





Digital organisational shuffle



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Navigating the next industrial revolution



Revolution	Year	Information	
	1	1784	Steam, water, mechanical production equipment
	2	1870	Division of labour, electricity, mass production
	3	1969	Electronics, IT, automated production
	4	?	Cyber-physical systems

This time is different: exponential and combinatorial.

The Internet is the largest experiment involving anarchy in human history.

Billions of people are creating and consuming untold amounts of digital content in an online world not truly bound by terrestrial laws.

Virtual space is becoming as relevant as the physical one.

Mary Meeker's State of the Internet

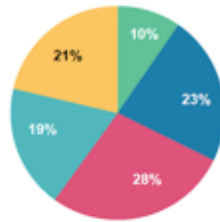
#4

Internet Users – 1995 → 2014...
<1% to 39% Population Penetration Globally

1995
35MM+ Internet Users
0.6% Population Penetration



2014
2.8B Internet Users
39% Population Penetration



■ USA ■ China ■ Asia (ex. China) ■ Europe ■ Rest of World

@KPCB Source: eMarketer, ITU, US Census

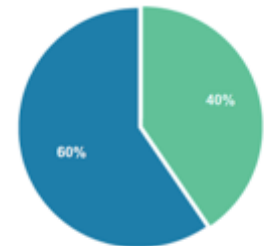
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Mobile Phone Users – 1995 → 2014...
1% to 73% Population Penetration Globally

1995
80MM+ Mobile Phone Users
1% Population Penetration



2014
5.2B Mobile Phone Users
73% Population Penetration



■ Smartphone ■ Feature Phone

@KPCB

Source: Informa, World Cellular Information Service (WCIS). Assumes in 1995, one mobile phone subscription per unique user (no dual-sim). Note: In 2014, user base per KPCB estimates based on Morgan Stanley Research and ITU data. Smartphone users & mobile phone users represent unique individuals owning mobile devices; mobile subscriptions based on number of subscriptions & may therefore overstate number of mobile users.

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There are **5.2 billion mobile phone users**,
up from 80 million in 1995.

The laws of speed and computing power #5

Moore's Law: processor chips double in speed every 18 months.

Photonics Law: the amount of data coming out of fiber optic cables, doubles every nine months.

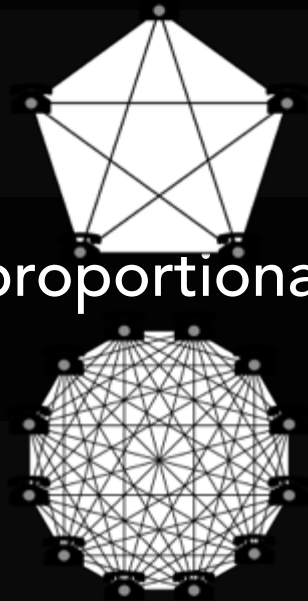
Exponential growth unleashes huge possibilities in graphics, virtual reality, driverless cars, tough-controlled robots, AI, etc.

The two network laws

#6

Reed's Law: utility of large networks, particularly social networks, scales exponentially with the size of the network.

Metcalfe's Law: the value of a telecoms network is proportional to the square of the number of connected users.



Consequences for the networked business: **winner takes all** dynamics.

