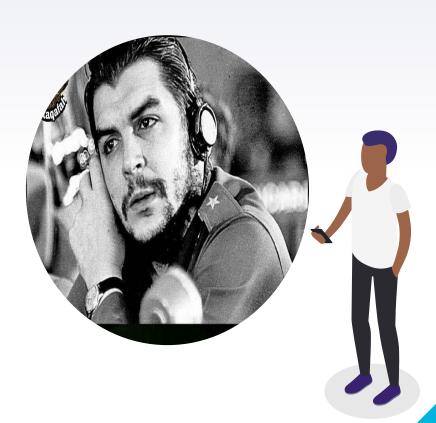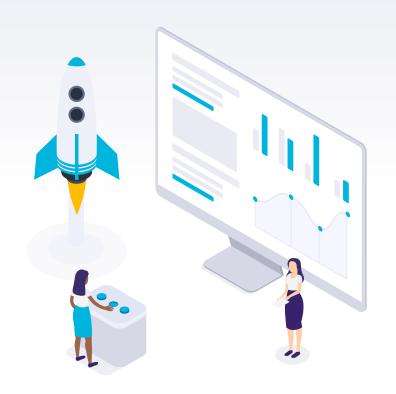**Abundance**
is our future .....

HELLO!

I am Gevara

I am here to share with you some thoughts / inputs on "4th Industrial Revolution" impacts on our future……….

Agenda;

- Introduction

- Digitalisation concept

- History of industrial revolutions

- 4th industrial revolution

- Life applications

- Future perspectives

There has never been a time of greater promise, or greater peril

Professor Klaus Schwab
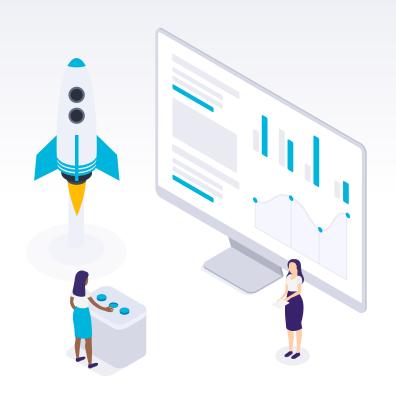Founder and Executive Chairman
of the World Economic Forum

" we must develop a comprehensive and globally shared view of how technology is affecting our lives and reshaping our economic, social, cultural and human environments…"

Agenda;

- Introduction

- Digitalisation concept

- History of industrial revolutions

- 4th industrial revolution

- Life applications

- Future perspectives

Digitalisation

- ▶ Converting analog information of any form into a digital format

- ▶ This format can be understood by compuure systems / electronic devices

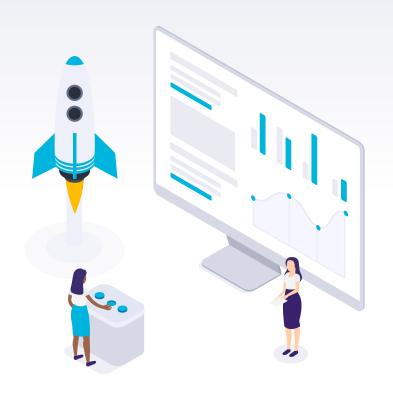- ▶ Converting information like text, images, sounds into binary code

Digital is the main reason just over half of the companies on the Fortune 500 have disappeared since the year 2000

Pierre Nanterme
CEO of Accenture

Accenture is one of the most respected management & technological consultancy providing firms…..

Agenda;

- Introduction

- Digitalisation concept

- History of industrial revolutions

- 4th industrial revolution

- Life applications

- Future perspectives

History of I.R.

1st (IR) – urbanization & steam engines, 18th / 19th centuries
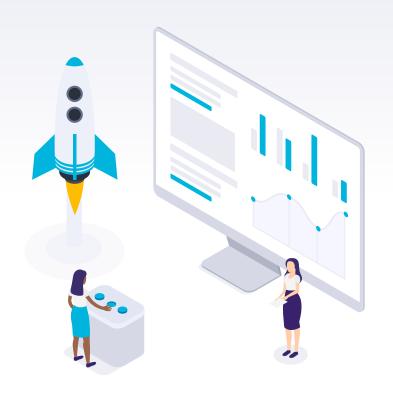Textiles & Iron

