



Beyond Disruption – Challenges and Opportunities in Digital transformation

Nishanth Nalan

PhUSE Single Day Event

Chennai

13th October 2018

Disclaimer



The opinions expressed in this presentation and on the following slides are solely those of the presenter and not necessarily those of Agati. Agati does not guarantee the accuracy or reliability of the information provided herein.

Acknowledgements



- ❑ Vasanthi Srinivasan – Professor, IIM, Bangalore.
- ❑ Mahendiran Periyasamy – Senior Agile Consultant, Eliassen Group LLC, USA.
- ❑ Paramaguru Raj, Professor, Government Arts & Science College, Nandanam, Chennai.

Agenda



- ☐ Definition of Disruption
- ☐ Disruption
- ☐ Key Global Changes
- ☐ Data – The New Oil
- ☐ Reflections on Disruption
- ☐ Building the Future We Want
- ☐ References

Definition of Disruption



- Disruption
 - ◆ disturbance or problems which interrupt an event, activity, or process.

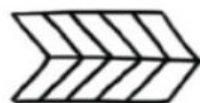


- ❑ **Disruption** is dynamic, highly innovative, improvises the situation and part of our life.
- ❑ Farming => Industries => Services => Knowledge
- ❑ File Processing System => Database Management System => Relational Database Management System => Object Oriented Database Management => Data Analytics
- ❑ Disruptors will continue to change businesses as we know them and introduce new ways of delivering value.



INNOVATION

DISRUPTION



DOING THE SAME
THINGS A BIT
BETTER

DOING NEW
THINGS

MAKING THINGS THAT
MAKE THE OLD THINGS
OBSOLETE



As humans, we try to take away from the environment, what we would like to take away, but not what the environment is suggesting us.