Exponential growth

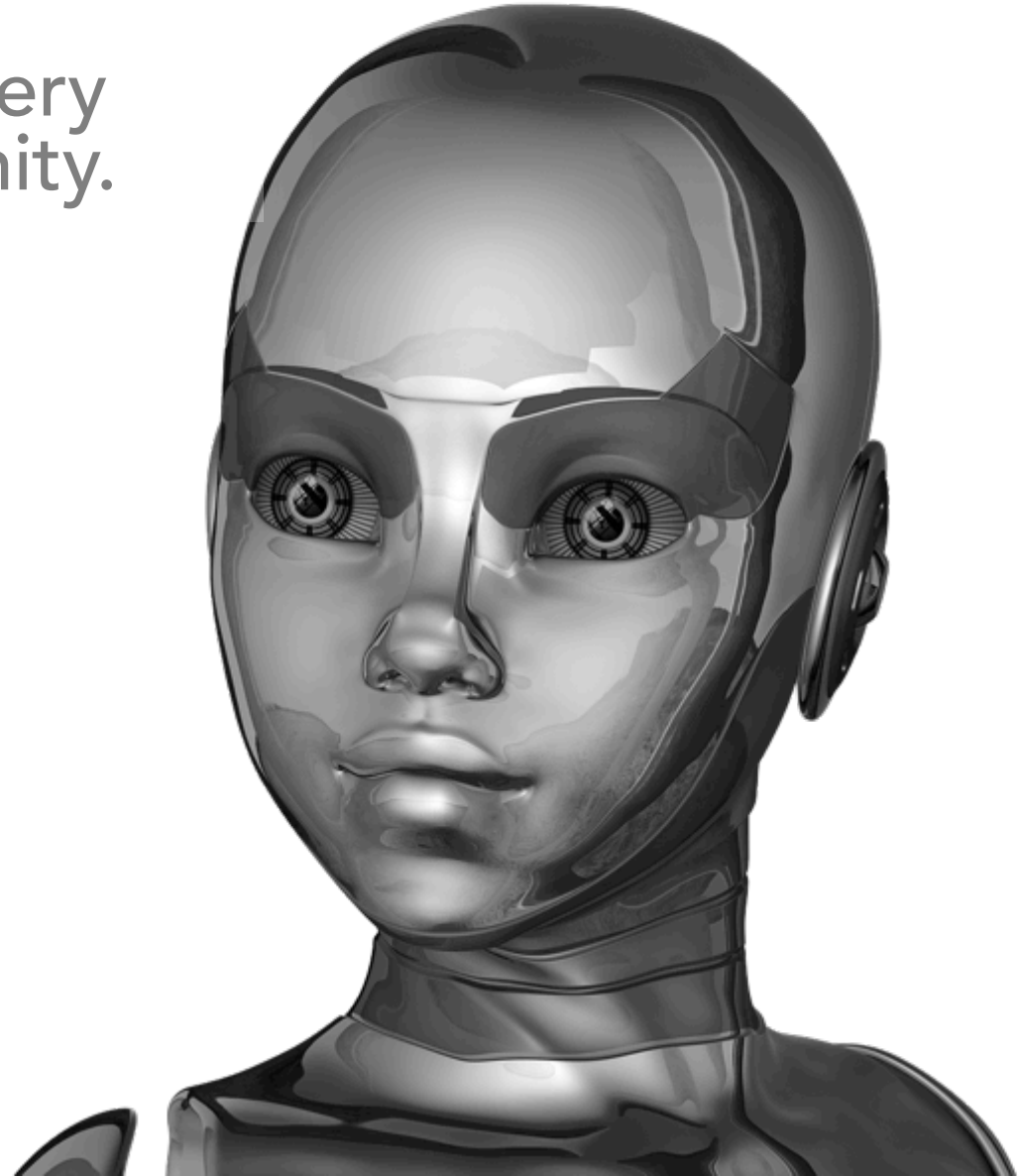
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Take 30 linear spaces: 30 meters

Take 30 exponential paces: 26x around the Earth!

Challenging the very
concept of humanity.



