



# The Now, New, and Next Normal: Digitization in a Post COVID-19 World

Thrive, Don't Just Survive

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**Chief Information Officer**  
**LIMRA and LOMA**

- 20+ years in Information Technology
- Diverse technology experience
- Broad range of industries
- ~10 years at Liberty Mutual Insurance
- Dover, NH resident for 25+ years



## Welcome and Good Morning Asia

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おはようございます    早上好    صباح الخير

नमस्ते    สวัสดีตอนเช้าค่ะ    magandang umaga

早晨    සුභ උදෑසනක්    မင်္ဂလာနံနက်ခင်းပါ    доброе утро

*Selamat Pagi*    좋은 아침    goeie more    Buenos días

Habari za asubuhi    kia ora    ສະບາຍດີຕອນເຊົ້າ    អរុណសួស្តី

# Today

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1.



What's Happened – The **Now** Normal

2.



At the Core – The **New** Normal

3.



The World's Our Oyster – The **Next** Normal

4.



Q & A

# The Eras

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**NOW** **NEW** **NEXT**  
NORMAL

March 2020 – Q1 2021

**NOW** **NEW** **NEXT**  
NORMAL

March 2020 – Q4 2023

**NOW** **NEW** **NEXT**  
NORMAL

Q1 2024 -

# chapter

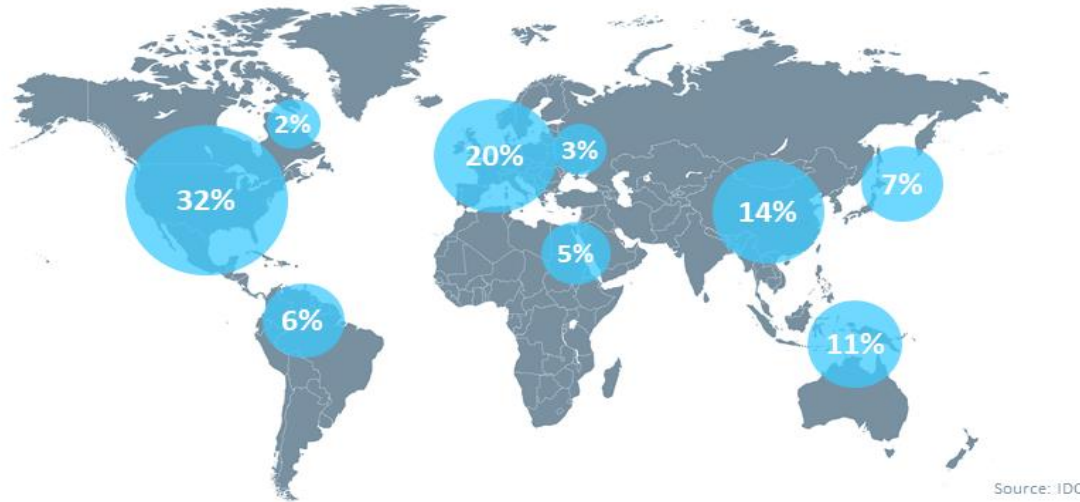
# 1

## The Now Normal Becoming Digitally Aware

# The Past is Where Our Story Begins...

## The Global Information Technology Industry: \$5.2 Trillion

Estimated 2020 spending at constant currency | Encompasses hardware, software, services and telecommunications



2015	2020
7.2 B	7.75 B
3.01 B	4.54 B
3.6 B	5.2 B

Source: Hootsuite

## Virtually There and There Virtually...

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2018



2019



# TRANSFORMATION

CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS  
CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS  
CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS CHAOS

disruption

Who did this to us?!

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# Technology

# Let's Orient Ourselves

1



## DIGITAL TRANSFORMATION



Radically improve performance or reach of enterprises via technology

Innovation | Agile | Automation | Cloud | AI & Bots | Design Thinking

2



## DIGITAL STRATEGY



Leverage digital technologies to meet organizations & divisional strategic objectives

Customer-Focused | LL Global Goals | 2-3 Year View

3



## DIGITAL MARKETING STRATEGY



Marketing Strategy used to attract, engage, retain & convert customers online

Social Media | SEO | Analytics | Content Marketing | Leads | Ads

## Industry Change – Speed is relative

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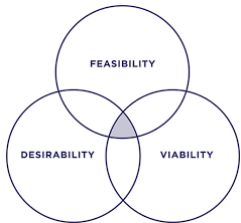
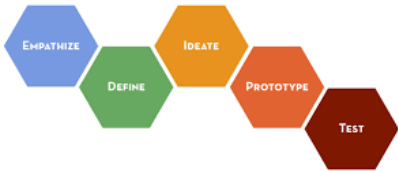
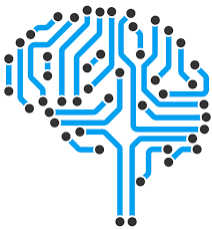
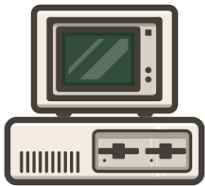


