

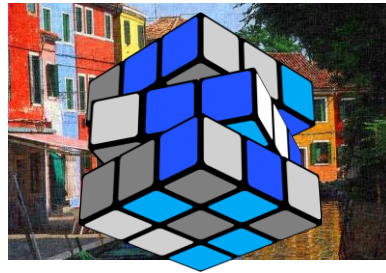
MGNT4090 Technology and Innovation Management

2020 - 21

Prof. Hong HUI

Wk6

- Digital Transformation



Wk5 Review

- New Thinking Mindset (Product; Model; BO; DI)

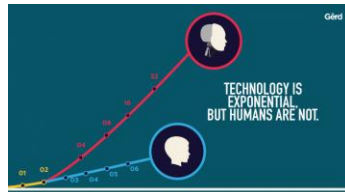
- **Situation Analysis**
 - **Future Oriented**
 - **Customer Centric**
 - **Competition from Disruptors**
- **Transformation**
 - What does the winning company of the future look like?
 - How do we get there?
- **Competition is not the only way to win**
 - No need to compete with copycat
 - Create new ways of doing things
- **Blue Ocean Strategy (Value Innovation)**
 - Create New Market Space
 - Target New Customers
 - Not necessary using New Tech
 - Start from the Low end
- Not bounded with the game rule defined by leaders in a particular industry
 - *Hence we should understand the trends & pains across multiple industries*



Wk1-6

- The Foundation (Creativity; Transformation; **Tech**)

- **There is no Business as Usual (Tech introduce change exponentially)**
 - Creativity & Innovation
 - Customer Pain
 - Corporate Transformation into the Future
 - Innovative Growth Engine
 - Blue Ocean
 - Create New Market



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- **Digital Transformation (Technology Innovation)**

- Apply to Core, Adjacent & New Frontier (**Difficult to Copy**)
- **Core/Adj**
 - Recommendation Engine
 - Customer Journey & Experience
 - Automated Decisions & Processes
- **Frontier**
 - Next generation of products & services
- Platform Company
- Future Tech Function
- Data Driven Organization

What is your New Vision?

- Common Trends across Industries; the New Normal

- **Situation Analysis**
 - Data & Logic Driven
 - Reference Mck, Bcg
 - Future is no longer an extension of present
- **What is your Vision (plus Imagination)?**
 - *Change in the next 10 years might more than the previous 100 years – Tech create new possibilities*
 - Smart Lifestyle
 - Sustainability
 - Personalization
- **Every company can become a lifestyle company (solution provider)**
- **Every company is a technology company**
 - **Example: Amazon**
 - Sell books online
 - Sell other products online
 - Provide a Cloud Solution
 - Create the next generation of eCommerce
 - ...
- **A Non IT Company**
 - **Example: Any Company starts with a Core business**
 - Provide basic Lifestyle Products & Services
 - Establish the Platform & Ecosystem (Tech Function)
 - Transform into Smart products for Home, Office & City



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Reposition the Core in the New Normal

- Integration of Online with Physical

- **Disruption from COVID-19 (There is no Normal)**
 - Home
 - Shopping
 - Future of Work
 - Health & Well Being
 - Learning
 - Entertainment
 - Communication
- **Need to provide more Personalized Products & Services (Future Store)**
 - Made to Order
 - VR Shopping
 - Zoom Call to Sell
- **Need to Rethink How to Engage with Customers in the New Normal**



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Develop Adjacent & New Frontier Business

- Shape the Future (BOS + DI)

- **Example: VR Tour**
 - A Blue Ocean & Disruptive Innovation
- **Customer Pain**
 - Not everyone can enjoy the luxury of holiday
 - Don't like the Long-haul Flights
 - Worry about the Sporty & Adventure Activities
- **Non-Customers in Tourism (Blue Ocean)**
 - Disabled
 - Elderly people
 - During COVID-19 Period
 - ... across countries
- **Value Proposition**
 - Enjoy the trip experience through VR without the actual physical travel



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Wk6 Agenda

- Every Company is a Tech Company (Not Easy)

- **How to Win**
 - A Digital World
 - Reinvent the Corporation continuously
- **The Disruptive Innovation (Theory)**
 - Why good companies fail
 - Two basic methods to disrupt
- **The Digital Transformation (Practice)**
 - Technology Strategy
 - The Roadmap
 - Five Steps to Success
 - Tech Function of Future
 - Examples
- **Tutorial Session**
 - Submit Tech Report
 - Case Study: DBS (vs Ant Group)
 - Group Discussion
 - New Vision
 - Solution Recommendation



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The Blurring Boundaries

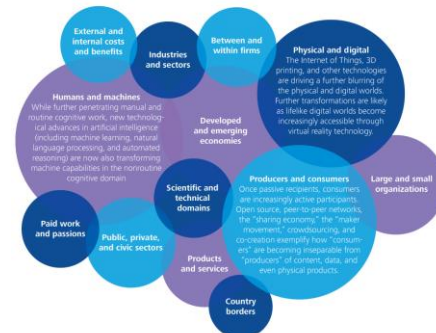
- We are living in a Digital World

- **Long-standing boundaries and constraints that have traditionally determined the evolution of business are dissolving, allowing new ecosystem possibilities to flourish**
 - Human & Machine
 - Producer & Consumer
 - Physical & Digital
 - ...

• **Blurring of Industries**

- Transform into multi industries

Figure 1. Fundamental boundaries are rapidly blurring in the business environment and economy



Source: Deloitte analysis.

