

DIGITAL TRANSFORMATION AND CUSTOMER EXPERIENCE

Bill Blum



MY GOALS FOR YOU

- What is Digital Transformation?
- Why it is imperative
- The components
- The benefits
- How it can affect the Customer Experience
- Case Studies
- Ideas and action items for your business

BIGGEST TAKEAWAY:

It is all about ***PEOPLE - Employees & Customers!***

QUESTIONS:

- Business today vs. 10 years ago
- Finding and Retaining Talent
- Speed of Change, Information Overload, FOMO Technology

DAVID HANSON, FULTON BANK

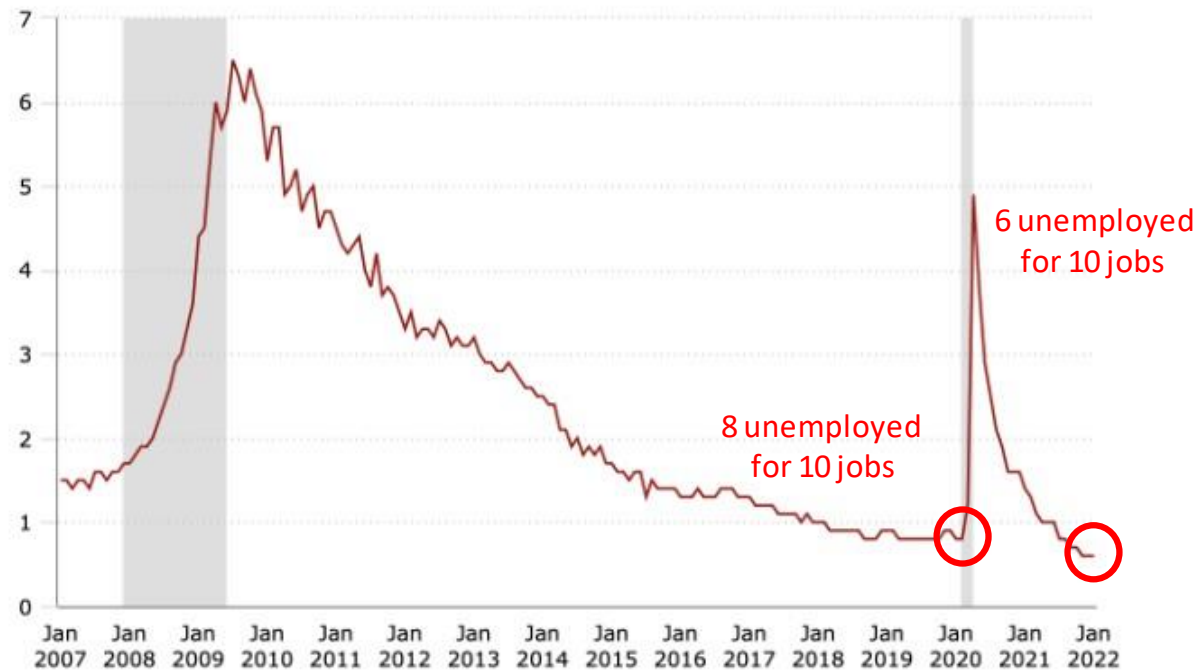
Finding and retaining talent:

of Eligible employees per job opening has fallen steadily since 2010

COVID DID NOT CAUSE THE LABOR SHORTAGE — IT ONLY EXACERBATED IT

Number of unemployed persons per job opening, seasonally adjusted

Click and drag within the chart to zoom in on time periods



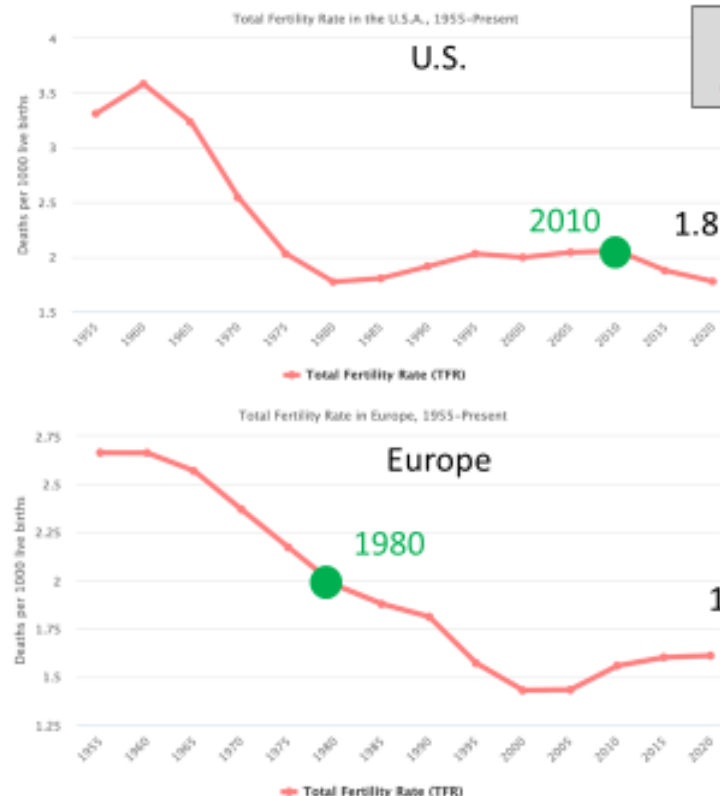
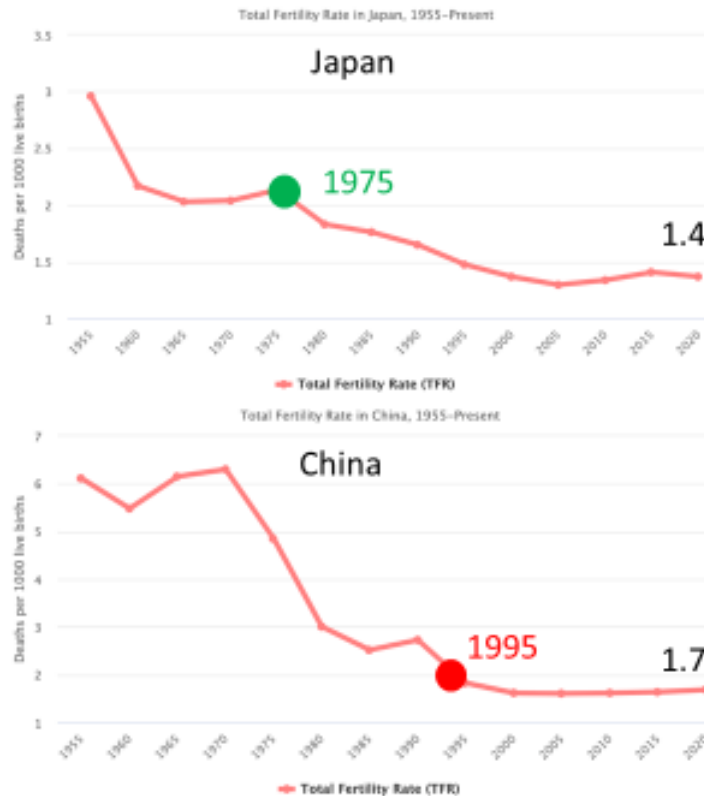
Once again,
there are more
open jobs than
people
unemployed...