Property and Casualty



Life and Annuities

# Unprecedented. Breakneck. Accelerating



# Balancing Strategic with Operational



1



**CONTINUALLY  
ACCELERATING PACE  
OF CHANGE**

2



**TIME,  
MONEY,  
RESOURCE**

3



**CHANGING  
SKILL SETS  
WITHIN INSURANCE**

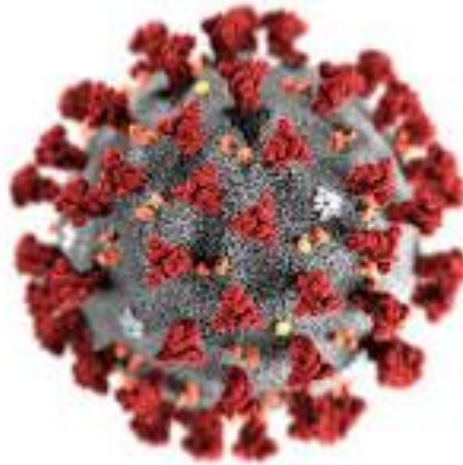
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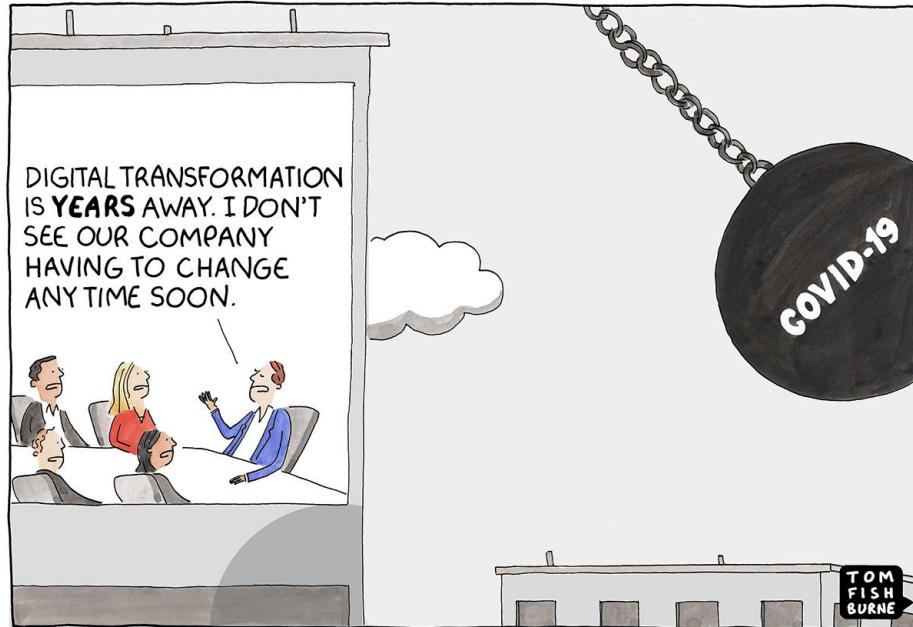
**BURDENSOME  
AND BRITTLE  
LEGACY SYSTEMS**

## And Then This...

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## Read the Room, COVID-19



© marketoonist.com

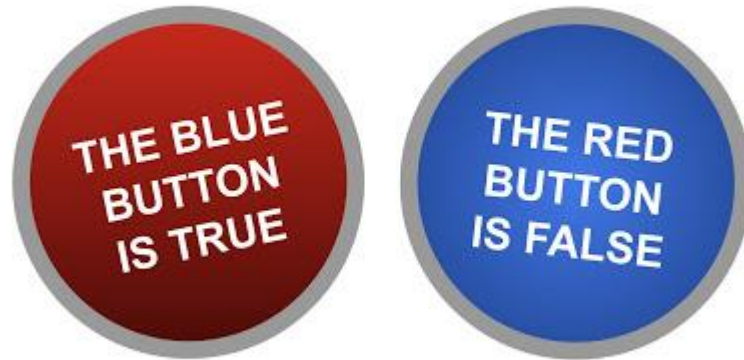
Who led the digital transformation of your company?

- A) CEO
- B) CTO
- C) COVID-19



# The Technology Adoption Paradox

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## Technology Evolution Has Been Constant

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**1960s: IBM Storage  
Drive**

**...a whopping 5 MB**

*...~60 years*

## 20ish Years Ago...

# 1998



2 decades later...