Examples of rate of change

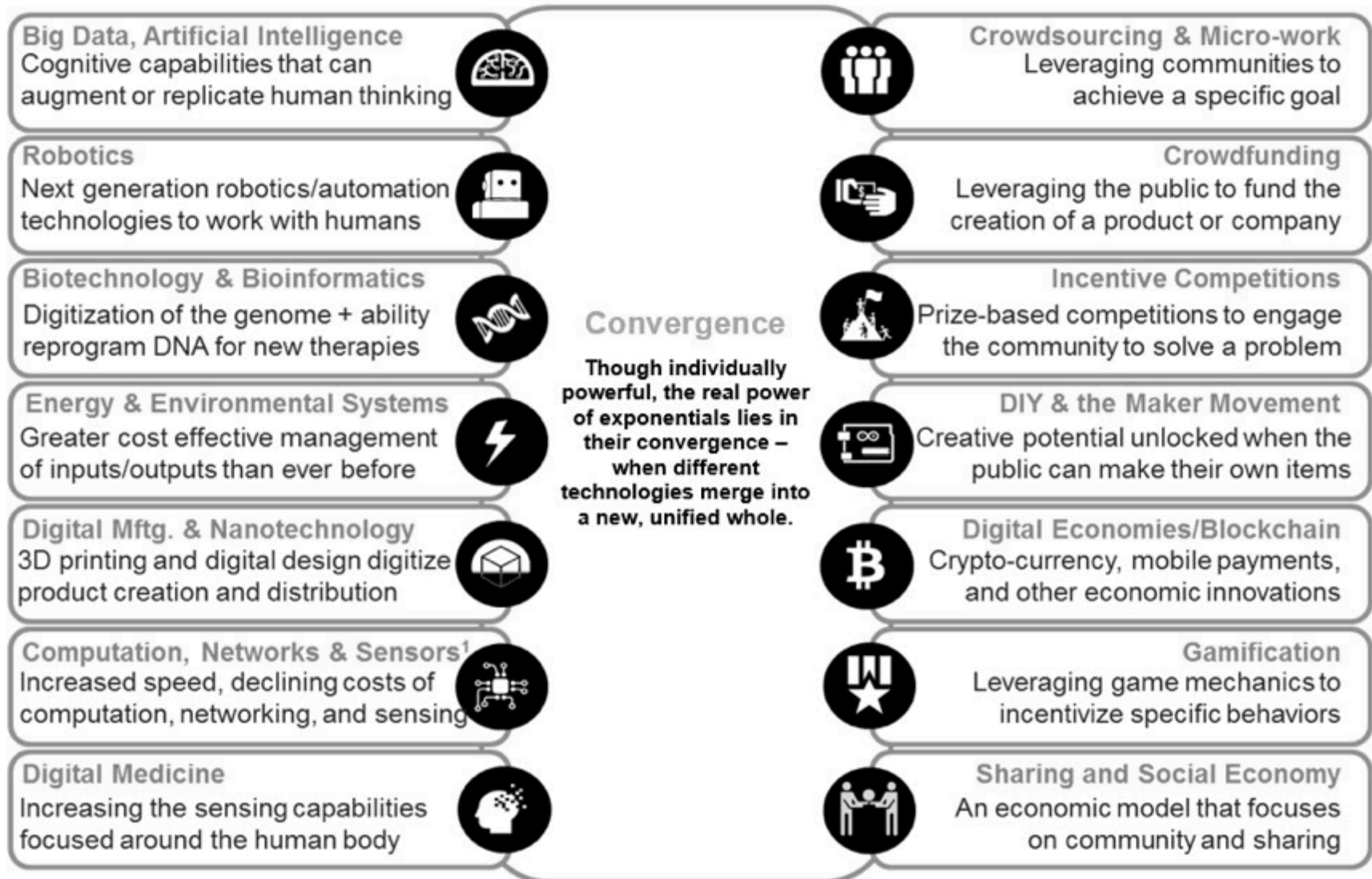
Technology	Average cost for equivalent functionality	Scale
3D printing	\$40,000 (2007) to \$100 (2014)	400x in 7 years
Industrial robots	\$500,000 (2008) to \$22,000 (2013)	23x in 5 years
Drones	\$100,000 (2007) to \$700 (2013)	142x in 6 years
Solar energy	\$30 per kWh (1984) to \$0.16 per kWh (2014)	200x in 20 years
3D LIDAR Sensors	\$20,000 (2009) to \$79 (2014)	250x in 5 years
DNA genome seq	\$10,000,000 (2007) to \$1,000 (2014)	10,000x in 7 years
BCI neuro devices	\$4,000 (2006) to \$90 (2011)	44x in 5 years
Full body med scan	\$10,000 (2000) to \$500 (2014)	20x in 14 years



Source: "Exponential Organizations"

