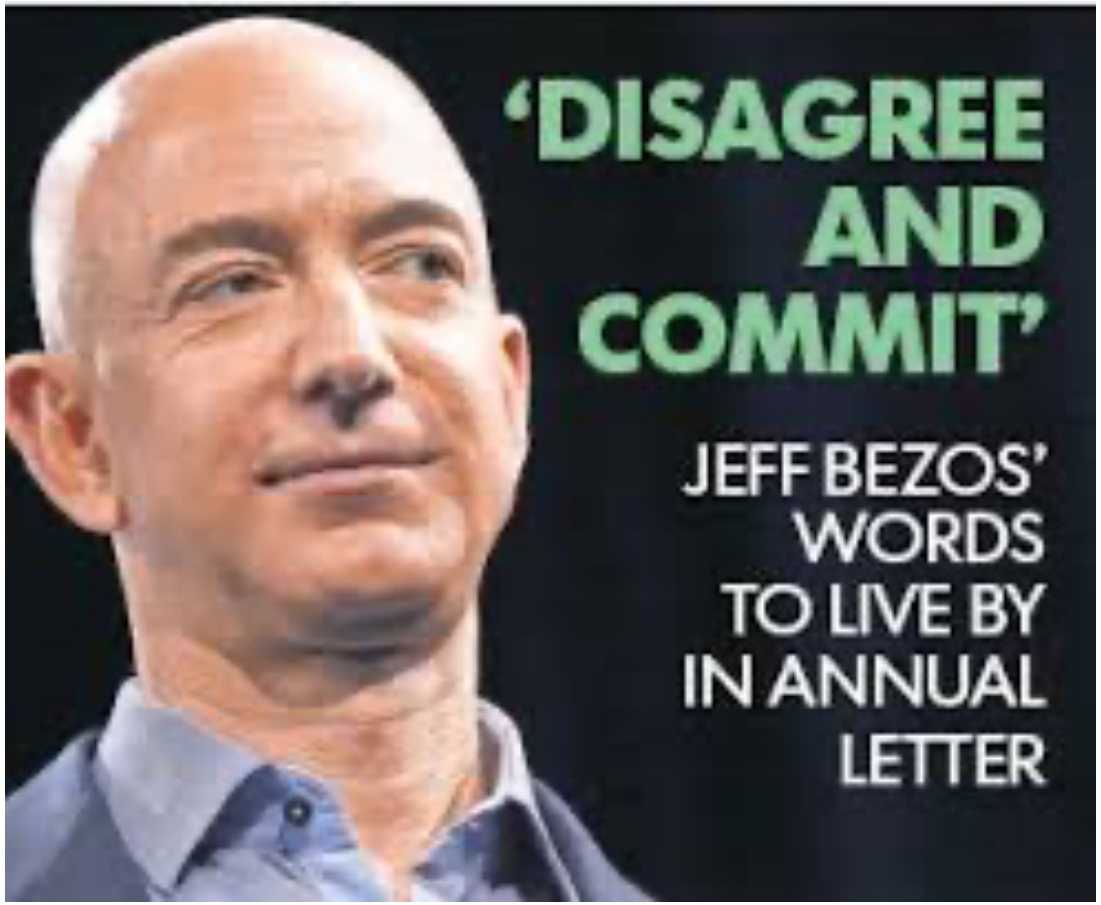
Scale a resilient model that can dynamically accommodate changes in demand