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20  
YEARS LATER

# 2018



## 20 and < 20 Years Old



Phone with Camera –  
Sharp J-SH04



Bluetooth



M-Systems USB Flash Drive



Facebook 2004



YouTube 2005



iPhone 2007

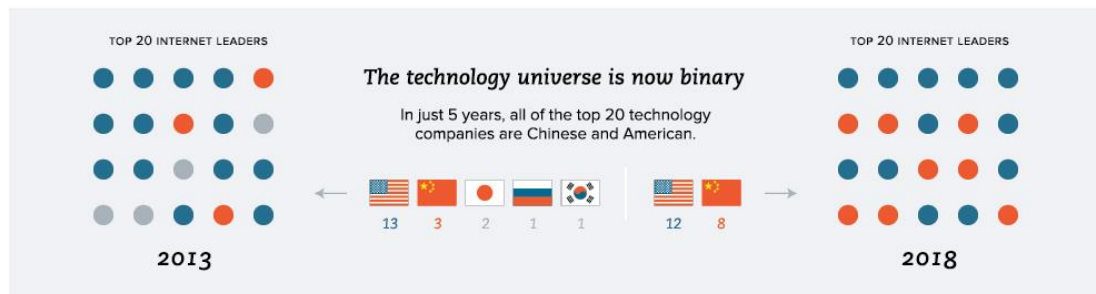


Blu-ray 2002

# Asia in just 5 years (2013 – 2018)

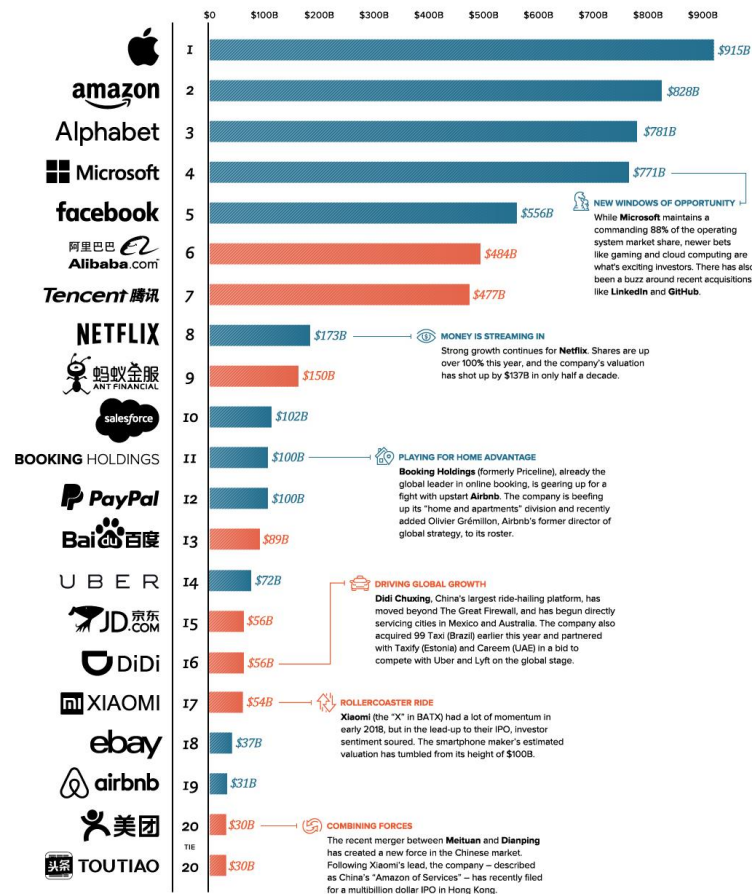
## THE WORLD'S 20 LARGEST TECH GIANTS

The most significant internet companies only hail from the U.S. or China



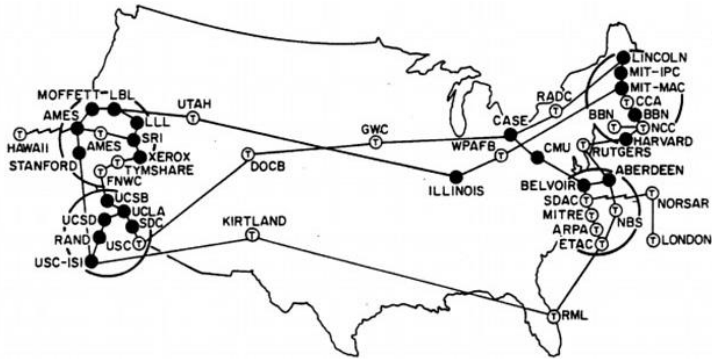
2013: 13 US Companies | 7 Asian Companies

2018: 12 US Companies | 8 Chinese Companies





## Here's Something Neat...



The Internet (circa 1973)  
'Arpanet'



**47**  
YEARS



The Internet (circa 2020)

# What's Happened – What Have We Learned

**NOW** **NEW** **NEXT**  
NORMAL

Agile, Agile, Agile

Virtualization in Record Time

Remote Working / Workers

Vitality of Cloud

Home Office / Burnout Prevention

Communication is Key

Email Traffic

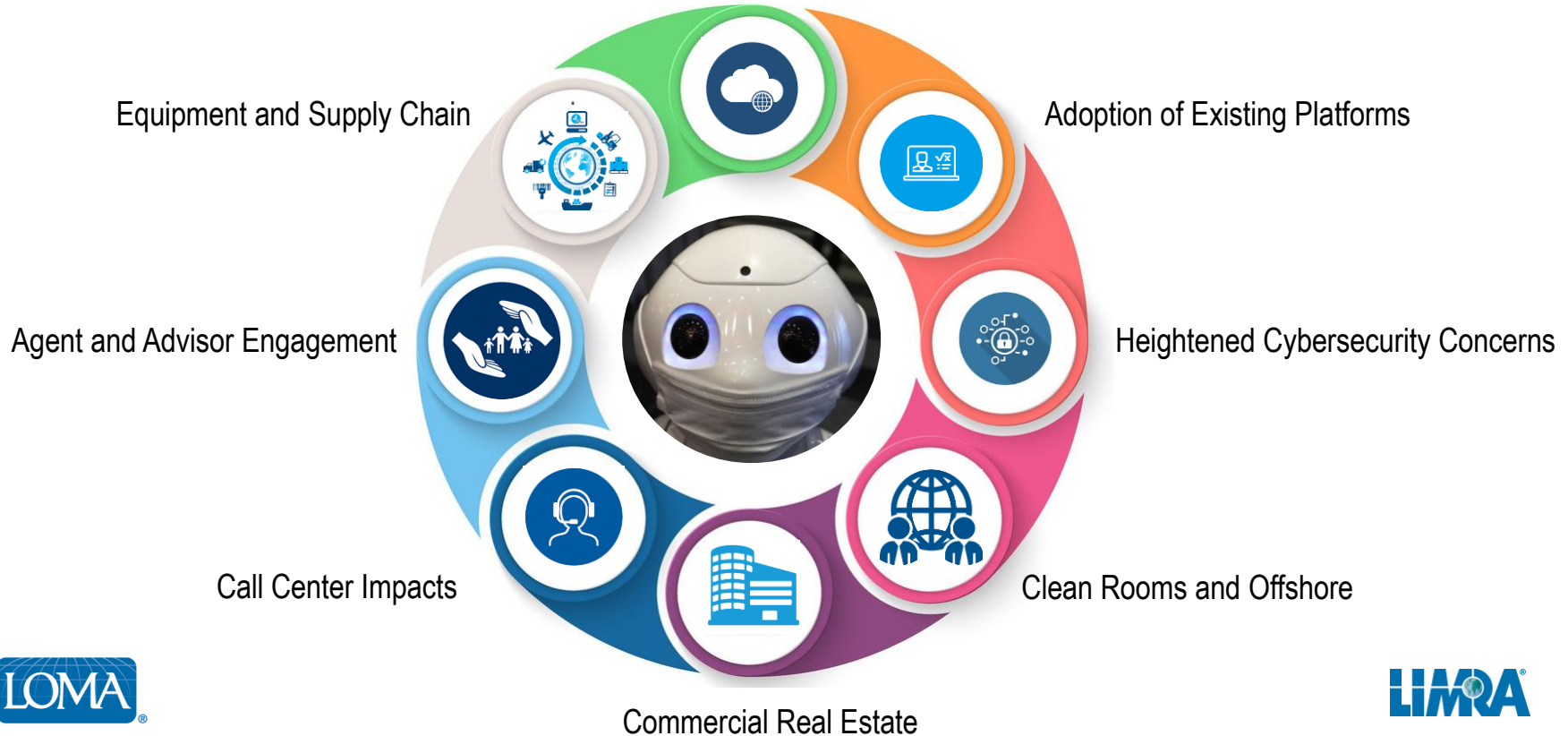




# What's Happened – the **NOW** normal

**NOW** **NEW** **NEXT**  
NORMAL

Unprecedented Virtualization



# chapter

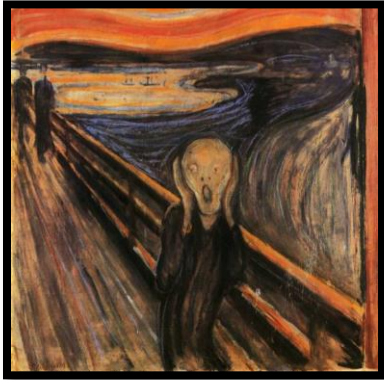
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## A New Normal Thinking Digitally Native

# Transformation means to Change, and Change means...

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1



AND/OR

2



AND/OR

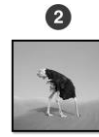
3



Some screamed...