<http://www.slideshare.net/vangeest/exponential-organizations-h>

@dw2





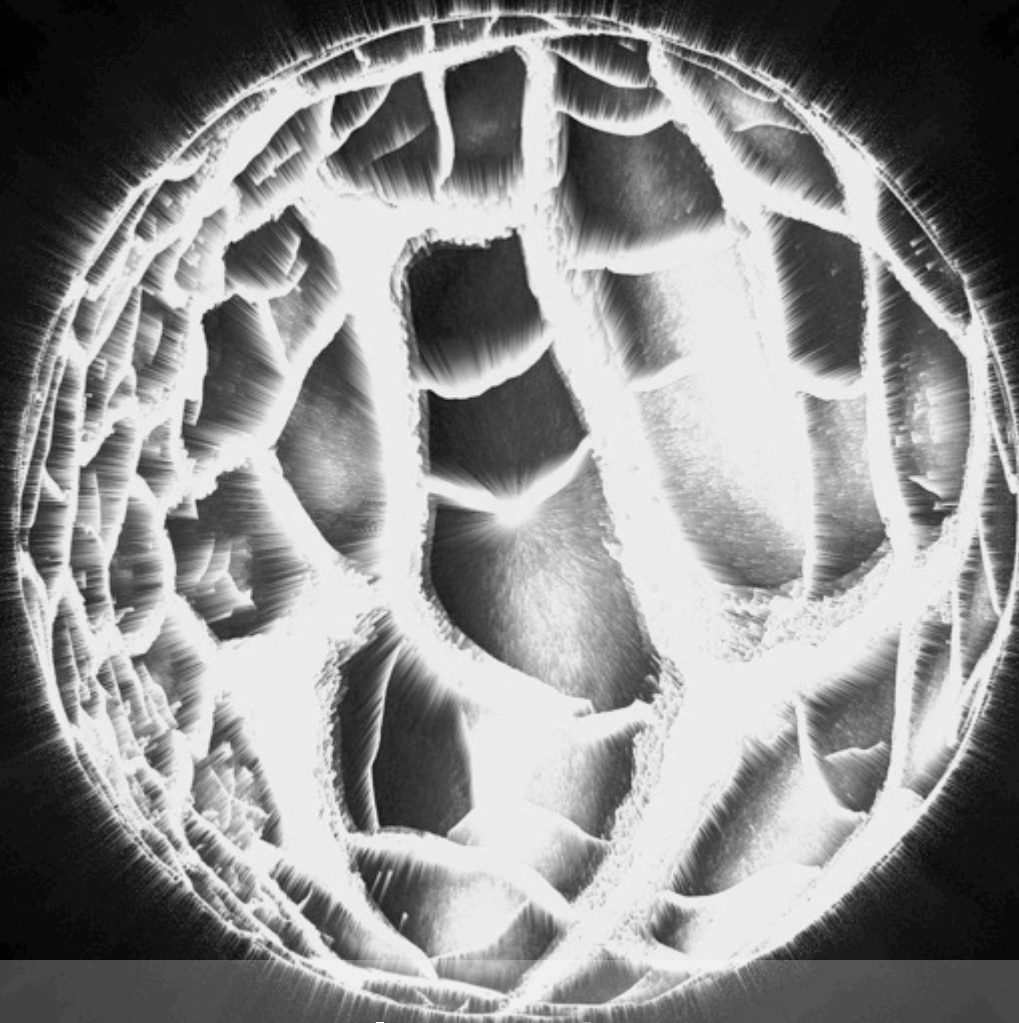
Cloud, big data, analytics of everything.



Sharing economy, crowdfunding, crowdsourcing.



Robots, AI, VR, 3D, drones, nanotech, biotech.



Polarisation, algorithmisation, globalisation

How are you organized?

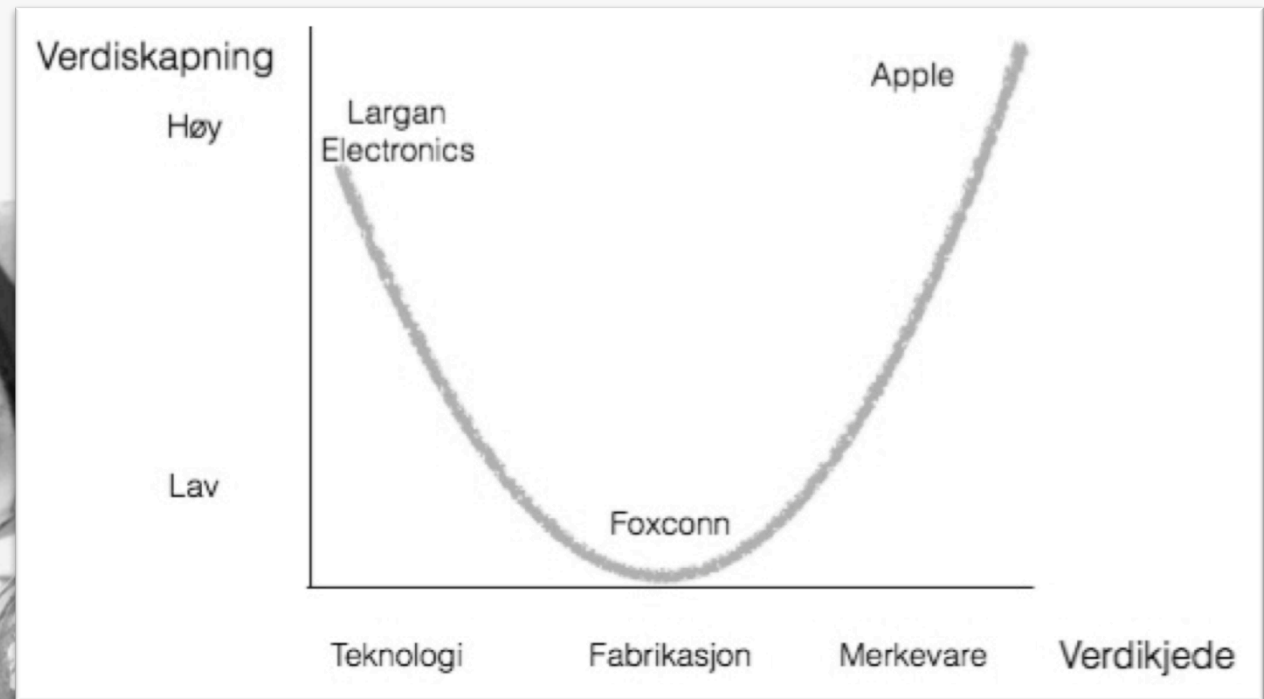
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For complexity or innovation?