+

2nd (IR) – mass production, beginning of 20th century
Factory lines

→

3rd (IR) – digital revolution, 1980s
PC & internet ……….. mobile

Agenda;

- Introduction

- Digitalisation concept

- History of industrial revolutions

- 4th industrial revolution

- Life applications

- Future perspectives

4th Industrial revolution

- Technology embedded in society, 2000s

- Blurring of boundaries between the physical, digital and biological worlds;

  ▸ Robotics

  ▸ Artificial Intelligence - AI

  ▸ 3D printing

  ▸ Internet of things - IoT

  ▸ Augmented reality - AR / Virtual Reality - VR

  ▸ Block chain

  ▸ Quantum computing

4th Industrial revolution *Cont.'d*

Robotics;

- Engineering branch that involves the conception,

  design, manufacture & operation of Robots
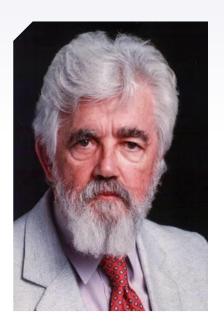
4th Industrial revolution *Cont.'d*

Artificial Intelligence - AI

"…is a machine with the ability to solve problems that are usually done by us, humans with our natural intelligence"
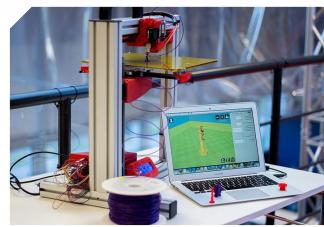

Dartmouth AI conference 1956

John McCarthy
1927 - 2011

4th Industrial revolution *Cont.'d*

3D printing;

- A machine that take a digital 3D model and turn it into a tangible 3D object via additive manufacturing.

- Digital file, printing machine and printing materials

4th Industrial revolution *Cont.'d*

Internet of Things (IoT);

- System of interrelated computing devices, mechanical and digital machines, objects, animal or

  people.

- Using sensors to transfer data over a network,

- No human-to-human or human-to-computer interaction

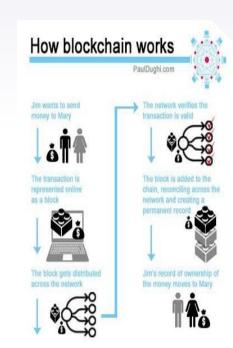# 4th Industrial revolution *Cont.'d*

VR / AR;

- Virtual reality offers a digital recreation of a real life setting.

- Augmented reality delivers virtual elements as an overlay to the real world,

- Both are reflections of one in another with what it deliver

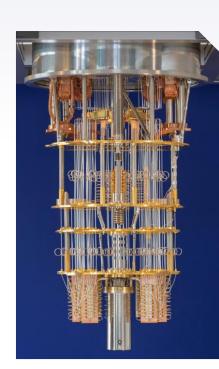# 4th Industrial revolution *Cont.'d*

block-chain;

- Timed-stamped series of immutable record of data.

- Managed by cluster of computers not owned by single entity,

- Each of these blocks of data (Block)

- Secured & bound to each others using cryptographic principles (Chain)

How blockchain works
PaulDughi.com

Jim wants to send money to Mary

The network verifies the transaction is valid

The transaction is represented online as a block

The block is added to the chain, reconciling across the network and creating a permanent record

The block gets distributed across the network

Jim's record of ownership of the money moves to Mary
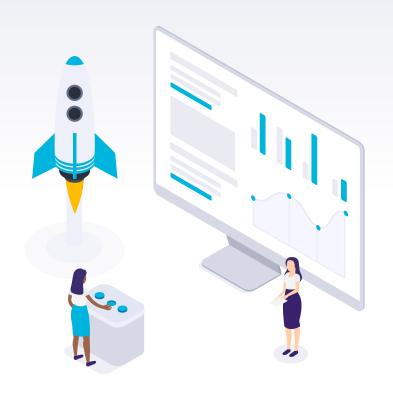
4th Industrial revolution *Cont.'d*

Quantum computing;

- Based on quantum principles

- Solving complex problems, using qubits instead of individual bits

- Handling huge data in ultra-short time

Agenda;

- Introduction

- Digitalisation concept

- History of industrial revolutions

- 4th industrial revolution

- Life applications

- Future perspectives

Future prespective

- NASA

THANKS!

Any questions?