DESIRable Skills for Entrepreneurs

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NIDHI – Entrepreneur in Residence (EIR) Program

24 August 2020


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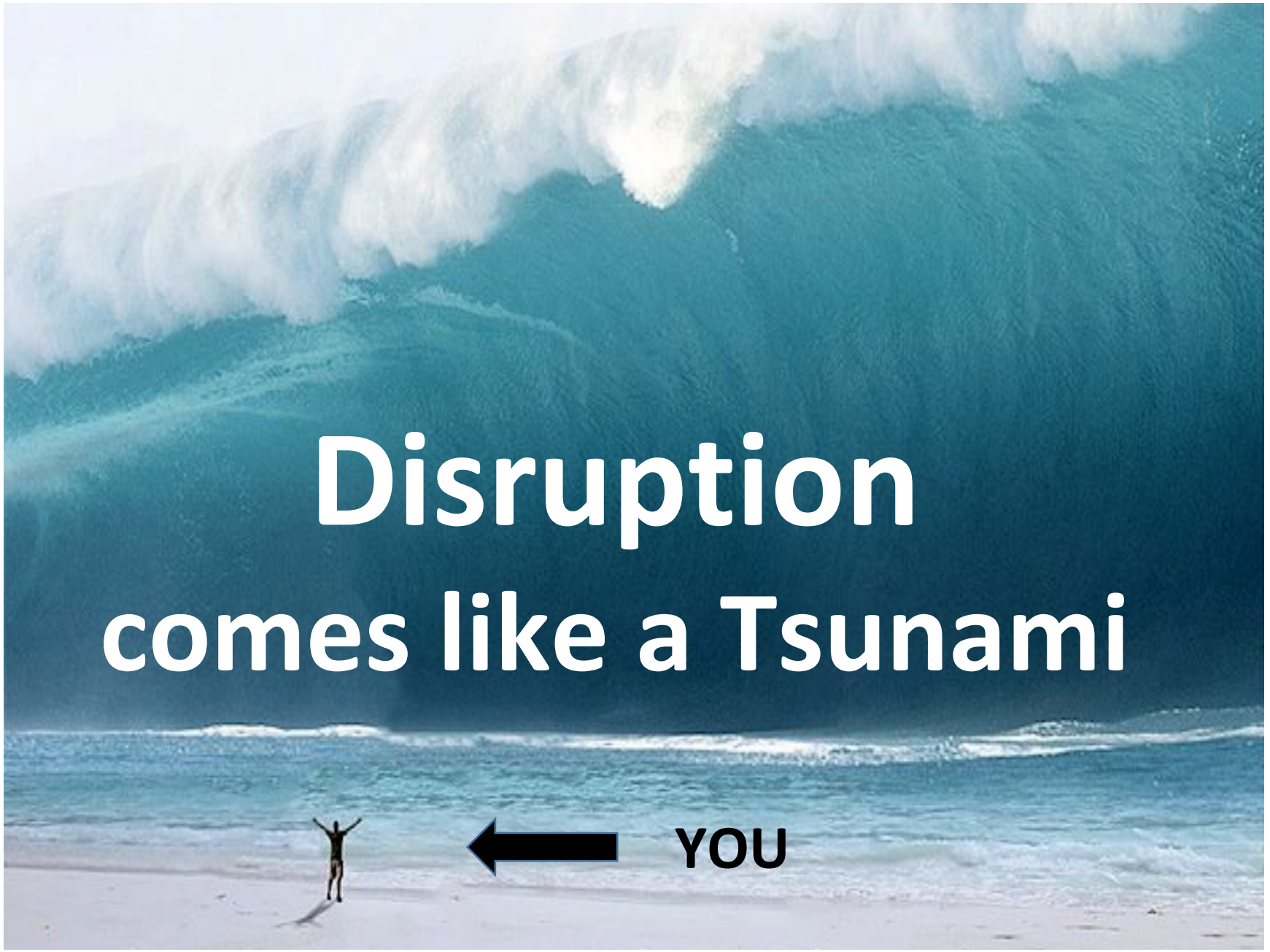