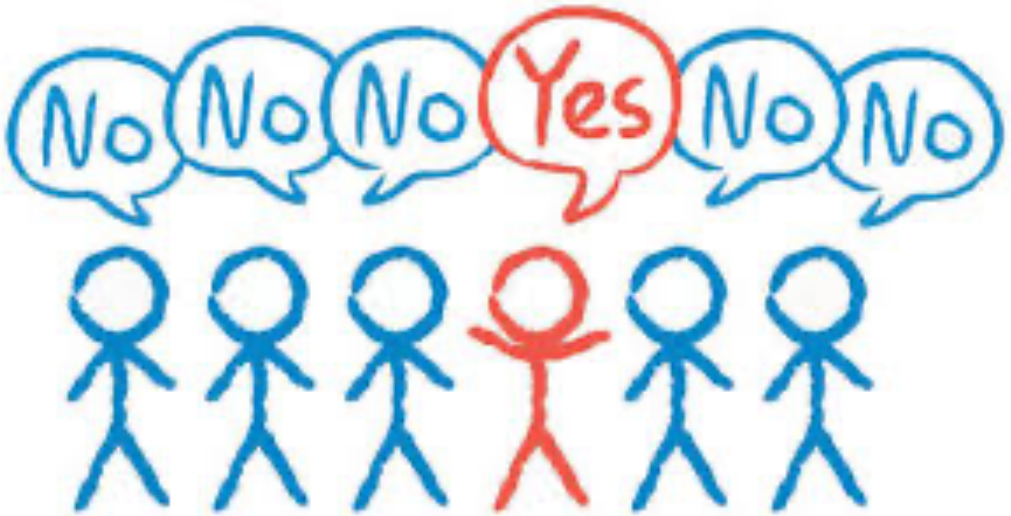
INNOVATION AS A GROWTH DRIVER

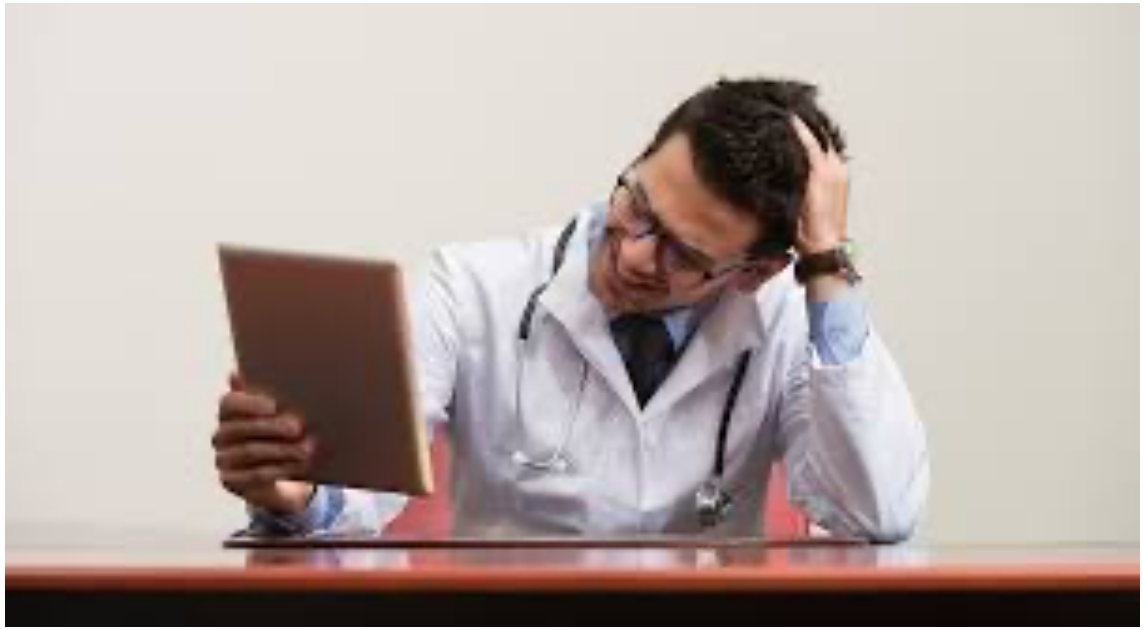
INNOVATION PILLAR

DIGITAL INNOVATION

STRATEGIC VENTURES


'DISAGREE AND COMMIT'
JEFF BEZOS' WORDS TO LIVE BY IN ANNUAL LETTER


No
No
No
Yes
No
No



doctors' strike

Today, for our employees, 60% of non-ambulance ER visits that utilize virtual triage and JeffConnect do not end up in our ERs:

- Urgent Care
- Direct Telehealth
- Next Day Office Scheduling

100,000 VISITS

5 YEARS

[JAN 2015 – JAN 2020]

VS

100,000 VISITS

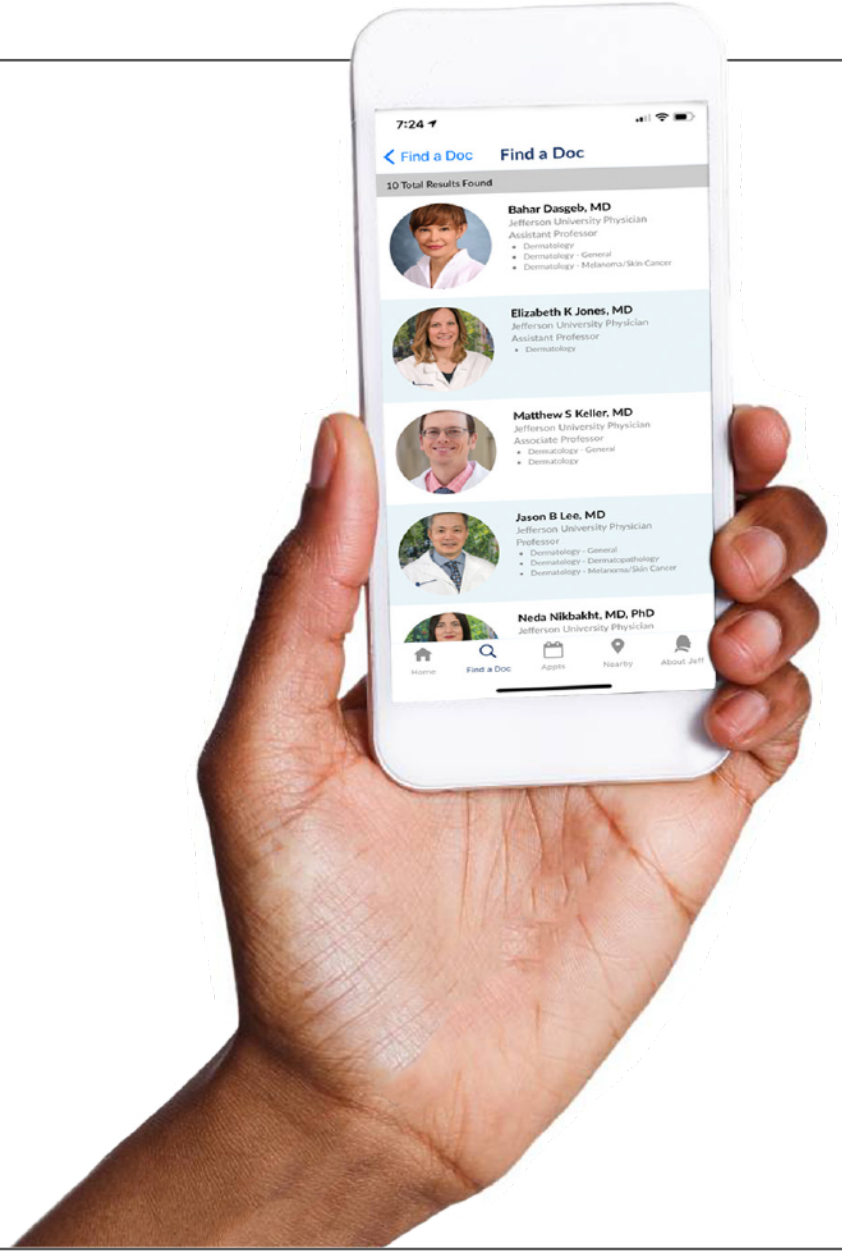
3 MONTHS

[FEB 2020 – APR 2020]