When value chains stumble

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Who captures most of the value now?

New processes and new people

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Lean, Devops, Design thinking



Below: infrastructure; above: customer contact




Innovating at the edge, scaling at the core

Not all answers come from Silicon Valley #20



What is your unique digital playbook?

Typical barriers to growth and innovation #21

- 
- Lack of incentives
 - The existing business is too powerful
 - Management wants near-term success
 - Too many silos
 - Lack of customer focus
 - Fear of failure
 - It's 'no one's job'
 - Innovations don't get big enough fast enough for us
 - We are focused on our quarterly earnings
 - We are afraid of cannibalizing our successful businesses
 - We have no tolerance for unpredictable results
 - We have no way of measuring progress

- 
1. Continuous Reconfiguration
 2. Healthy Disengagement
 3. Deft Resource Allocation
 4. Innovation Proficiency
 5. A Discovery Driven Leadership Mindset
 6. Entrepreneurial Career Management

Individual careers & talent?

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Organizational systems

A stable career path

Hierarchies and teams

Infrequent job hunting

Careers managed by the organization



Individual skills

A series of 'gigs'

Individual superstars

Permanent career campaigns

Careers managed by the individual



Incredible Stability in...

- Leadership
- Strategy
- Values
- Talent
- Customer relationships & Networks

&

Incredible change in...

- Resource allocation
- Budgeting
- Business Portfolio
- Individual job assignments
- Business Models