Disruption
comes like a Tsunami
YOU


DESIRable Skills
to help you ride the
Future Wave

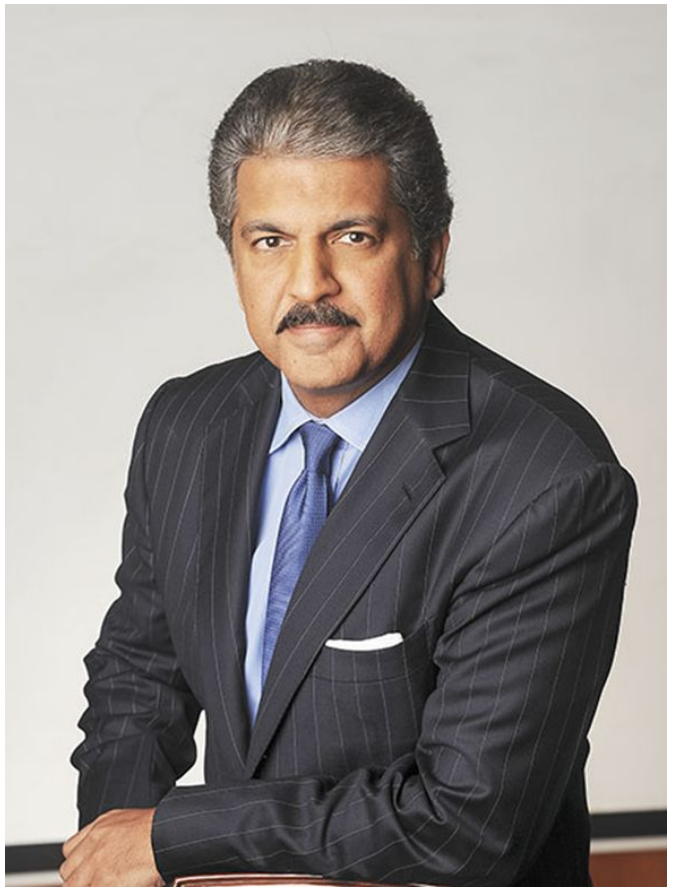
Crisis Times have given birth to New Ideas & Inventions – New Discoveries – New Business Models

Reboot, Reinvent and Reignite

- Can we use the lockdown period to relook at personal and professional way of life to prepare for the future and to serve the "post corona world“ ?

- Can we use the "down time to Reboot, Reinvent and Reignite" through introspection of the way things are currently done and then doing them better ?

- Can we use the time available to come up with new ideas and innovations; and taking advantage of the crisis "to dream bigger dreams about the future and raising ambitions once the crisis has passed“ ?



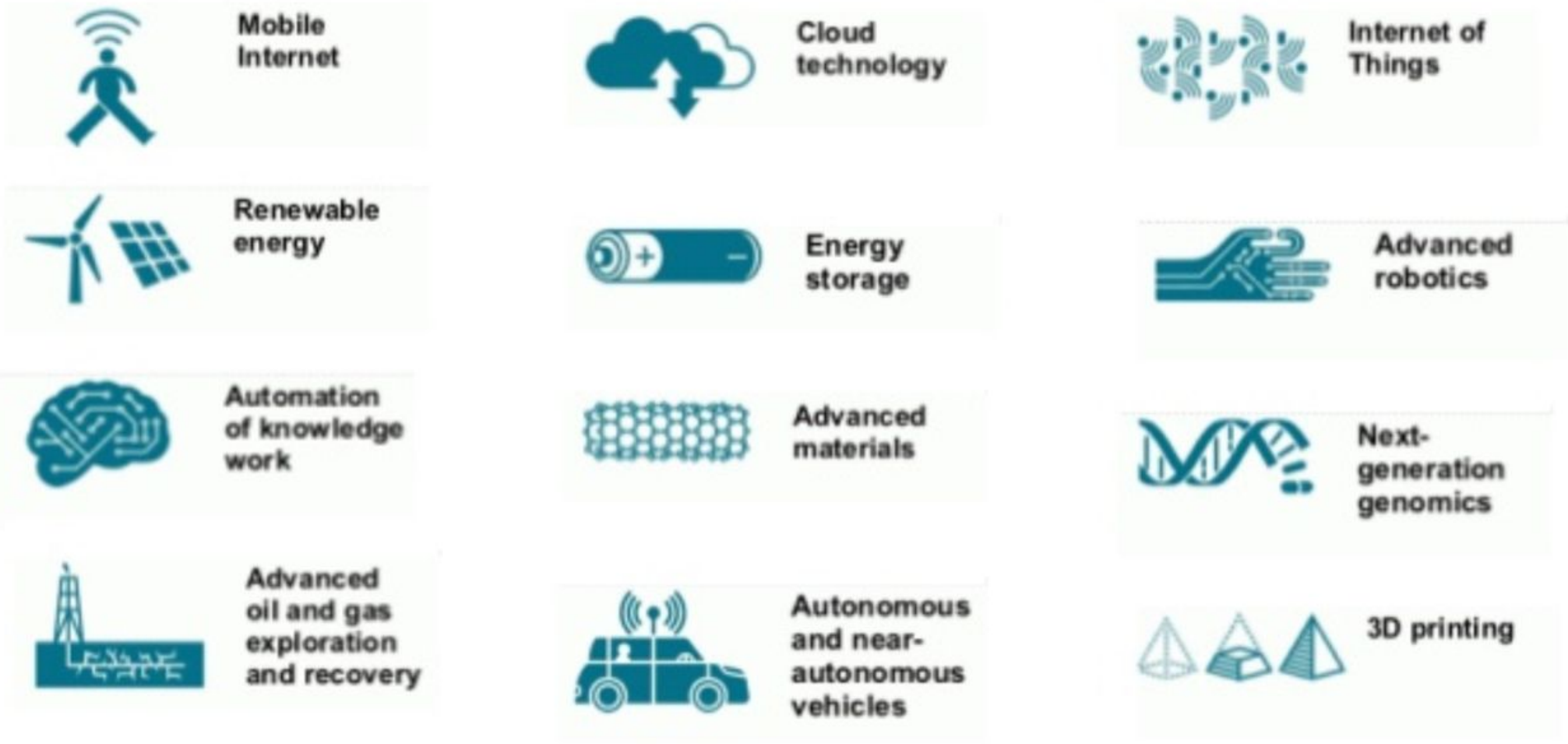
- Source - https://economictimes.indiatimes.com/news/company/corporate-trends/anand-mahindra-tells-employees-to-take-a-relook-at-life-prepare-for-post-corona-world/articleshow/74945752.cms?from=mdr