Key Global Changes



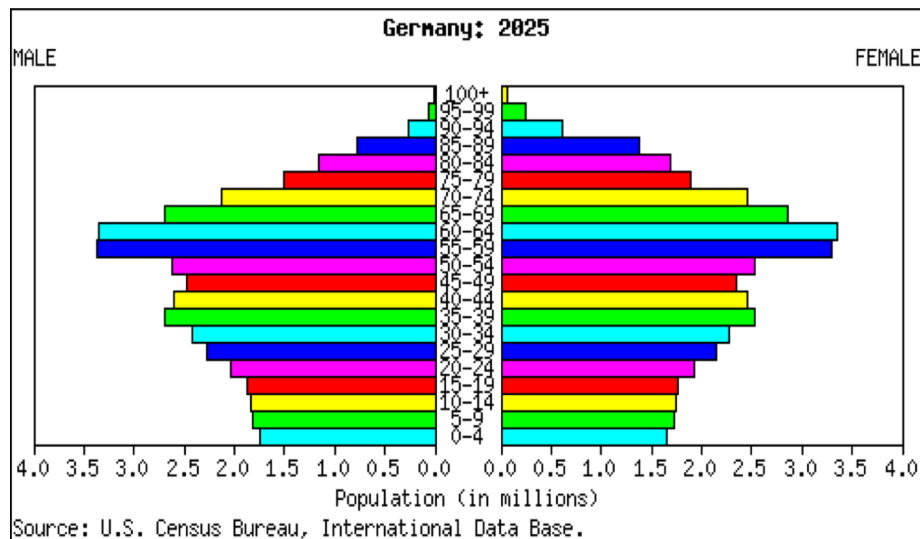
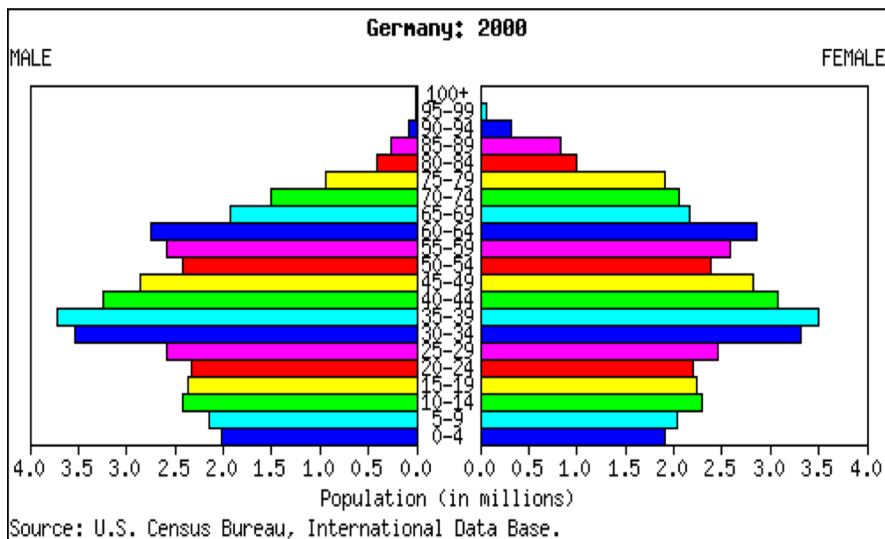
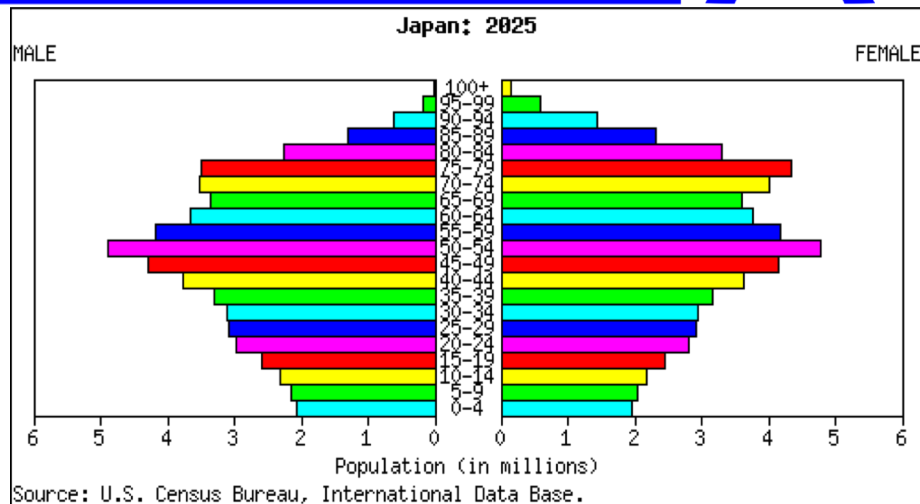
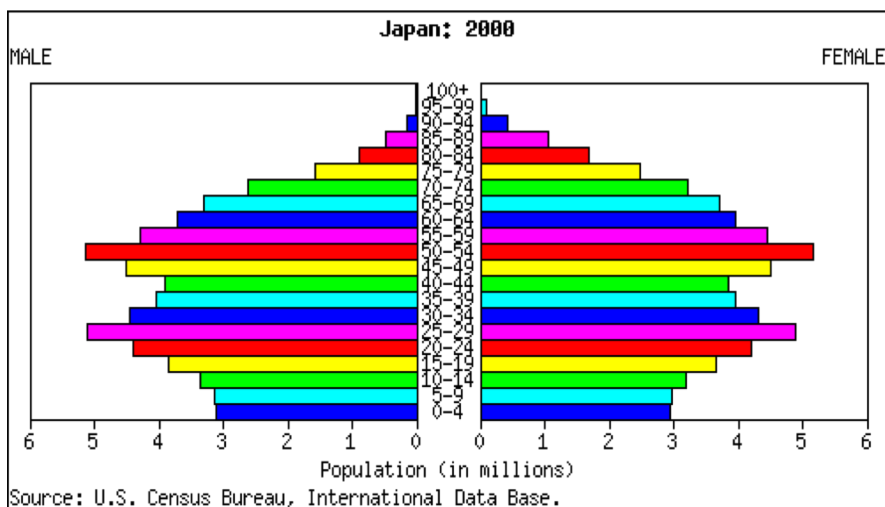
- ☐ Demographics
- ☐ Globalization
- ☐ Education
- ☐ Organization
- ☐ Science and Technology