...A lot more

YOU ARE NOT ALONE!

Declining Birthrates

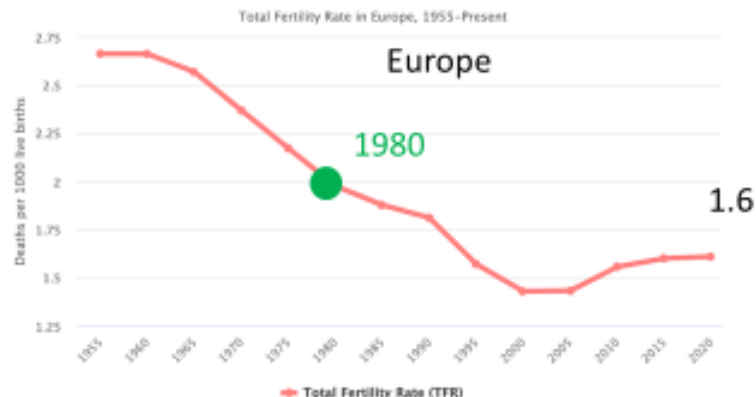
DEMOGRAPHICS: IT'S ALL ABOUT BABIES... BORN 25+ YEARS AGO...



2.1 is the magic fertility rate number for stable population

The Global Human Condition

Prosperity today means labor shortages in 25-30 years



YOU ARE NOT ALONE!