DESIRable Skills for Entrepreneurs

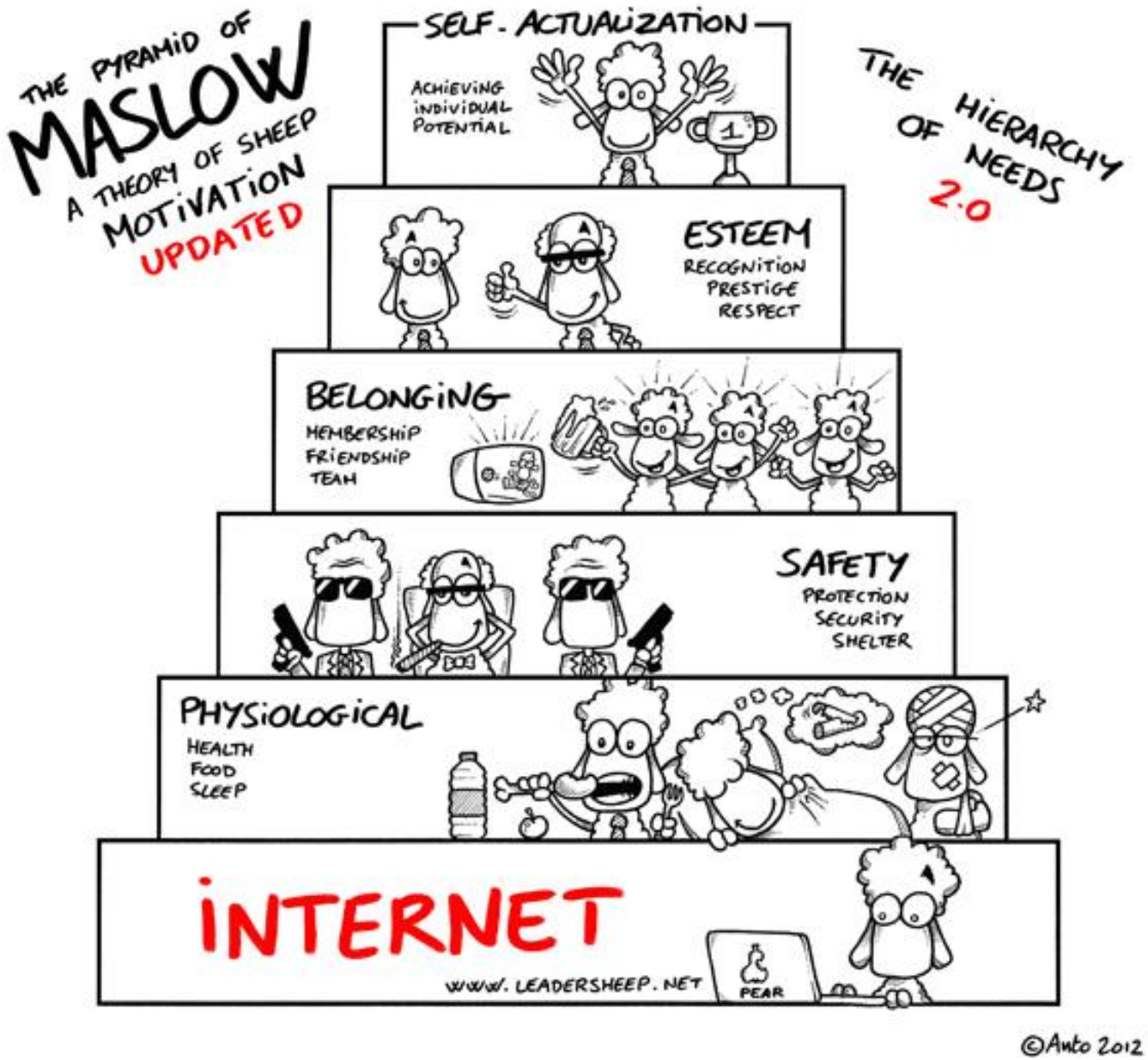
How Disruptive Technologies are shaping our Future ?

