



September 20th-22nd, 2022
MTEch Users Conference





September 20th-22nd, 2022
MTEch Users Conference



Digital Transformation (Dx)

Explore the leadership and strategy required for digital transformation. How do we manage the fear, the technology, and the insane pace to create a vision and to execute in a way that will result in lasting value.



September 20th-22nd, 2022
MTech Users Conference



Technological Pace

- The pace of technology is insane! Really? The pace isn't faster! Although it seems like it is!
- What has changed is the type of technology and the way we are using technology.
- Transformative and disruptive – the types of technological changes are very different.
- If the average car had advanced as quickly as the computer over the last 35 years, cars would get 3,666,652 miles per gallon and cost less than \$5,000 today!
- And if you were to build an iPhone using the technology available in 1991, it would set you back \$3.56 million, rather than the \$1,000 of the iPhone X today.

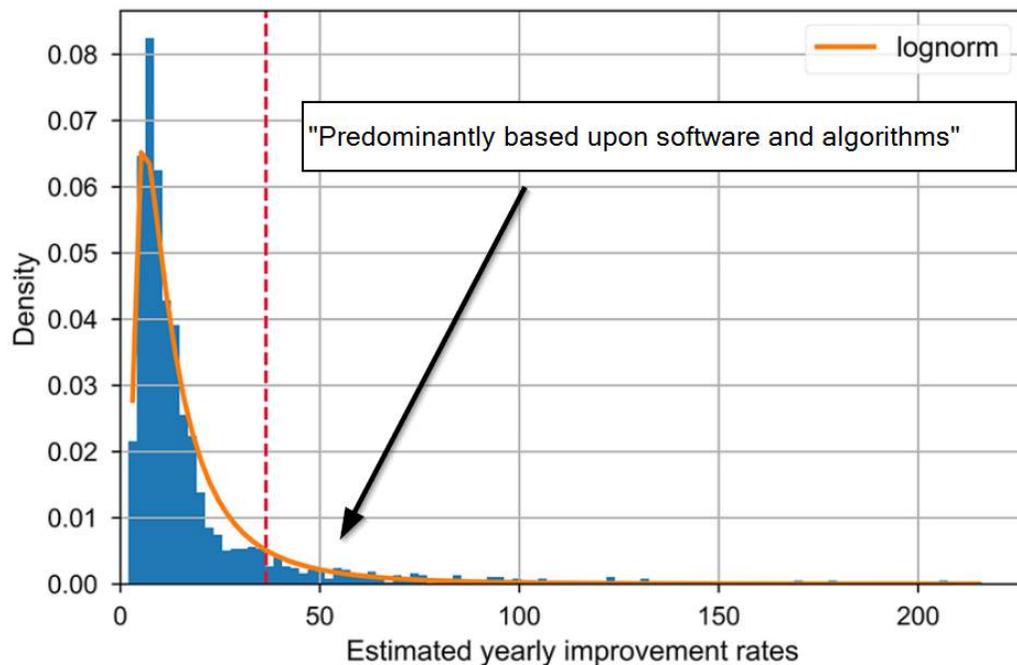


A comprehensive study of technological change

New research using patent data could help inform decision-makers by predicting which technologies are improving the fastest.

Scott Murray | Institute for Data, Systems, and Society
August 2, 2021

 [PRESS INQUIRIES](#)



Distribution of predicted improvement rates (in percent per year) for all 1,757 technology domains. Domains to the right of dashed red line are improving faster than 36.5 percent per year, the predicted rate for integrated chips according to Moore's law.

Image courtesy of the researchers.