Demographics

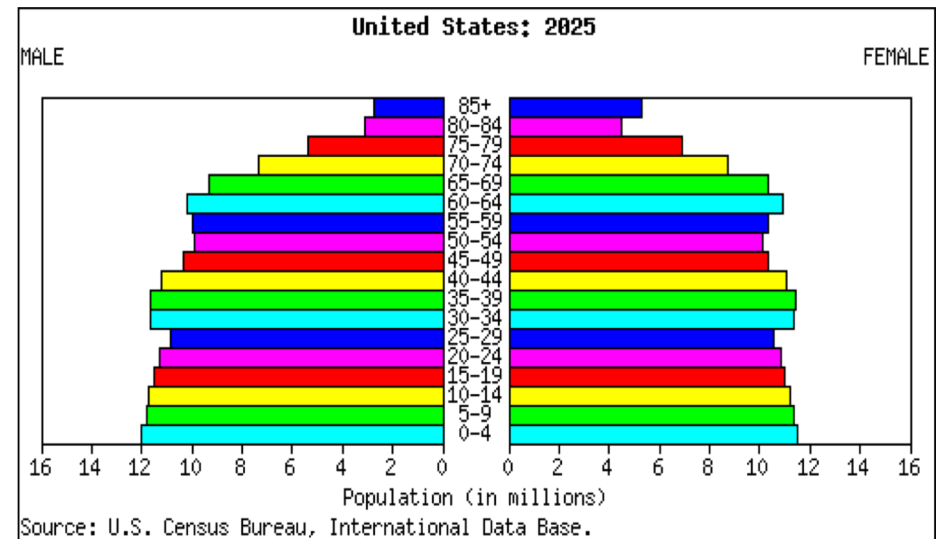
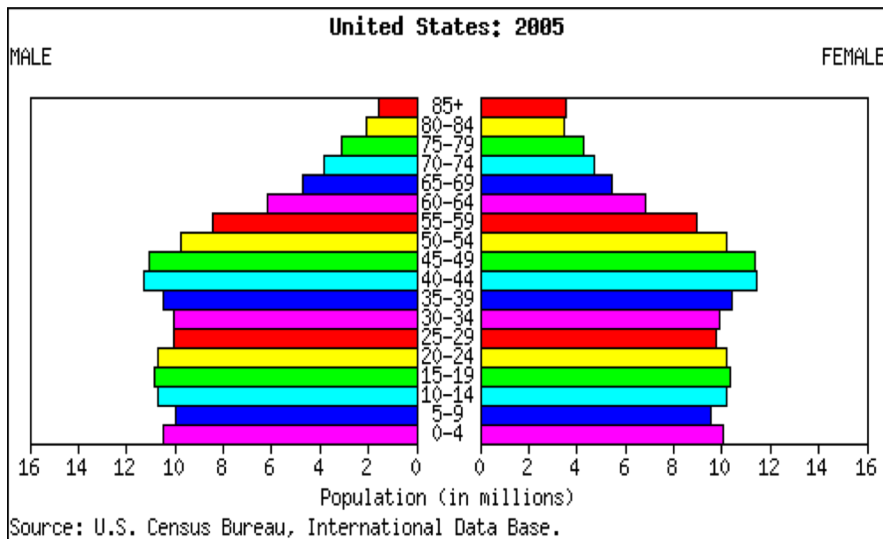
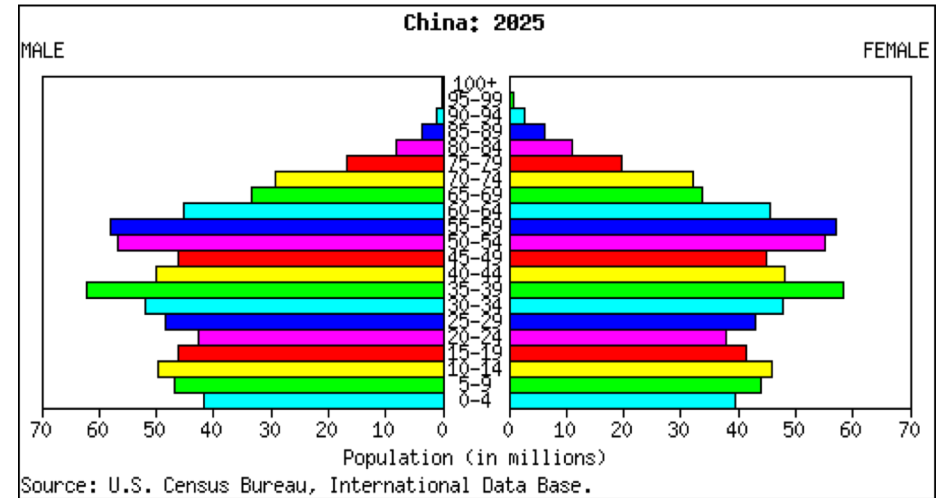
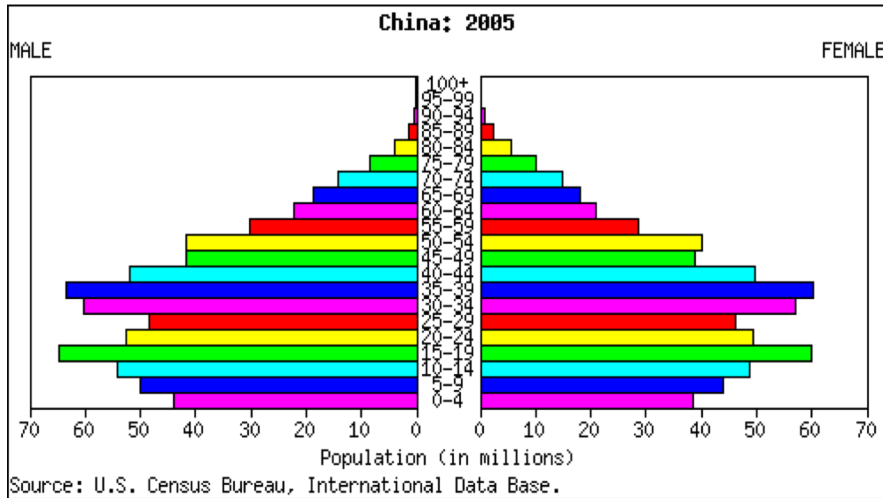


- ❑ Demographics Dividend
- ❑ Europe is ageing, China may become older before it becomes richer.
- ❑ By 2020, avg. age of India will be 29 years.
- ❑ Average age is the lowest in Tamil Nadu, Kerala, Maharashtra (0-14), amongst the other states in India, relatively.