Graphic: Deloitte University Press | DUpres.com

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The 12 Disruptive Technologies

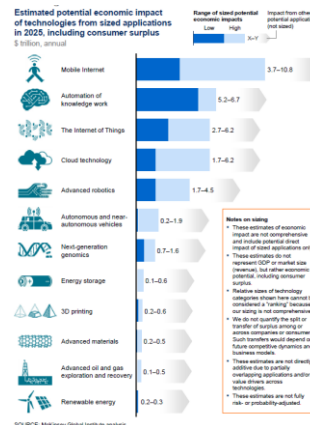
- McK Report (2013-2025)

- **Technology** is moving so quickly and in so many directions
 - It becomes challenging to even **pay attention**
 - Need to explore the scope and impact of those technologies to the growth and performance of organizations



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• The Next Big Things & Economic Impact



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Technologies enable the Disruption

- **The Benefits of Technologies**
 - **Disrupt and Re-shape Multi-Industries**
 - Alternative Implementation
 - Faster, Cheaper & Convenient
 - **Create Business Value**
 - Process Transformation
 - Business Model Innovation
 - New Functionalities & Products
 - **Enable New Business Opportunities**
 - Online
 - Rental
 - Sharing



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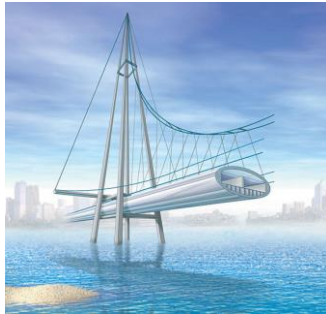
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The CEO Key Questions

- Same Questions for your Project Assignment

- **What does the company of the **future** look like?**
- **How do we get there?**
 - Core, Adj, Frontiers
- **Four Pillars from Leading Tech Companies**
 - **1.**Digitizing Customer Relationship
 - Omnichannel Experience
 - **2.**Harnessing Data and Advanced Technology for Decision Making
 - Data driven Organization
 - **3.**Digitizing Operation and Automating Processes
 - Robotics & AI
 - **4.**Building Digital Talent and Organization
 - Organization of Future



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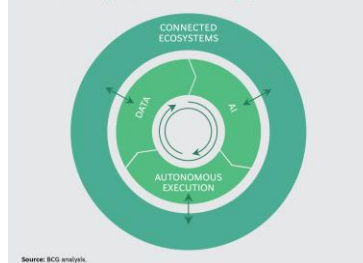
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How do we Win in a Digital World

- The Winning Architecture (Data; AI)

- **Familiar with Use Cases from various Industries**
 - How to apply to your company?
- **Build the Digital Business of tomorrow**
 - Build the Tech Function
 - With good Quality & Design products
 - Support Customer Journey & Experience
- **Make the most of the Future of Work in a digital world**
 - Hire the digital talent
 - Promote Human to collaborate with Robot
- **Leverage Sources of Disruption**
 - New Business Models
 - Value Innovation (**Blue Ocean**)
 - Technology Innovation (**DI**)
- **Reinvent the Corporation**
 - Platform & Ecosystem
 - Cloud
 - **Data** Analytics
 - AI & Robot
 - IoT; VR/AR
 - Benchmark with Winning Companies

EXHIBIT 1 | The Integrated, Autonomous Learning System



Source: BCG analysis

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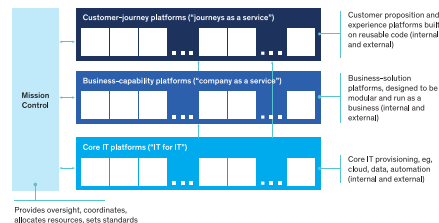
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Operate like a Tech Company

- The Platform Play (from one industry to another)

Journey as a Service Business as a Service Supported with Core IT Platform

Platforms are grouped into three broad areas.



McKinsey
& Company

Retail and banking examples show the services offered on each platform.

	Retail example	Banking example
Customer-journey platforms	<ul style="list-style-type: none"> In-store browsing and shopping for weekend Clicking and collecting Same-day home delivery Subscribing ... 	<ul style="list-style-type: none"> Searching Account opening Transacting Buying house (from valuing house to getting mortgage) ...
Business-capability platforms (to enable journeys)	<ul style="list-style-type: none"> "Retailer as a service" Store- and warehouse-inventory management Merchandising ... Employee-pension management ... 	<ul style="list-style-type: none"> "Bank as a service" Payments Real estate valuation Credit underwriting ... Employee-pension management ...
Core IT platforms	<ul style="list-style-type: none"> In-store live video data-management platform ... In-store face recognition Cloud platform Access and identity management ... 	<ul style="list-style-type: none"> Omnichannel IT platform-development environment ... In-branch face recognition Cloud platform Access and identity management ...

McKinsey
& Company

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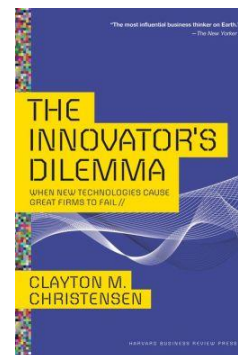
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The Innovation Dilemma

- Why Technologies disrupt Industries?

- **Provide the Insight**
 - **Why Good Companies Fail?**

- One of the most influential business ideas



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Why Good Companies Fail

- **Companies fail due to many reasons**

- Bureaucracy
- Arrogance
- **Short-term focus**
- Inadequate Skills & Resources
- Bad Luck
- Unpredictable Challenge ★
 - Trade War
 - COVID-19

- **Reluctant to Change** ★
 - **Core business is Great!**



- **What about those well managed companies?**

- *Good management was the most powerful reason they failed*



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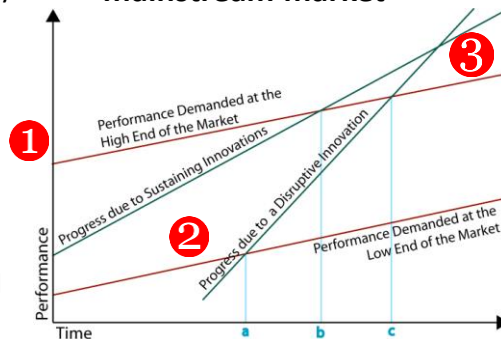
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The Main Characteristics of Disruptive Innovation (DI)

- **The Main Characteristics**

- Create new technologies that revolutionize old ways of doing things
- Start out in new markets but able to satisfy the mainstream customers once the performance improves due to technology progress
- Align the business model with innovation

- **Disruption will gradually overtakes an existing mainstream market**



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The Disruptive Innovation

- Simpler, Less Expensive, More Convenient

- The **Disruptors** offer lower performance, less functionality but at a **much lower price & good enough**
- Research shows that corporate lifespans are shrinking, and that half of today's S&P 500 will be replaced over the **next 10 years due to new disruptors**
 - **New technologies** have potential impact to many industries from low market then upwards
- **Example: Insurance**
 - **Driverless cars** could be as revolutionary to the insurance business as they are to automakers
 - *What happens to their business models when there are no more car accidents?*

Disruptive innovation is the triumph of the **'good enough'**: a product or service that begins by addressing simpler, bottom-of-the-market customer needs, then moves upmarket to overturn marketplace incumbents.