September 20th-22nd, 2022
MTech Users Conference



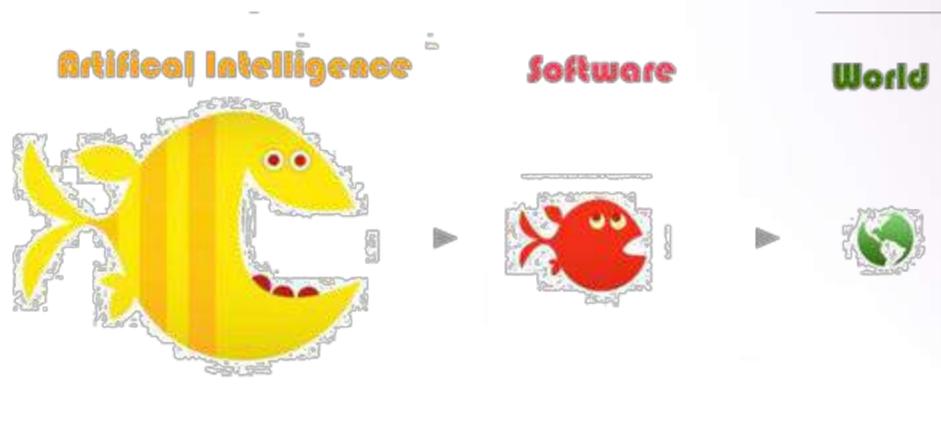
Where we are going...

“In short, software is eating the world”

- 2011, Marc Andreessen

“Software is eating the world, but AI is going to eat software”

- 2017, Jensen Huang



September 20th-22nd, 2022
MTech Users Conference



Technological Pace

- Top executives see technology as their #1 challenge.
- Companies losing due to not innovating:
Nokia, Kodak, Blockbuster, Sears, Polaroid, Borders, JCPenney, Hostess, The Sharper Image, Myspace, Toys R Us, Yahoo, Xerox, Yellow Pages.
- Over the last fifty years, the average lifespan of companies has shrunk from sixty to under twenty years.
- Will you be disrupted?





Strategy Part I – Build Value

Having trouble moving the “IT ball”?

- More than half of all capital spending by businesses worldwide goes to IT. Yet most non-technical leaders remain skeptical about whether their IT investments are paying off.
- Why? No foundation!



September 20th-22nd, 2022
MTech Users Conference



Strategy Part I – Build Value

Management thinks...

We're spending too much on IT.
IT is a black hole.
Projects fail to deliver.
IT doesn't have a customer focus.
We need to spend smarter.
Huge and unknown risks around IT.
Lack of trust between IT and business.
Our CIO speaks a foreign language.

What to do?



September 20th-22nd, 2022
MTech Users Conference



Strategy Part I – Build Value

Build

- Get out of the value traps and the cost mind-set around budgets – move from cost generator to value creator.
- Provide metrics that the business understands.
- Harvest.
- Communicate about the business value IT investments make.
- Show how you deliver for the business and then build.
- Tip: IT's biggest impacts on the business (as perceived by the business):
 - BPR
 - Applications



It's Time to Get Rid of The IT Department

It made sense in a bygone era, when technology was separate from the business. Now it just hurts both.



You need to sit between IT and the Business with one foot in each. IT is the business, and the business is IT.

Having an IT department on its own island is exactly what will prevent companies from being innovative, agile, and digitally transformed.

By Joe Peppard
Wall Street Journal
Updated Nov. 27, 2021



September 20th-22nd, 2022
MTech Users Conference





Strategy Part II – Your Strategy

Digital Transformation

- Where do you start and on what do you focus your efforts?
- Which new skills, tools, processes, business habits and techniques do you need to get there?
- How do you effect positive change when resources are limited and the pressures of “business as usual” remain?

But first let’s get a shared understanding of what digital is.



September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

What is Digital in Digital Transformation?

The screenshot shows a Google search interface. At the top, the Google logo is on the left, and a search bar contains the text "define Digital". To the right of the search bar are icons for a close button (X), a microphone, and a search icon. Below the search bar is a secondary search input field with the placeholder text "Search for a word" and a search icon. The main content area displays the word "dig·i·tal" in a large font, with a speaker icon to its left. Below the word is the phonetic transcription "/ˈdɪjdəl/". Underneath, it says "See definitions in:" followed by four buttons: "All", "Technology" (which is highlighted in blue), "Clockmaking", and "Anatomy". Below the buttons, the word "adjective" is written in italics. The first definition is numbered "1." and reads: "(of signals or data) expressed as series of the digits 0 and 1, typically represented by values of a physical quantity such as voltage or magnetic polarization." This is followed by two bullet points: "relating to, using, or storing data or information in the form of digital signals. 'digital TV'" and "involving or relating to the use of computer technology. 'the digital revolution'".



