



# “Impact on AI Led Innovation in Fintech”

**Dr. Manodha Gamage**

Managing Director – ISaC (Pvt.) Ltd.

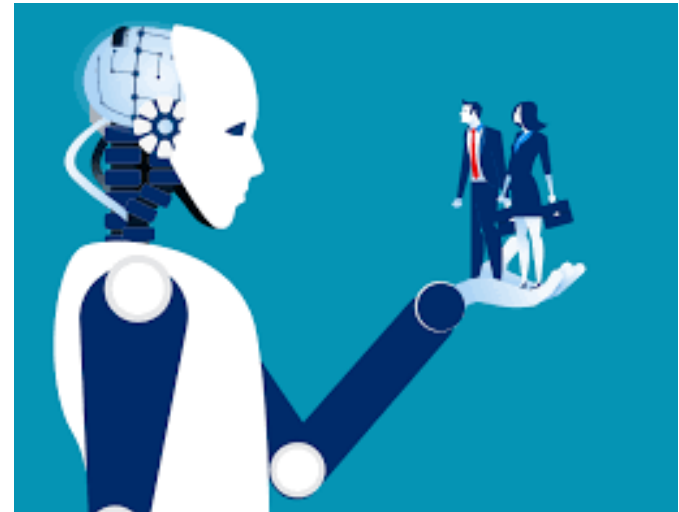
Consultant, Senior Lecturer & Trainer in ICT

[www.isac.lk](http://www.isac.lk)



# Agenda

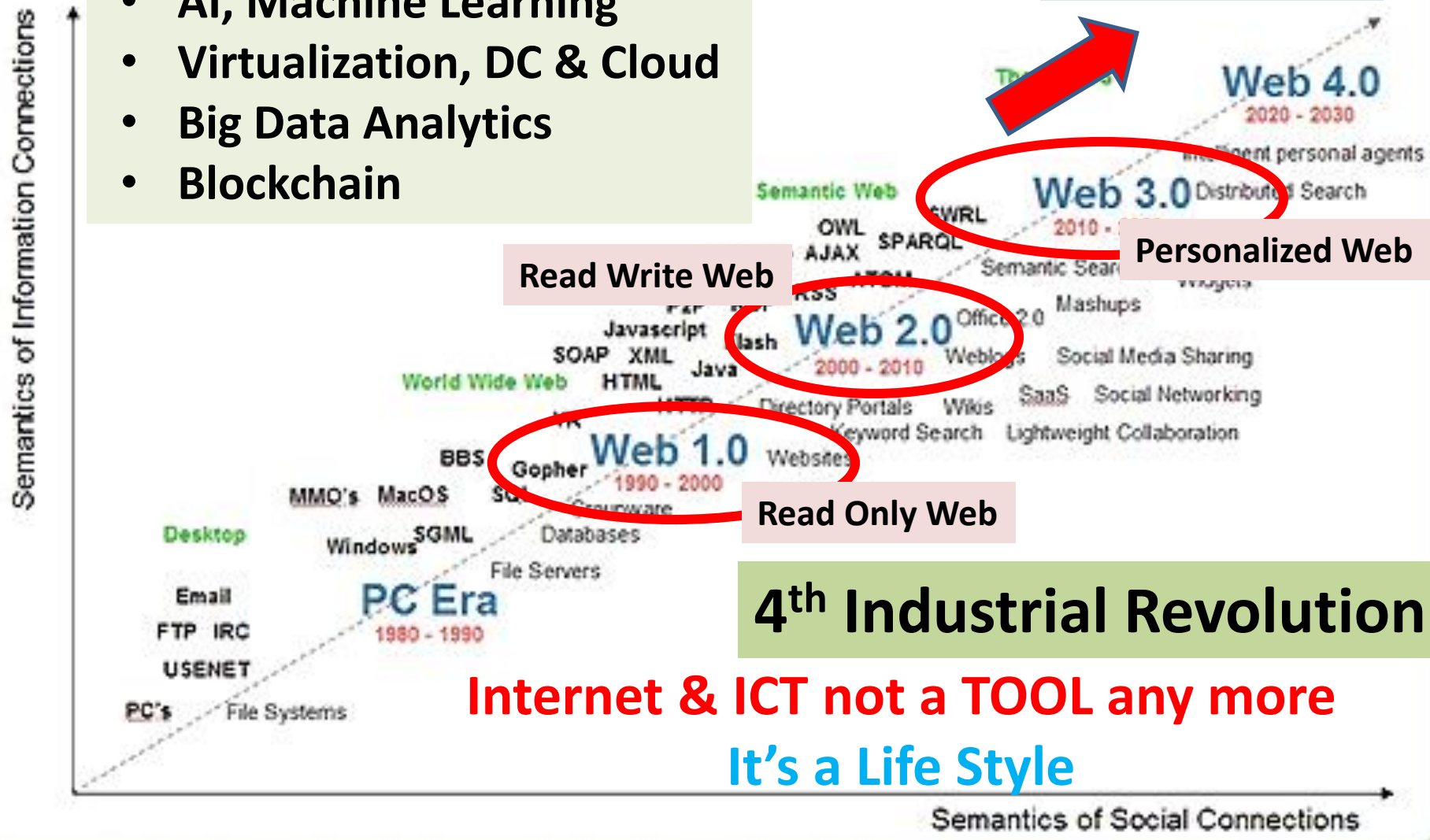
- **Introduction**
  - Evolution of the Internet
- **ICT Disruption & Opportunities**
  - Innovation & Digital Opportunity
- **Customer Experience**
- **Emerging Technologies**
  - AI, 5G, IoT, Big Data, Blockchain
- **Impact of Technologies**
- **Remedies**



# Evolution of the Internet & Technologies

- Mobile Broadband – 5G
- AI, Machine Learning
- Virtualization, DC & Cloud
- Big Data Analytics
- Blockchain

Internet of Things (IoT)