McKinsey Global Institute

Twelve Potentially Economically Disruptive Technologies



Source – McKinsey


THE PYRAMID OF
MASLOW
A THEORY OF SHEEP MOTIVATION
UPDATED
SELF-ACTUALIZATION
ACHIEVING INDIVIDUAL POTENTIAL
THE HIERARCHY OF NEEDS
2.0
ESTEEM
RECOGNITION
PRESTIGE
RESPECT
BELONGING
MEMBERSHIP
FRIENDSHIP
TEAM
SAFETY
PROTECTION
SECURITY
SHELTER
PHYSIOLOGICAL
HEALTH
FOOD
SLEEP
INTERNET
WWW.LEADERSHEEP.NET
PEAR
©Anto 2012

Human Genome – Faster, Cheaper

- Completed in 2003
  - At a cost of $ 2.7 Billion
  - After 13 Years

- Now, to sequence a human genome
  - $ 100
  - 1 hour

Computing – Faster, Cheaper

- Fastest Supercomputer (1975)
- $ 5 Million

- iPhone 4 with equal performance
- $ 400

Digitization

Digitising life and work		**Mobile Internet**	Inexpensive and increasingly capable mobile devices and Internet connectivity enable services to reach individuals and enterprises anywhere
		**Cloud technology**	Computing capacity, storage, and applications delivered as a service over a network or the Internet, often at substantially lower cost
		**Automation of knowledge work**	Intelligent software for unstructured analysis, capable of language interpretation and judgment-based tasks; potential to improve decision quality
		**Digital payments**	Widely accepted and reliable electronic payment systems that can bring millions of unbanked Indians out of the cash economy
		**Verifiable digital identity**	Digital identity that can be verified using simple methods, enabling secure delivery of payments and access to government services

McKinsey Global Institute

Smart

Smart physical systems		**Internet of Things**	Networks of low-cost sensors and actuators to manage machines and objects, using continuous data collection and analysis
		**Intelligent transportation and distribution**	Digital services, used in conjunction with the Internet of Things, to increase efficiency and safety of transportation and distribution systems
		**Advanced geographic information systems (GIS)**	Systems that combine location data with other types of data to manage resources and physical activities across geographic spaces
		**Next-generation genomics**	Fast, low-cost gene sequencing and advanced genetic technologies to improve agricultural productivity, nutrition, and health care

Energy

Rethinking energy		**Advanced oil and gas exploration and recovery**	Techniques that make extraction of unconventional oil and gas (usually from shale) economical, potentially improving India's energy security
		**Renewable energy**	Generation of electricity from renewable sources to reduce harmful climate impact and bring power to remote areas not connected to the grid
		**Advanced energy storage**	Devices or systems for energy storage and management that reduce power outages, variability in supply, and distribution losses

Advanced Materials & Manufacturing

	**3D printing**	Additive manufacturing techniques to create objects by printing layers of material based on digital models
	**Advanced materials**	Materials designed to have superior characteristics (e.g., strength, weight, conductivity) or functionality