September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

SMAC? SMACI? SMACAI? SMABCAIIVAR?

- A popular definition of digital for business is Social, Mobile, Analytics and Cloud – or SMAC for short.
- Then SMACI – that extra “I” added to accommodate the growing impact of the Internet of Things (IoT).
- SMACAI to encompass artificial intelligence (AI)
- SMABCAIIVAR to also include Blockchain as well as virtual and augmented reality (VR/AR).



September 20th-22nd, 2022
MTECH Users Conference



Strategy Part II – Your Strategy

Digital – The real definition

“Any technology that connects people and machines with information or with each other, facilitating a new way of doing business”.

- It’s fundamentally about connectivity (and accessibility).
- Our customers’ and employees’ fundamental wants and needs hasn’t changed.
- Behavior is different from analogue ancestors. We see and act differently from the merger of the digital world and ‘reality’.



September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

Set Your Digital Agenda

Depending on the understanding of what digital really is defines the agenda.

Where does digital belong?

Digital is a “business thing” for which there must be shared responsibility across all areas of the organization.

No single function can or should own digital.



September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

Doing Digital vs. Being Digital

Shift from tactical to strategic

Your challenge – Don't be siloed

There's opportunity

Find better processes

Embed digital thinking throughout the organization

Become customer focused



September 20th-22nd, 2022
MTech Users Conference



What is Digital Transformation?

Digital transformation is the change associated with the application of digital technology in all aspects of human society. ... The transformation stage means that digital usages inherently enable new types of innovation and creativity in a particular domain, rather than simply enhance and support the traditional methods.

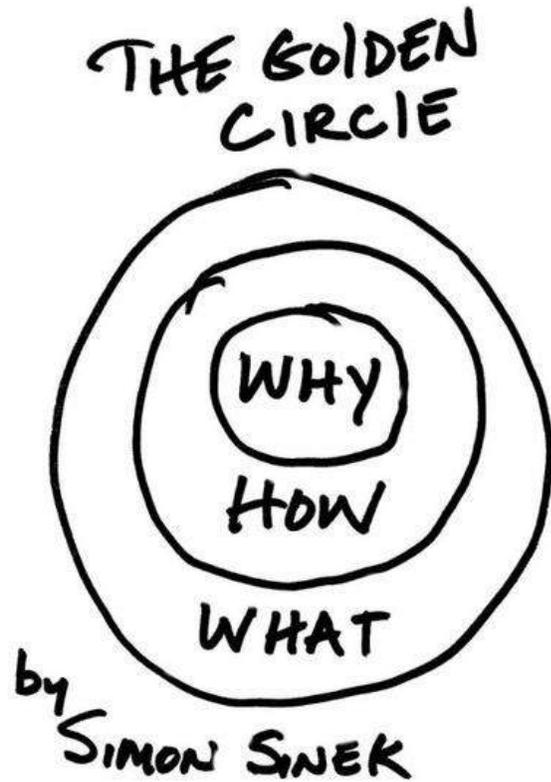


September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

Ask the Why



September 20th-22nd, 2022
MTech Users Conference



Why? Survival of the fittest

Companies already disrupted or new competitors

- Over the last fifty years, the average lifespan of companies has shrunk from sixty to under twenty years.
- Getting fit for digital is really about survival
- Standing on the proverbial burning deck can really focus the mind.





Why? Survival of the fittest

Most successful businesses are the most risk

Less fear of falling behind or falling off a cliff.

- To do: Transition from fragmented technology projects paid for from departmental budgets and evolve with a centrally budgeted integrated strategy.
- To do: Don't have a digital sideshow versus digital as the main event.
- Companies don't innovate because companies that have invested heavily in their systems or equipment don't want to invest again in newer technologies.
- Companies tend to focus on what made them successful and don't take notice when something new comes about.
- Companies are too focused on today's market and don't prepare for change or technological shifts in the marketplace.



September 20th-22nd, 2022
MTech Users Conference



**The time to
repair the
roof is when
the sun is
shining.**

JOHN F. KENNEDY



CHANGE HAPPENS WHEN
THE PAIN OF STAYING
THE SAME IS GREATER
THAN THE PAIN OF
CHANGE.