HEALTHCARE WITH NO ADDRESS

Care, like everything else: Digital

ACCESS | EXPERIENCE | CONVENIENCE



INPATIENT CARE

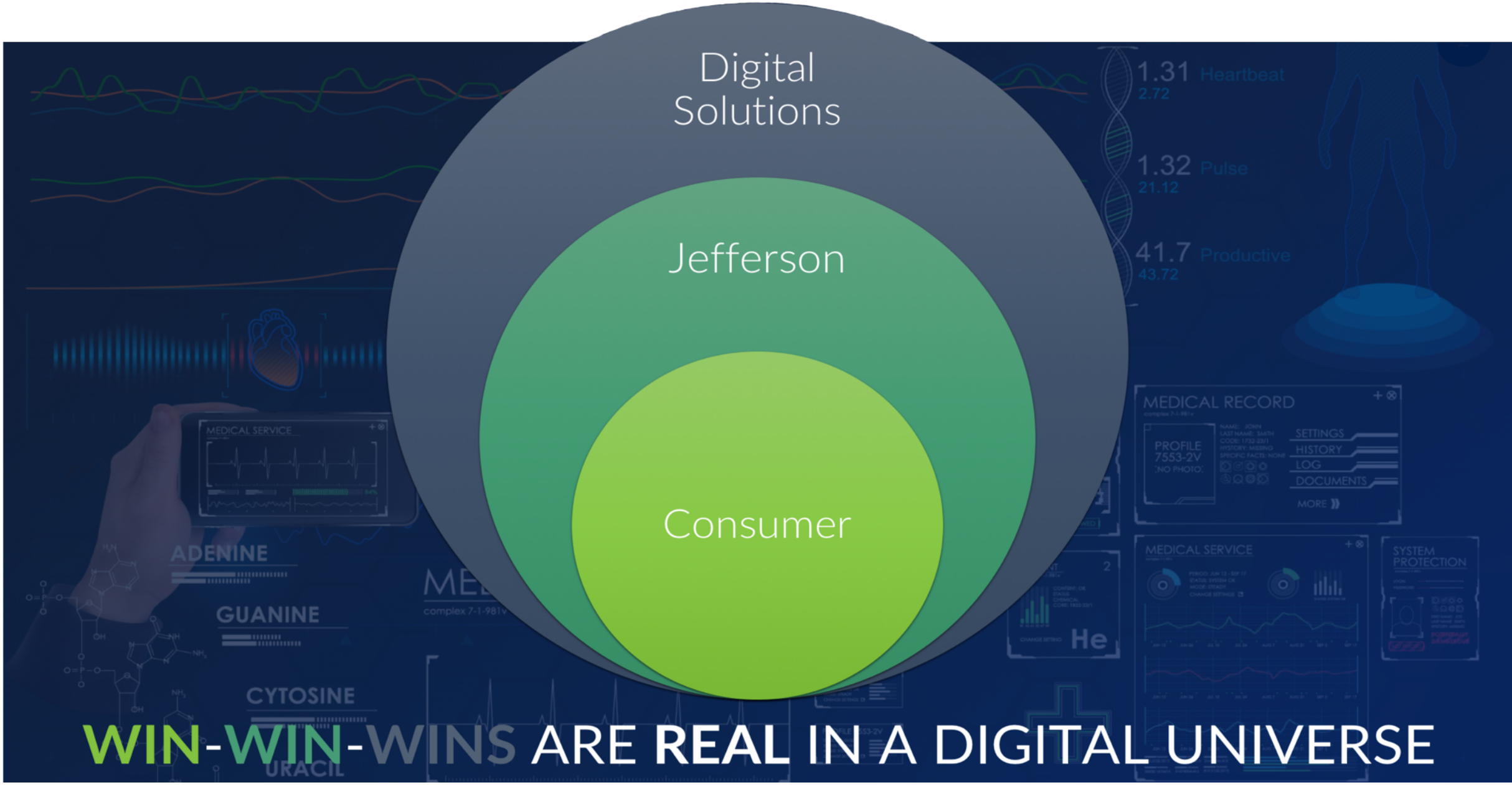
Virtual Rounds

- Include key family members in daily rounds
- Enable family members & physicians to participate in discharge planning
- Available to all inpatients

FINDING THE *RIGHT* DOCTOR SHOULDN'T BE SO HARD

APPOINTMENT REMINDER

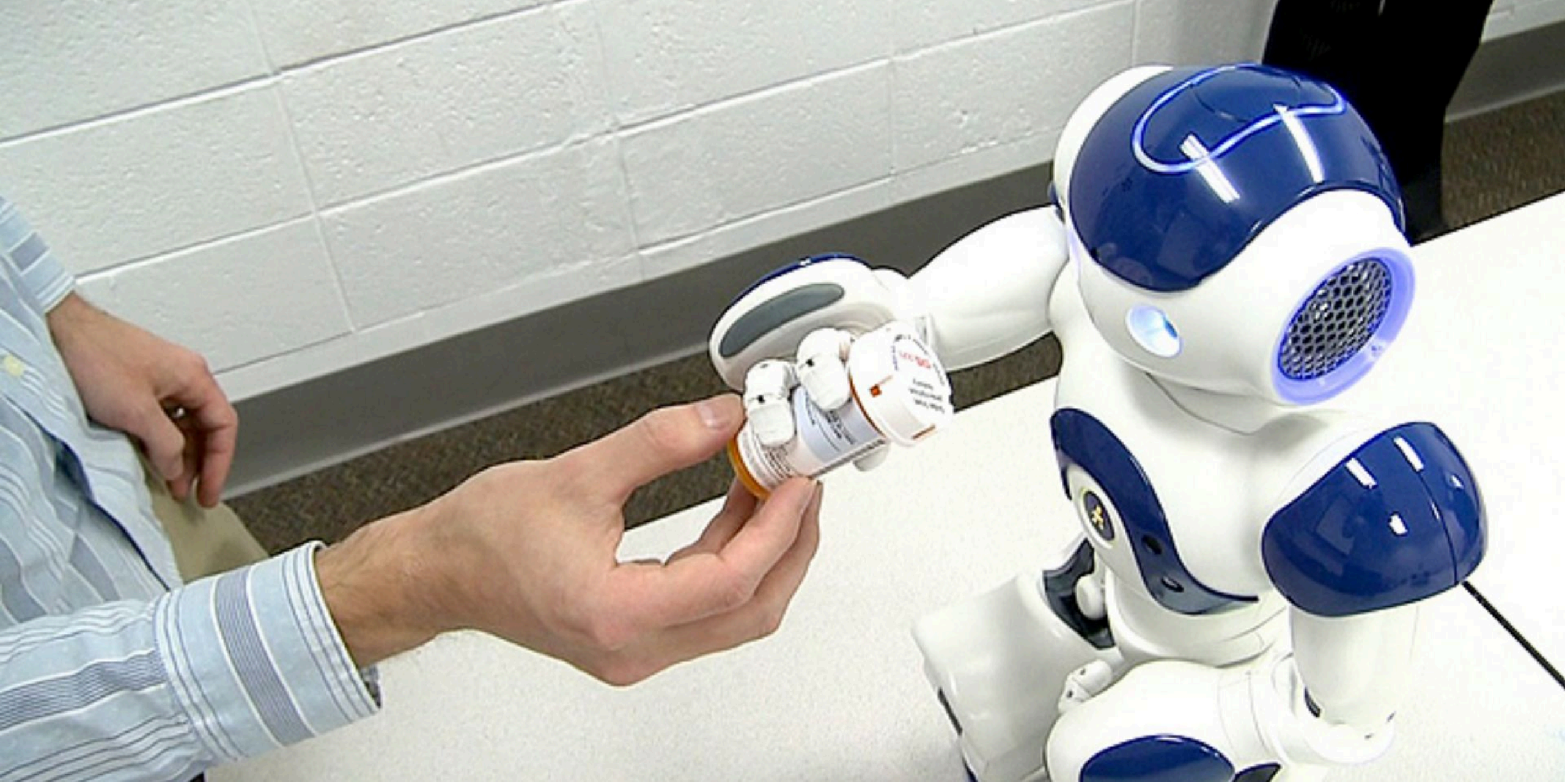
Convenient to You


Digital Solutions
Jefferson
Consumer
WIN-WIN-WINS ARE REAL IN A DIGITAL UNIVERSE

WE CHANGE THE INDUSTRY

AI

THE GOOD, THE BAD AND THE UGLY



The Telegraph

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Woman following sat-nav drives car straight into lake