DESIRable Skills for Entrepreneurs

Design Thinking

Exponential Thinking

Sustainable Thinking

Innovative Thinking

Rational Thinking

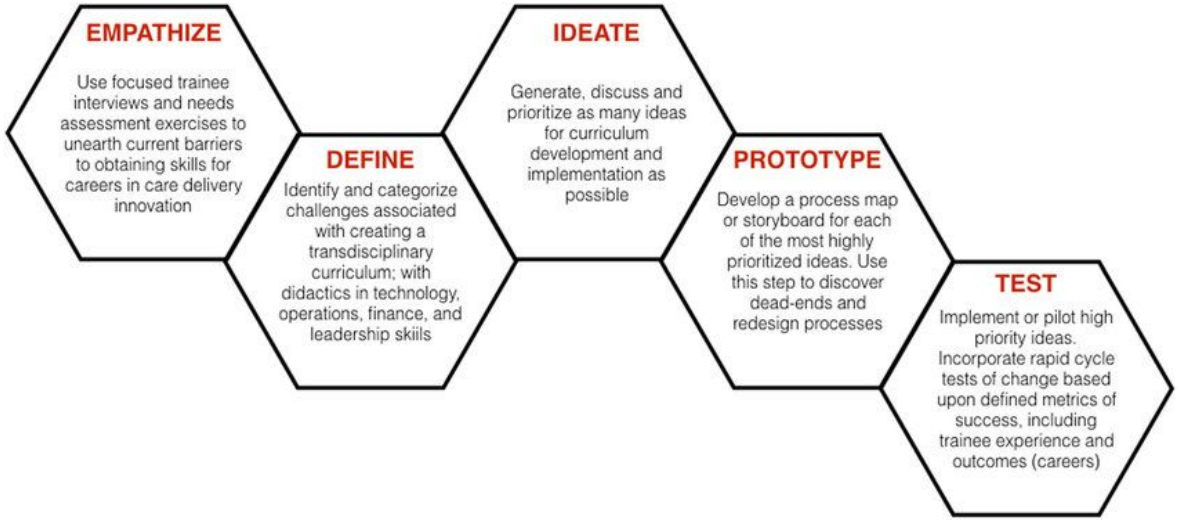
Design Thinking

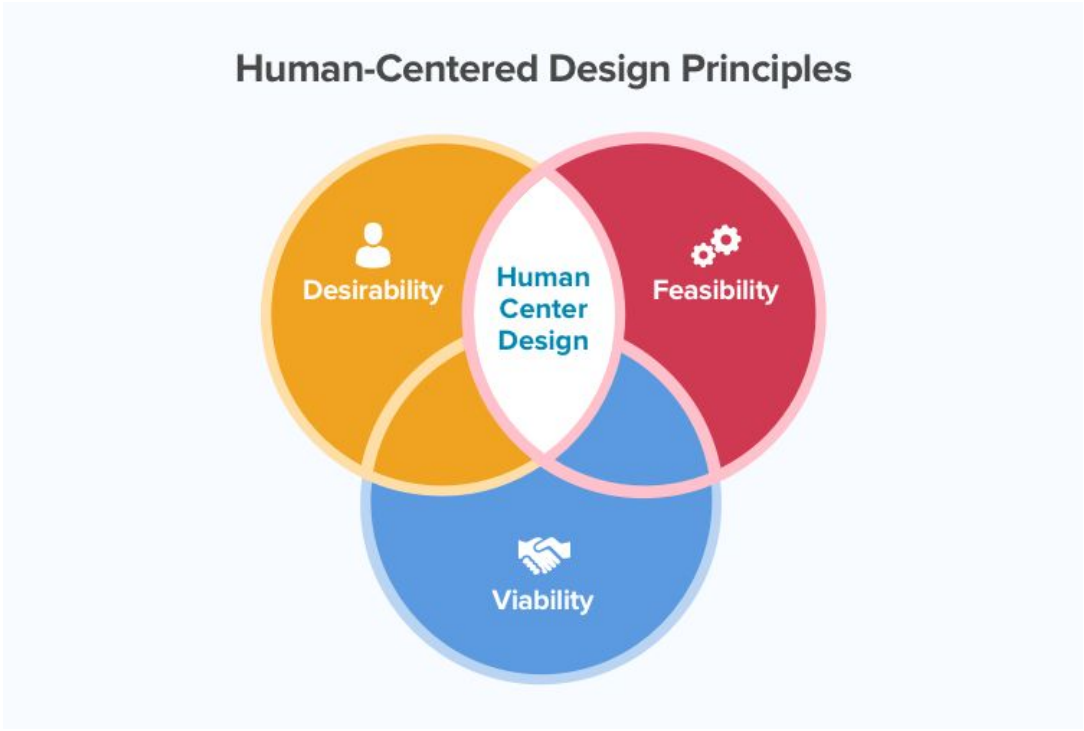
Empathize

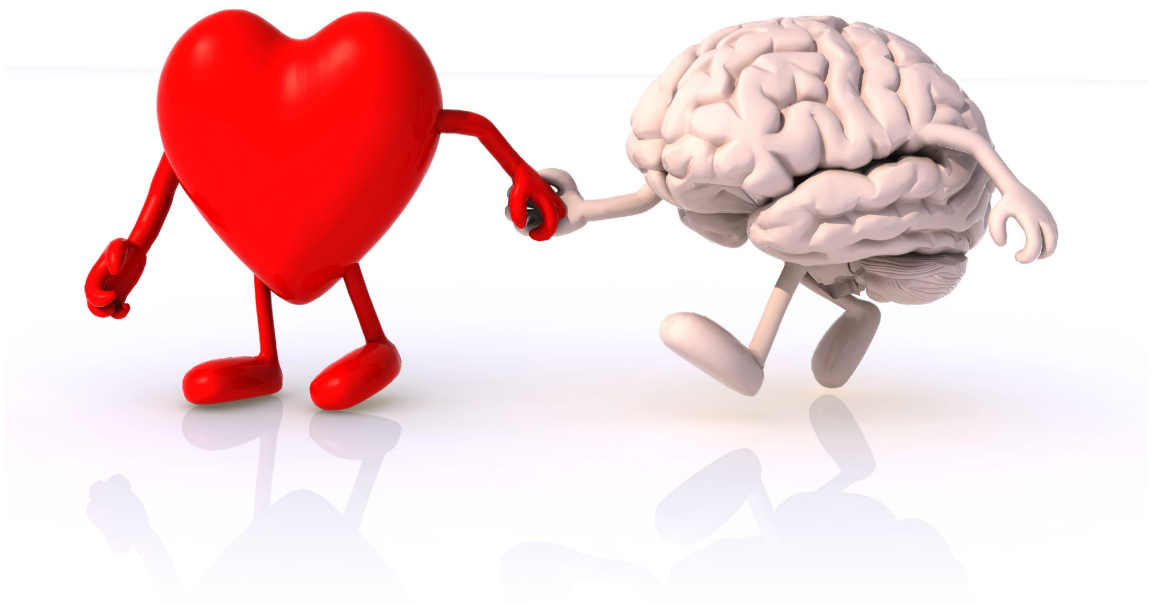
Human Centered Design

Back to School Post – COVID-19

Design Thinking







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Exponential Risce

No	Amount	No	Amount	No	Amount	No	Amount
1	0.01	17	655.36	33	42,949,672.96	49	2,814,749,767,106.56
2	0.02	18	1,310.72	34	85,899,345.92	50	5,629,499,534,213.12
3	0.04	19	2,621.44	35	171,798,691.84	51	11,258,999,068,426.20
4	0.08	20	5,242.88	36	343,597,383.68	52	22,517,998,136,852.50
5	0.16	21	10,485.76	37	687,194,767.36	53	45,035,996,273,705.00
6	0.32	22	20,971.52	38	1,374,389,534.72	54	90,071,992,547,409.90
7	0.64	23	41,943.04	39	2,748,779,069.44	55	180,143,985,094,820.00
8	1.28	24	83,886.08	40	5,497,558,138.88	56	360,287,970,189,640.00
9	2.56	25	167,772.16	41	10,995,116,277.76	57	720,575,940,379,279.00
10	5.12	26	335,544.32	42	21,990,232,555.52	58	1,441,151,880,758,560.00
11	10.24	27	671,088.64	43	43,980,465,111.04	59	2,882,303,761,517,120.00
12	20.48	28	1,342,177.28	44	87,960,930,222.08	60	5,764,607,523,034,230.00
13	40.96	29	2,684,354.56	45	175,921,860,444.16	61	11,529,215,046,068,500.00
14	81.92	30	5,368,709.12	46	351,843,720,888.32	62	23,058,430,092,136,900.00
15	163.84	31	10,737,418.24	47	703,687,441,776.64	63	46,116,860,184,273,900.00