Tony Robbins

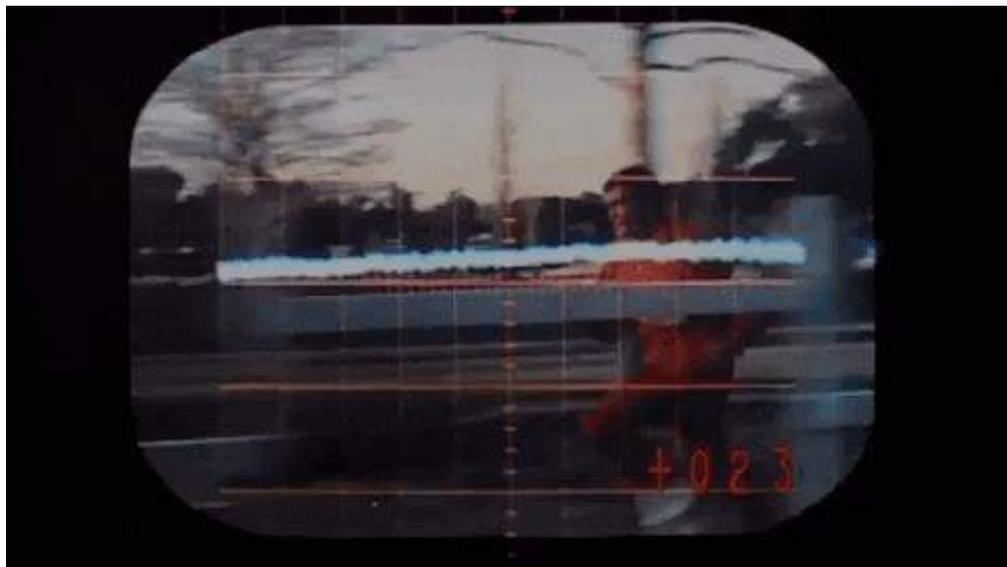


September 20th-22nd, 2022
MTech Users Conference



What will the technologies do for you today and tomorrow?

Bionic Superpowers!



September 20th-22nd, 2022
MTech Users Conference



Bionic Superpowers!

Making humans better

Super vision and hearing: use IOT to listen and see in real-time what is happening in many places.

Super speed: use data to make fast and informed decisions and act on them quickly using digital technology, team collaboration, and agile processes.

Super strength and stamina: automate repetitive tasks in the office or factory and help each person to do the work of many.

Super planning: Use analytics in combination with software to formulate the most effective, efficient, and profitable plans.

Super anticipation: anticipate what will happen next and take action to influence the future.



September 20th-22nd, 2022
MTech Users Conference



The How?

- Leaders must take the initiative. True digital transformation through a bottom-up approach doesn't work in the real-world. The only effective way to drive transformation is top-down.
- Have a clear vision of a promising future
- Adapt to market & technology fast pace of change
- Create strong bonds between business and technical people
- Steer the transformation through strong governance, standardization, and tough calls
- Engage the employees in the goal



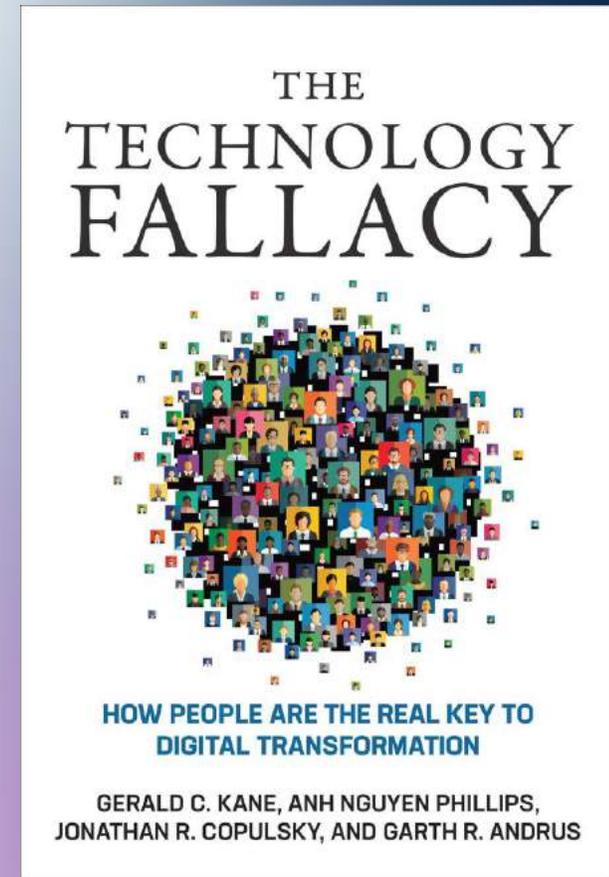
September 20th-22nd, 2022
MTech Users Conference