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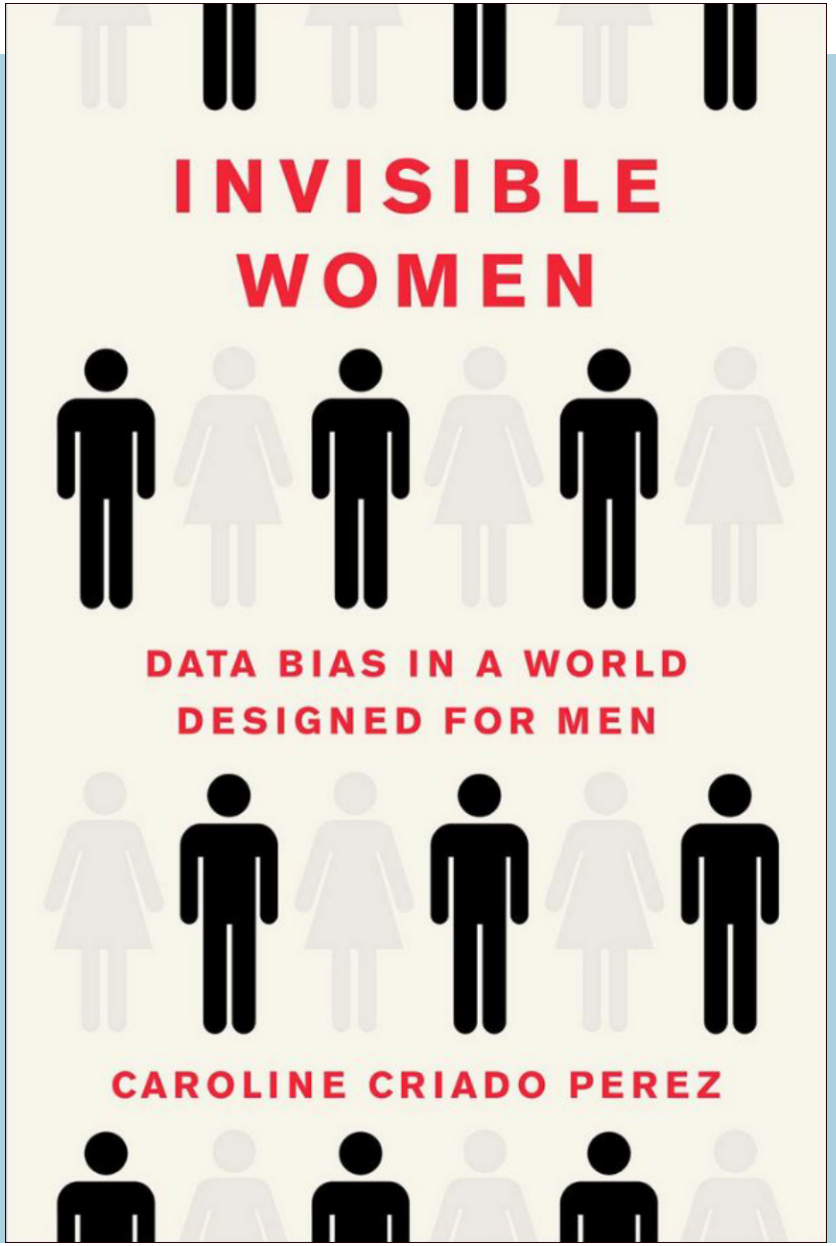
Over Trust

GENDER DATA GAP



nature

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NEWS · 24 OCTOBER 2019 · UPDATE 26 OCTOBER 2019

Millions of black people affected by racial bias in health-care algorithms

Study reveals rampant racism in decision-making software used by US hospitals — and highlights ways to correct it.

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2,191 views | Jun 25, 2019, 08:00am

How Conversational Artificial Intelligence Is Providing Companionship To The Elderly

Nicholas Fearn Contributor

AI & Big Data

Tech for good.

The Guardian

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NHS gives Amazon free use of health data under Alexa advice deal

UK health service will not gain commercial benefit from future Amazon products using its data

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SCIENCE TECH HEALTH

IBM's Watson gave unsafe recommendations for treating cancer

Doctors fed it hypothetical scenarios, not real patient data

By Angela Chen | @chengela | Jul 26, 2018, 4:29pm EDT

Vox

RECODE THE GOODS FUTURE PERFECT THE HIGHLIGHT FIRST PERSON PODCASTS VIDEO MORE

How data scientists are using AI for suicide prevention

The Crisis Text Line uses machine learning to figure out who's at risk and when to intervene.

By Brian Resnick | @B_resnick | brian@vox.com | Updated Jun 9, 2018, 7:22am EDT

CONSUMER SEGMENTATION

1. Nobody knows what it costs to acquire a patient.
2. Nobody knows what it costs to retain a patient.
3. Nobody knows what it costs to prevent leakage
4. Patients and members, both new and existing, will tell you that healthcare marketing has zero impact on who they choose as their provider and payer.
5. Providers and payers will continue to spend money on marketing campaigns that do not resonate with anyone outside of marketing.