Changing workforce

Gig economy

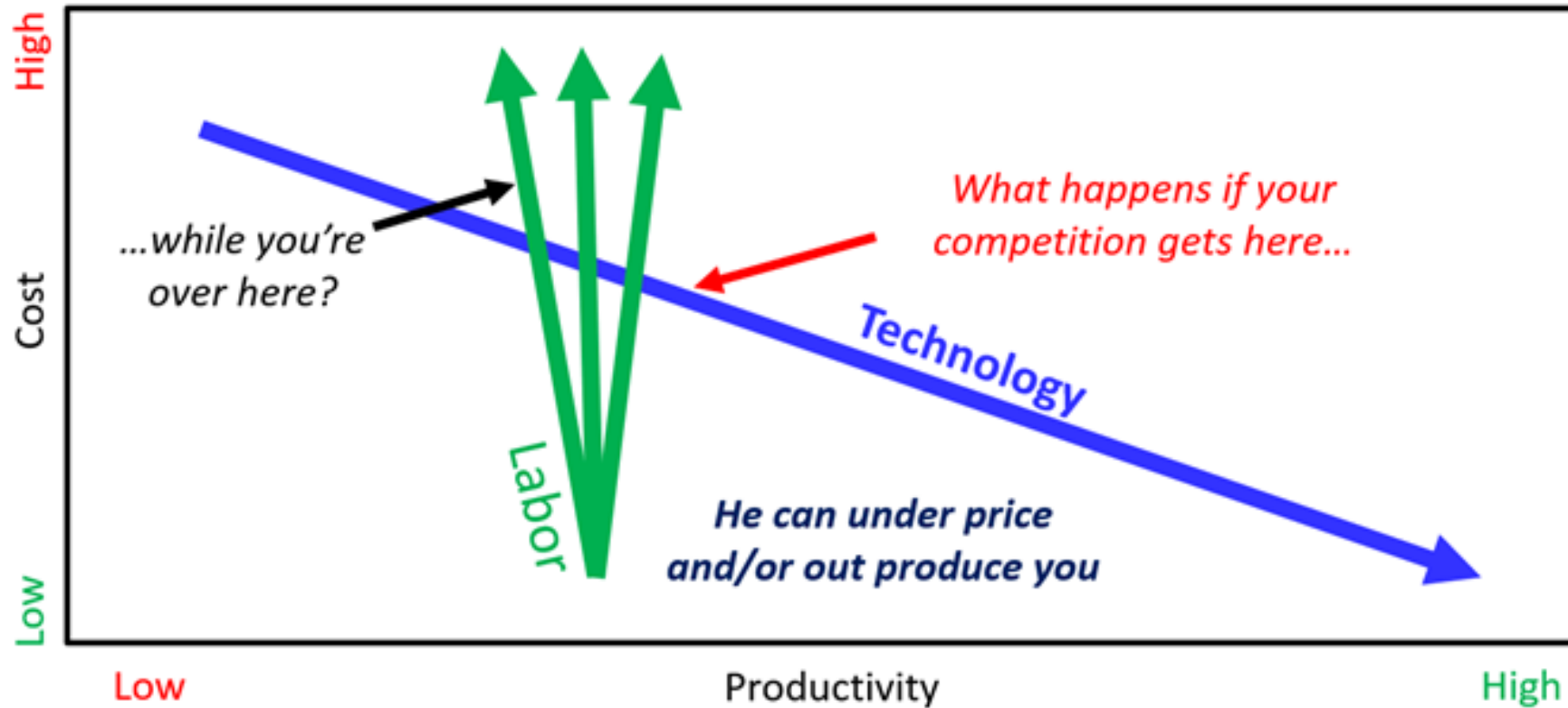
Remote work

People want more than a “Job”

ESG (Environmental, Social, Governance)

IT IS NOT GOING TO CHANGE. IT IS THE NEW NORMAL.
DAVID HANSON, FULTON BANK: "YOU MUST USE TECHNOLOGY!"

TECHNOLOGY V. LABOR



“DIGITAL TRANSFORMATION” DEFINED

Deloitte:

“Digital Transformation is all about becoming a digital enterprise, an organization that uses technology to continuously evolve all aspects of its business models (what it offers, how it interacts with customers and how it operates).”

**IN SIMPLE TERMS, DIGITAL TRANSFORMATION IS HOW
TO FUTUREPROOF A BUSINESS.**

DIGITAL TRANSFORMATION

Business Areas Impacted

- Operational Processes
- Business Models
 - Augment physical with digital
 - Shift the model entirely
- Customer Experience

DIGITAL TRANSFORMATION

Why it is imperative

“Digital Transformation is a fundamental reality for businesses today.”

Warren Buffet

“The changes are so profound that, from the perspective of human history, there has never been a time of greater promise or potential peril.”