AND OR



AND OR



NETFLIX

Some buried their heads in the sand...



**BlackBerry**



1

TOO FOCUSED  
ON THE WRONG  
CONSUMER

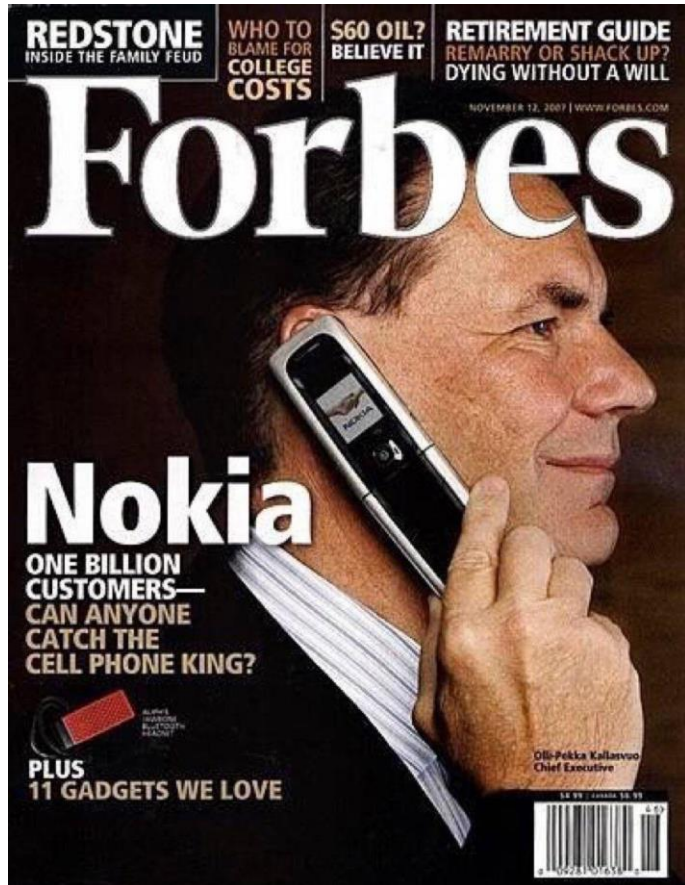
2

TOO LATE  
TO ADOPT  
TACTILE INTERACTION

3

TOO FOCUSED  
ON EMAIL & BROWSER  
- NOT ENOUGH ON APPS

Some went on cruise control...



Forbes,  
November 2007

Nokia was  
**DOMINANT**

And others used crisis to transform...

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## Business Week, Feb 1996

22 years later Apple became a  
TRILLION dollar company

# Technology Disruptors – The Common Denominator

NETFLIX

facebook



UBER



amazon



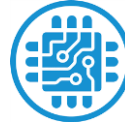
WhatsApp

1



EMBRACED OR  
DROVE  
DISRUPTION

2



ALL DISRUPTION  
WAS VIA  
TECHNOLOGY

3



INTENSELY  
CUSTOMER  
FOCUSED



# The New Consumer and their expectations



1



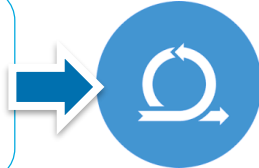
**FASTER  
& BETTER  
INNOVATION**



2



**RAPIDLY  
PROGRESSING  
AGILE**



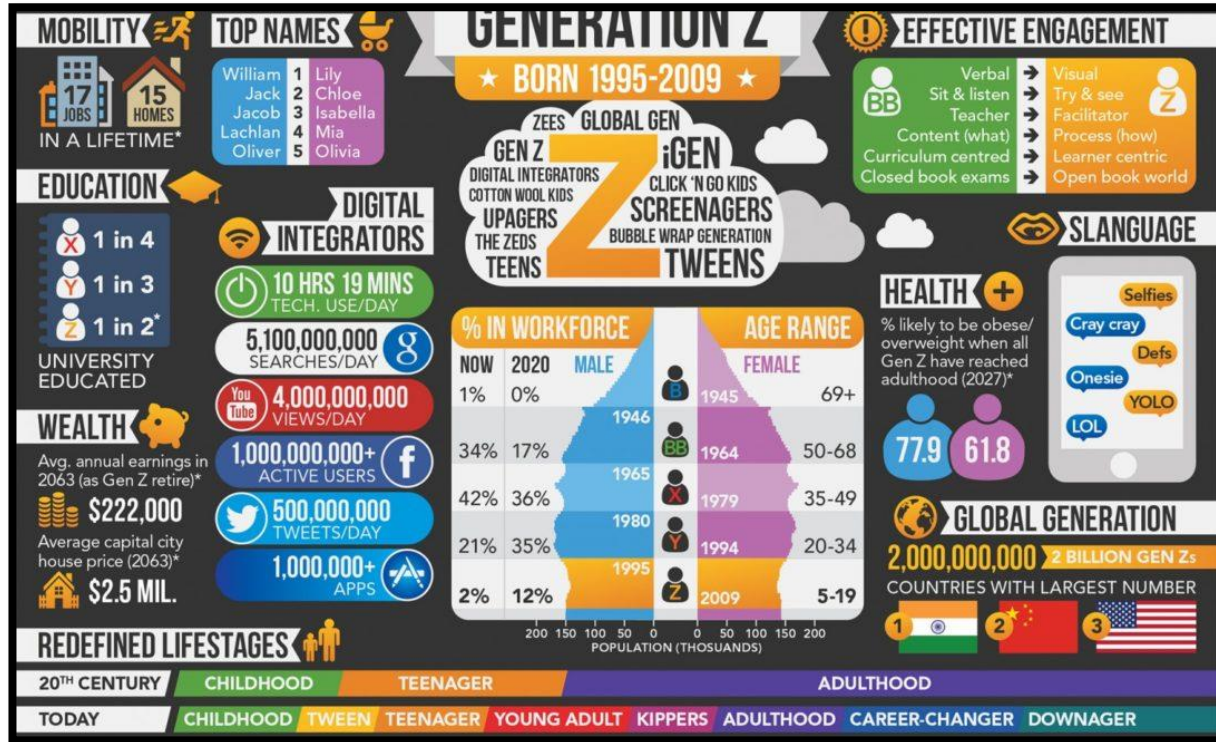
3



**EASY  
TO USE  
DESIGN THINKING**



# Gen Z



Technology use per day: 10 hrs. 19 mins.