Healthcare Marketing is mired in the 1990s

Guide consumers by giving them the information they need to make good decisions about their health

- Consumers who are disengaged in managing their own healthcare are often unsatisfied and drive up costs

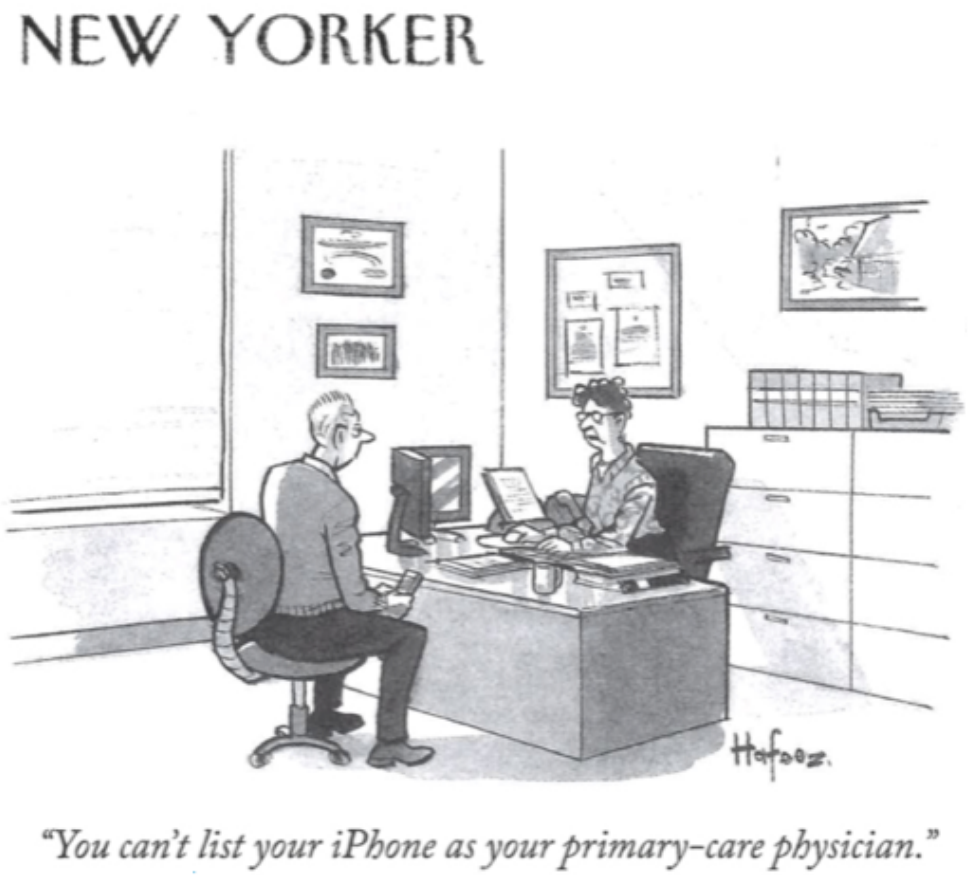
Find convenient ways for consumers to connect with the healthcare community

- Be Amazon, Target, Walmart
- Don’t Be Macys, Sears, Penney’s

Inspire loyalty

- Learn from success of other industries
- Demonstrate value for money
- Give consumers a single point of contact
- Create a seamless experience across the continuum

THE RISK OF TECHNOLOGY VS. TOUCH



DIFFERENTIATOR #1

"We Need an Extreme Makeover of Medical Education."

DR. ROWAN MOLNAR

"Technology will replace 80% of what doctors do."

VINOD KHOSLA

"Any doctor that can be replaced by a computer should be."

START FROM THE BEGINNING

Doctors in 2020 were chosen based on 3 criteria:

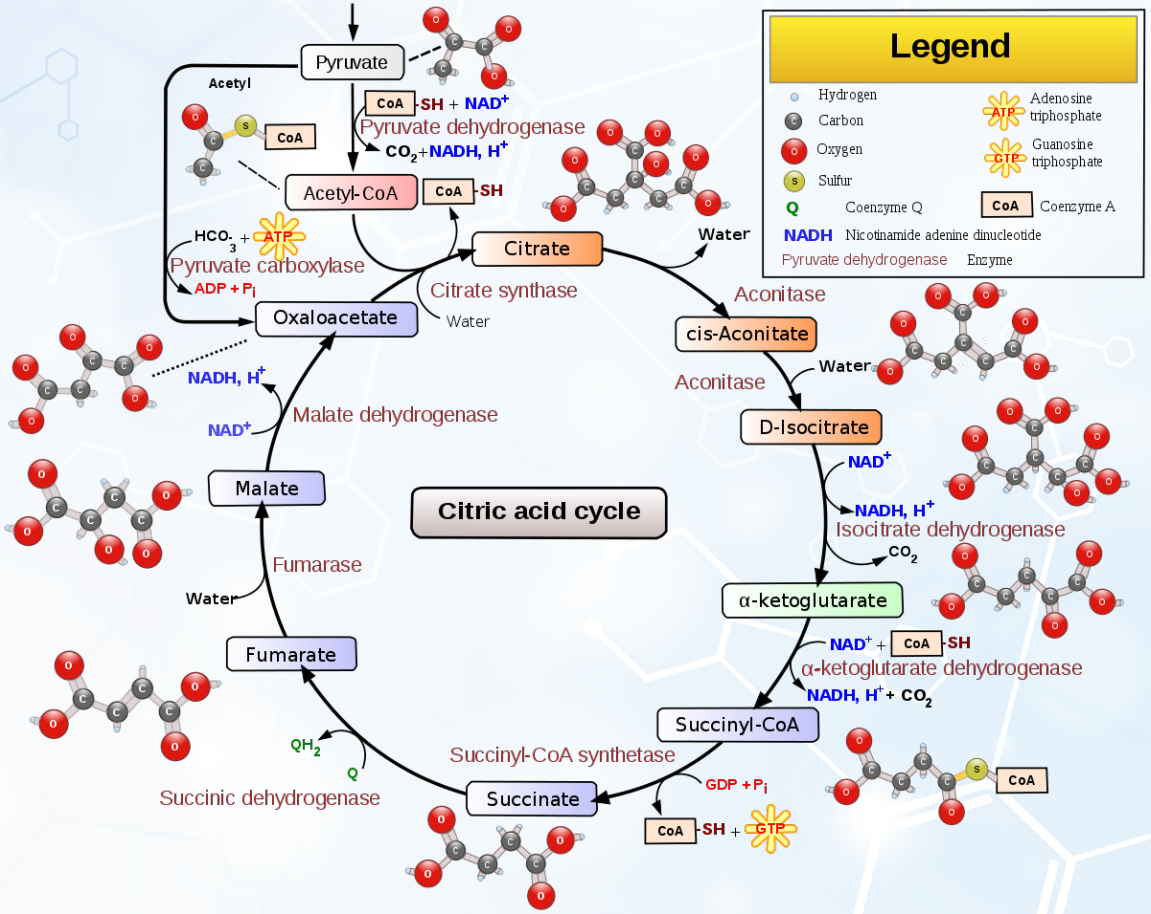
- Science GPA
- MCATs
- Organic Chemistry Performance

...AND SOMEHOW WE'RE AMAZED

Doctors in 2020 aren't more:

- Empathetic
- Communicative
- Creative

ORGANIC CHEMISTRY



WHAT'S GOING ON IN THIS PICTURE?