Klaus Schwab, founder, executive chairman of the World Economic Forum

DIGITAL TRANSFORMATION

Why it is imperative

FACTS

Since 2000 **52%** of the Fortune 500 – **acquired, merged, bankrupt**

S&P companies' tenure

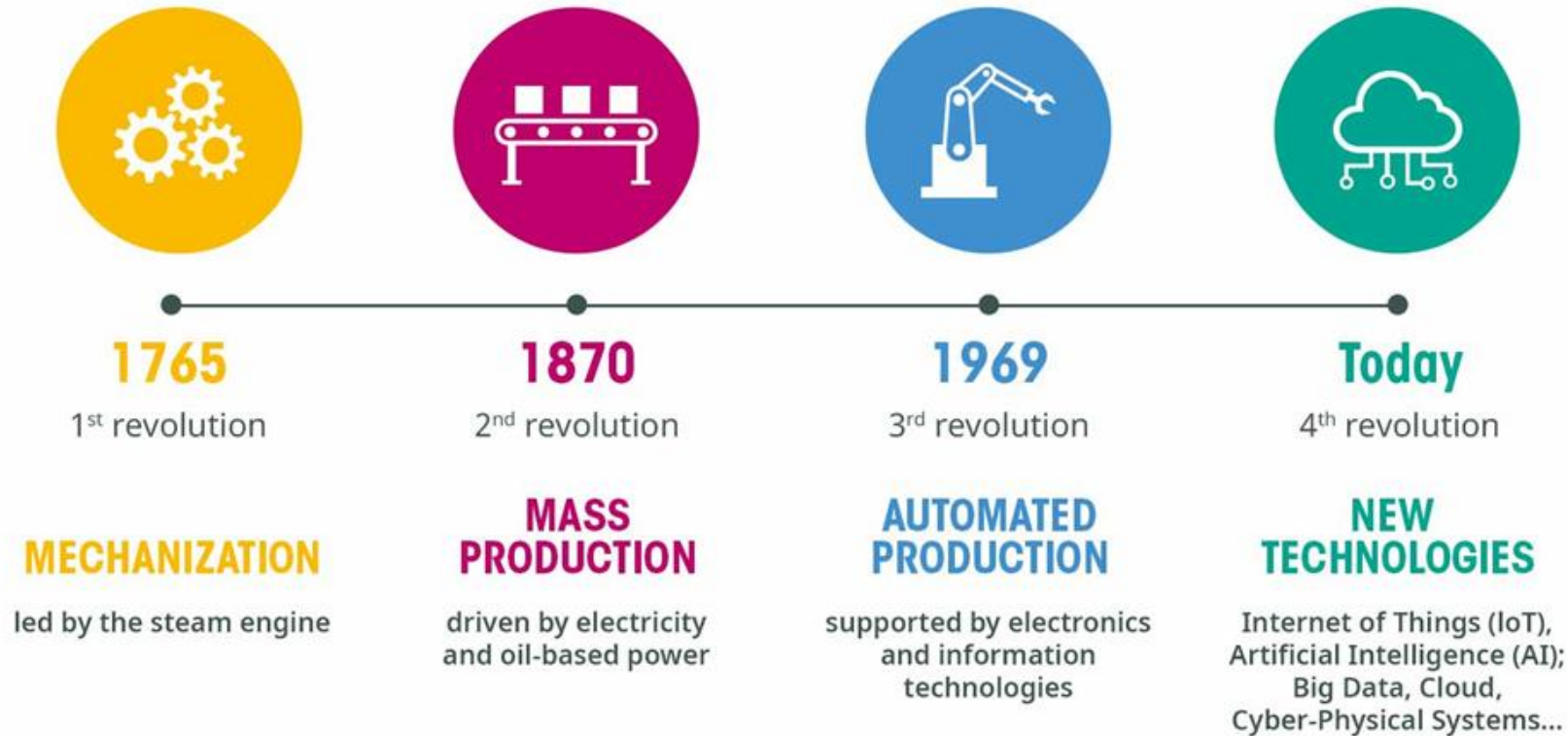
1958: **60 years**

2012: **20 years**

“40% of business will not exist in a meaningful way in 10 years.”

John Chambers (Cisco CEO and Chairman)

Four Industrial Revolutions



Sources: <https://www.visiativ-industry.ch/industrie-4-0/>

Massive Social and Economic Impacts
Speed of change accelerates

WINNERS WHO EMBRACED AND DROVE CHANGE

Apple

Google

Netflix

Uber

Shopify

Zappos

Starbucks

Square

Twitter

Facebook

Amazon

Target (Rev. \$53B  to \$107B)

Microsoft (\$1T market cap, stock \$38  to \$281)

Airbnb (affected rentals, not hotels)