Will you disrupt, or be disrupted?

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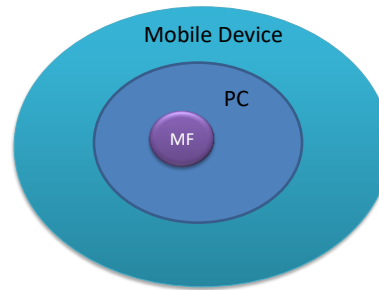
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Examples

- Simple, Affordable, Accessible

- **Mobile** disrupts PC & PC disrupts Mini & Mini disrupts Mainframe
- **Social Media** disrupts the Classical Media
- **Online Shopping** disrupts the Physical Stores
- **Online Education** disrupts the Classroom Education
 - **Now, during COVID-19, zoom is the mainstream**
- **Digital Camera** disrupts the Film
- **Electric Car** disrupts the Diesel Car



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There exists Two Major Types of Innovation

- Clayton's Definition

- **Sustaining Innovations**
(good product better)
 - Targets demanding **high-end** customers with better performance than what was previously available
 - Sometimes incremental improvements
 - Sometimes breakthrough leapfrog over competition
- **Disruptive Innovations**
 - Introduce products and services that are not as good as currently available products (**good enough**)
 - But include other benefits such as more simpler, convenient, less expensive
 - Appealing to **new** or **less demanding** customers
 - Able to replace mainstream products subsequently

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Two Basic Methods to Disrupt

- **Creating a New Market**
 - Search for ways to target **non-consumption (new market)**
 - Are prevailing products more than good enough?
 - People's inability to use available products or services because they are **too expensive** and **too complicated** or difficult to access
 - Target customers who welcome simple products or new ways of doing things
- **Disrupt the Industry from the Low End**
 - Target the least demanding tiers of a market (**low end**)
 - Prevailing products are so good they **over-serve** customers
 - Can you create a different business model?
 - Start with a low cost structure

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Example - Tata Nano: The People's Car

- The Low end

- On March, 2009, Tata Nano was launched in India to meet all safety standards, exceed emissions norm, high in fuel efficiency and the price was within everyone's reach (**USD1984**)
- Within two weeks, order applications reached **200,000** the biggest sales uptake in the history of global automobile industry



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Example – Google Car

- The New Market

- In 2010, Google started to develop **autonomous vehicle** technology and predicted driverless cars would be available by 2017
- Google aimed to reduce accidents and fatalities, shorten commute times and improve the quality of life for the blind and disabled – free up people's time
- In **2014**, Google began building small two-passenger prototype vehicles with no steering wheel, brakes or accelerator. The pod-like vehicles featured a button to start and stop the vehicle and screen that displayed the intended route



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Leading Companies Overlook Great Opportunities starting from **Low-End**

- **The Main Difficulties for Established Firms**

- Their lead customers are not asking for it
- **The new market appears small initially**
- It does not fit with the existing model
- **The current organizational capabilities were not crafted to deal with it**



- **Example: The IT Industry**

- **IBM** dominated the mainframe but missed the emergence of minicomputers & PC
- **Digital Equipment** dominated the minicomputers but missed the personal computer market

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The Big Lessons to Learn

- The Dilemma

- **Good Management in Large Corporations always choose**

- *Rational Investment*
- *High end Customers*

- **Overlook/Reluctant to Accept**

- Technology Improvement can Replace the Mainstream market



- Companies depend on Customers for Resources
- **Small Markets** Don't solve the Growth Needs of Large Companies
- **Markets** that Don't Exist Can't be Analyzed
- **An Organization's Capabilities Define its Disabilities**
- Technology Supply may not Equal Market Demand

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Traditional Principles Might Not be Universally True

- **The Perception**
 - Listen and respond to the unmet needs of your **best customers (high end)**
 - Focus investments in those opportunities that promise the most attractive profit margins
 - Outsource those activities that are **low value-added** and not your core competencies
- **Large markets represent the biggest growth opportunities**
- **Just Incremental Innovation is Not Enough**
 - Innovations that help incumbent companies earn higher margins by selling better products to their best customers are **sustaining not disruptive**
 - Just continuous Improvement

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The Failure Framework

- The Four Key Elements

- **1.**Corporations are improving along **sustaining innovations**
- **2.**Corporations always **overshoot customer** needs
- **3.**They possess the capability to respond to disruptive threats but **ignore**
- **4.**Unable to decide what to do or too late
- Finally, Corporations are disrupted
- **The Reality**: A mixed results
 - **From completely disrupted to co-exist**



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Why Disruptive Works

- Once the disruptive product gains a foothold in new or low-end markets, **the improvement cycle begins**
 - Because of the pace of **technology** is faster than customers' ability to use it, the previously not good enough technology improves enough to intersect with the path of more demanding customers
- **Disrupting has a paralyzing effect on industry leaders who are always motivated to go up-market**
- **The Shaping ideas**
 - A new market disruption
 - A low-end disruption
 - Both (Hybrid)

China's brands are eroding Apple – Samsung's dominance in Smartphone

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Early Warning Signs of Disruptive Change

- Change in Customer Habit; Increase in Disruptors

4 | Early Warning Signs of Disruptive Change

How worried should you be about looming disruptive threats?
Use the table below to gauge the **seven early warning signs of disruptive change**

		LOW Risk	MODERATE Risk	HIGH Risk
Stage 1 Circumstances	Customer loyalty	Stable or increasing	Slow decline	Rapid decline
	Venture investment	Little or none	Substantial seed and early-stage activity	Substantial growth-stage activity
Stage 2 Catalysts	Policy changes	Little or none	Under consideration or discussion	In the process of being implemented
	Industry entrant activity	Little or none	Growth at the low end or fringe of the market	Entering or present in the mainstream
	Customer habit shift	Habits are stable	Change at the fringes	Change in the mainstream
Stage 3 Impact	Business model innovation	Entrants optimizing existing models	Entrants experimenting with different models	Entrants successfully executing different models
	Profit margins	Stable or increasing	Slow decline or increasing due to cost management	Rapid decline