16	327.68	32	21,474,836.48	48	1,407,374,883,553.28	64	92,233,720,368,547,800.00
Total	655.35		42,949,017.60		2,814,706,817,433.60		184,464,625,987,328,000.00

A PAYASAM Story

Krishna in the form of an old sage, challenged the king of Ambalapuzzha to a game of chess. The prize, if he won, would be one grain of rice on the first square of the chessboard, two on the second, four on the third and so on, doubling the amount on the previous square. The king brashly agreed.

Krishna, of course, won the game. The king started placing the rice grains and was shocked to see their number grow exponentially. By the end he owed Krishna trillions of tons of rice!

Amused at the king's confusion, Krishna revealed himself. "You don't have to give it all today," he said. "Just provide payasam to every pilgrim who comes to my temple here, in search of comfort."
Krishna's wish is honoured even today and payasam is served freely to all who visit the Ambalapuzzha Krishna temple.

The Second Half of the Chess Board – Ray Kurzweil

$2^{64} - 1 =$
18,446,744,073,709,551,615
grains

1,199,000,000,000
metric tons.

1,645 times the global production of wheat in 2014
(729,000,000 metric tons)


transistors
MOORE'S LAW
Pentium® 4 Processor
Pentium® III Processor
Pentium® II Processor
Pentium® Processor
486™ DX Processor
386™ Processor
286
8086
8080
8008
4004
100,000,000
10,000,000
1,000,000
100,000
10,000
1000
1970
1975
1980
1985
1990
1995
2000

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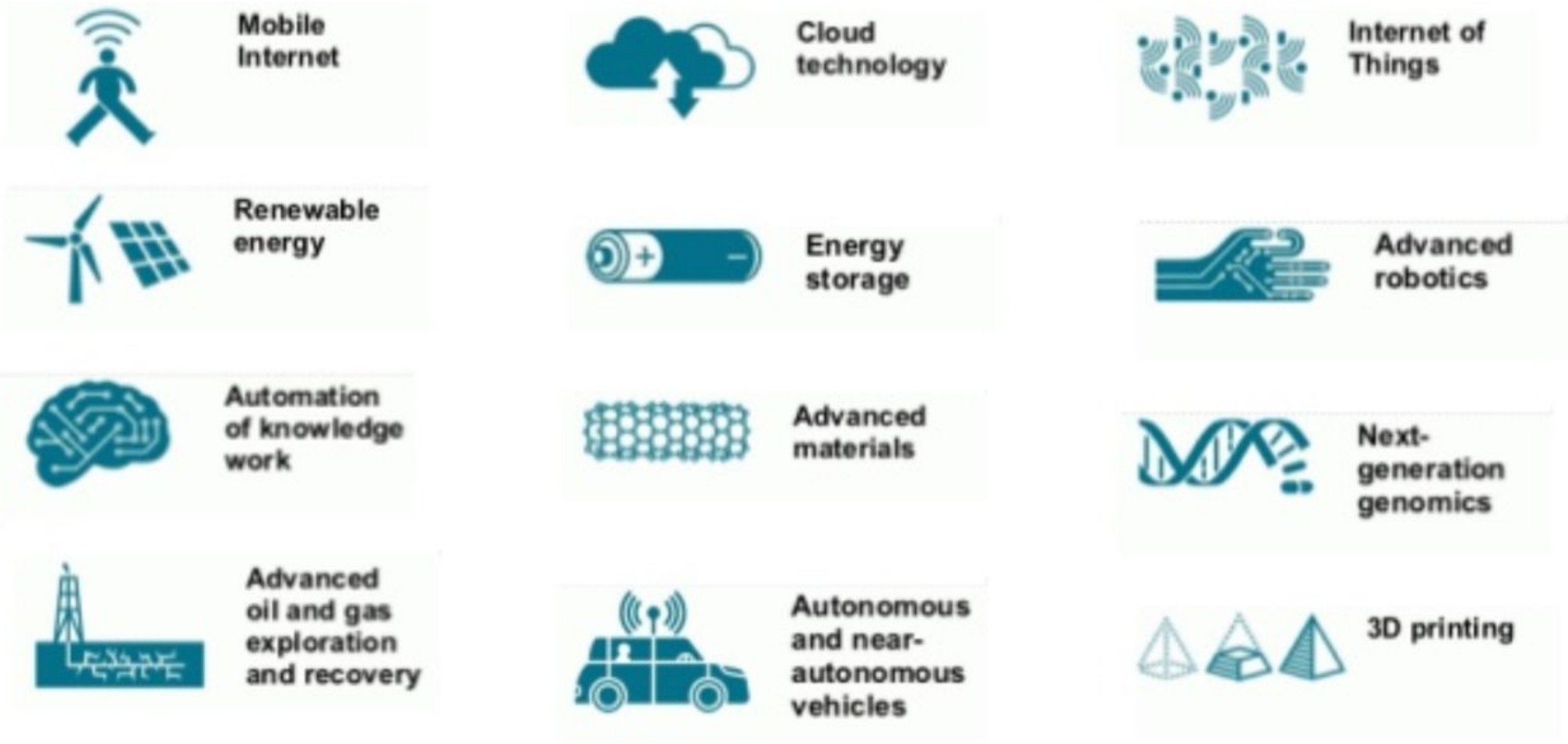