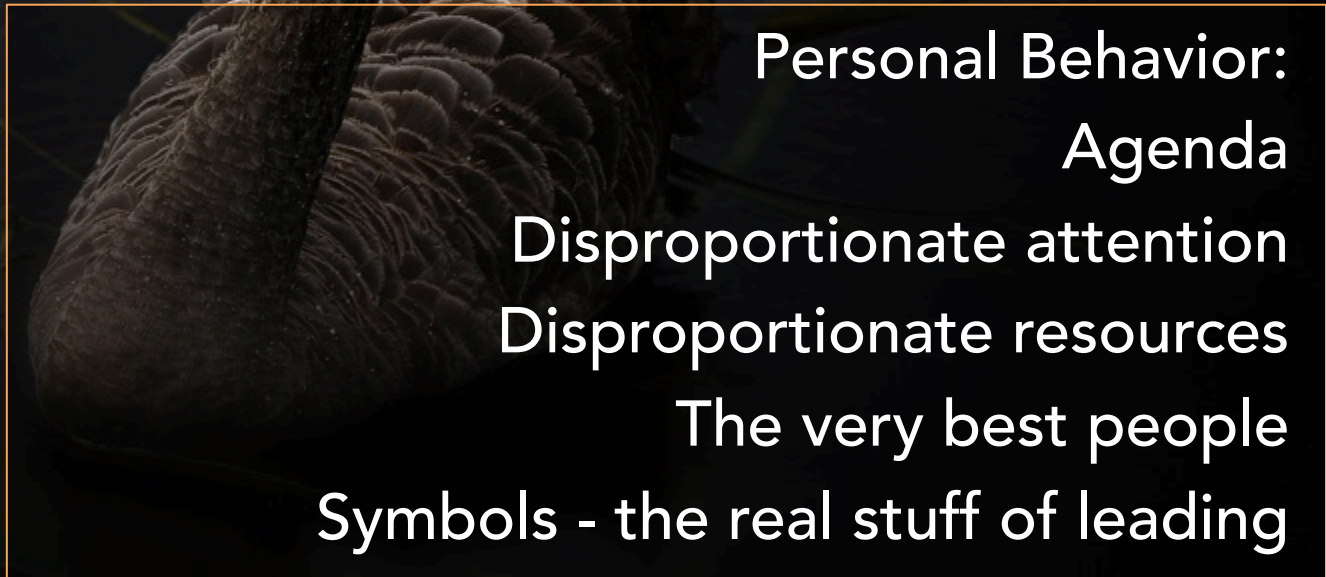
Creating Commitment

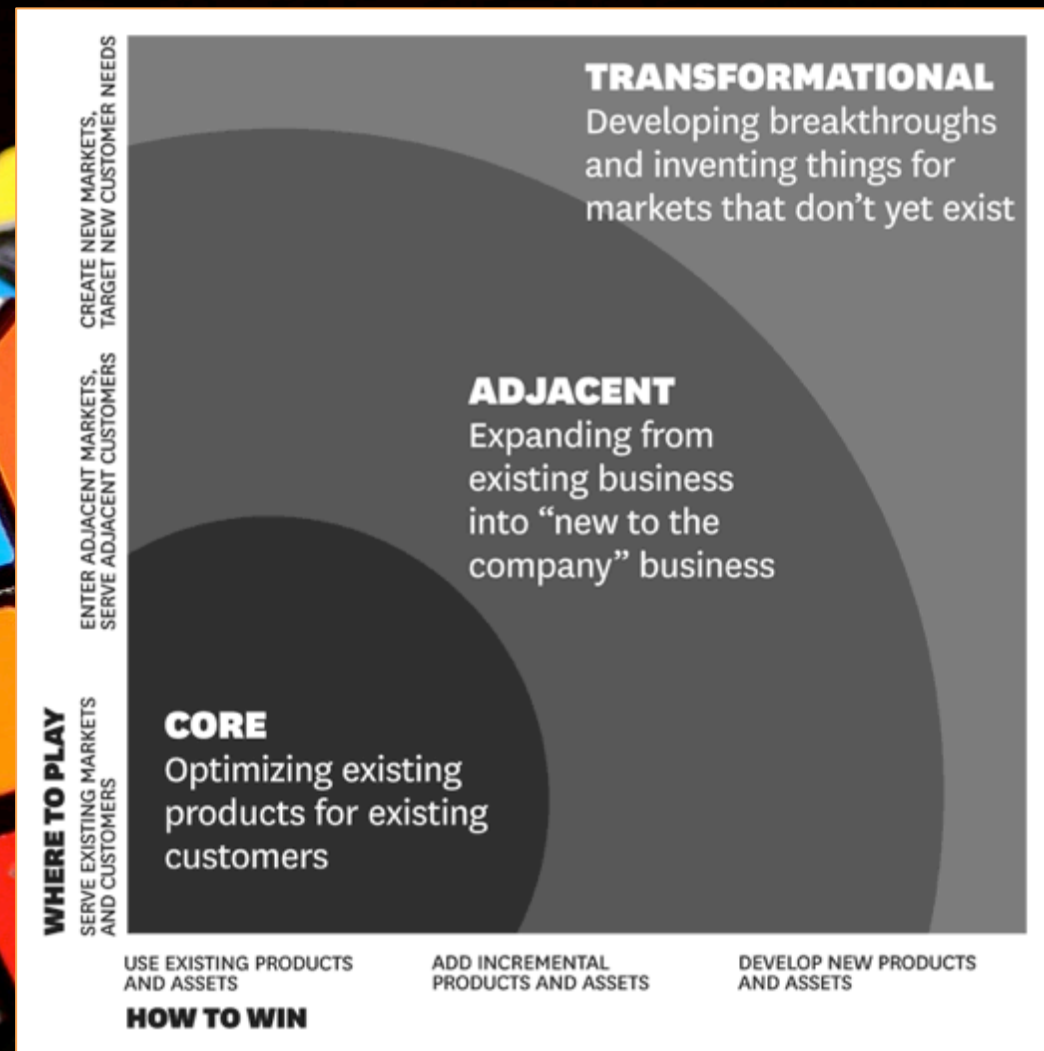
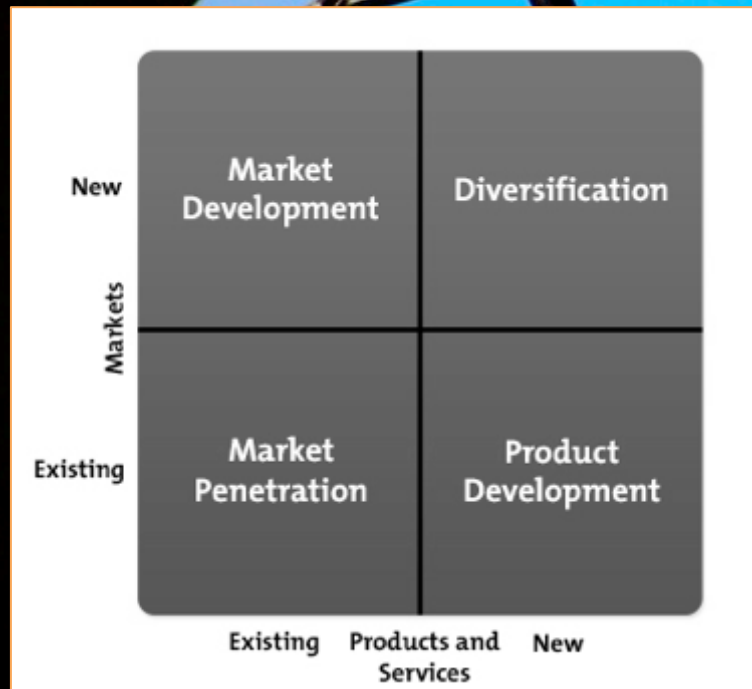
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Demonstrate Commitment