4<sup>th</sup> Industrial Revolution

Internet & ICT not a TOOL any more

It's a Life Style

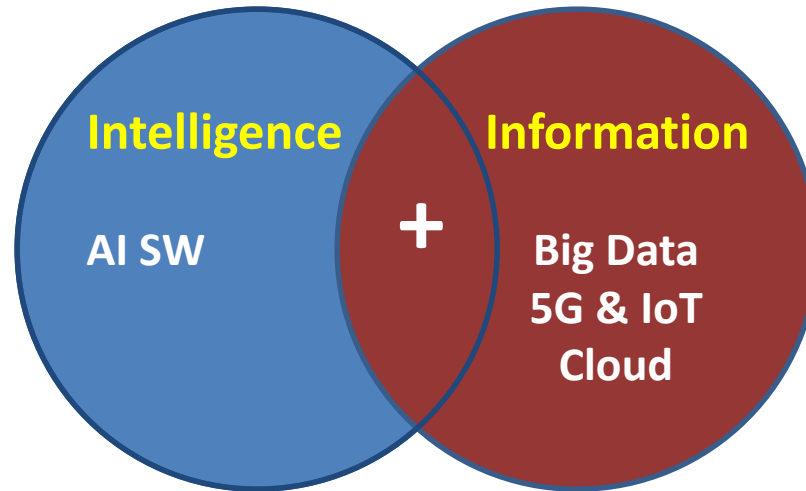
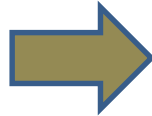


Source: Radar Networks & Nova Spivack, 2007 - www.radarnetworks.com

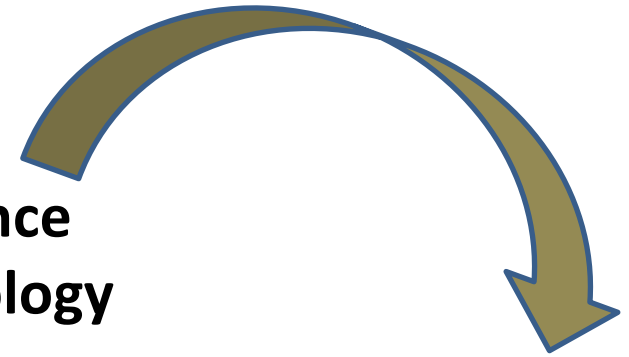
# 4<sup>th</sup> Industrial Revolution

Artificial Intelligence  
Information Technology

3<sup>rd</sup> Industrial  
Revolution  
(1<sup>st</sup> Information  
Revolution)



4<sup>th</sup> Industrial  
Revolution  
(2<sup>nd</sup> Information  
Revolution)

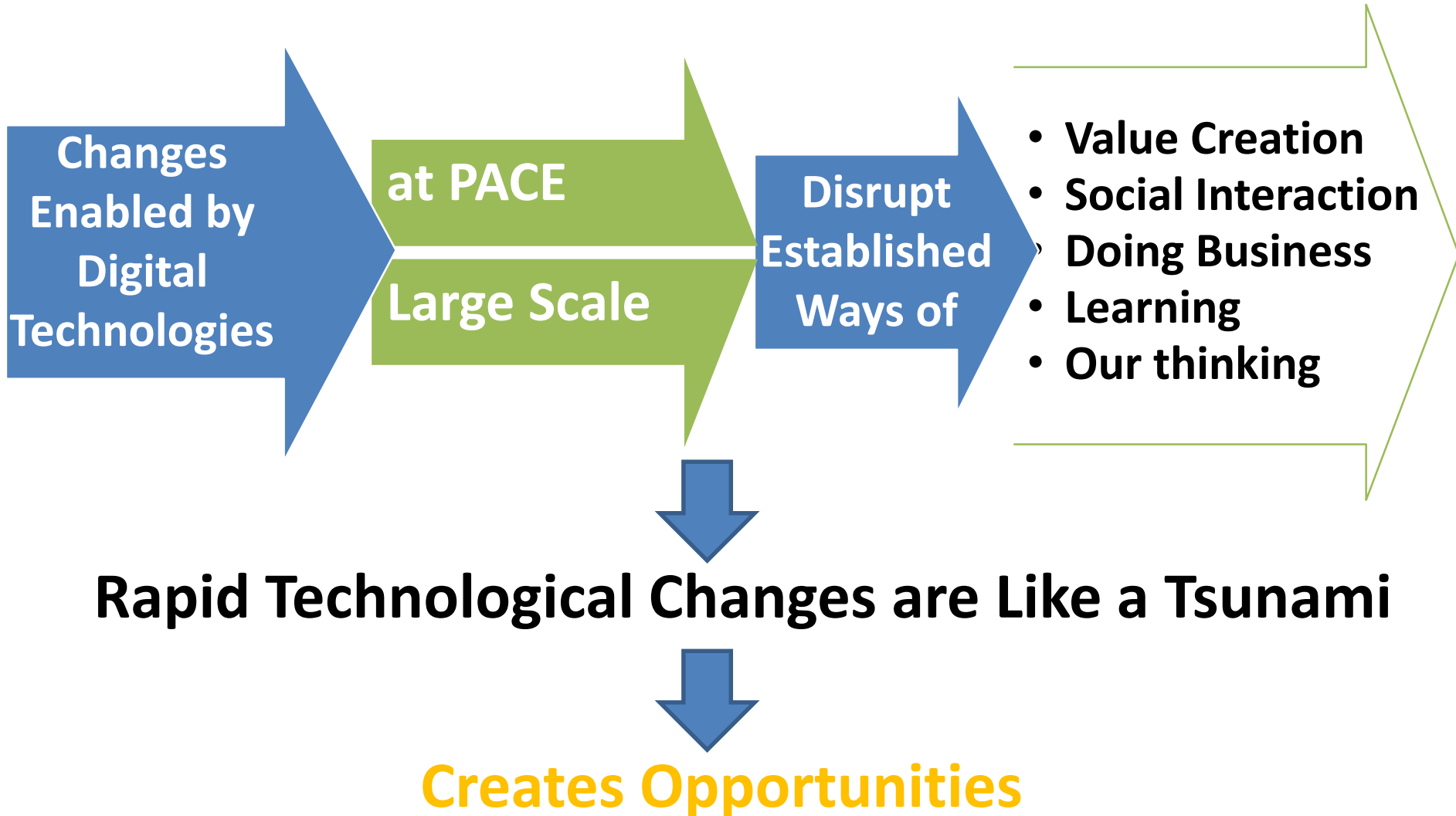


**2<sup>nd</sup> Information Revolution**

# ICT/Digital Disruptions & Opportunities



# What is ICT/Digital Disruption?



# Some Examples of Disruptive Creations

Most highly  
valued (40b \$)  
tech startup

Uber

The world's largest  
taxi company, owns  
no vehicles.