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The Capability Building

- It's more than the Classical Strategies

- **The Classical Approach**
 - Differentiation vs Cost Leadership
 - Continuous Improvement
 - Product & Services
 - **Diversification**
 - Internal Development
 - M&A
 - Alliance
- **The Technology Approach (Digitization)**
 - **Define your Technology Strategy**
 - Identify areas of Disruption to Address
 - Enhanced Decision Making
 - Discover new trends
 - Price & Product Optimization
 - Predictive Maintenance
 - Radical Personalization
 - Automation using Robotics & Machine Learning
 - Support new Business models
 - Launch Experimental projects



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A Great Innovative Company - Amazon

- **Start from Selling Books Online & other categories**
- Then eCommerce Giant
- Now even covers Cloud Computing (AWS) & IoT (Button)
 - **Aggressively explore the New Frontiers**
- **The Future Smart Home**
 - Make your re-order purchase easier



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Do we have to Stick to the Definition?

- **Disruption has been Overly Used**

- Able to get the Job done is a **Good Cat**



- **As a Business Practitioner**

- The Leader has to make the final call with **thoughtful analysis** on how to set the **Direction** for a particular company

- **Apply Blue Ocean, Tech or BOTH**
- **Have a Portfolio of Products & Businesses**

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Is Tesla a Disruptive Innovation?

- **How Tesla Disrupts the Automobile Industry?**

- Direct Model
- Success at the High End First
- Core Competency in Battery Development & Production
- Driver Experience
- Software Expertise
- Invest in Charging Infrastructure

- **Tesla is not Disruptive**

- It starts from **High end** rather than Low end first
- Traditional Car Companies do not overshoot customer needs
- GM, Toyota & BMW can shift to EVs relatively quickly



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Is Uber a Disruptive Innovation?

- Disrupters *start* by appealing to **low-end** or **unserved consumers** and then migrate to the mainstream market
- **Uber does not originate from either one**
 - Disruptive Innovation originate in **Low-end** with good enough product
 - Create a **New Market** where none existed
- Most of the elements of Uber's strategy seem to be sustaining innovations
 - **better quality ride** but
 - Its business model is built on asset sharing
 - Uber has developed a collaborative ecosystem
 - Uber applies usage-based pricing



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The Difference Between DI & BOS

- Non-Disruptive & Disruptive Innovation to **WIN**

- **The Common Areas**
 - Start from the **Low-end**
 - Create the highest impact to a large population of low end (DI) or **non-existing customers with new value (BOS or DI)**
 - Simple to use
 - Convenient
 - Have fun
 - Affordable, Just Enough
 - A new way of doing things
- **BOS (easy to be copied)**
 - Create a new market space
 - Redefine the problem to create new demand
 - Not necessary use technologies (value)
 - Non-destructive creation
 - Complement rather than displace
- **DI (difficult to be copied)**
 - Can start from the low-end of existing market & gradually replace the mainstream or Create a new market
 - **Use technologies**
 - **Replace the old one**
 - Need higher investment with high risk



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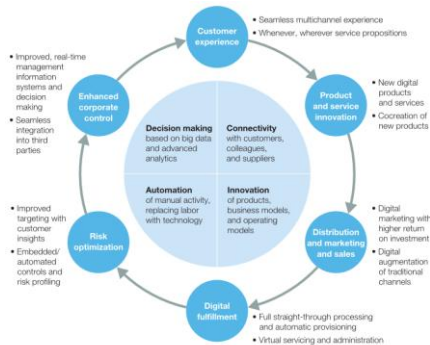
Disruptive Innovation – Q&A Session (Tech + Start from Low end)



The Digital Transformation - A Holistic Approach

- **How to do it in a Systematic Manner?**
 - Read Use Cases & related Articles to know the Big Picture
 - Establish your Tech Strategy
 - Paint a Roadmap
 - **Appoint Champion** & Establish a new team to Experiment
 - Build the Tech Function, Hire the IT Talent, Select a few strategic projects & Demo an initial Success

- **Technologies disrupt all industries and value chains of a Company**

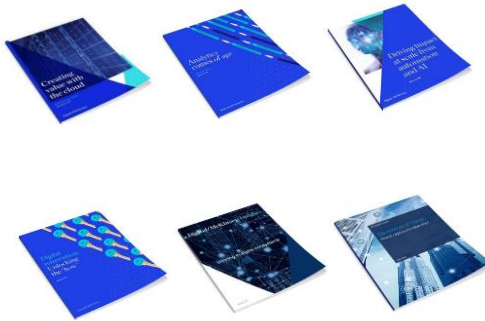


Source: Expert interviews; McKinsey analysis

Start with the Big Picture

- Study Use Cases & related Articles

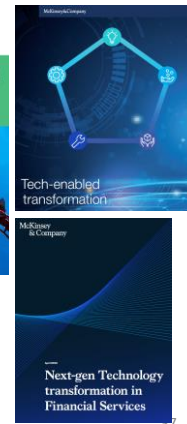
- Mck



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- BcG/McK

Flipping the Odds of Digital Transformation Success



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Play as a Technology Company

- Business + Tech Strategy

- **Best Options**

- 1. **Digital Born**
 - Amazon
 - Stitch Fix
 - Eg. Entrepreneurs in New Economy
- 2. **Digital Transformation (Business + Tech)**
 - Not easy for a Non IT company in Old Economy
 - But feel the Pain & Urgency
 - COVID-19

- **The Digital Transformation Playbook**

- Define the **Technology Strategy**
- Paint the Roadmap
 - CoE
- Create the Tech Function of the Future
- Pay Attention to Resilience
- Reference Use Cases

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Identify where Digital is having the biggest Impact (Revenue Generation; Cost Reduction)

- **Leaders** need to review the new frontiers where big changes are happening, the core elements of the business affected by change, and the foundations needed to support the change
 - Apply Tech with **greatest impact to core, adjacent & frontier**

Leaders must understand where digital is having the greatest impact.