Build confidence

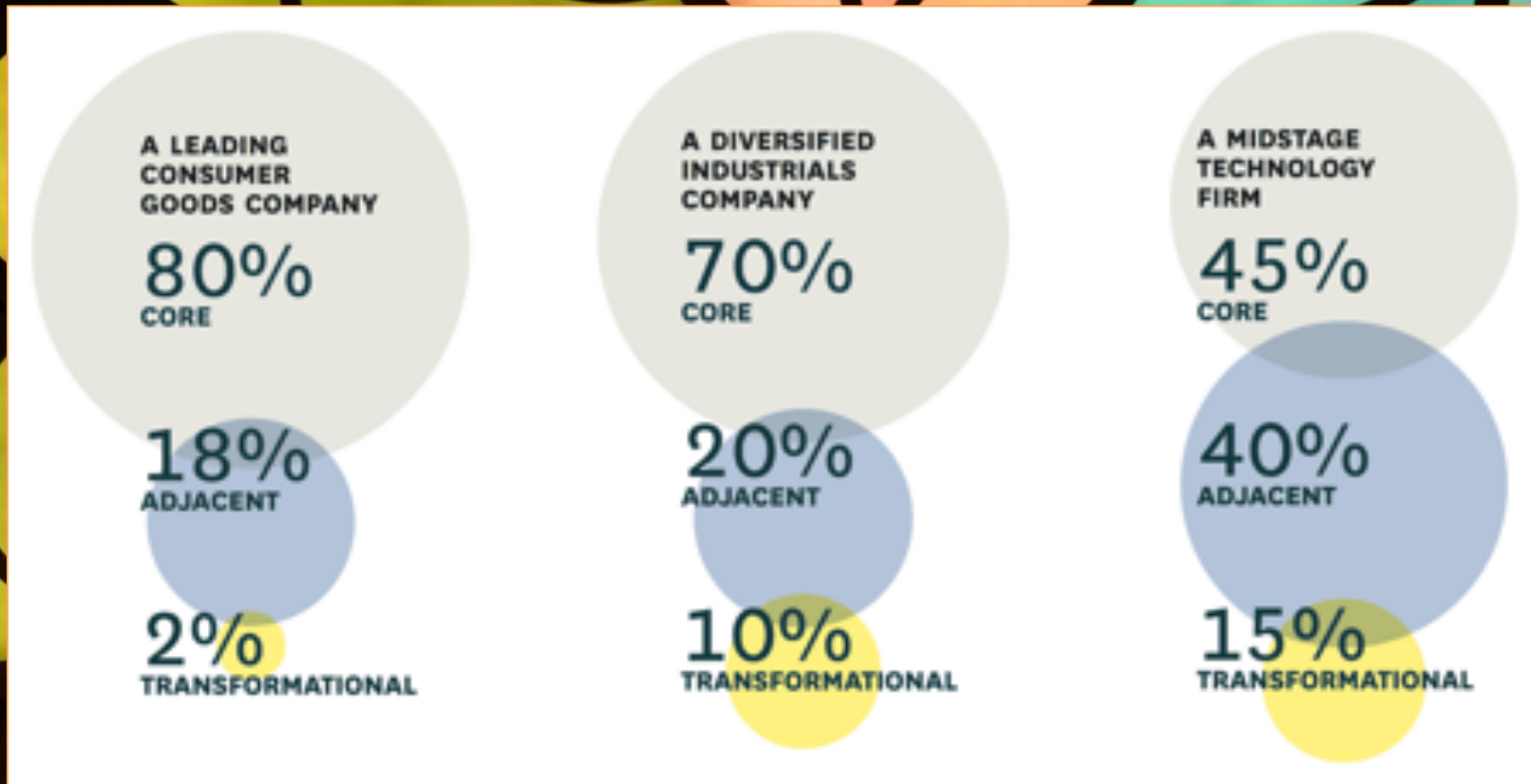
Impose the right disciplines (Assumption vs Knowledge, Intelligent Failures, Planning to learn)