The world's most  
popular media owner,  
creates no content.

Facebook

Alibaba

The most valuable  
retailer, has no inventory.

The world's largest  
accommodation provider,  
owns no real estate.

Airbnb

Something interesting is happening.

TOM GOODWIN

wetpaint  
creative digital solutions

© /WetpaintMENA

# Disruptive Innovation

- **“Playing the Game Differently”**
- **Creates a New Market**
- **Transforms or Destroys Current Market**
- **Products Become**
  - Simpler
  - More Affordable
  - More Accessible
  - Customizable
- **Drives Growth**





# Innovate to Maximize Opportunities



# Key Features of Technological Evolution

1. Like a Tsunami
2. Highly Interconnected with everything
3. Not just changing what we do & how we do it
  - Changing us
  - Changing our lives
  - Changing the way we see the world

**ICT/Internet is a LIFE STYLE**

# Are You Ready for Technological Revolution?

## •Uberization

Complicated New Tech &  
Processes



Very Simple with an APP

## •Talentism

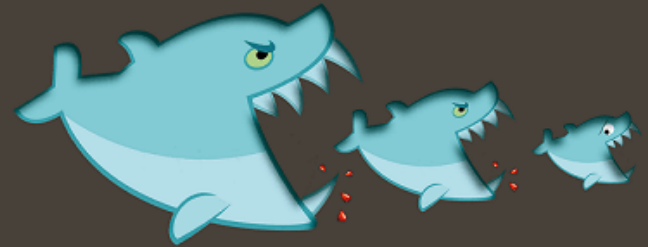
Current Jobs getting  
**OBSOLETE**



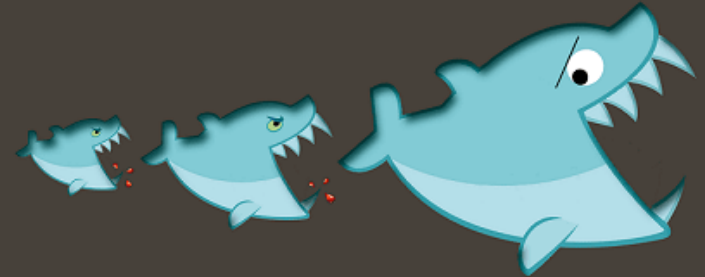
ICT/Tech Savvy & Innovative  
Employees

- **NOT BIG fish eats SMALL fish**  
but
- **Fast fish eats SLOW fish**

**THEN**



**NOW**



**Klaus Schwab**

Founder & Exe Chairman - World Economic Forum

# Customer Experience



# Today



## The "do the basics right" Bank

- Optimized branch network and contact center
- Enhanced digital channels
- Need-based offerings and consistent sales behaviors
- Basic multichannel integration

# "Next Generation Banking" models

## Intelligent Multi-Channel Bank

- Integrated multichannel architecture powered by analytics (real-time event management, etc.)
- Advanced digital advisory
- Need-based offerings optimized by channels

**My Bank Effectively ENGAGED with me on my real financial needs**

## Socially Engaging Bank

- Customer engagement where they spend their time (e.g. on social media) based on personal interests
- Leverage influencers
- Co-creation based on increased customer intimacy

**My Bank ENGAGES with me where I spent time**

## Financial/Non-Financial Digital Eco System Bank

- Bank as trust center with an extended proposition (financial and non-financial)
- "The bank where you are" leveraging the power of mobile
- M-payment services

**My Bank gives ANSWERS to my NEEDS, providing Easy ACCESS**

# Evolution of Customer Touch Points



- **Single Touch Point** between customers and bank

- **Multiple Independent Touch Points**
- Bank's Channel Knowledge & Operations exist in Silos

- Customer sees multiple touch points of same brand
- **Banks have single view of customers, but operate in silos**

- Customer experience a Brand (not Channels)
- Banks leverage "single view of customers"