LOSERS

Sears

Kodak

Polaroid

Radio Shack

Toys R Us

GE

Blockbuster

Borders

Pan Am

GM

Tower Records

Sports Authority

Compaq

A&P

Modell's

DIGITAL TRANSFORMATION COMPONENTS

1.Big Data

2.Internet of Things

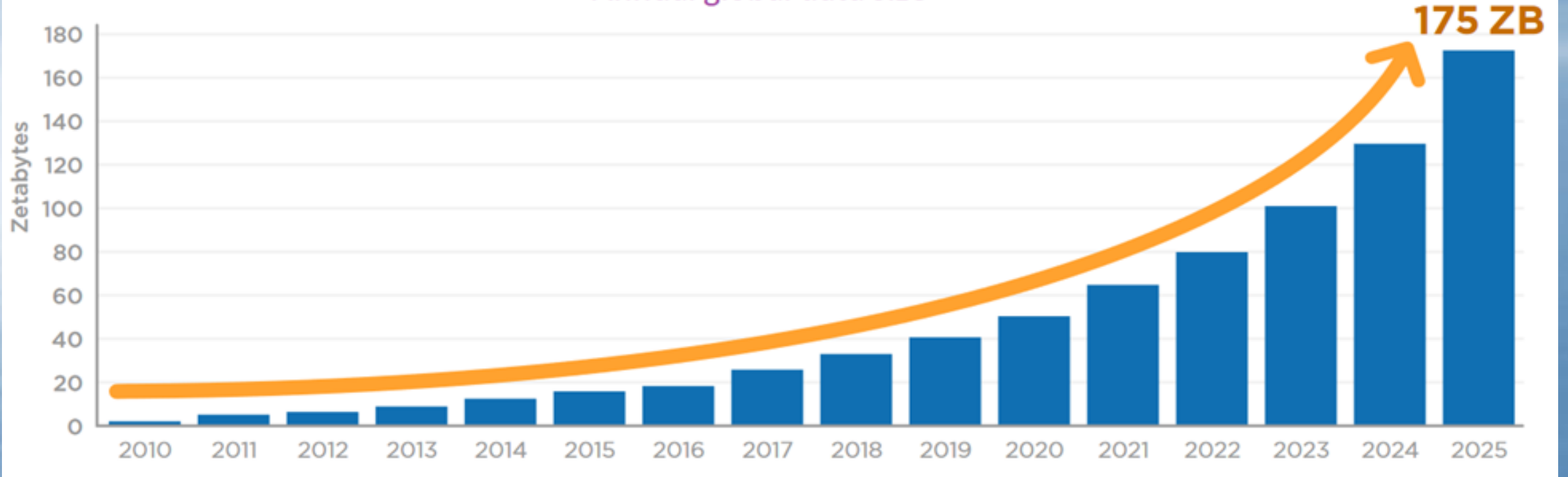
3.Elastic Cloud Computing

4.Artificial Intelligence

DIGITAL TRANSFORMATION COMPONENTS

Big Data

Annual global data size



That's 21 zeros

DIGITAL TRANSFORMATION COMPONENTS

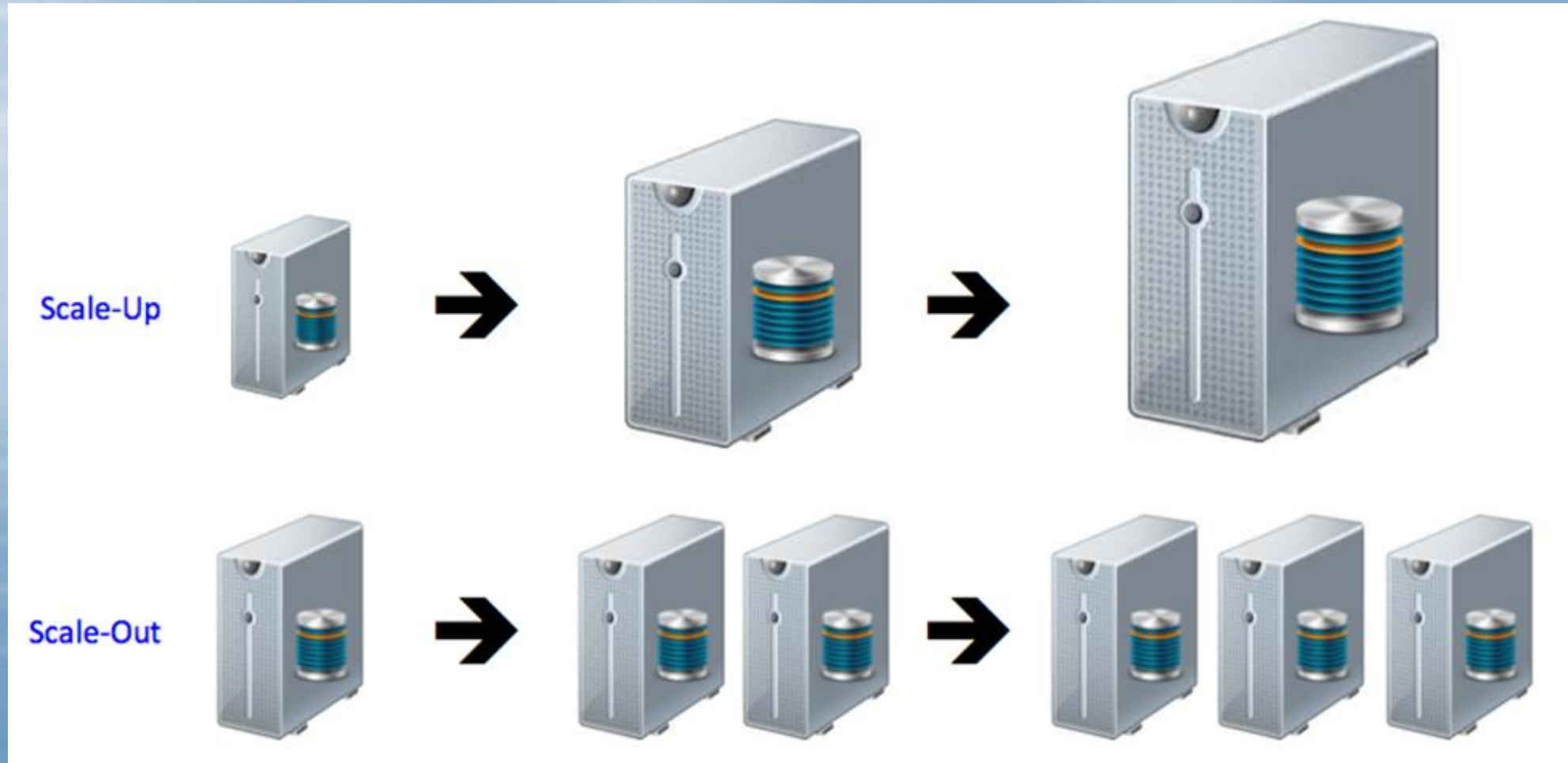
Internet of Things (IoT)