Number of jobs on average expected over lifetime: 17

Largest GenZ populations India, China & USA: 2 billion

# CX in the new world - every **MINUTE** on the Internet



18.1M text messages

46M messages via other means

188M emails

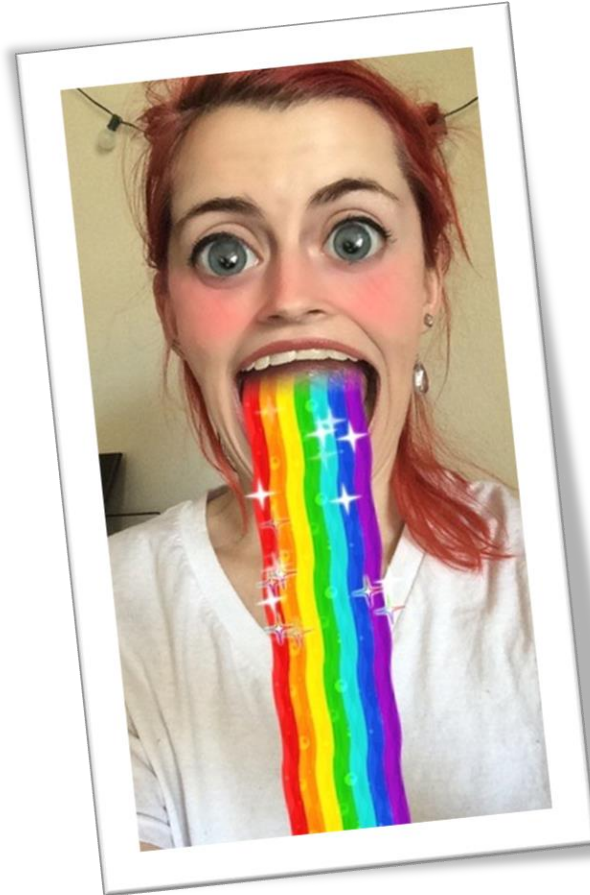
2.1M Snapchats

1.4M Tinder swipes

Exponential number of photos in a day

This is a generation that made this popular...

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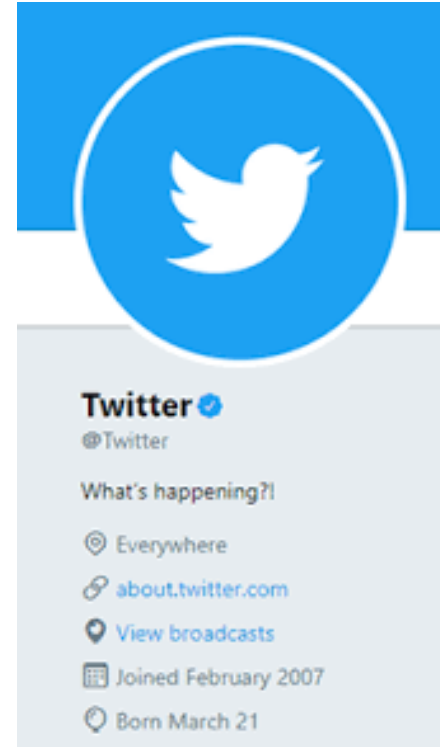


# The Customer Feedback Loop

## 1920



## TODAY



## Customer **AND** Employee demographics by 2030

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Generation	Age Range 2020	Age Range 2030
Silent	75 – 92	85 - 102
Boomer	56 - 74	66 - 84
Gen X	40 - 55	50 - 65
Millennial	24 - 39	34 - 49
Gen Z	8 - 23	18 - 33

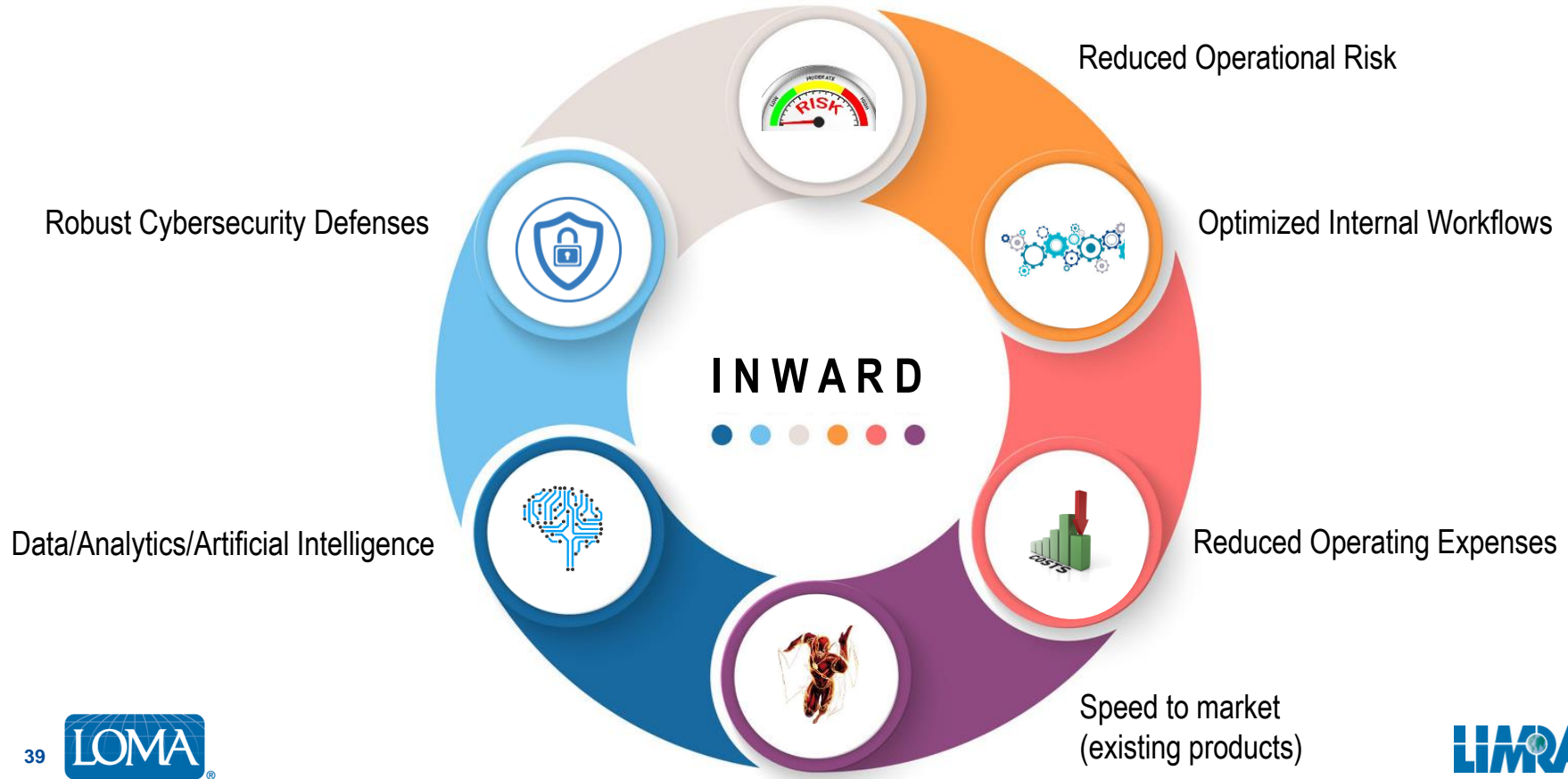
### In 2030...