Legacy

Reality

Aspiration.  
Should Realize soon  
If NOT yet

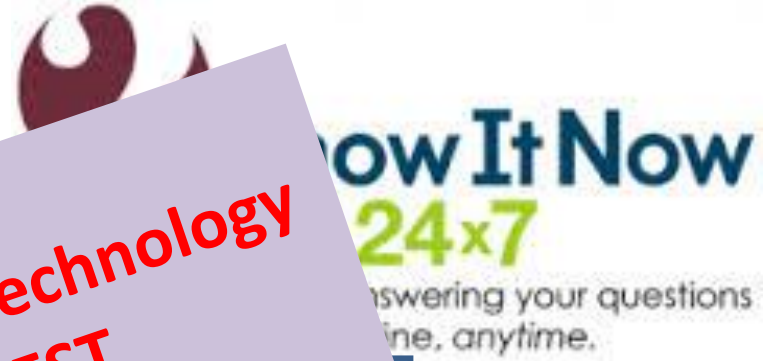
Nirvana

# Customers Research Online with the support of Technology & Wrap up Deals in a Branch



Research  
with Support  
Technology

**Always HUMAN + Technology  
Gives the BEST**



Bank's Availability Online



**Wrap up the Deal in a Branch**



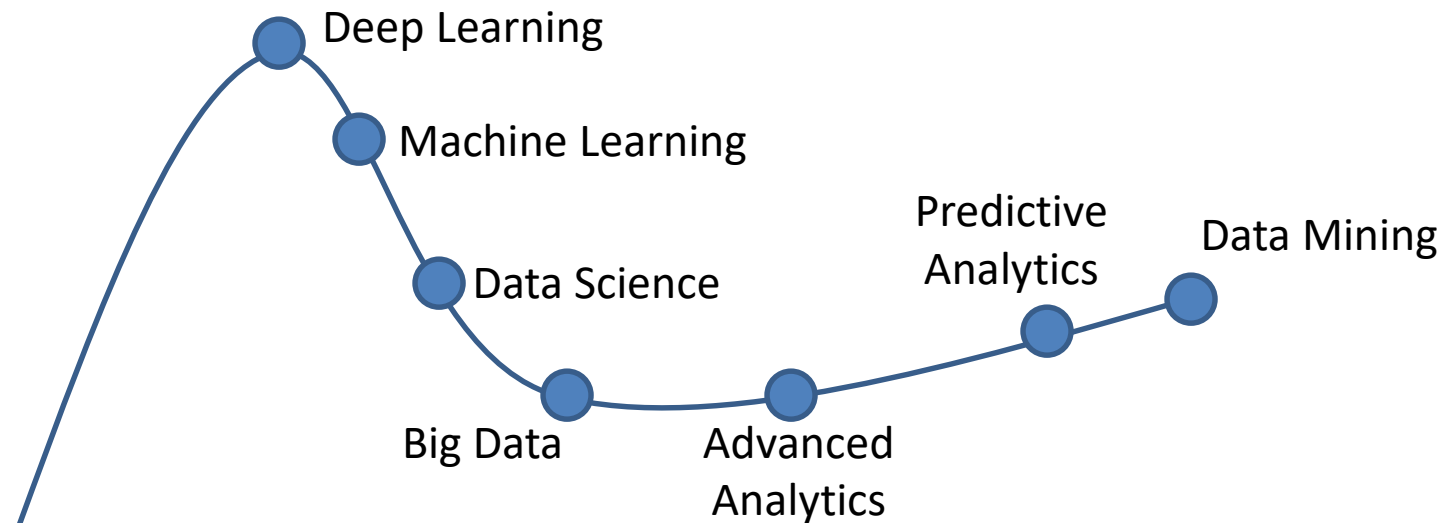
# Emerging Technologies



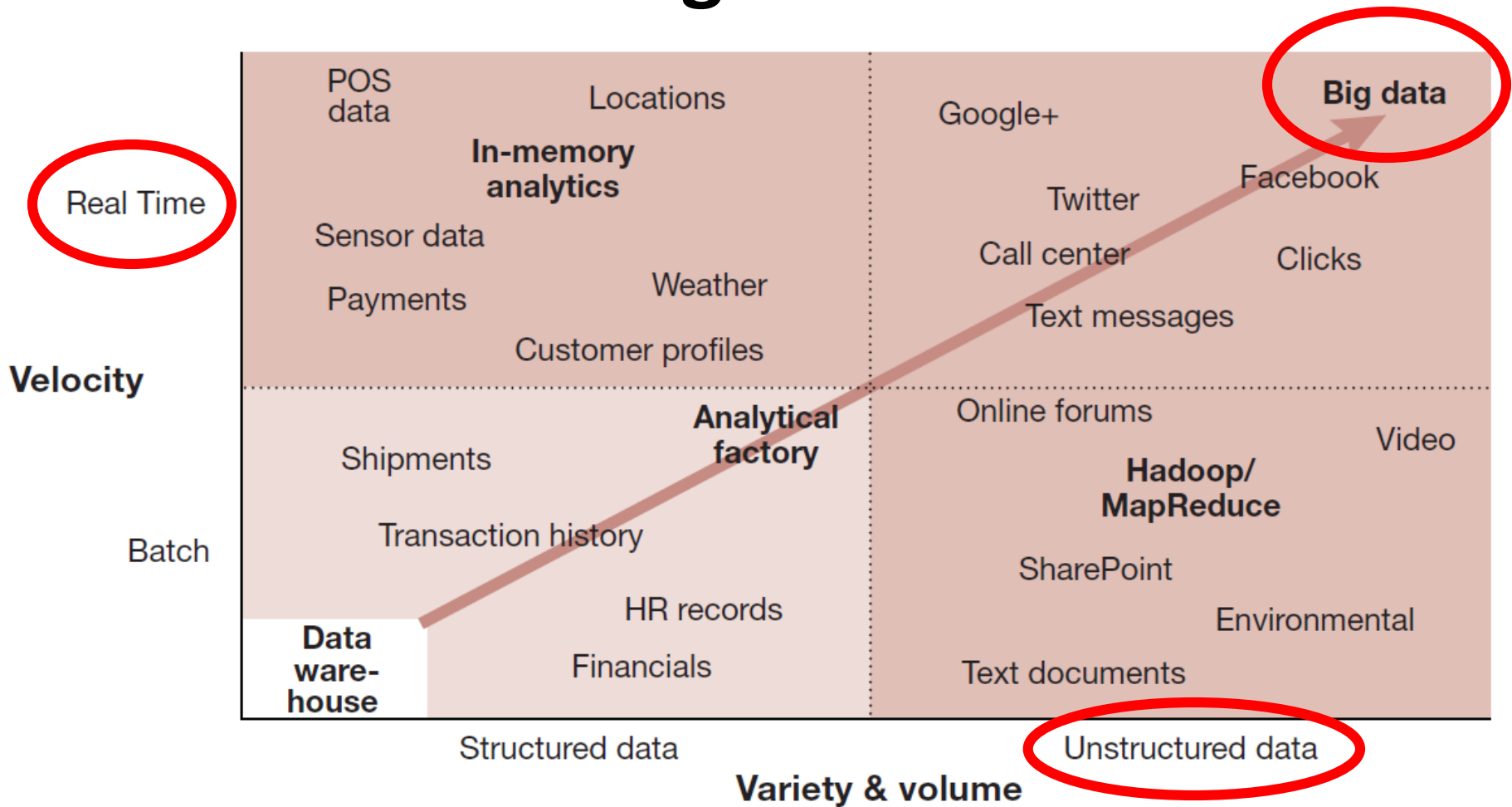
# Artificial Intelligence (AI)

- A set of Technologies that **Emulates Human Thinking & Action**
- It does so by:
  - **Learning** from experience
  - Arriving at its **own conclusions**
  - Understanding **complex content**
  - Participating in **natural-language dialogues**
  - Enhancing human **cognitive performance**
  - Replacing people in executing **routine tasks**