Digital affects core businesses, opens new frontiers, and requires foundational change.

Emerging themes			
New frontiers	Connected cars and autonomous driving	Industry 4.0	E-government and e-education
	Smart grid, digital utilities, and smart home	Digital patient and e-health	Digital consumer journey
	Digital logistics	Financial technology and digital banking	Digital media and entertainment
Customer-experience design		Value chain	
Core	Digital front-end processes	Integrated physical and digital experience	Automation of back-end processes
	Multichannel commerce	Customer-life-cycle management	End-to-end digitization
	Digital marketing and social media		Outsourcing of support functions
Technology		Organization and culture	
Foundations	System and data architecture (2-speed IT)	Big data and advanced analytics	2-speed organization
	Devices	Data security	Cross-functionality
	Connectivity		Digital talent
			Agility
			Flat hierarchies

McKinsey&Company

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The Technology Strategy

- What degree are you transforming?

- **Four Main Areas to Start with**
 - 1. Strengthen Customer Experience
 - 2. Streamline Business Operation
 - 3. Provide advanced Analytics & Intelligent Automation
 - 4. Support New Business Models & Product innovation

• The Actions

- **Assess your Current Situation**
- Set Digital Vision
- Establish the Digital Organization
- Build the Tech Function of the Future
- Experiment with Pilots
- Scale the Impacts
- **Measure & Monitor the progress**



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Drill down further from Tech Strategy

- Reference Deloitte Articles; Consult Champions

• Example: The AI Framework

– Efficiency Model

- Automation

– Effectiveness Model

- Workflow Management

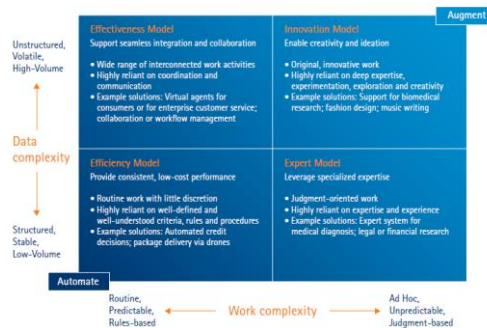
– Expert Model

- Remote Diagnosis

– Innovation Model

- Fashion Design Robot

• From Automating to Augmenting



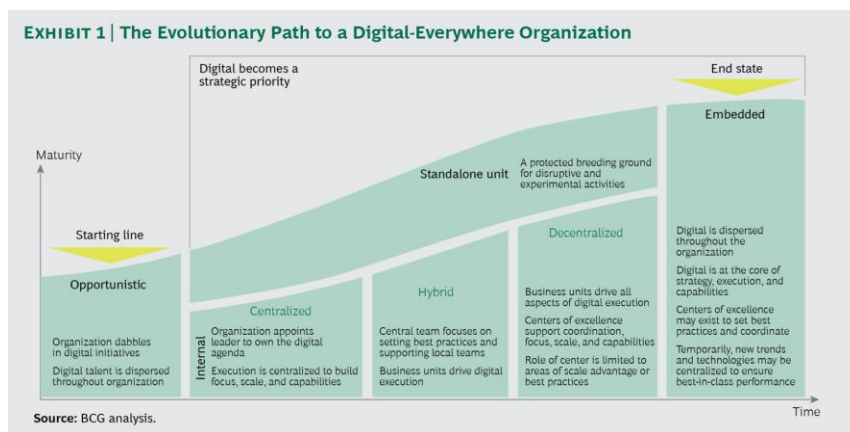
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The Digital Growth Roadmap

- A Process (Opportunistic; Centralized; Decentralized)



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Five Steps to Successful Transformation

- Build the New Capabilities to Scale

Five Steps to Successful Transformation



Source: BCG project experience.

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Build the New Capabilities to Scale

- **The Various Pathways**
 - Experiment from Use Cases with Focus
 - Work with Partner(s)
 - Tech Startups
 - M&A
 - Establish Digital Center of Excellence (CoE)
 - Transform into a Tech company stage by stage
- **1. Hire IT Champion & Talent**
 - Stitch Fix has more than 100 Data Scientists
- **2. Train Internal People as Analytics Translator (Business Expert + Basic Tech Understanding)**
- **3. Start with the Basic**
 - Website
 - App
 - Social Media
 - Google Analytics
 - Recommendation Engine



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Create the Tech function of the Future

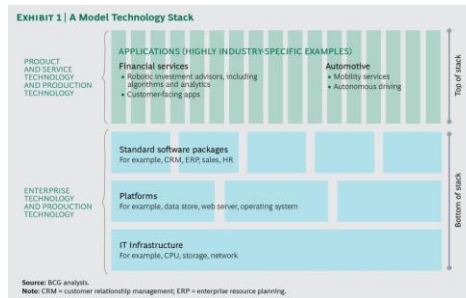
- Integrate Business & Tech together

- **To handle the digital shift, companies must bring business and technology together**

- Three categories of technology: **product and service** (technology embedded in end products and technology that embeds end products into digital ecosystems and customer interfaces)
- **production** (technology in the industrial production processes of physical goods), and
- **enterprise** (infrastructure, platforms and standard software packages)

- **From Value Chain to Tech Stack plus**

- Data Platform
- COE
- Ecosystem



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The Data Platform

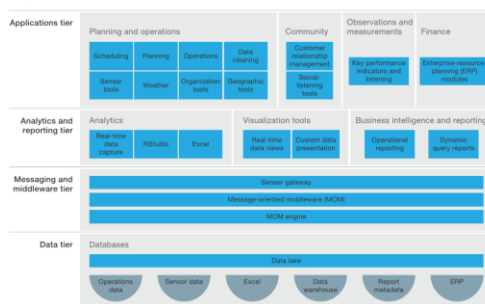
- Support both structured & unstructured data

Data & Analytics Architecture

- Application/Analytics/Data Layers

For any sizeable company, a state-of-the-art data and analytics platform is necessary.

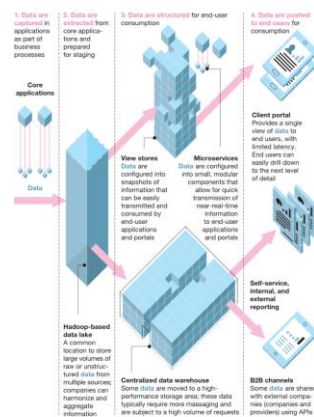
Data platform, schematic



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Data Lake (support unstructured data)

Data lakes are allowing companies to transmit data to end users faster.