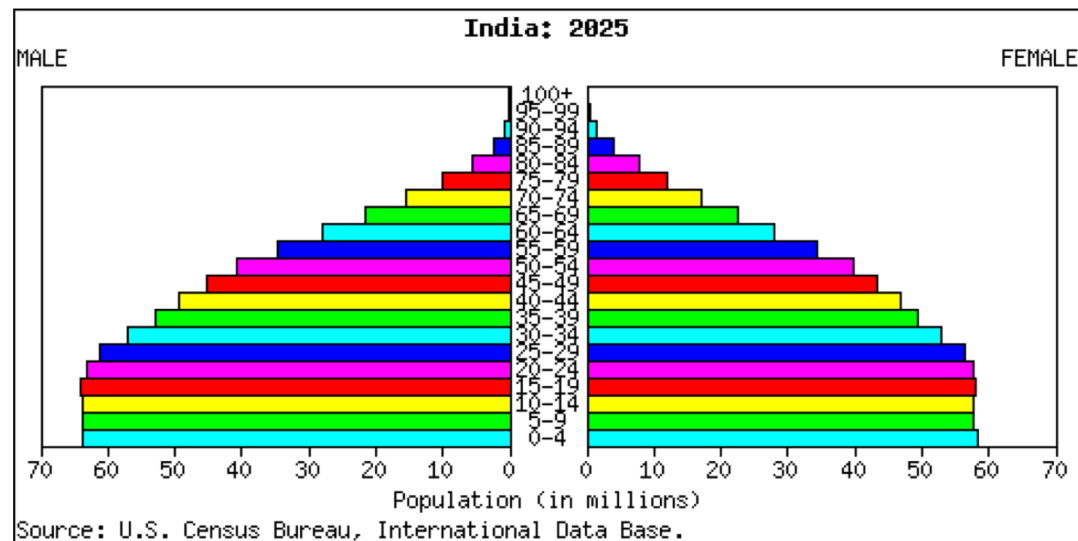
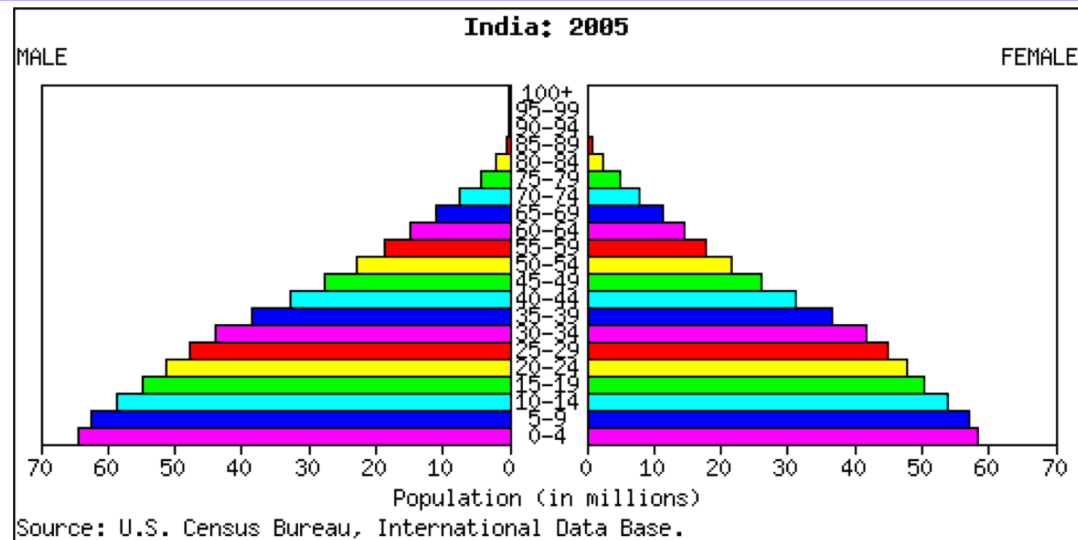
Demographics



Demographics (Contd.)