- 5G & IoT
- Blockchain
- Cloud
- Big Data



# Big Data



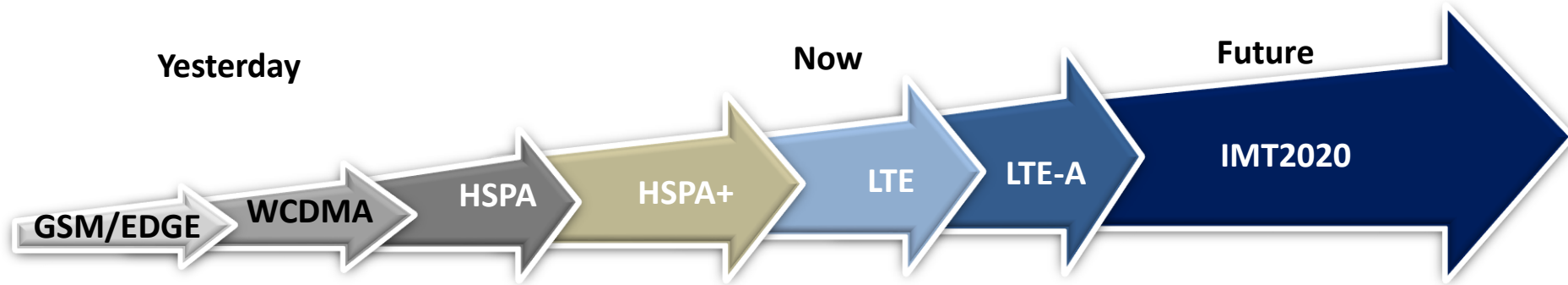
**Aggregating data from multiple sources into one common repository**

# Mobile Broadband - 5G

Yesterday

Now

Future



**2G**

**3G**

**4G/LTE**

**5G**

**Narrow Band**  
(Mainly Voice & SMS)

**Mobile BB**  
Data + Voice & SMS  
About **3Mbps**

**Mobile BB with IP Core**  
(Mainly Data)  
About **35Mbps**

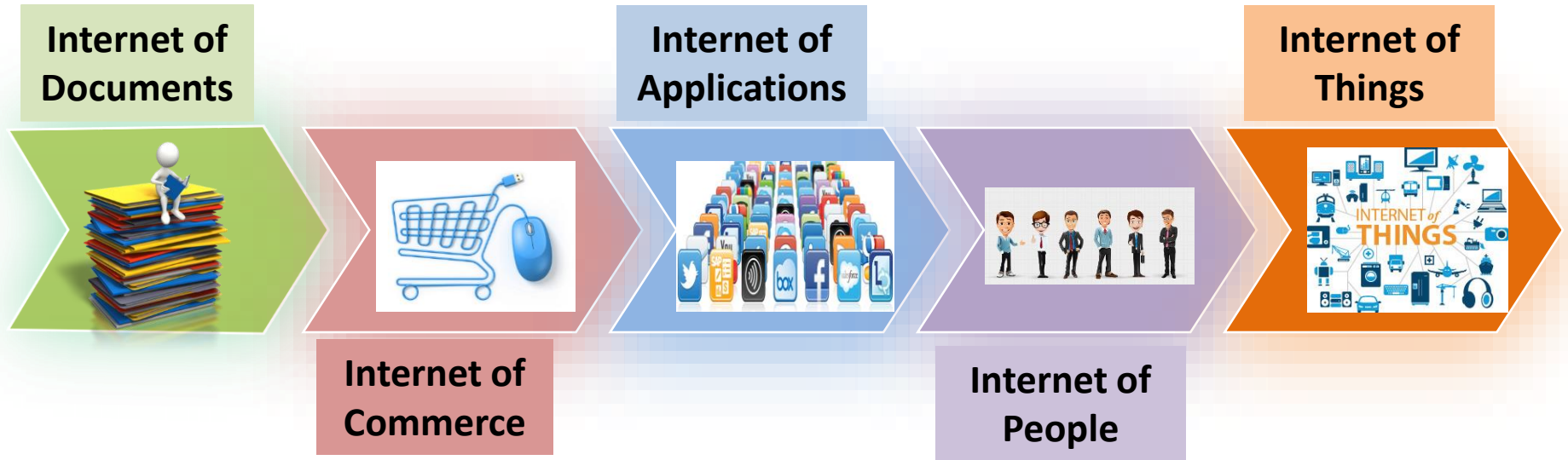
**Mobile BB & LPWA**  
(Mainly Data)  
Killer application  
**IoT**

**BB – Broadband**

**LPWA – Low Power Wide Area**

# Evolution of IoT

Network of connected devices through the Internet,  
**Collecting & Sharing data**