Most CxOs are Gen X, whose leadership experience is born of the Internet age

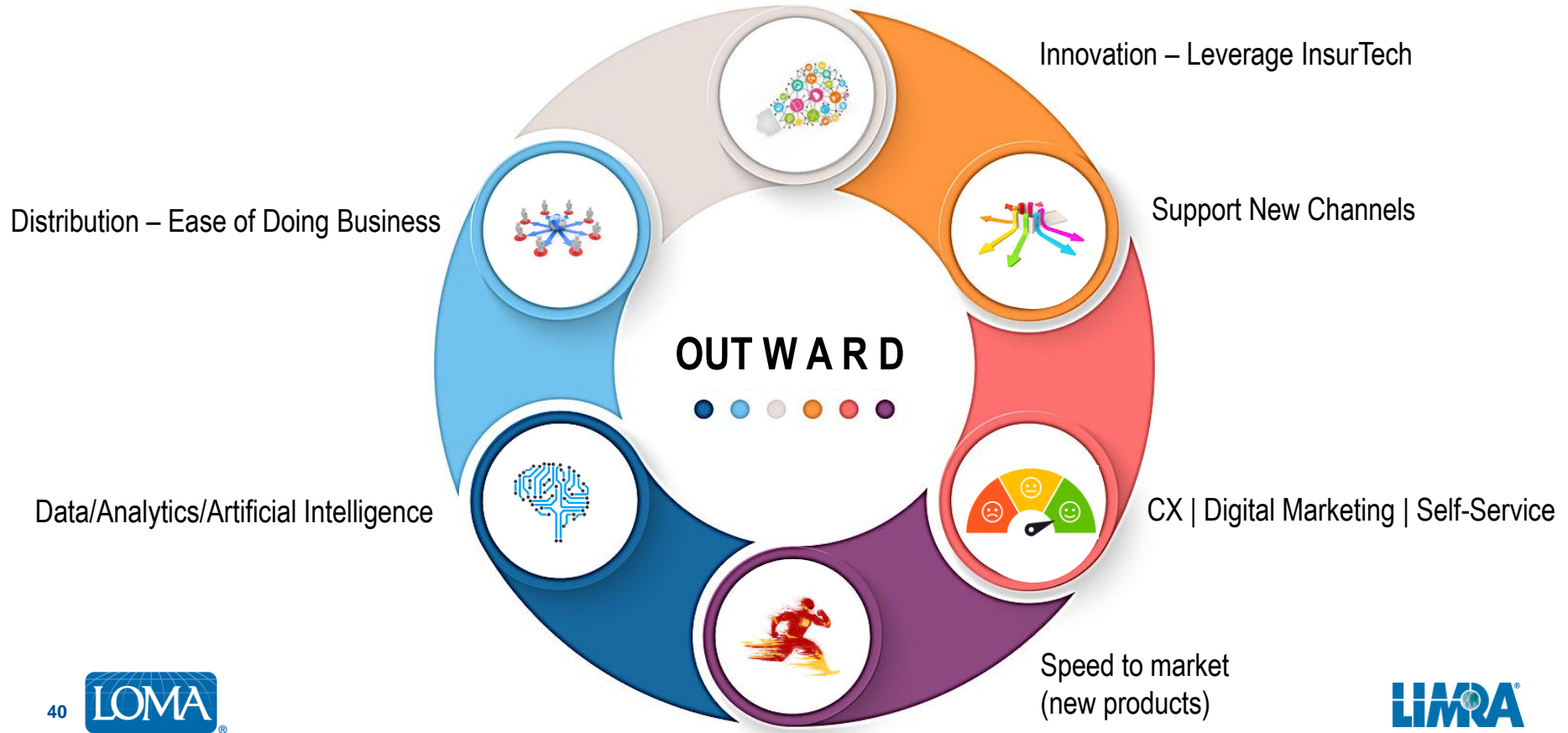
Most employees are Millennials, who prize tech-enabled capabilities, collaborative work, rapid promotion

New employees are Gen Z, who have had smartphones since elementary school

# Business Expectations of IT 2020-2023



# Business Expectations of IT 2020-2023





# Everyone's Talking Artificial Intelligence..

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There are significant misconceptions about Artificial Intelligence

Frequently conflated between AI and Robotics, used synonymously

A robot can become Artificially Intelligent but AI can exist independent of a robot

The term is used today to describe everything from Machine Learning to Bots

# Everyone's Talking Artificial Intelligence..

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**Sophia the AI Robot**

Clean, Accurate, Secure, Reliable Data is the BEDROCK of Machine Learning and/or Artificial Intelligence

Focus on Talent and Skills

Machine Learning = Human Teaching

Humans Solving Human Problems – Humans Solving  
Computer Problems / Computers Solving Human Problems  
– **Computers Solving Computer Problems**