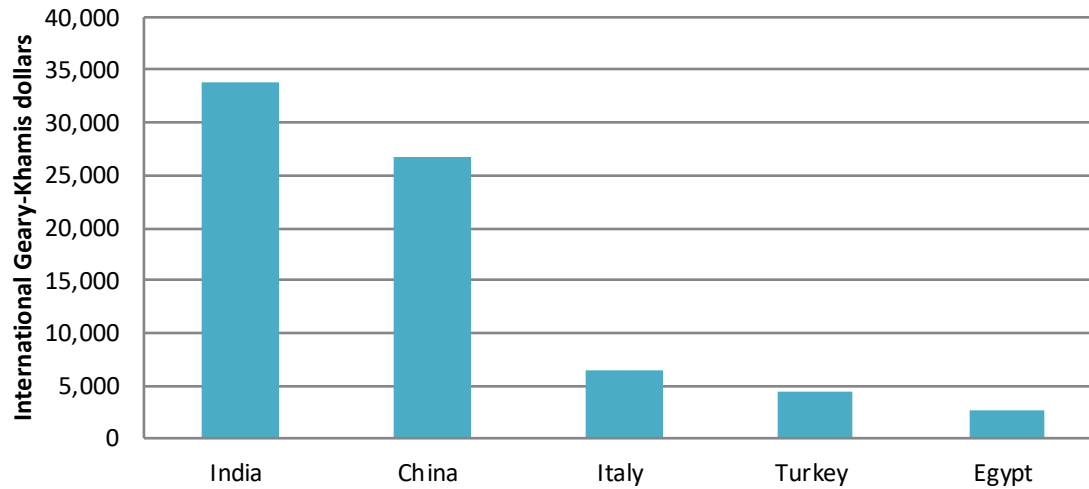


Demographics (Contd.)



Gross Domestic Product : 1

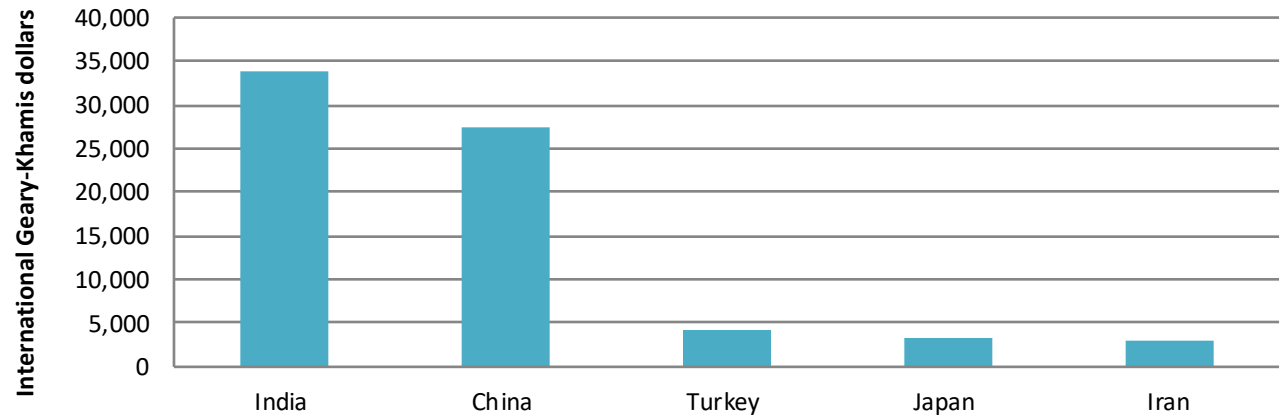
ESTIMATED: 5 LARGEST IN THE WORLD



Estimated from Groningen Growth and Development Centre (GGDC)

Gross Domestic Product : 1000

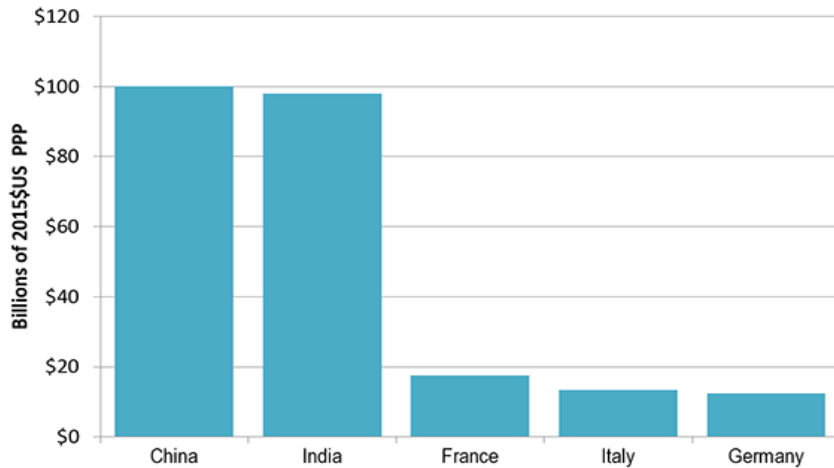
ESTIMATED: 5 LARGEST IN THE WORLD



Estimated from Groningen Growth and Development Centre (GGDC)