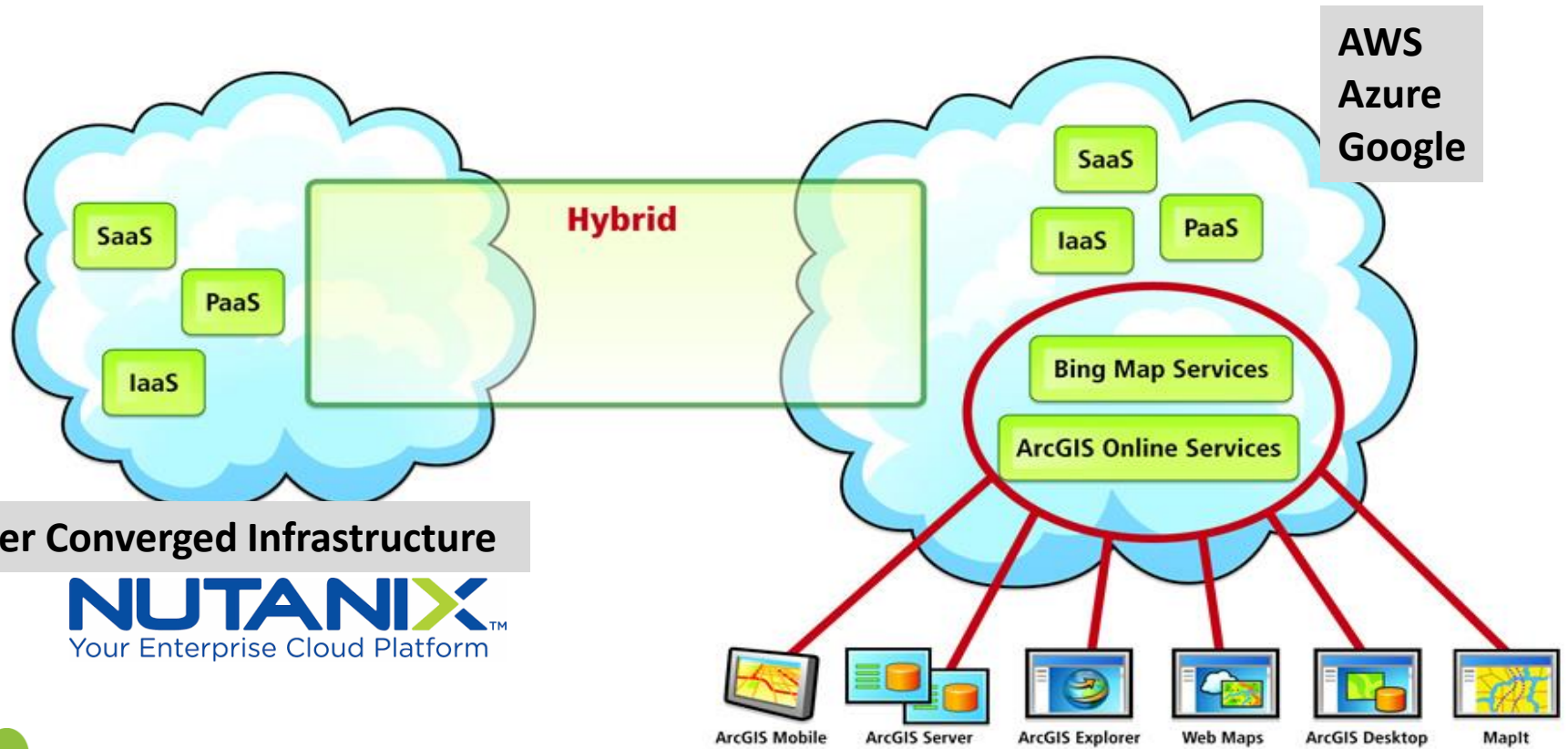
# Cloud Computing – Models & Deployment

## 3 Models - IaaS (Infrastructure as a Service)

- PaaS (Platform as a Service)
- SaaS (Software as a Service)

**Private Cloud**  
On-Premises/Internal

**Public Cloud**  
Off-Premises/External

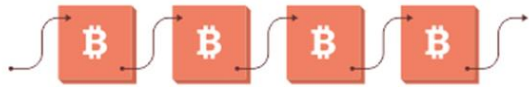


Hyper Converged Infrastructure

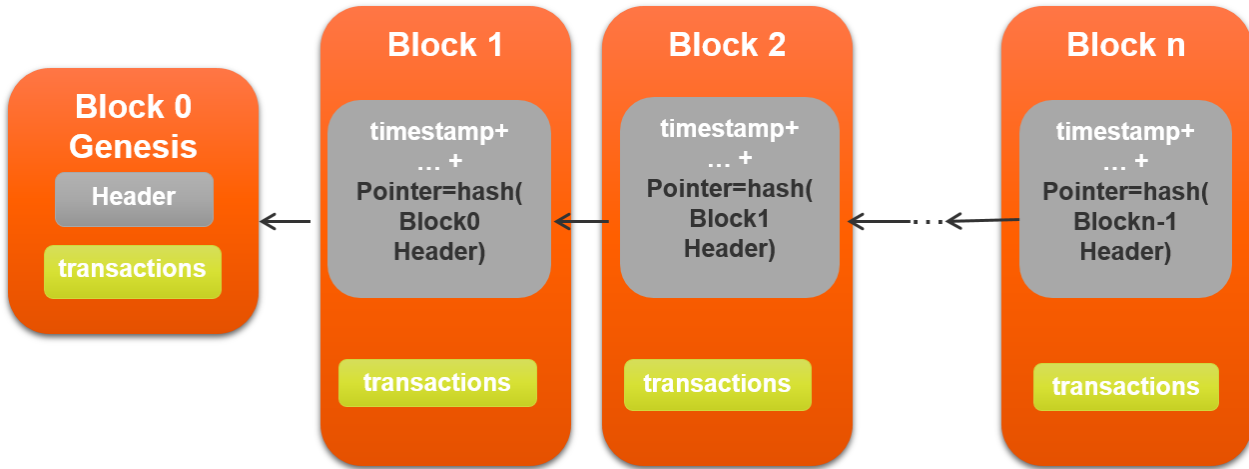
**NUTANIX**  
Your Enterprise Cloud Platform



# Blockchain



- Blockchain - a ***distributed ledger*** that...
  - contains financial and/or non-financial transactions
  - is replicated (distributed) across a number of systems in near real-time over a peer-to-peer network; Every Participant
    - “Owns” the same copy of the ledger
    - Gets updates when any transaction is added
    - Every participant helps determine the intrinsic “immutability” of all existing records
  - uses **cryptography & digital signatures** to prove identity, authenticity and enforce read/write access rights
  - has mechanisms to make it hard to change historical records, or at least make it easy to detect when someone is trying to change it



# Blockchain for Anti Money Laundering (AML)

- Global Money Laundering (**ML**) could be a threat to
  - World economy & Security
- Global **ML** amount = about 2 - 5% of Global GDP = \$2 trillion USD
- Global spend on **AML** compliance = \$8b USD; Only < 1% of **ML** can be seized
- An **AML** system built on blockchain can leverage
  - Cryptographically secure
  - Decentralized
  - Immutable nature of the technology..... to identify & stop suspicious transactions effectively
- Network directory & smart contracts used to record transactions on the blockchain
  - Suspicious activity can be detected & highlighted to all related participants

