
Industry 4.0 and
DIGITAL
TRANSFORMATION
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Sustainable Development Strategy 2030
10 Pillars

- 1.Economic Development
  2.Energy
  3.Knowledge & Innovation and Scientific Research
  4.Transparency and Efficiency of Government Institutions
  5.Social Justice
  6.Health
  7.Education and Training
  8.Culture
  9.Environment
  10.Urban Development
  formulated from the spirit of the 2015 SDGs [17 goals]

THE 17 SDGs


THE GLOBAL GOALS
For Sustainable Development
1 NO POVERTY
2
3 GOOD HEALTH
4 QUALITY EDUCATION
5
6 CLEAN WATER AND SANITATION
7
8 GOOD JOBS AND ECONOMIC GROWTH
9
10 REDUCED INEQUALITIES
11
12
13 CLIMATE ACTION
14 LIFE BELOW WATER
15
16 PEACE AND JUSTICE
17 PARTNERSHIPS FOR THE GOALS
THE GLOBAL GOALS
#GLOBALGOALS

ECONOMIC DEVELOPMENT and 2030 AGENDA

- ECONOMIC GROWTH DEPENDS ON :
  1-RATE OF CAPITAL ACCUMULATION
  2-RATE OF PRODUCTIVITY GROWTH
  the long-run growth cannot be sustained by capital accumulation alone; productivity can be the only source of long-term growth .
  ALL ECONOMIC INDUSTRIES as listed in ISIC4 [International Standard Industrial Classification of All Economic Activities , revision 4 of the United Nations] ; and this constitutes :
  THE DIGITAL ECONOMY

TOP 7 TRENDS FOR DIGITAL TRANSFORMATION IN 2018

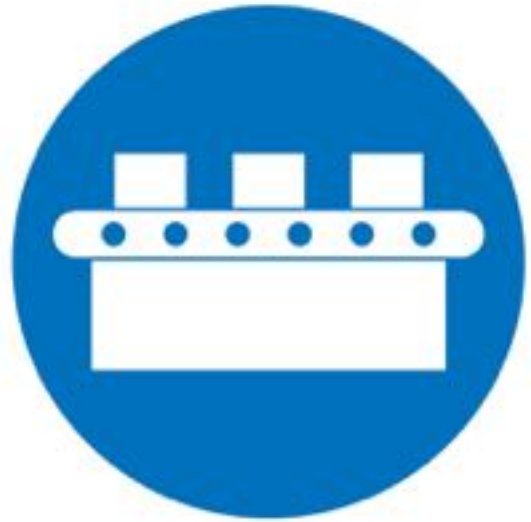
- 1. THE IOT
- 2. ANALYTICS
- 3. EDGE COMPUTING
- 4. 5G
- 5. BLOCKCHAIN
- 6. AI [goes to mainstream]
- 7. VR

A “Digital Economy” represents the application of a digital to all sectors and industries including manufacturing. (Industry 4.0 / Internet +)