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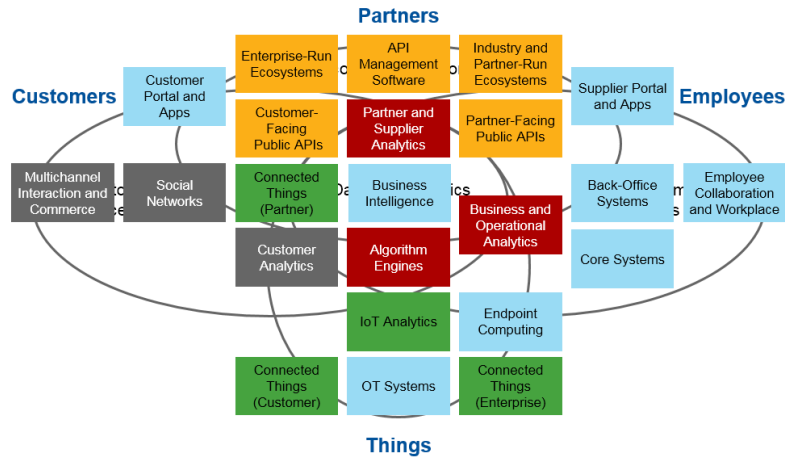
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The Ecosystem

- Collaborate with Partners; Customers; Employees; IoTs



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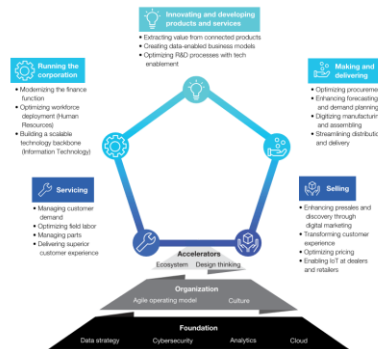
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Value Capture Framework for Tech Enabled Transformation (Trillion Dollar Opportunity)

Value Capture Framework (Value Chain)

Our value capture framework for tech-enabled transformations



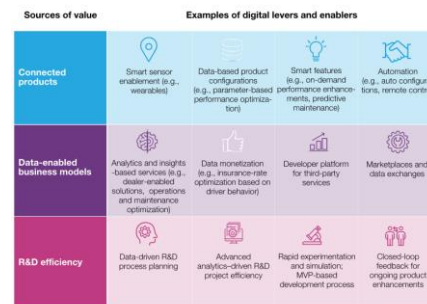
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Value Drivers for Product Development

(1st Element: Connectivity + Data Enabled)

Value drivers and enablers in product development and innovation



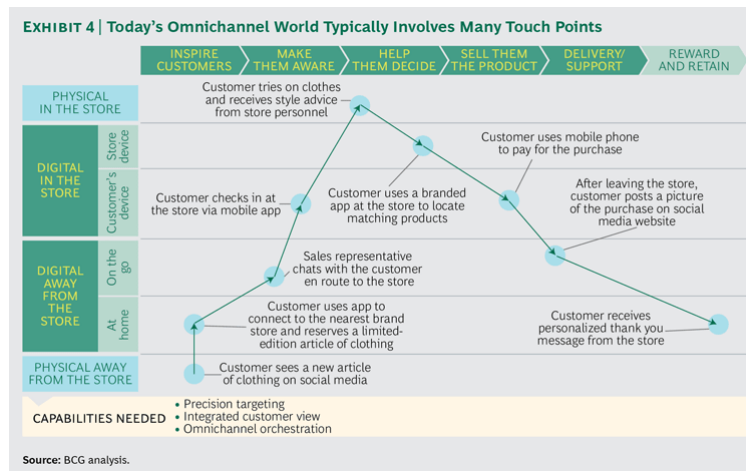
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Example – Digital Shopping

- Integration of Online & Physical (The Details)



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Example - Digital Transformation in Financial Services (FinTech - SMEs)

We see more than 30 tech-enabled areas emerging as new norms in banking.



Source: Panorama by McKinsey

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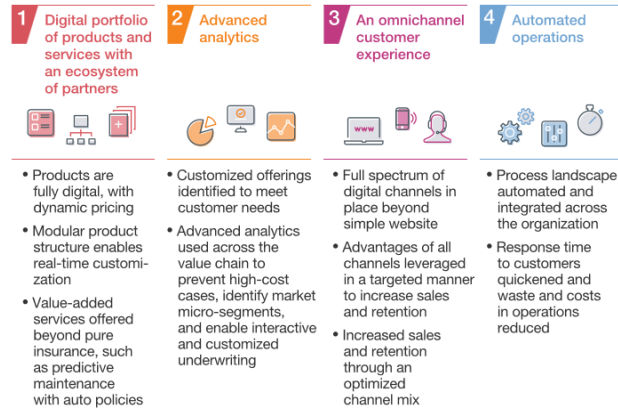
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Example – Digital Insurance Business

- Four Elements of Digital Initiatives

Four elements of a high-performing digital insurance business



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Example – Fashion Digital Transformation

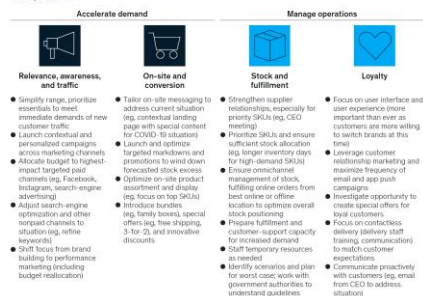
- Customer Journey + Future Store + New Products

- **Accelerate Online**
 - Demand Generation & Operation

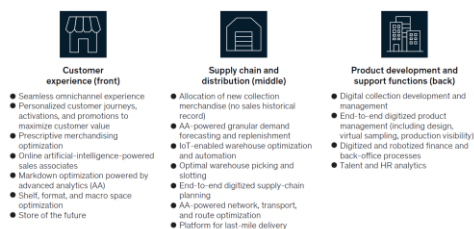
- **Digital Value Chain**
 - Customer Experience
 - Analytics
 - Supply Chain
 - Product Development & Support

Companies must accelerate their online capabilities in both demand generation and operations management.