Physicians of color are far too rare. This Jefferson study highlights one potential reason.

by Sarah Gantz, Updated: September 24, 2019- 5:00 AM

GETTY IMAGES

Overemphasizing test scores may make radiation oncology residency programs too white, according to a new study by researchers at Thomas Jefferson University.

Radiation oncology, like most other medical specialties, has a dearth of minority doctors and

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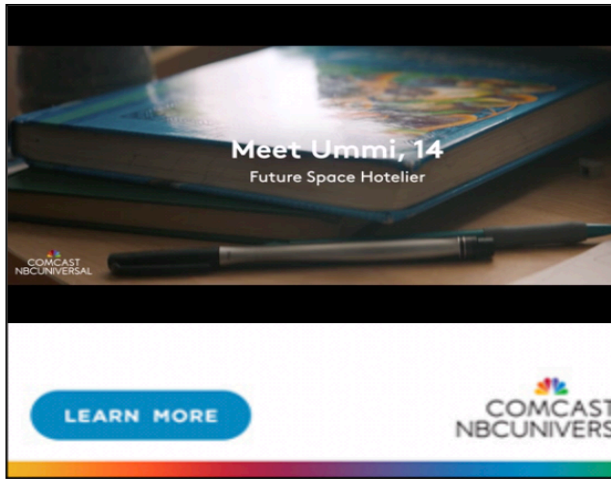

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OBLIGATION

To teach our health professionals to be ready for what will happen ten years from now today.

70% of Physicians Practicing 3 Years or Less Felt they Did Not Learn What They Need Most in Practice

- Management of Change
- Negotiations
- Healthcare Financing
- Effective Communication
- Making Patients Happy
- Individuals in an Organization
- Leadership Development
- Running an Effective Meeting
- The Fourth Industrial Revolution

JOLT: CHANGING CULTURE

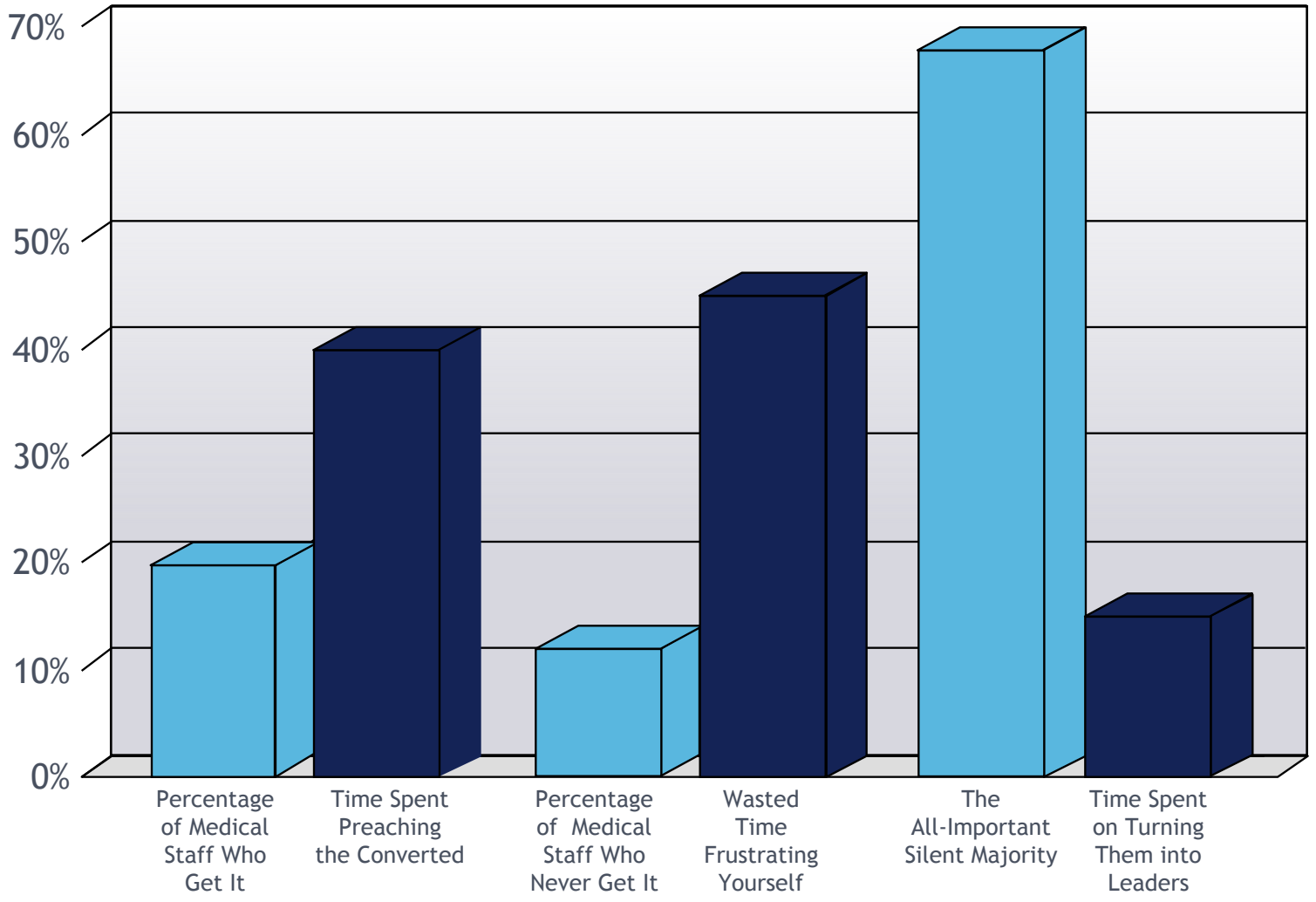
40 senior leaders yearly

Application process, sponsor involvement, executive approval

Three highly integrated streams in a 9-month program

- Classroom
- Project/Sketch Assignment
- Executive Coaching

PHYSICIAN ATTITUDES VS. ADMINISTRATORS TIME CHANGING THEM



OUTCOMES

- Competency Development
- Readiness for Leadership Roles
- Projects
- Participant Feedback
- Sponsor Feedback
- **Physician Burnout**