Source – McKinsey


IBM Watson IoT
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December 2019

April 2020

If we stay put for a few weeks, Nature is able to heal itself !

Do we need a health crisis to teach us that? Can we not keep it that way, even after the crisis has passed?

Can we develop Sustainable Technologies & build Sustainable Businesses ?

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Divergent Thinking – Noun & Verb

Same Noun Same Verb	Same Noun Different Verb
Different Noun Same Verb	Different Noun Different Verb

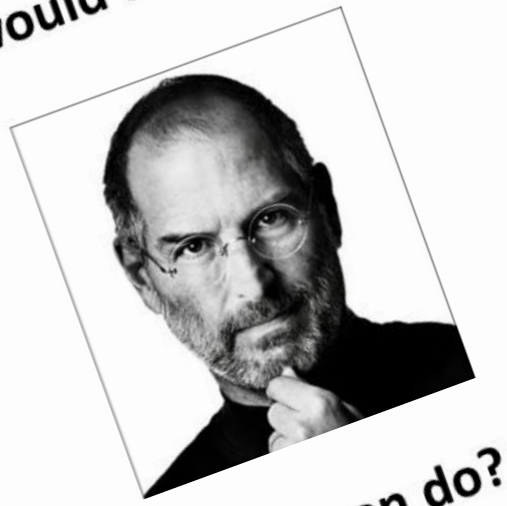
Adaptive Thinking

What would a Bumble Bee do ?

look at your Problem
through a different lens

Dr Shankar MV, August 2011

What would Steve Jobs do ?



What would Sherlock Holmes do ?

What would Superman do?

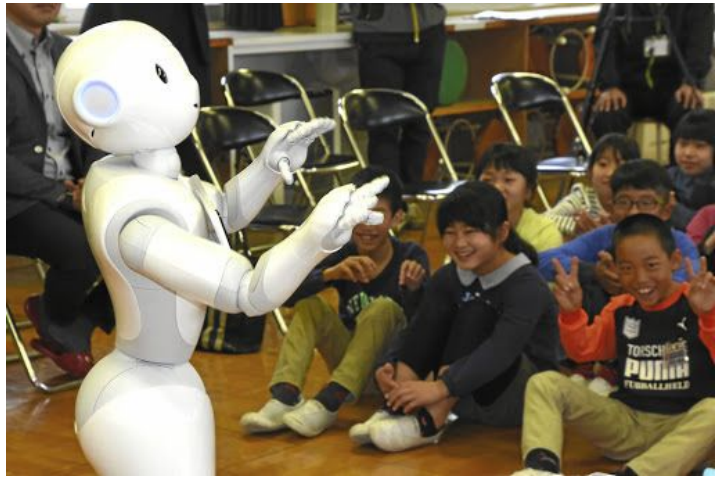
What would Endhiran (Robot) do ?

What would a child do ?

Reverse Thinking

WIN - What If its Not there ?

School	WIN School
• Teacher	• No Teacher
• Building	• No Building
• Exams	• No Exams
• Students	• No Students



Convergent Thinking - S-AND & S-IF

Yes we will implement Your Idea of …… and we will also implement ..

Yes we will implement Your Idea of …… if you will ensure / provide ……..

Yes we will implement A's Idea of …… and B's Idea of …… and we will also implement ……..

Yes we will implement Your Idea of …… if you will ensure / provide ……. and Ensure / provide ……..

Source - Imagineering - Disney

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How to overcome our Cognitive Biases ?

•You go to a movie. It was supposed to be good, but it turns out to be boring. Would you leave in the middle and do something else instead?

• Your friend had a ticket to a movie. She couldn't make it, and gave you the ticket "instead of just throwing it away." The movie was supposed to be good, but it turns out to be boring. Would you leave in the middle and do something else instead?

- BIAS – Sunk Costs

How to overcome our Cognitive Biases ?