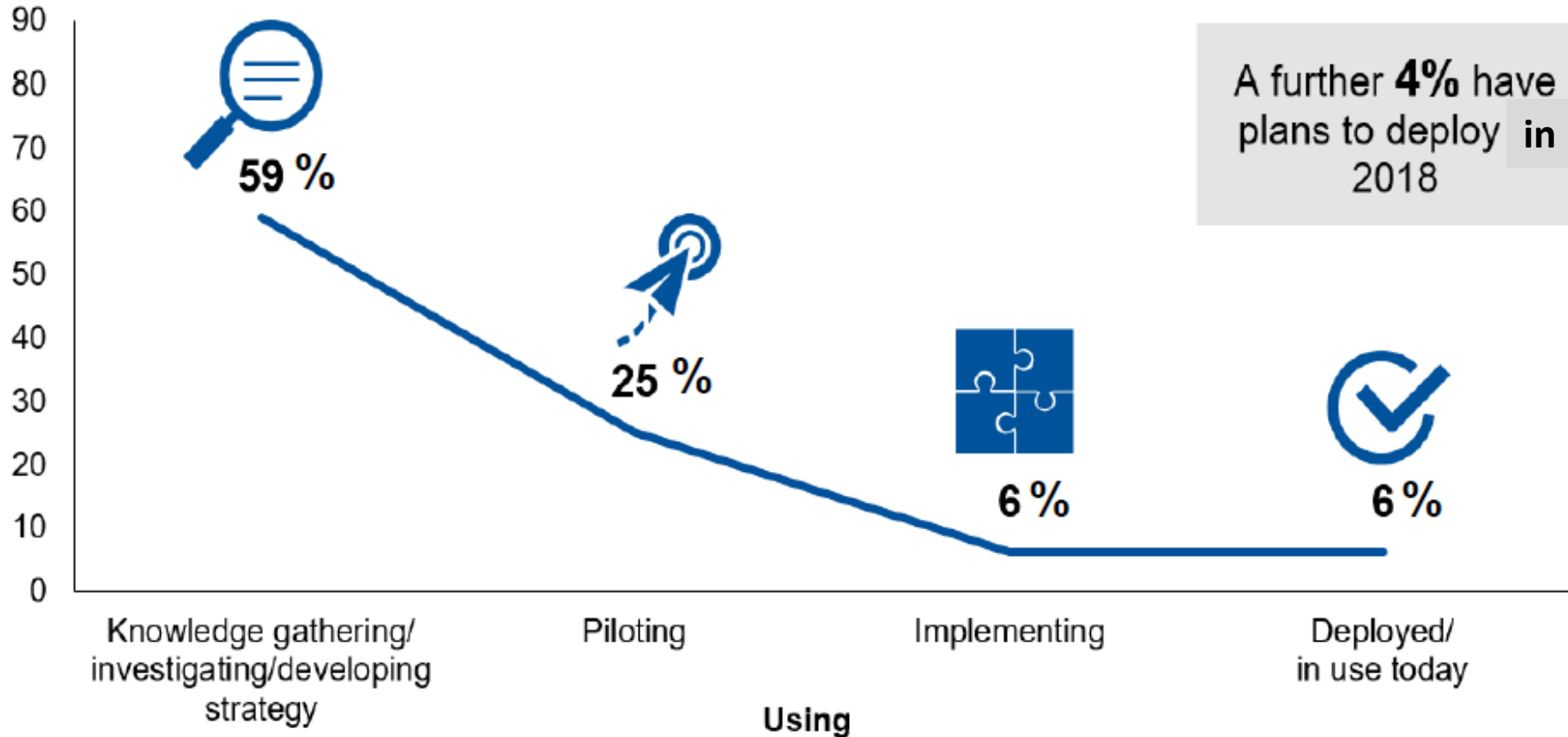


# Impact of Emerging Technologies



# AI Deployments

## Investigating



Base: n = 83 Gartner Research Circle Members

Q: What is the current stage of artificial intelligence (AI) solutions adoption within your organization?

# AI in Fintech Innovation

- Improve **Security**
- Reduce Processing Times, Duplicate Expenses, **Human Errors & Avoidable Expenses**
- **Automation**
- **Robot Advisors**
- AI in **Human Resource Management**

Develop an Information Monetization Capability



shared by Anthony Schmitt @BourseetTrading

IDC's IT Executive Programs  
[idc.com/ITExecutive](http://idc.com/ITExecutive)

 **IDC**  
ANALYZE THE FUTURE

# Fintech Innovation predictions by Global Industry Leaders

- *“**These technologies** are now reaching a point where they can really **change consumer experience**, and that’s one of the reasons for our investments in this artificial intelligence space. These **algorithms and the way they make decisions** are becoming so good that we as consumers will increasingly leave our **devices to start making decisions for us**. And it’s cool and it’s sometimes worrying, but in the bigger picture it’s going to **change the way we live**. And I think that’s not very far away now.”*

**Ajay Bhalla – President of Global Enterprise Risk and Security, MasterCard**

# Fintech Innovation predictions by Global Industry Leaders

- *“The number one thing that’s going to occur in 2018 is fragmentation of the marketplace as we know it today. The days of **big banks delivering everything and being specialists in everything are over**. Some of them might still not accept that but the reality is that it’s happened.*

*You’ve got ring-fencing in the UK occurring, and it will be in place by January 2019. Where you’ll get to is a situation whereby there’ll be **transactional banking**, which everybody needs – it’s how we pay bills and how we receive our salary. And it’s the same structure for businesses.*

*Then there’ll be different ways in which we **consume financial services** – things that we use occasionally like a car loan, a house loan, or a holiday loan. And the market will change to encourage customers to seek alternative choices as opposed to feeling reliant on one choice”*