Example levers



Digital and analytics can transform domains in every part of the apparel value chain.



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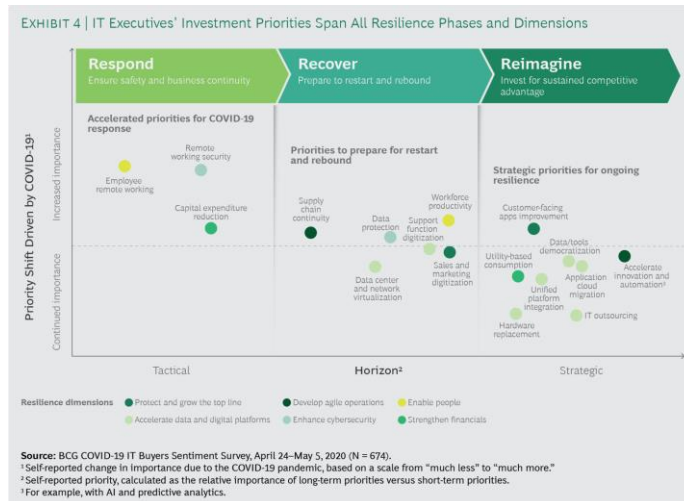
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Example - Develop Digital Resilience

- Reset, Restart & Reimagine

Investment

- Remote Working
- Supply Chain
- Customer App
- Sales
- Marketing



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Why Transformations Fail

- An Ongoing Process; Need Promotion & Training

- **Customers buy your Products NOT technologies**

- The big digital bets did not pay off **quickly** enough or richly enough to counter the drain they represented on the rest of the business
- The desirability of your products (value) can affect a company's success more than its digital capabilities
- **Train your Frontline people as well as Customers**

- Digital transformation is an **ongoing process** of changing the way you do business rather than you can buy and plug into the organization
- It's important to calibrate your digital investments to the **readiness** of your industry – both customers and competitors
 - **Careful about Moonshot project**
- Should make steady progress toward the right end state with the right Talent

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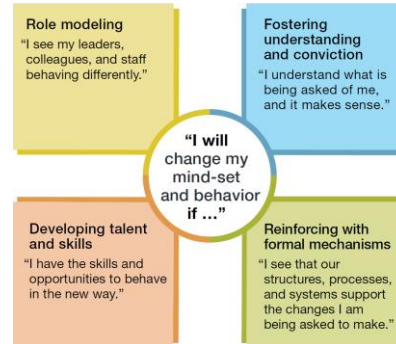
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Key Factors to Success

- Ensure Initial Success to create the Momentum

- **Leadership & Strategy**
 - Having the right, digital-savvy **leaders** in place (eg Transformation Office)
- **Right People at the Right Place**
 - Building capabilities for the **workforce of the future (right portfolio of talent)**
 - Empowering & **train** people to work in new ways
- **Measure & Monitor the Progress**
 - Giving day-to-day tools a digital upgrade
 - Communicating frequently via traditional and digital methods

- **The Change Influence Model**



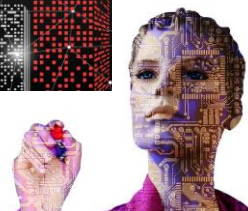
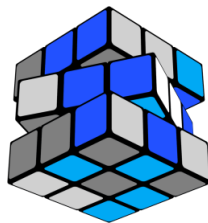
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Digital Transformation Examples & Exercises (Benchmark with Stitch Fix; Ant Group)

- The digital transformation of any enterprise is a challenging task requiring a willingness to embrace cultural change, the ability to immerse the entire organization in the customer journey, and a total commitment to digitize to the core – **DBS Chief Information Officer**



Learn from Use Cases



L'Oreal Group Digital Transformation - AR; AI (Personalization)

- **Where Beauty meets Tech**
 - *Shape the Future of Beauty*
- **Acquired Modiface in 2018**
 - Modiface has developed advanced technologies of 3D virtual make-up, color and skin diagnosis services
- **Offer "Custom D.O.S.E" – Tailor made Skincare Service**
 - Is a state-of-the-art service engineered to scan and evaluate consumers' unique skin needs and combine active ingredients into a **tailor-made, corrective serum**
 - The D.O.S.E technology empowers skincare professionals to co-create personalized formulas that address consumers' unique skincare needs on the spot, in minutes
- **Launch the "L'Oréal Perso" Device**
 - It uses **artificial intelligence** to produce individual cosmetics. This handy device, developed by the L'Oréal Technology Incubator, is 16.5 cm high and weighs only about 0.5 kg. In a four-step process, Perso produces skin care and decorative cosmetic products on the spot



LEGO

- Understand the Company, Industry & Players

- **LEGO is a line of plastic construction toys that are manufactured by The Lego Group, a privately owned company based in Denmark**
 - The LEGO Company was built upon a vision that we should nurture the child within every one of us
- **LEGO introduced the Ten Product Characteristics in 1963**
 - Unlimited play potential
 - For girls and for boys
 - Fun for every age
 - Year round play
 - Healthy, quiet play
 - Long hours of play
 - Development, imagination, creativity
 - The more LEGO, the greater the value
 - Extra sets available
 - Quality in every detail



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LEGO targets 220 Stores in China by 2020

- Is it Enough/Right Approach?