The How?

It's the people and culture!

- Organizational change is required to harness the power of technology. Digital disruption is primarily about people and that effective digital transformation involves changes to organizational dynamics and how work gets done.
- The best way to respond to digital disruption is by changing the company culture to be more agile, risk tolerant, and experimental.
- Teams are needed to be freer to test, learn and execute in a faster and more agile way.
- “If your company is to gain value from the cloud, your IT department must become more agile, if it isn't already.” – McKinsey & Company 2021



September 20th-22nd, 2022
MTech Users Conference



Strategy Part II – Your Strategy

Reengineer the Business – Organization Change

"You cannot change people so don't allocate the energy to change people. You can influence people's behavior by changing their environment. Focus on that!"

-Clee

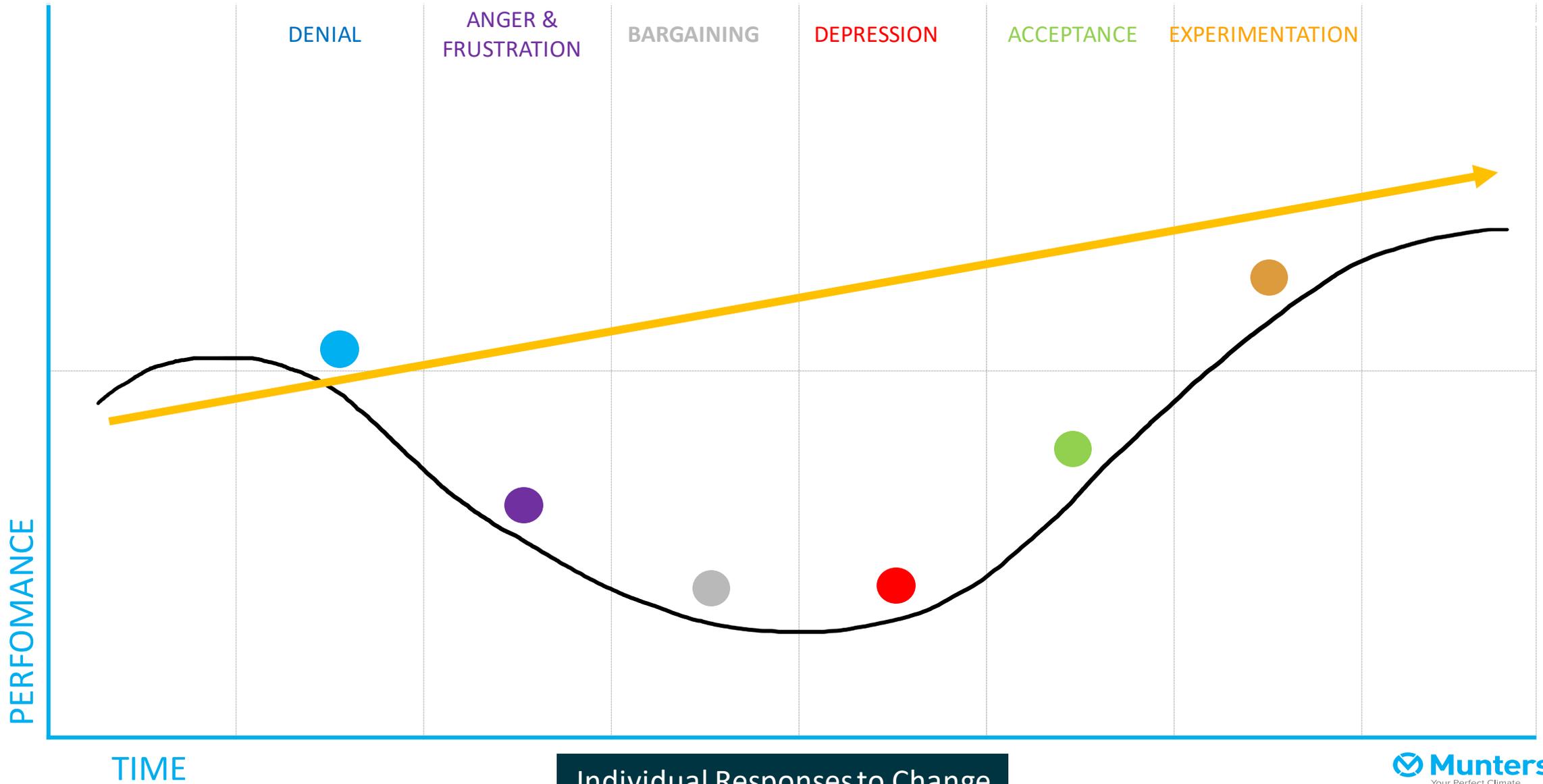
"A way to think about it is, innovation requires variation. And in manufacturing—six sigma, all that stuff—you're trying to reduce variation. The fundamental manufacturing paradigm is to reduce variation, and the fundamental creative, innovation paradigm is to increase it."