- A 65-year-old relative of yours suffers from a serious disease. It makes her life miserable, but does not pose an immediate risk to her life. She can go through an operation that, if successful, will cure her. However, the operation is risky; 30% of the patients undergoing it die. Would you recommend that she undergoes it?

- A 65-year-old relative of yours suffers from a serious disease. It makes her life miserable, but does not pose an immediate risk to her life. She can go through an operation that, if successful, will cure her. However, the operation is risky; 70% of the patients undergoing it survive. Would you recommend that she undergoes it?

- Bias – Framing Effects

Forer effect / Barnum effect

The tendency to give high accuracy ratings to descriptions of their personality that supposedly are tailored specifically for them, but are in fact vague and general enough to apply to a wide range of people. For example, horoscopes.

Ingroup bias

The tendency for people to give preferential treatment to others they perceive to be members of their own groups.

Self-fulfilling prophecy

The tendency to engage in behaviors that elicit results which will (consciously or not) confirm existing attitudes.

Halo effect

The tendency for a person's positive or negative traits to "spill over" from one area of their personality to another in others' perceptions of them (see also physical attractiveness stereotype).

Ultimate attribution error

Similar to the fundamental attribution error, in this error a person is likely to make an internal attribution to an entire group instead of the individuals within the group.

False consensus effect

The tendency for people to overestimate the degree to which others agree with them.

Self-serving bias / Behavioral confirmation effect

The tendency to claim more responsibility for successes than failures. It may also manifest itself as a tendency for people to evaluate ambiguous information in a way beneficial to their interests (see also group-serving bias).

Notational bias

A form of cultural bias in which the notational conventions of recording data biases the appearance of that data toward (or away from) the system upon which the notational schema is based.

Egocentric bias

Occurs when people claim more responsibility for themselves for the results of a joint action than an outside observer would.

Just-world phenomenon

The tendency for people to believe that the world is just and therefore people "get what they deserve."

System justification effect / Status Quo Bias

The tendency to defend and bolster the status quo. Existing social, economic, and political arrangements tend to be preferred, and alternatives disparaged sometimes even at the expense of individual and collective self-interest. (See also status quo bias.)

Dunning-Kruger / Superiority Bias

Overestimating one's desirable qualities, and underestimating undesirable qualities, relative to other people. Also known as Superiority bias (also known as "Lake Wobegon effect", "better-than-average effect", "superiority bias", or Dunning-Kruger effect).

Illusion of asymmetric insight

People perceive their knowledge of their peers to surpass their peers' knowledge of them.

Herd instinct

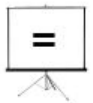
Common tendency to adopt the opinions and follow the behaviors of the majority to feel safer and to avoid conflict.

Illusion of transparency

People overestimate others' ability to know them, and they also overestimate their ability to know others.

Fundamental attribution error / Actor-observer bias

The tendency for people to over-emphasize personality-based explanations for behaviors observed in others while under-emphasizing the role and power of situational influences on the same behavior (see also actor-observer bias, group attribution error, positivity effect, and negativity effect).



Projection bias

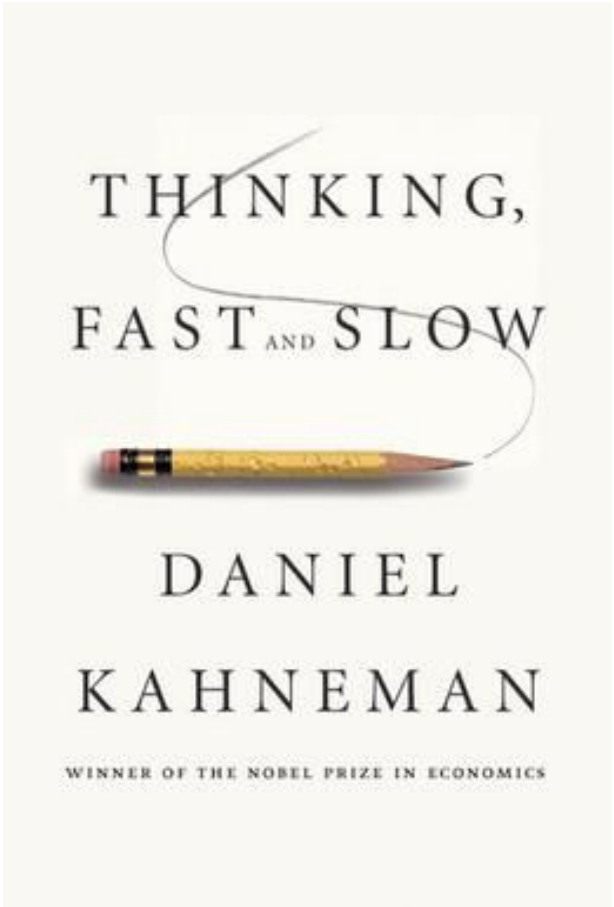
The tendency to unconsciously assume that others share the same or similar thoughts, beliefs, values, or positions.

Outgroup homogeneity bias

Individuals see members of their own group as being relatively more varied than members of other groups.

Trait ascription bias

The tendency for people to view themselves as relatively variable in terms of personality, behavior and mood while viewing others as much more predictable.



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