- **Overseas Expansion**
 - **Localized LEGO Collection (2020/21)**
- **LEGO® Monkie Kid™** brings the characters from a centuries old Chinese tale about the battle between good and evil into a modern world setting



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Class Discussion – LEGO

- LEGO Corporate & Digital Transformation

- Who are the existing targeted Customers?
- What might be the new Customer Pain?
- Who are the non Customers?
- **Recommend the Corporate Transformation**
 - Core, Adjacent & New Frontier
- **Recommend the Digital Transformation**
 - Based upon the Tech Strategy framework
 - AI
 - AR/VR
 - Robotics
 - 3D Printing
 - Penetrate into other Industries (Alliance; Internal Development)



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Bank of 2030

- Customer Centricity (Personalization)

- To be successful, the bank of the future will need to embrace emerging technology, remain flexible to adopt evolving business models, and put **customers** at the center of every strategy
 - **Lifestyle Integration**
 - Customers expect **Personalization** from their financial services
 - Banks will use their in depth understanding of customer spending habits to provide recommendations for better offers on energy, food and other services
 - **Pioneers of Trust & Security**
 - Have a strong focus on the security of customers' data and privacy
- **The Invisible Bank**
 - In the near future, banking will be made of three distinct components: The **Platform** Layer, the **Product** Layer and the **Process** Layer. Together, they will make the new Invisible Bank, introducing opportunities and challenges for the industry



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DBS's Digital Transformation

- Bank + Tech

- When we were thinking about the digital transformation of DBS, we saw three key elements as vitally important
 - One is how we **digitized to the core**. We saw many companies put on digital lipstick, some kind of front-end system, and a fancy website.
 - The second was: how do we **embed ourselves** in the customer journey and push customer-journey thinking throughout the organization?
 - The third was changing the **culture** of the company to make it feel and operate like a 22,000-person start-up
- **Becoming the “D” in GANDALF (DBS is a Tech Company)**
 - The first letters of Google, Amazon, Netflix, Apple, LinkedIn, and Facebook together spell GANALF. That was missing a D, and we, as **DBS**, fortunately have a D. So, our mission became how to become the D in GANDALF – a **technology company**
 - Our Outcomes
 - The outcomes of our transformation are **speed to market, scalability, experimentation**, and all of those things that you see in these technology companies

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Digital Transformation – Q&A Session

- DBS Digital Transformation

(From Digitization Foundation to Making Banking Joyful)



Tutorial Session

- Practice through your Project

- **Submit Tech Report**
 - Thanks for your great effort
- **Case Study: DBS**
 - Banking industry is facing keen competition from everywhere
 - Every company is a Tech company
 - How to engage with customers (customer Journey + design thinking)
 - How to engage with employees (startup culture: creativity; data driven; customer centric; learning organization; agile)
- **Reference the Disruptor**
 - Ant Group
- **Group Project Discussion**
 - **Finalized your Problem Identification**
 - **Set the New Vision**
 - **Have the Solution Recommendation**
 - Corporate Transformation
 - Digital Transformation



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Reference Presentation Content Checklist

- Finalize Situation Analysis & Problem Identification



CUHK 2020-21 Term2 Group Presentation Content Checklist

Group Project Presentation Content Checklist – Company Transformation

Present a story in 20 min by using a MS ppt format that covers the following main points:

1. Hypothesis: A Winning Company
2. The Future World
3. Executive Summary (Strategy Map; Technology Strategy)
4. The Current Situation
 - Company Background
 - Business Performance & Product Portfolio
 - The PEST (China country & customers)
 - The Industry Trends (multi-industries)
 - The Competition Landscape (within & across industries)
 - The SWOT
 - The Problem Identification
 - Core Problem; Adjacent Problem; Frontier Problem
5. Proposed New Vision
6. Recommended Solutions (Use of Blue Ocean; New Tech)
 - Core Problem Solution
 - Adjacent Problem Solution
 - Frontier Problem Solution
7. Conclusion - A Winning Company
8. Appendix - Sources of Information from HBR, BCG & McK

Presentation Focus:**DATA + LOGIC**

- Define **New Vision**
- Propose Solutions to match with the Identified Problems
 - Corporate Transformation
 - Digital Transformation



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Case Study – DBS

- Incumbent vs Disruptor

- **DBS is the largest bank in Singapore and Southeast Asia**
 - DBS is at the forefront of leveraging digital technology to shape the future of banking, and has been named “World’s Best Digital Bank” by Euromoney
 - DBS provides a full range of services in consumer, SME and corporate banking
- **Typical Questions to Discuss**
 - What are your experience as customers of bank?
 - Long Queue
 - What is the competition landscape?
 - Tech Company
 - FinTech
 - **Describe the Digital play of DBS in India**
 - Digibank
 - **Describe the Digital Transformation of DBS**
 - Core IT
 - Journey as a Service
 - Business as a Service
 - How DBS should grow into China?
 - Ant Group



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Reference – Ant Group

- Vs DBS

- **China halted Ant Group’s biggest IPO in the world (Nov 2020)**
 - The initial public offering will raise some **\$34.4** billion and value the company at more than \$310 billion
 - While engaged in banking businesses, Ant, unlike traditional banks, has been subject to almost **no regulatory constraints** in terms of such respects as loan-to-deposit ratio, capital adequacy ratio, and non-performing loan ratio. Without proper thresholds, its lending activities could accumulate higher risks to the financial system, let alone its financial derivatives products with tens or even 100 times leverage
- **Ant Group, China's largest e-finance group, started out in 2003 as an online payment system called Alipay**
 - As China's e-commerce sector experienced an exponential boom over the following years, Alipay expanded its business to cover such financial services as deposits, investment, insurance, and lending, like those provided by traditional financial institutions, including banks



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Global Entrepreneurship

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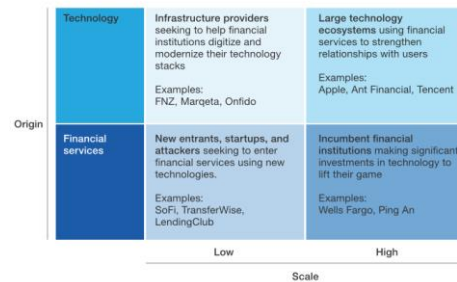
Is Ant Group a FinTech or TechFin

- When Alibaba was challenged to find ways to enable consumers' trusted payment online, the company invented **Alipay** that dominated the digital payment business which in turn became the foundation of Ant, spun off from Alibaba in 2014
 - Now, Ant processes more transactions than Visa and Mastercard combined
- In order to handle the cash balances in customers' account, Ant created the **Yu'e Bao**, the world's largest money market fund and offer unsecured micro loans to merchants with a credit scoring system using analytics
 - Is Ant a Tech Company or a Bank?

The Fintech Categories

- Tech Company
- Startup
- Incumbent

The broader fintech category can be segmented into four variants.



McKinsey&Company | Source: McKinsey analysis