# Data and Analytics – The New Oil and The New Fuel (Petrol)

Table 1: Analytics Use Cases

Application	Details
Accelerated Underwriting	Reduce testing, implement straightthrough processing, predict whether APS is needed
Customer Profiling/Segmentation	Propensity to Buy, Sales Opportunity
Policyholder Behavior	Inforce Management, Utilization of Riders/Benefits, Annuity Surrenders, Lapse/Persistence
Cross-Sell Model	Identifying in-book opportunities
Fraud Detection and Prevention	Red flag patterns
Optimal Marketing Model	Ad campaign selection, nudges to increase engagement
Agent Recruitment and Screening	Assessments of which agents will be more productive
Producer Behavior	Nudging producer behavior
Sentiment Analysis	Measurement of sentiment
Identify Mortality Drivers	Identify factors that drive mortality
Cost Implications	Identify areas for cost reduction

Table 2: Unsuccessful Analytics Use Cases

Application	Reason(s) for Failure
"Forgetful Smoker" Model	Low benefit for cost, not accurate enough, insufficient data
Cross-Sell Model	Low benefit for cost, not adopted by business
Mortality Model	Low quality data, low benefit for cost
Low-Productivity Model	Low benefit for cost
Model to Estimate BMI	Technical issues, low benefit for cost
Model	Legal concerns about variables
Model	Not adopted by business
Model	Model not available
Model	Model not available
Model	Model not available

Figure 4: Use of Machine Learning and Artificial Intelligence

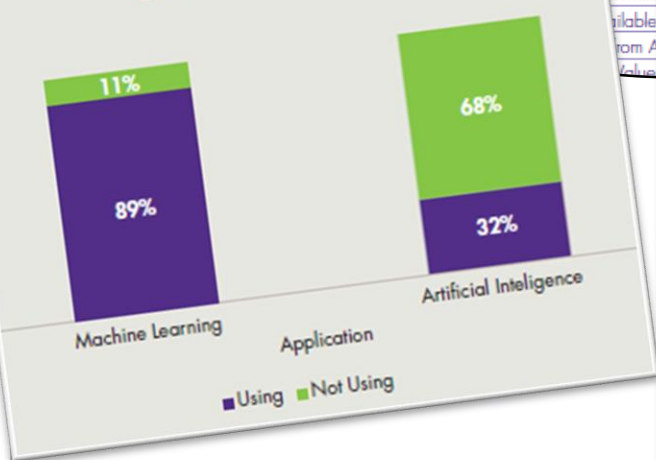
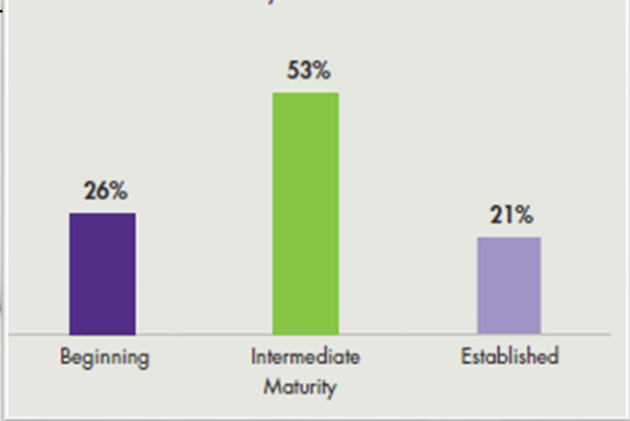


Figure 5: Self-Described Maturity of Analytics Function



LIMRA's  
Center of Excellence  
for Analytics

Analytics Practices  
in the Life and  
Retirement Industries



# 10 Core Beliefs in the New Normal Digital Journey

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1 Transform the core



2 Move agile



3 Build capabilities strategically



4 Work with legacy IT



5 Start from the customer



6 Innovate by doing something new



7 Build an expansive ecosystem of partners



8 Move as a Multi disciplinary team



9 Test, fail fast, and learn extensively



10 Deal with ambiguity

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# chapter

# 3

## The Next Normal Being Digitally Native

## Rule #1: Size is Irrelevant

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## Rule #2: The Next Normal is a Whole New Kettle of Fish

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### 1 Percentage of digitally active consumers who use fintech





## Thinking Differently – Using AI Digital Assistants

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**Alexa**



**Siri**



**Google Now**



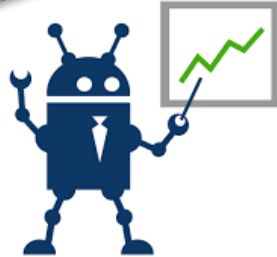
**Cortana**

# Thinking Differently: What if Amazon gets into insurance?



# Thinking Differently: The Next Normal

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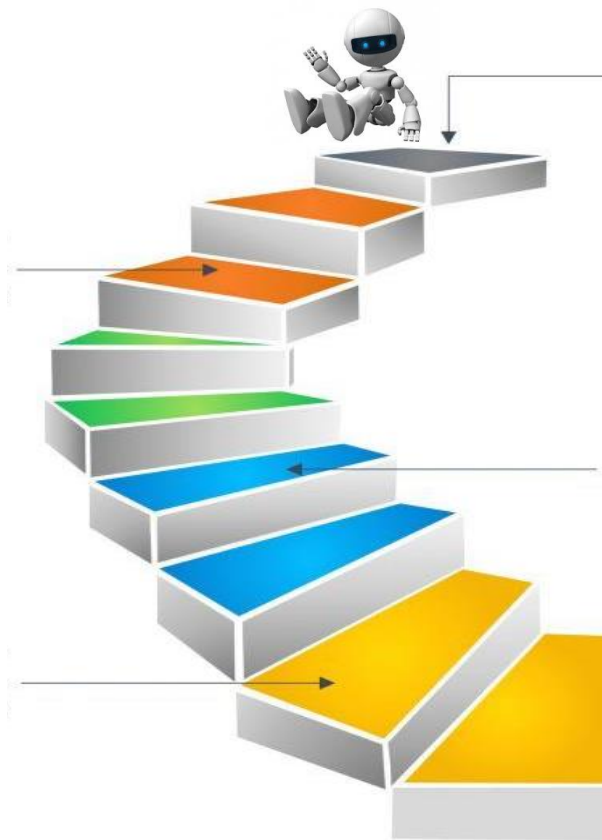
# The Evolution of Artificial Intelligence