JOLT
325% IMPROVEMENT IN DEALING WITH DIFFICULT ISSUES AND SITUATIONS
325%

THE RIGHT WAY

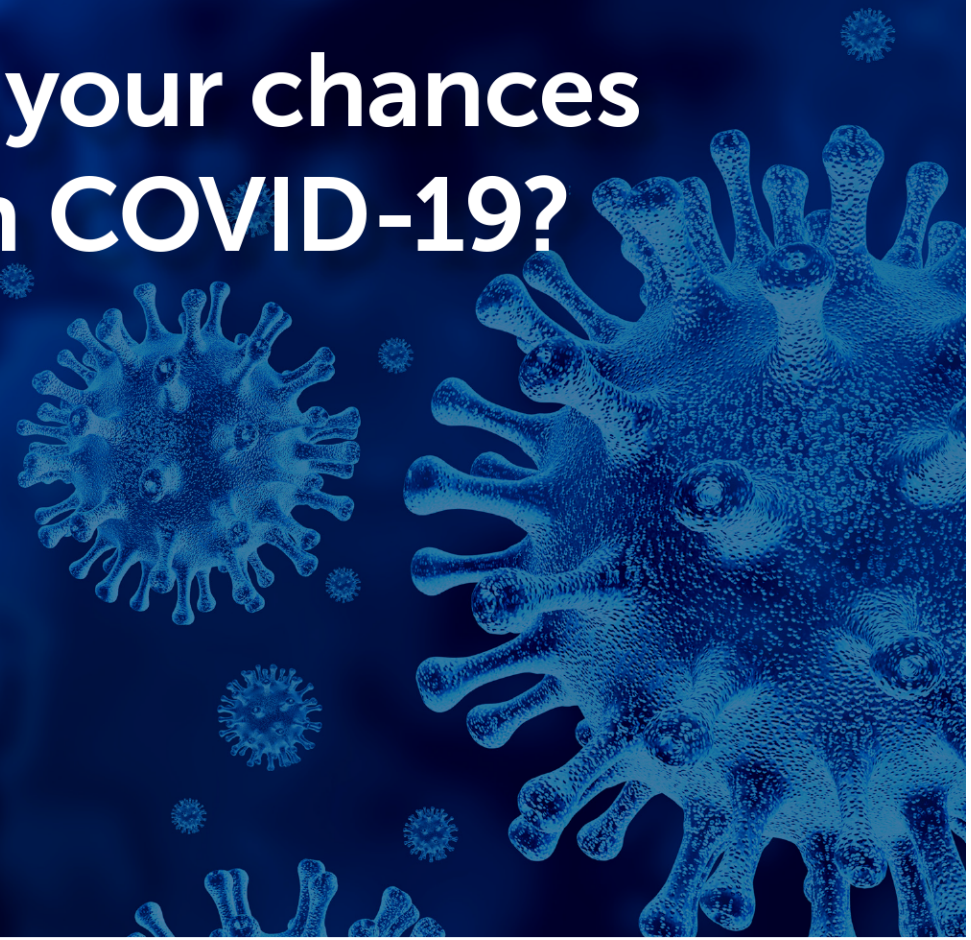
- **133%** commitment to and engagement in ensuring TJU's success
- **200%** work in teams
- **167%** effectively communicate and influence
- **250%** loyalty to organization
- **80%** willingness to serve in a leadership capacity

WE CHANGE
THE WORLD

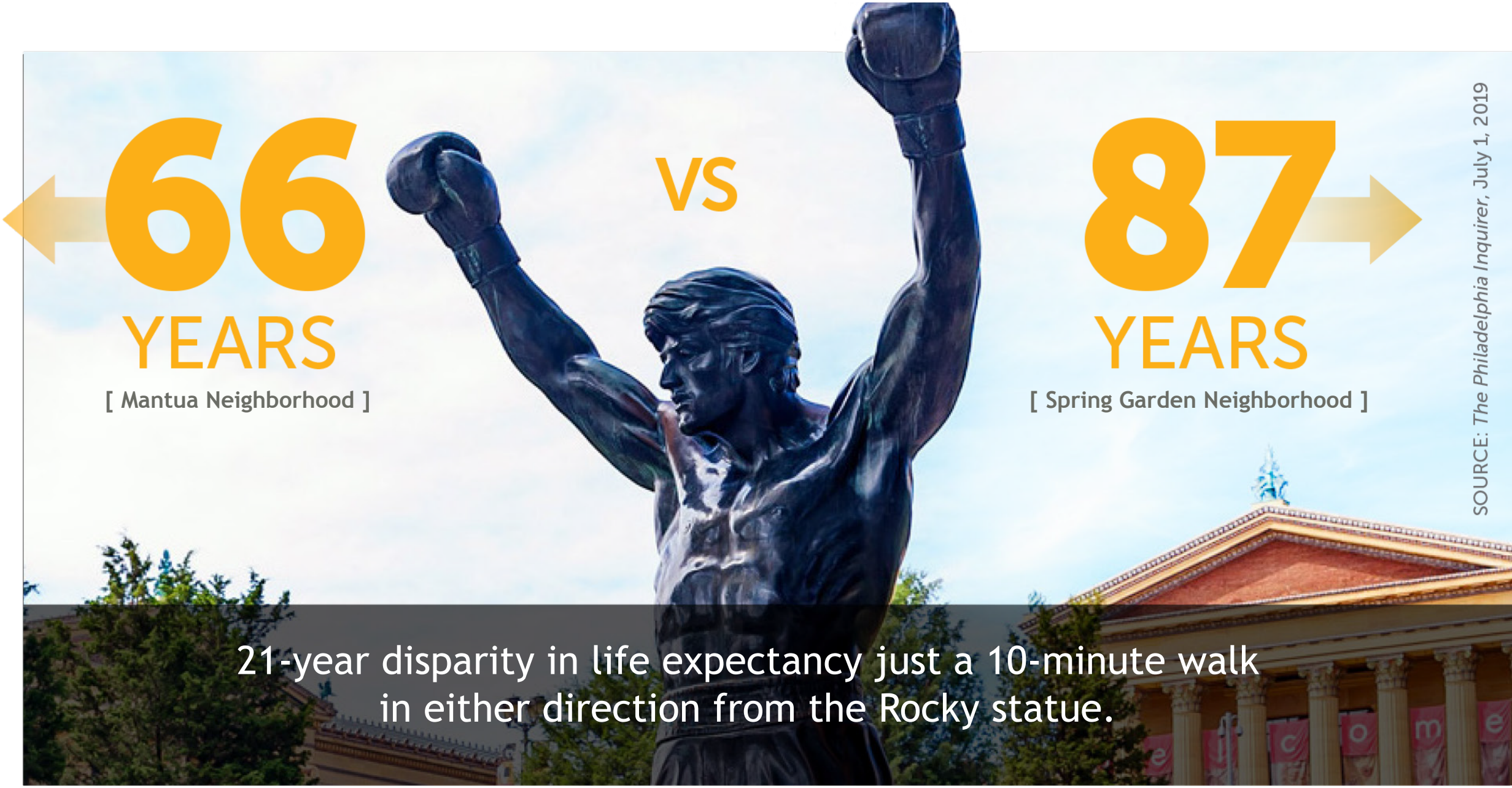
CoronaQuiz

What contributes most to your chances of becoming infected with COVID-19?