- Reed Hastings



September 20th-22nd, 2022
MTech Users Conference

The Kübler-Ross change curve



Individual Responses to Change



The How?

Adapt and Exploit

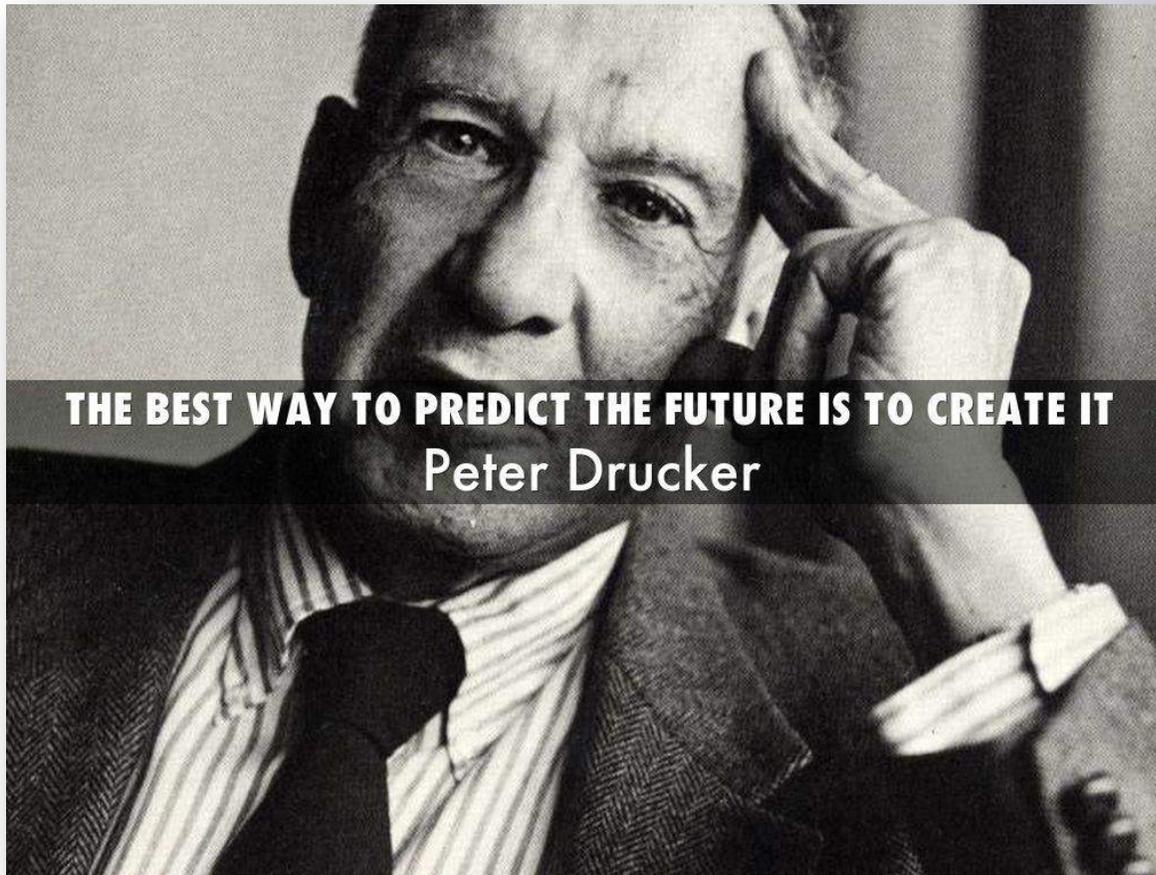
- Adapt an incremental experimental approach: discovery driven-driven digital transformation.
- Exploit your rich knowledge of customers, broad operational scope, and deep talent pools while learning your way to new business models.