Gross Domestic Product: 1500

ESTIMATED: 5 LARGEST IN THE WORLD

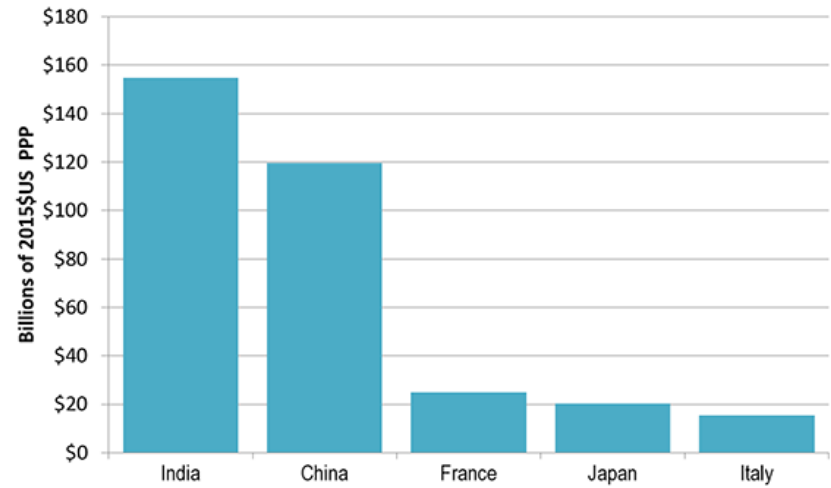


Estimated from Maddison and IMF data

Figure 1

Gross Domestic Product: 1700

ESTIMATED: 5 LARGEST IN THE WORLD

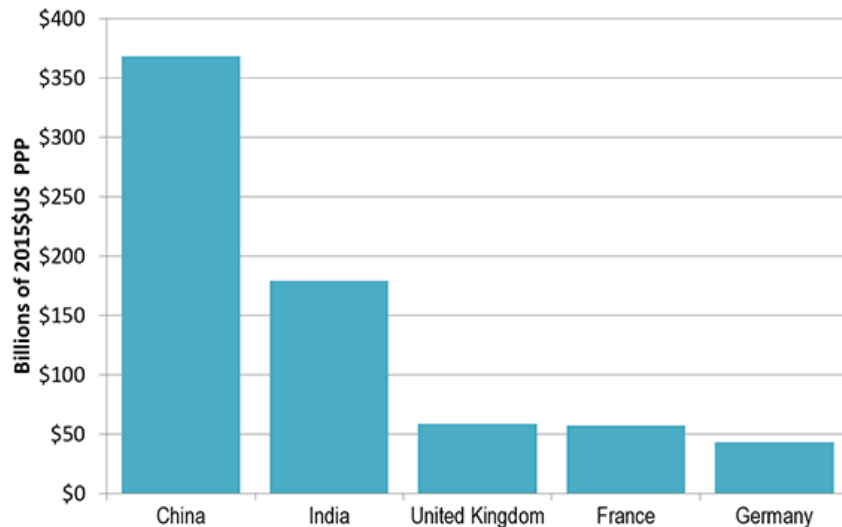


Estimated from Maddison and IMF data

Figure 2

Gross Domestic Product: 1820

ESTIMATED: 5 LARGEST IN THE WORLD

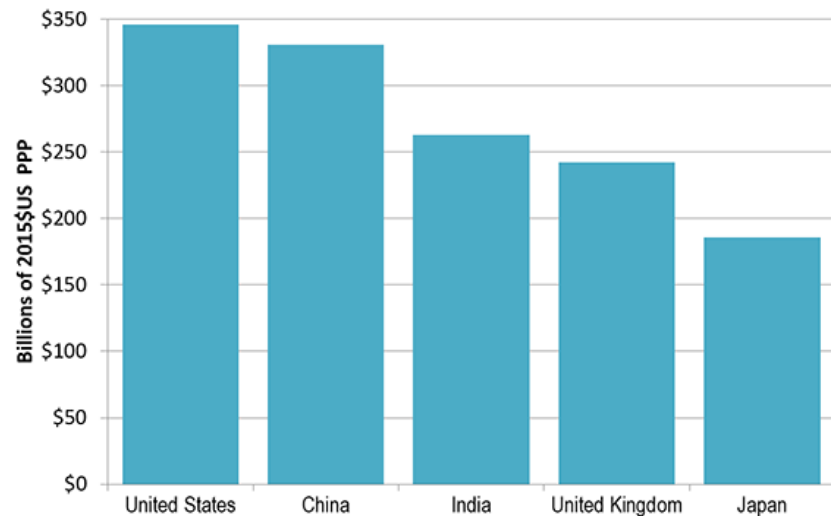


Estimated from Maddison and IMF data

Figure 3

Gross Domestic Product: 1890

ESTIMATED: 5 LARGEST IN THE WORLD

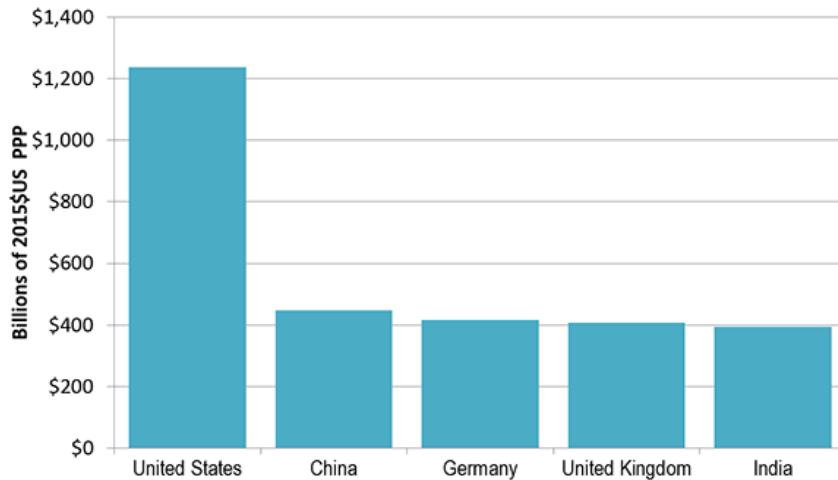


Estimated from Maddison and IMF data

Figure 4

Gross Domestic Product: 1930

ESTIMATED: 5 LARGEST IN THE WORLD

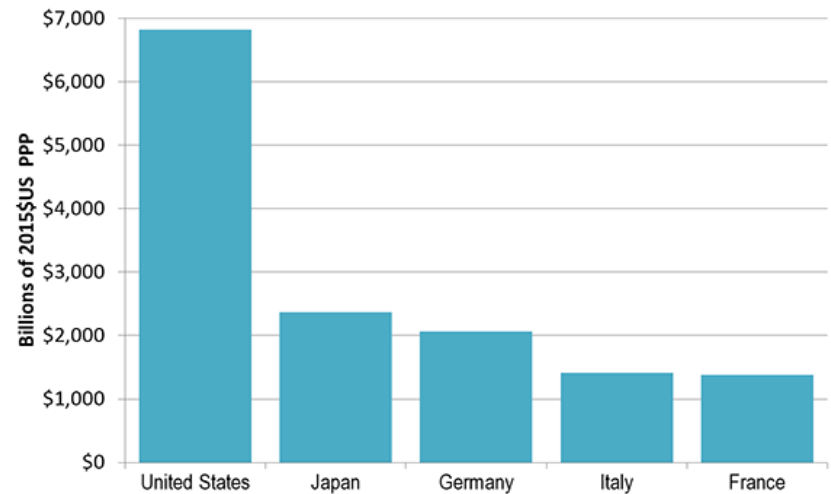


Estimated from Maddison and IMF data

Figure 5

Gross Domestic Product: 1980

ESTIMATED: 5 LARGEST IN THE WORLD

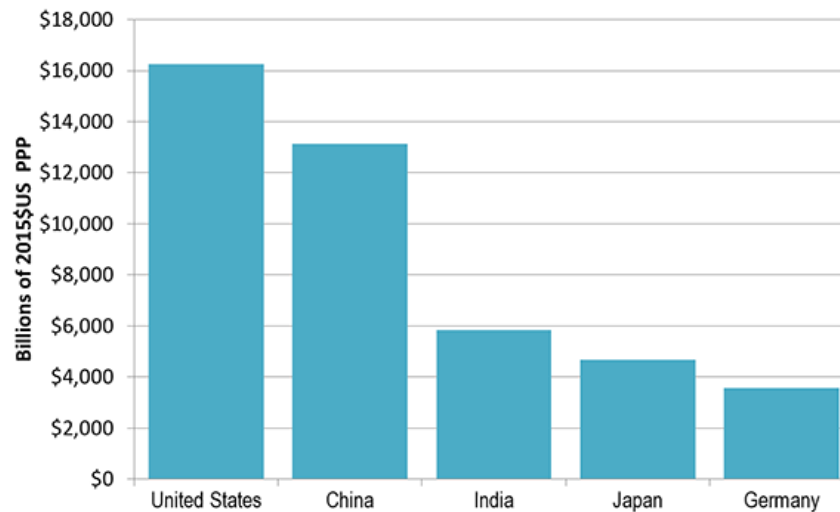


Estimated from Maddison and IMF data

Figure 6

Gross Domestic Product: 2010

ESTIMATED: 5 LARGEST IN THE WORLD



Estimated from Maddison and IMF data

Figure 7



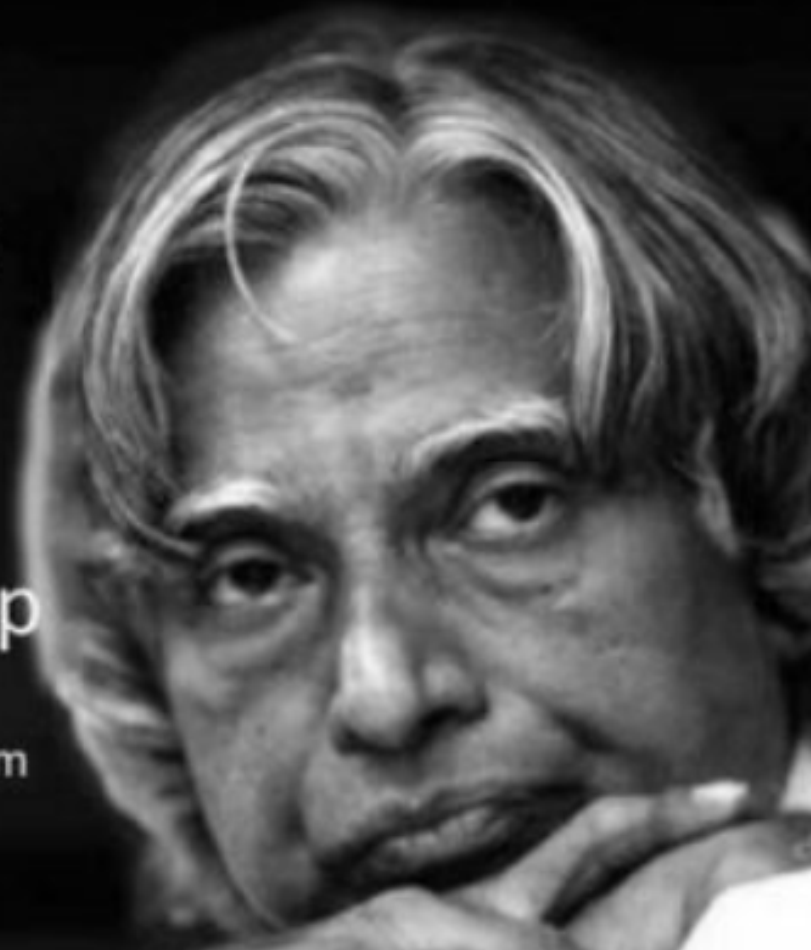
- ❑ **Globalization** resulted in knowledge sharing, distribution of work, upgradation of skillsets which benefited a small size of global population.
- ❑ Artificial Intelligence, Machine Learning may lead to reduction in the availability of skill based jobs.