- [ ] Your Genetics
- [ ] Lack of Social Distancing
- [x] Your ZIP Code



Robots &
Humans
Working together
to provide
better health.


66
YEARS
[Mantua Neighborhood]
VS
87
YEARS
[Spring Garden Neighborhood]
SOURCE: The Philadelphia Inquirer, July 1, 2019
21-year disparity in life expectancy just a 10-minute walk
in either direction from the Rocky statue.

Modern Healthcare

Do we need a Greta Thunberg in healthcare?

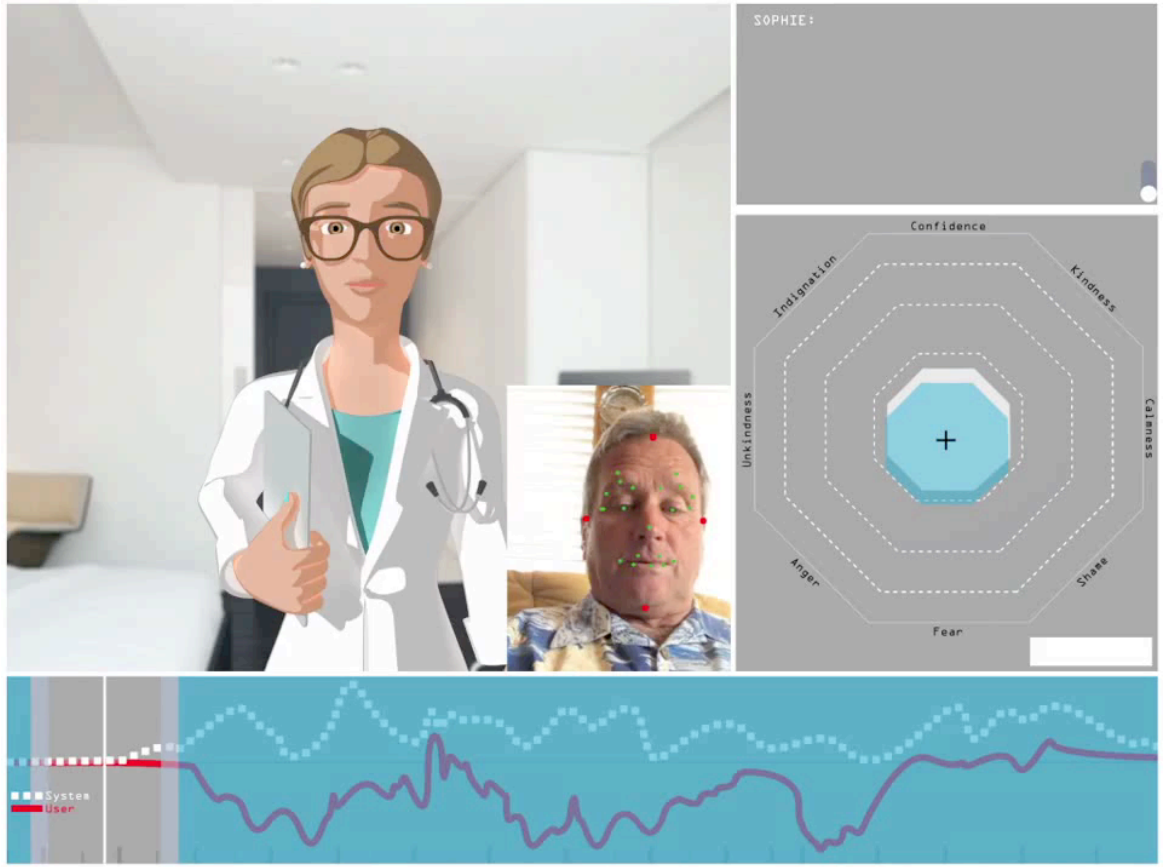
Dr. Stephen Klasko | January 31, 2020

"After a week at the World Economic Forum in Davos this month, I'm convinced the globe faces two existential threats that demand disruption of our businesses, our policies and indeed our lifestyles: climate change and health assurance for all."

DELIVERY
Trader Joes 86 mi
Whole Foods 120 mi

2030

ROBOTS AND HUMANS WORKING TOGETHER TO PROVIDE BETTER HEALTH…FOR EVERYONE!



How Do We Not Just Make the Wealthy Healthier?

- We need large scale transformations in healthcare to both survive as a business and to have a positive societal outcome
- True disruption means threatening your existing product line and your past investments. Breakthrough products disrupt current lines of business.
- There is no such thing as non-disruptive disruption
  - It will be painful for those who don't want to think differently as new ecosystems are built
  - The fourth industrial revolution will give us the tools and data to do this but we need to proactively address the human and ethical consequences
  - Social determinants and health inequities need to move from academic ponderings to the mainstream of clinical care and health policy

Sick Care

Health Assurance

CYBERSECURITY: THE NEXT HOSPITAL BOARD CRISIS

U.S. consumers were asked which is more important to them—
data security or convenience regarding access to different kinds of health data

“The Amazon Moment in Healthcare Is Coming!”

- From sick care to health assurance (people are not patients until they are sick)
- From hospital to home, from the physician and administrator as the boss to the patient as the boss
- From static to continuous data—”abolish the physical”
- From humans as robots to humans as humans

THE TEN YEAR GAME-CHANGER

Deep Learning, Machine Cognition, Augmented, Intelligence

By 2022

25% of hospitals with $1 billion of net revenue were providing real time genomic based decision support at the time of Rx writing

By 2024

20% of the population with chronic conditions were relying on virtual health assistants for wellness and management

By 2025

Health systems have moved from “sick care” to health assurance; Health policy rewards healthy choices; Food a
home environment are among the variables in how health systems are paid

By 2029

For the first time, the majority of interactions were virtual or remote and the majority of those involved AI or machine cognition applications

A New Educational Paradigm

Transplanting Medical Advances and Knowledge into Improved Patient Care Through Procedure Rehearsal Studios

SEE ONE
DO ONE
TEACH ONE
NO MORE

Simulate!

IS YOUR SURGEON QUALIFIED?

Can they prove it?

MOST IMPORTANTLY, WE HAVE TO…