2010s

Cloud Computing | Machine Learning, Predictive and Prescriptive Modeling, Data Science, NLP, Image Recognition, Artificial Intelligence, Bots | Autonomous Driving Vehicles | Sophia the Robot

1990s

Access to Data | Storage and Computing Capacity Increasing | Internet Takes Hold | IBM Deep Blue defeats Gary Kasparov



Sophisticated AI, bots indiscernible from humans | AI enabled Personal Assistants | Quantum Computing | Household robots

2020s

High Speed Internet the norm | Rise of Big Data, Business Intelligence and Analytical Modeling | Honda debuts ASIMO

2000s

## Still a ways to go



Microsoft Tay (2016) – AI powered chatbot

Self learning, continually learning

Set to emulate teenager, automated posts on Twitter

*Learned* to become extremely racist in less than 24 hours

Microsoft had to take it offline and publicly apologize



# AI is Following Kurzweilian Curve

## 1 The accelerating pace of change ...



## 2 ... and exponential growth in computing power ...

Computer technology, shown here climbing dramatically by powers of 10, is now progressing more each hour than it did in its entire first 90 years

### COMPUTER RANKINGS

By calculations per second per \$1,000



**Analytical engine**  
Never fully built, Charles Babbage's invention was designed to solve computational and logical problems



**Colossus**  
The electronic computer, with 1,500 vacuum tubes, helped the British crack German codes during WW II



**UNIVAC I**  
The first commercially marketed computer, used to tabulate the U.S. Census, occupied 943 cu. ft.

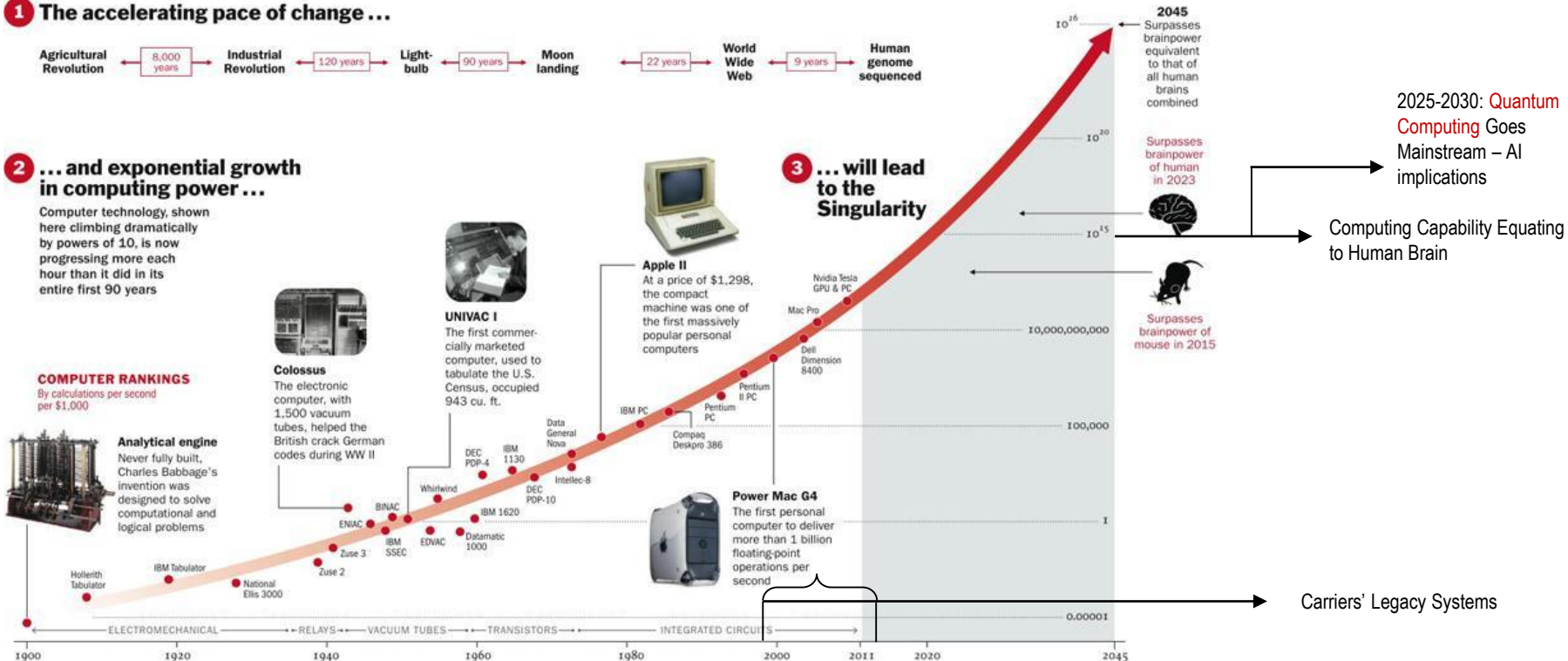


**Apple II**  
At a price of \$1,298, the compact machine was one of the first massively popular personal computers



**Power Mac G4**  
The first personal computer to deliver more than 1 billion floating-point operations per second

## 3 ... will lead to the Singularity



disruption

TRANSFORMATION

Technology

# Running Parallel to AI – 5G

## AVAILABILITY



**TODAY**

Limited

**2021 2022**

Across parts of the world

**2030**

Ubiquitous

## BENEFITS

**1000X**

Increased Capacity

**5X**

Lowered Latencies

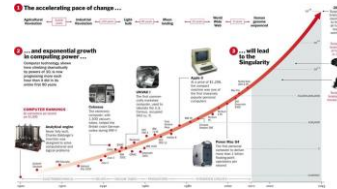


Wireless Residential Broadband

# Quantum Computing - Supercharging AI (closer to 2030)



**10000000X** Increased Processing Speed



Follow AI Kurzweilian Curve

**2030** Reality



## In a Nutshell



1

**INVEST IN RESKILLING / UPSKILLING NOW**

2

**THINK OF A BLANK CANVAS**

3

**PURSUE AI, BUT DO NOT LOSE SIGHT OF DATA**

4

**PAY DOWN YOUR TECHNICAL DEBT**

5

**DON'T WASTE A GOOD CRISIS – FORM NEW HABITS**



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# Thank You