25 Billion by 2025

DIGITAL TRANSFORMATION COMPONENTS

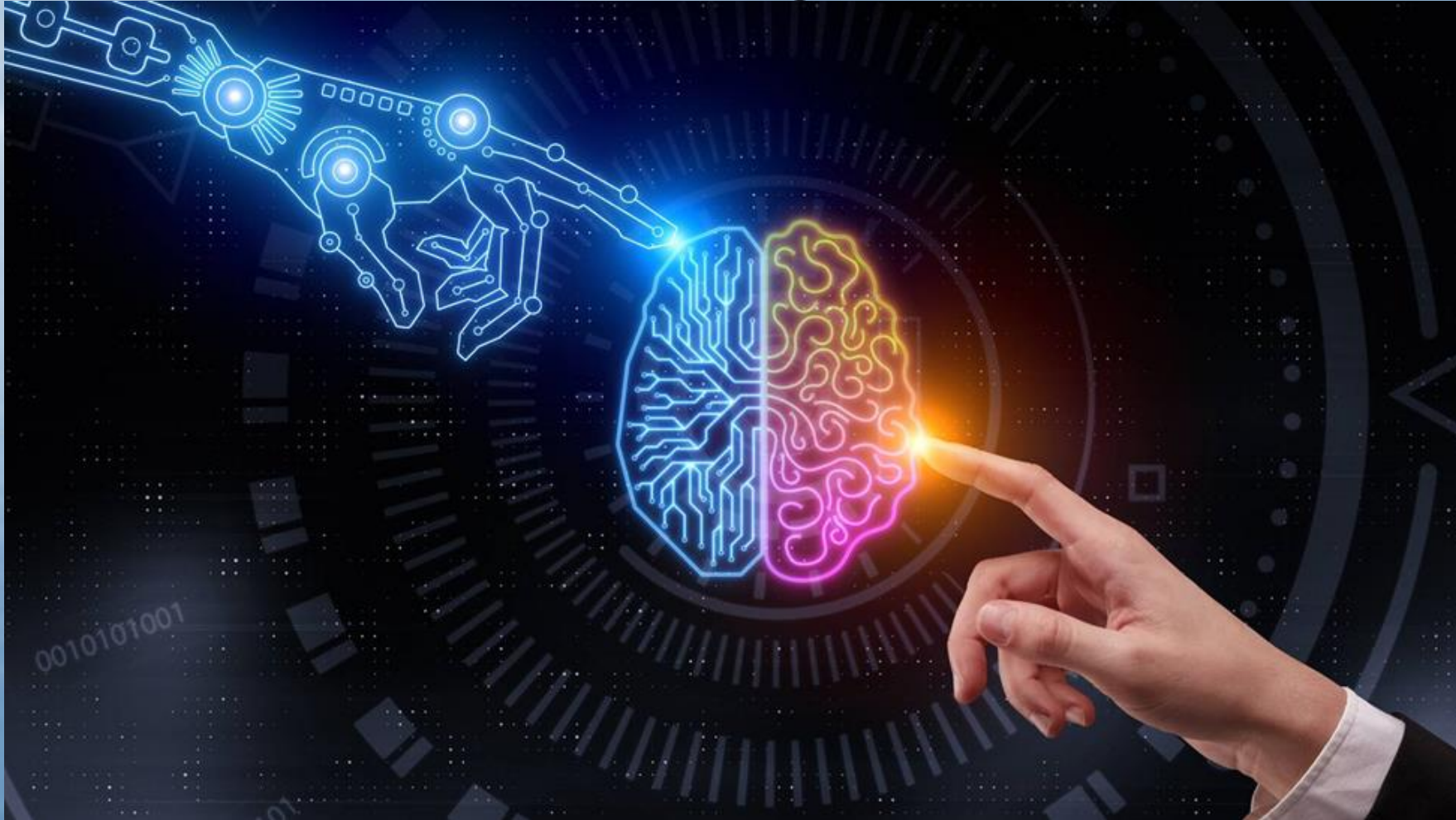
Elastic Cloud Computing



CapEx to OpEx

DIGITAL TRANSFORMATION COMPONENTS

Artificial Intelligence (AI)



Thinking Machines

DIGITAL TRANSFORMATION BENEFITS

- Customer Experience – Digital Convenience and Speed
- Revenue Growth “**Digitally engaged SMBs boost profits** up to twice as fast compared to their offline counterparts.” *Google-KPMG report*
- Enhanced product quality = Better Customer Experience
- High employee engagement = Better Customer Experience

DIGITAL TRANSFORMATION BENEFITS

- Actionable data for informed business decisions and product innovation
- Better resource management (Energy, People)
- Automation = Higher productivity + Operational Excellence/Efficiency
- Early warnings to avoid hardware/software failures
- **Reduced environmental impact (ESG)**

DIGITAL TRANSFORMATION BENEFITS

Customer Experience – It's all about *PEOPLE*
Employees & Customers!

- Empowers employees to provide better Customer Experiences
- Provides them with data and knowledge
- Frees them from repetitive tasks that can be done by a computer
- Allows them to do what computers cannot do:

Provide joyful, caring human interactions!

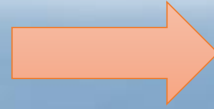
THE NEW NORMAL

Today's Customer Expectations

- 1. Excellent Product and Service (Old school expectation)**
- 2. Digital Convenience (Amazon, Uber, Online Banking)**
- 3. Life Partner – Be there, invisible, proactively when I need you**
- 4. Improve the world in some way (ESG)**

(Thank you, Steven Van Belleghem)

CASE STUDIES 2 PERSONAL STORIES

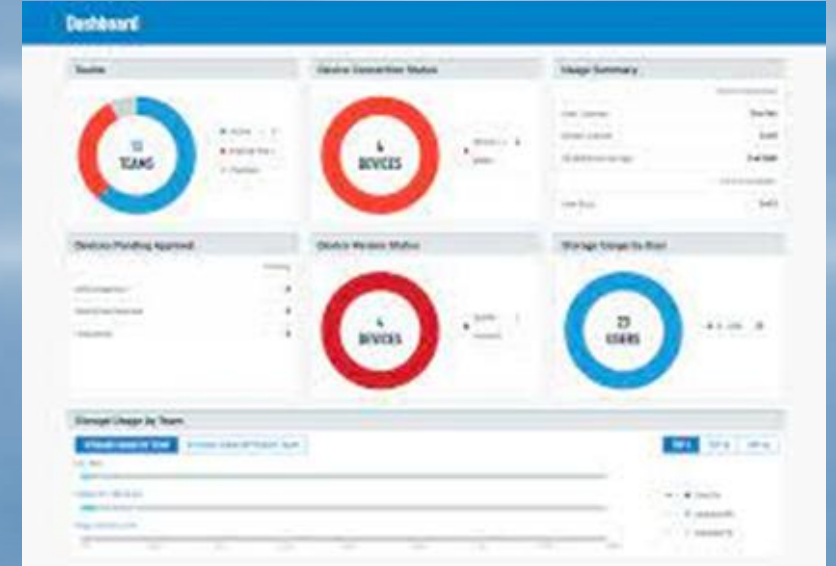


**Text Recognition, Language Processing, &
Artificial Intelligence in Financial Analysis**

ALPINE'S DIGITAL TRANSFORMATION



datto



Monitoring
Alerting
Patch Management
I.T. Asset Inventory
Automated Software Deployment
AI Powered Ransomware Protection
Professional Services Automation
Ticketing
CRM
Anti-Phishing
Security Information and Event management
Endpoint Detection and Response
Backup Radar
Application Integrations
Business Intelligence Tools
Power Apps
I.T. Best Practices SharePoint Application