Your Strategy

Reengineer the Business – Organization Change



September 20th-22nd, 2022
MTech Users Conference



When digital transformation is done right, it's like a caterpillar turning into a butterfly, but when done wrong, all you have is a really fast caterpillar."

– *Principal Research Scientist George Westerman of the MIT Sloan Initiative on Digital Economy*

"It's not the destination, it's the journey..."

– *Ralph Waldo Emerson*



September 20th-22nd, 2022
MTech Users Conference

References



Harvard Business Review – HBR's 10 MUST READS – On Leading Digital Transformation 2021

"Discovery-Driven Digital Transformation," by Rita McGrath and Ryan McManus

"The Transformative Business Model," by Stelios Kavadias, Kostas Ladas, and Christoph Loch "Digital Doesn't Have to Be Disruptive," by Nathan Furr and Andrew Shipilov

"What's Your Data Strategy?," by Leandro DalleMule and Thomas H. Davenport

"Competing in the Age of AI," by Marco Iansiti and Karim R. Lakhani

"Building the AI-Powered Organization," by Tim Fountaine, Brian McCarthy, and Tamim Saleh

"How Smart, Connected Products Are Transforming Companies," by Michael E. Porter and James E. Heppelmann

"The Age of Continuous Connection," by Nicolaj Siggelkow and Christian Terwiesch

"The Problem with Legacy Ecosystems," by Maxwell Wessel, Aaron Levie, and Robert Siegel

"Your Workforce Is More Adaptable Than You Think," by Joseph B. Fuller, Judith K. Wallenstein, Manjari Raman, and Alice de Chalendar

"How Apple Is Organized for Innovation," by Joel M. Podolny and Morten T. Hansen

"Digital Transformation Comes Down to Talent in Four Key Areas," by Thomas H. Davenport and Thomas C. Redman.

The Technology Fallacy: How People Are the Real Key to Digital Transformation

Authors: [Garth R. Andrus](#), [Jonathan R. Copulsky](#), [Anh Nguyen Phillips](#), [Gerald C. Kane](#)

2019

Real Business of IT: How CIOs Create and Communicate Value

by [Richard Hunter](#) (Author), [George Westerman](#) (Author)

2009

Three actions CEOs can take to get value from cloud computing – July 2020

-McKinsey & Company

[Three actions CEOs can take to get value from cloud computing | McKinsey](#)

The Next Normal - Digitizing at speed and scale - August 2020

-McKinsey & Company

In brief: [Managing the pace of technological change](#)

The Economist Intelligence Unit, [Business Reality Check 2018](#)

[Technological change - The Business Reality Check \(eiu.com\)](#)

Here's How Fast Cars Would Be If They Advanced At The Pace Of Computers

By [Jason Torchinsky](#)

[5/28/20 3:50PM](#)

[Here's How Fast Cars Would Be If They Advanced At The Pace Of Computers \(jalopnik.com\)](#)



September 20th-22nd, 2022
MTech Users Conference



September 20th-22nd, 2022
MTech Users Conference

Thanks Gracias 謝謝 اركش Danke Спасибо ありがとう Obrigado

mtechsystems.io