- ❑ **AI** will play a greater role in products, processes, and people's lives.
- ❑ In future, it may gradually lead to attaching more importance to **local products**.



“
Dreams
is not what you see
in sleep

is the thing which
doesn't let you sleep

- A. P. J. Abdul Kalam



Education



- ☐ Mother Nature
- ☐ Birth of an idea
- ☐ Education System
- ☐ Re-imagining the classroom
- ☐ Young Minds
- ☐ Impact of Industry 4.0



- ❑ **Self - Organization** => decomposition of the classic hierarchy to decentralized self-organization.
- ❑ **SEED** - internal disruptors
 - ◆ Example – Shadow Board
- ❑ **Innovation** => has to be on the development quotient.
- ❑ Upskilling, Reskilling the workforces.



- ❑ **Science** needs time to prove the concept based on Imagination. Because imagination is faster than science.
- ❑ Innovation and disruption are the hallmarks of the **technology** world.

“Using faster-than-light velocities, we could telegraph into the past” - Albert Einstein

Quoted in the book "Einstein in his own words" by Anne Rooney

Data – The New Oil



- ❑ **Data** is the new raw material.
- ❑ 90% of the data in the world today, was created in the last 2 years.
- ❑ Technology allows us to collect so much data and many don't know how to make sense of it to help their organization.
- ❑ The role of **Big data** and **Data analytics**.

Reflections on Disruption



- ❑ Earlier adoption of Industry 4.0