I.T. Best Practices

Alpine Business Systems

Policy	Description	Status
Category 5e/6/6a cabling, patch panels, and terminations	All cabling should support 1 gigabit speeds	Deployed
24/7/365 Remote Monitoring and Management with Alerting on any anomalies and other events	Monitors the network and devices, alerting on any anomaly, outage, failure, and/or potential failure. Reduces the time to issue resolution. Allows for Policy Management and Enforcement. Required in many Financial, Healthcare, and Government-related industries.	Deployed
Automated Patch Management	Ensures all the latest security updates and patches are installed. Required in many Financial, Healthcare, and Government-related industries.	Deployed
Asset Inventory Solution	Provides detailed inventory reports for all network components including Make, Model, OS, Processor, RAM, Total/Free Disk Space, etc. Required in many Financial, Healthcare, and Government-related industries.	Deployed
Secure Remote Access to data and applications	The solution that is best depends on the unique needs of the individual user. Possible solutions: Alpine Remote Connect, a VPN, Remote Desktop Server, Windows Virtual Desktop, SSL VPN, VPN appliance	Deployed
Secure Cloud File Sync and Share	Allows you to encrypt and securely share sensitive proprietary information, Personal Identifiable Information (PII), Financial Information, and personal Health Information with advanced audit logging. Required in many Financial, Healthcare, and Government-related industries.	Deployed
Phishing Protection for Email	sAdds a layer of protection using Artificial Intelligence (AI) to analyze all URLs embedded in Microsoft 365 email, as well as all email attachments. It also understands what is being communicated in all messages and gives warnings if PII is contained or being discussed. Significantly more effective than the Microsoft 365 protections.	Deployed
Business Continuity: On-premise and Off-site Backups / Disaster Recovery, logically or physically separated from the production network using separate and unique administrative credentials.	Ensures that your data is always protected and your business will continue regardless of any hardware failure, loss of your entire facility, and/or breach of your network. Backups should be encrypted in transit and at rest, and should be protected by a unique set of credentials.	Deployed
Endpoint Protection	Prevents Viruses, Malware, and Spyware. Required in many Financial, Healthcare, and Government-related industries.	Deployed
ICSA compliant firewall with Intrusion Prevention, Content Filtering, Anti-Virus, Anti-Malware, deep packet inspection, and logging.	Protects the network, monitors and limits inbound/outbound traffic. Required in many Financial, Healthcare, and Government-related industries.	Deployed
Microsoft 365 Backup or Google G-Suite Backup to a Third Party (Recommended by Microsoft and Google in their Terms of Service)	Ensures that all your email will be recoverable in the event that Microsoft or Google loses or corrupts it. Microsoft recommends this in their Terms of Service: https://www.microsoft.com/en-us/servicesagreement/	Deployed
	The best protection against Business Email Compromises	

SPEED OF CHANGE

Common knowledge and items we take for granted

- **GPS**
- **Wearables: Apple Watch, FitBit**
- **Apple Facetime**
- **Smart Home**
- **Biometrics**
- **Text recognition**
- **Natural Language processing (Siri)**

QUESTION:

DO YOU USE

ARTIFICIAL INTELLIGENCE?

ARTIFICIAL INTELLIGENCE IS EVERYWHERE!

EMBEDDED AI WE DON'T SEE

The Amazon logo, featuring the word "amazon" in white lowercase letters with a curved orange arrow underneath it, set against a black background.The Microsoft logo, consisting of a four-colored square (red, green, blue, yellow) above the word "Microsoft" in white, set against a dark blue background.The Uber logo, featuring the word "UBER" in white uppercase letters, set against a dark blue background with a radial light effect.

OTHER INNOVATIONS

Watson wins Jeopardy

Micro satellites

Drones

Virtual and Augmented Reality

Robotics – Logistics and Manufacturing

OTHER INNOVATIONS

Self Driving cars (fewer accidents, drunk drivers, and emissions)



Disney's Magic Bands



METER READERS?
ITALIAN POWER COMPANY (WORLD'S 2ND LARGEST)