70-20-10 rules and its variations

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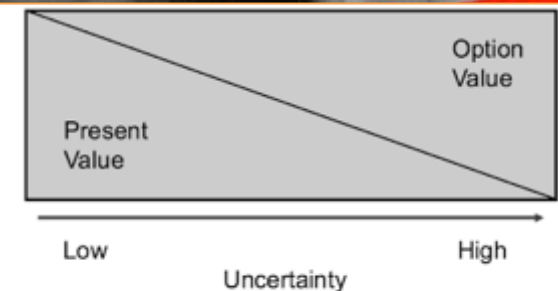
Two strategic logics

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Two Strategic Logics

The Five Dimensions of Strategy	Conventional Logic	Value Innovation Logic
Industry assumptions	Industry's conditions are given.	Industry's conditions can be shaped.
Strategic focus	A company should build competitive advantages. The aim is to beat the competition.	Competition is not the benchmark. A company should pursue a quantum leap in value to dominate the market.
Customers	A company should retain and expand its customer base through further segmentation and customization. It should focus on the differences in what customers value.	A value innovator targets the mass of buyers and willingly lets some existing customers go. It focuses on the key commonalities in what customers value.
Assets and capabilities	A company should leverage its existing assets and capabilities.	A company must not be constrained by what it already has. It must ask, What would we do if we were starting anew?
Product and service offerings	An industry's traditional boundaries determine the products and services a company offers. The goal is to maximize the value of those offerings.	A value innovator thinks in terms of the total solution customers seek, even if that takes the company beyond its industry's traditional offerings.

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Source: Dixit & Pindyck, 1994, *Investment Under Uncertainty*
Princeton University Press

New Skills



Digital skills				
Digital business skills	Ability to work virtually	Understanding of corporate IT software and systems	Digital design skills	Ability to use social media and "Web 2.0"
50.6%	44.9%	40.1%	35.2%	29.3%
Agile thinking skills				
Ability to consider and prepare for multiple scenarios	Innovation	Dealing with complexity and ambiguity	Managing paradoxes, balancing opposing views	Ability to see the "big picture"
54.8%	46.0%	42.9%	40.9%	15.3%
Interpersonal and communication skills				
Co-creativity and brainstorming	Relationship building (with customers)	Teaming (including virtual teaming)	Collaboration	Oral and written communication
48.3%	47.4%	44.9%	30.4%	29.0%
Global operating skills				
Ability to manage diverse employees	Understanding international markets	Ability to work in multiple overseas locations	Foreign language skills	Cultural sensitivity
49.1%	45.7%	37.5%	36.1%	31.5%

Thank you

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Comments?
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