- ❑ Routine activities which also include monitoring tasks are entirely or partly taken over by machines.
- ❑ The industry 4.0 is upon us, and the future jobs will be where innovation is, **science based innovation.**

Building the future we want



- ❑ **Focus on Includability** to combat inequality
 - ◆ Ensuring no one is left behind.
- ❑ **Digital Disruption**
 - ◆ More of an opportunity than a challenge.
- ❑ **SEED Capital**
 - ◆ The educational system based on creativity leads to innovative minds.
 - ◆ Education has to be personalised and futuristic.

Building the future we want (Contd).

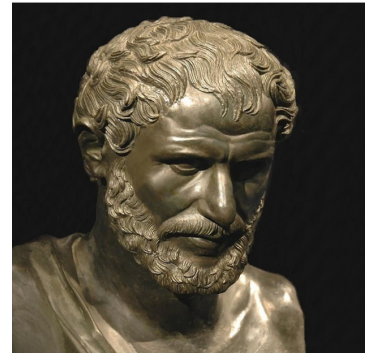


- ❑ **Building the capabilities**
 - ◆ Businesses need to rethink their talent development strategy.
 - ◆ Young leaders will emerge faster.
- ❑ **Key Skills** such as Social skills, Vocational skills, Digital skills, Global citizenship skills, Entrepreneurship skills.
- ❑ **Key Competencies** such as Critical thinking, Creativity, Problem solving, Research.
- ❑ **Continuous Learning**



“No man ever steps in the same river twice, for it's not the same river and he's not the same man.”

— **Heraclitus**



References



- ❑ <https://asq.org/quality-resources/research>
- ❑ www.ggdc.net/maddison/historical_statistics/horizontal-file_03-2009.xls
- ❑ https://www.veeva.com/wp-content/uploads/2017/04/ACR_CR_APR17_HS1_Young-2.pdf



Thank you!