Largest AI application in the world

40 million sensors

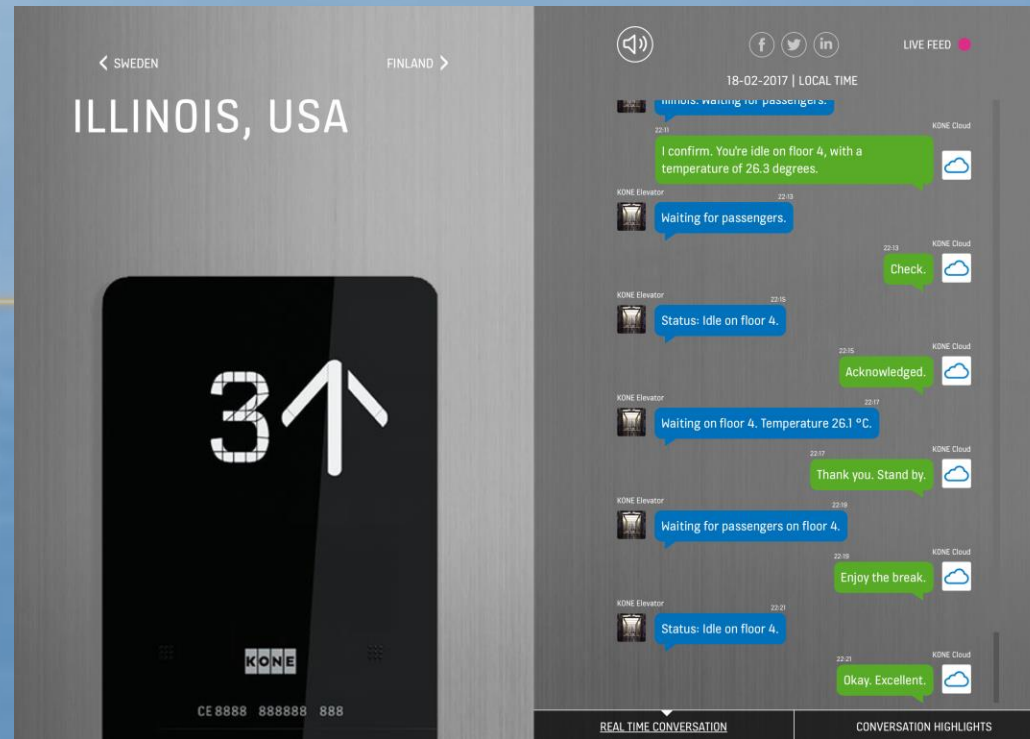
Lower maintenance costs

Revenue Recovery

KONE ELEVATOR AND IBM

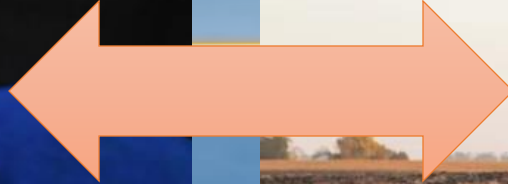
Mission: “Best Passenger Experience Possible”

Interactive Mobile App



JOHN DEERE SELF DRIVING TRACTOR

John Deere's self-driving tractor lets farmers leave the cab and the field, January 2022



ARTIFICIAL INTELLIGENCE

Google DeepMind AI

40% Datacenter energy reduction over human calculations

2017 – Google's AlphaZero is unbeatable

Garry Kasparov: "Chess has been shaken to its roots."

How it happened

US Air Force + AlphaZero

Successfully commanded a U-2 surveillance aircraft

First to fly military aircraft and its radar systems autonomously

MOST EXCITING: MEDICAL APPLICATIONS

Disease Diagnosis (Massachusetts General)

Image Recognition

DaVinci Surgical System



ARTIFICIAL INTELLIGENCE - DRUG DISCOVERY

2020 – MIT's Halicin

2000 molecule training set *plus*

61,000 molecules, FDA approved drugs, and natural products

Find molecules would be effective **anti-biotic**, not look like
existing anti-biotic,
non-toxic

8 showed antibacterial activity, 2 particularly powerful

”Signifies a **paradigm shift** in **antibiotic discovery** and indeed
in **drug discovery** more generally,”

Roy Kishony, Technion (the Israel Institute of Technology)

TECHNOLOGY DRIVES CHANGE, BUT *PEOPLE* DRIVE TECHNOLOGY

True digital transformation requires

- Agile workflows
- Decentralized decision-making
- Engaging company culture that is patient:
 - Learning
 - Testing
 - Risk-tolerance
 - Openness to change

TECHNOLOGY DRIVES CHANGE, BUT *PEOPLE* DRIVE
TECHNOLOGY

The proper Culture is ESSENTIAL

Must start at the top of the org chart

Very Important and Very Challenging

Without the right culture,

Digital Transformation is most likely doomed to failure

ALPINE'S IDEAS AND ACTION ITEMS

It's all about people

Our Purpose:

Improve the quality of life for our

Clients

Teammates

Communities



ALPINE'S IDEAS AND ACTION ITEMS

Operational Excellence - *Be a Friction Hunter!*

Every process, in every team:

1. What are we doing?
2. Why?
3. How?
4. Do you believe it can be done better?
5. How?
6. How do we automate that?

No manual data transfers=fewer errors=increased efficiency

Allows us to focus on *human-to-human* interactions.

ALPINE'S IDEAS AND ACTION ITEMS

Customer Experience

Problem resolution – Thank you, John Irwin

1. What happened?
2. How do we fix it now?
3. Why did it happen?
4. Who takes responsibility? NO BLAME
5. How do we use technology to ensure it never happens again?

CONCLUSION

My Beliefs

Machines **will not replace** our ability to truly connect with one another with **understanding, compassion, empathy, and love.**

CONCLUSION

My Beliefs

It is imperative that we ***embrace*** and use ***technology***, so we have more resources and time to ***truly connect*** with one another and ***improve the quality of life*** on this planet.

CONCLUSION

My Beliefs

Thank you.

I hope you found this a good use of your
most valuable commodity, time.

CREDITS

David B. Hanson CFA CPA, CEO Fulton Financial Advisors and Fulton Private Bank

Steven Van Belleghem YouTube Channel

Digital Transformation by Thomas Siebel

Age of AI by Henry Kissinger, Eric Schmidt, Daniel Huttenlocher

The Code Breaker by Walter Isaacson

The Singularity is Near by Ray Kurzweil

The Innovators by Walter Isaacson

How to Avoid a Climate Disaster by Bill Gates

Start with Why by Simon Sinek

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Techradar.com

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Forbes

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faun.pub

Shoolini University

Sfgate.com



QUESTIONS

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