**Nick Ogden – Founder and Executive Chairman, ClearBank**

# How AI can improve Customer Experience (CX) in Banking

## 1. Personalized Services

- Personalized products & services

## 2. Advisory Services

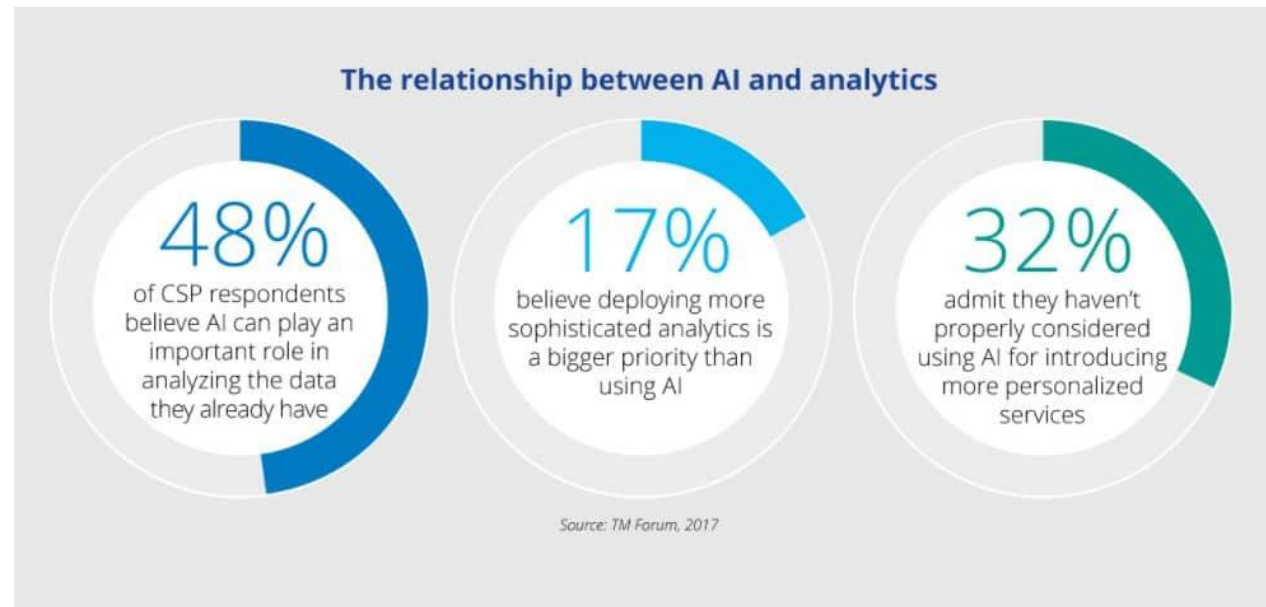
- Portfolio & investment advice

## 3. Improved Support and Security

- Chat-Bots
- 24\*7 service (near Real Time)
- Natural Languages

**“AI is the NEW UI”**

**“Always  
CORE of CX is  
Human & AI”**



# Summary: Emerging Technologies

IoT

Mobile Apps

Social Media

Collecting Data

Data Centers & Cloud

Security

Blockchain

5G

BB & LPWA

Big Data Analytics

AI & Machine Learning Algorithms  
Robots  
Automation

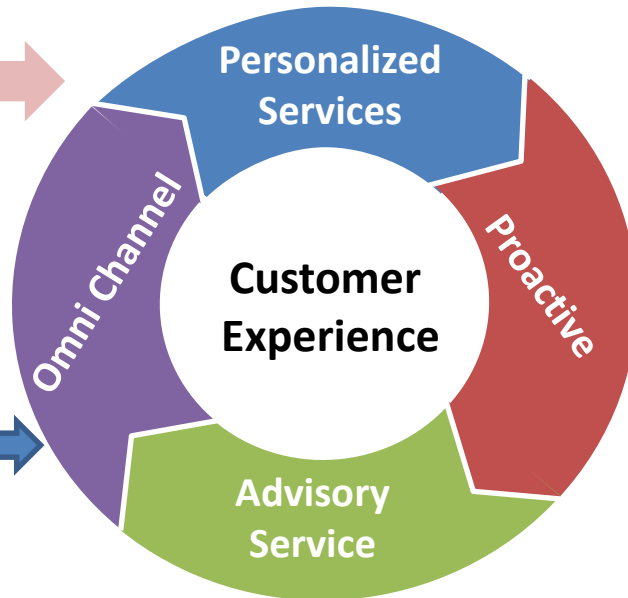
AI for Human Resource  
Management

AI + Human

Improve Employee  
Experience

Improve Employee  
Engagement

Augmented  
Worker



# Impact of Emerging Technologies

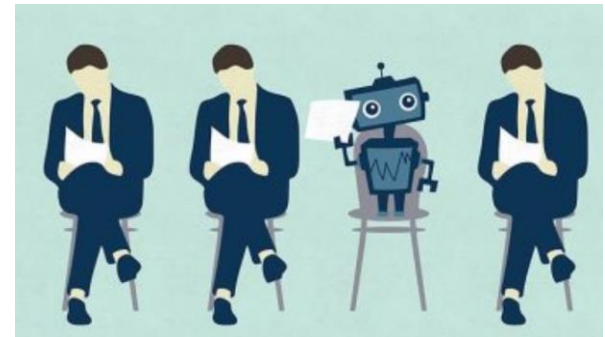
- **JOB Losses?? May be Yes.....But NO**
- **Roles of professions change** with Technology/ICT/Internet/AI
- Past Experience:
  - Routine Jobs automated would create jobs elsewhere
- Consumerization of ICT/Technology – **Empowers Human**
  - **NOT people ADAPTING to technology, But technology ADAPTING to people**

Before AI

**Disruption confined to One Sector  
(eg. Car Manufacturing Robot)**

With AI & Emerging Technologies

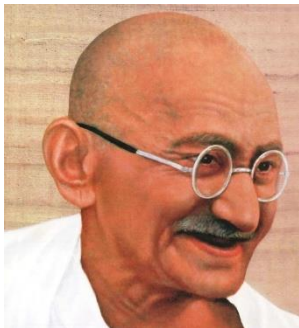
**Disruption happens Across Sectors  
(eg: Analytics based Digital Marketing)**





# Way Forward in the **NEW NORMAL**

- **Professionals to be Relevant.....Need**
  - Proactive, Continuous Skill Development
  - Knowledge on Emerging Technologies
- **Very Vital:**
  - Critical Thinking, Analytical Minds, Creativity, Habits of Research & Innovation
- **Education systems warrant drastic changes**
- Employers and employee groups/trade unions have a great role:
  - Advocating governments and educational institutions for a **CHANGE**



**If you want to change the world,  
Start with Yourself**

# Thank You



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