1st revolution

Mechanization, steam and water power

2nd revolution

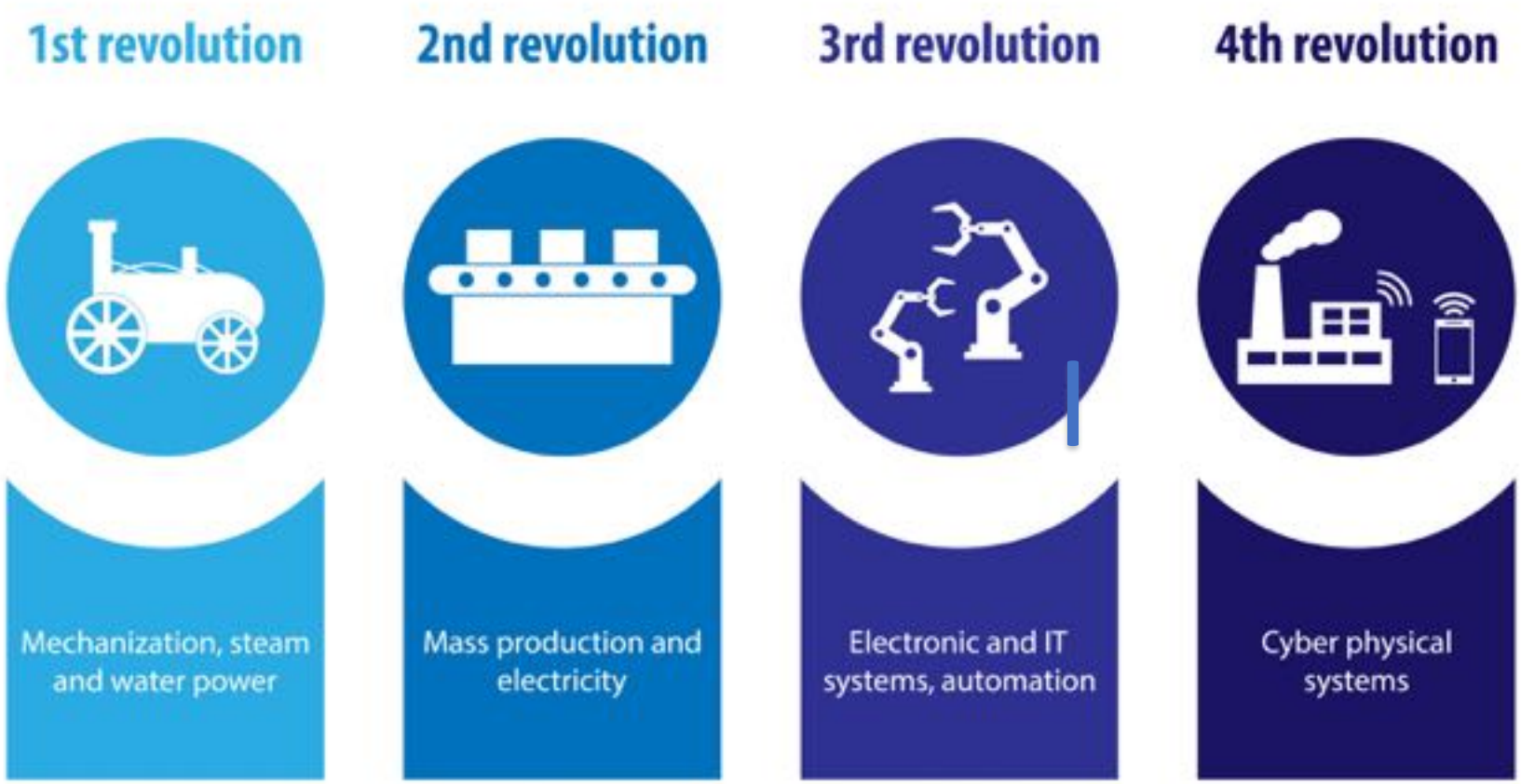


Mass production and electricity

3rd revolution

Electronic and IT systems, automation

Industry 4.0



Big Data

AI

IOT

3D Printing

Advance Robotics

Intelligent flexible and distributed production

4th revolution

Digital Industrialisation includes use of digital technologies with physical infrastructure

Artificial Intelligence

is recently named as a new factor of production along with capital labor

THE AI EVOLUTION & REVOLUTION

- 1 – INTERNET AI
- 2 – BUSINESS AI [already around us]
- 3 – PERCEPTION AI [blurring between physical and digital worlds]
- 4 – AUTONOMOUS AI [will have the deepest impact on our lives]

AI INDUCED CRISIS and the NEED FOR A NEW SOCIAL CONTRACT

BUILDING OUR SOCIETY IN THE AGE OF AI WILL REQUIRE SUBSTANCIAL CHANGES TO OUR ECONOMY BUT ALSO A SHIFT IN CULTURE AND VALUES .

THREE MOST POPULAR SUGGESTIONS FOR ADAPTING TO THE AI ECONOMY :

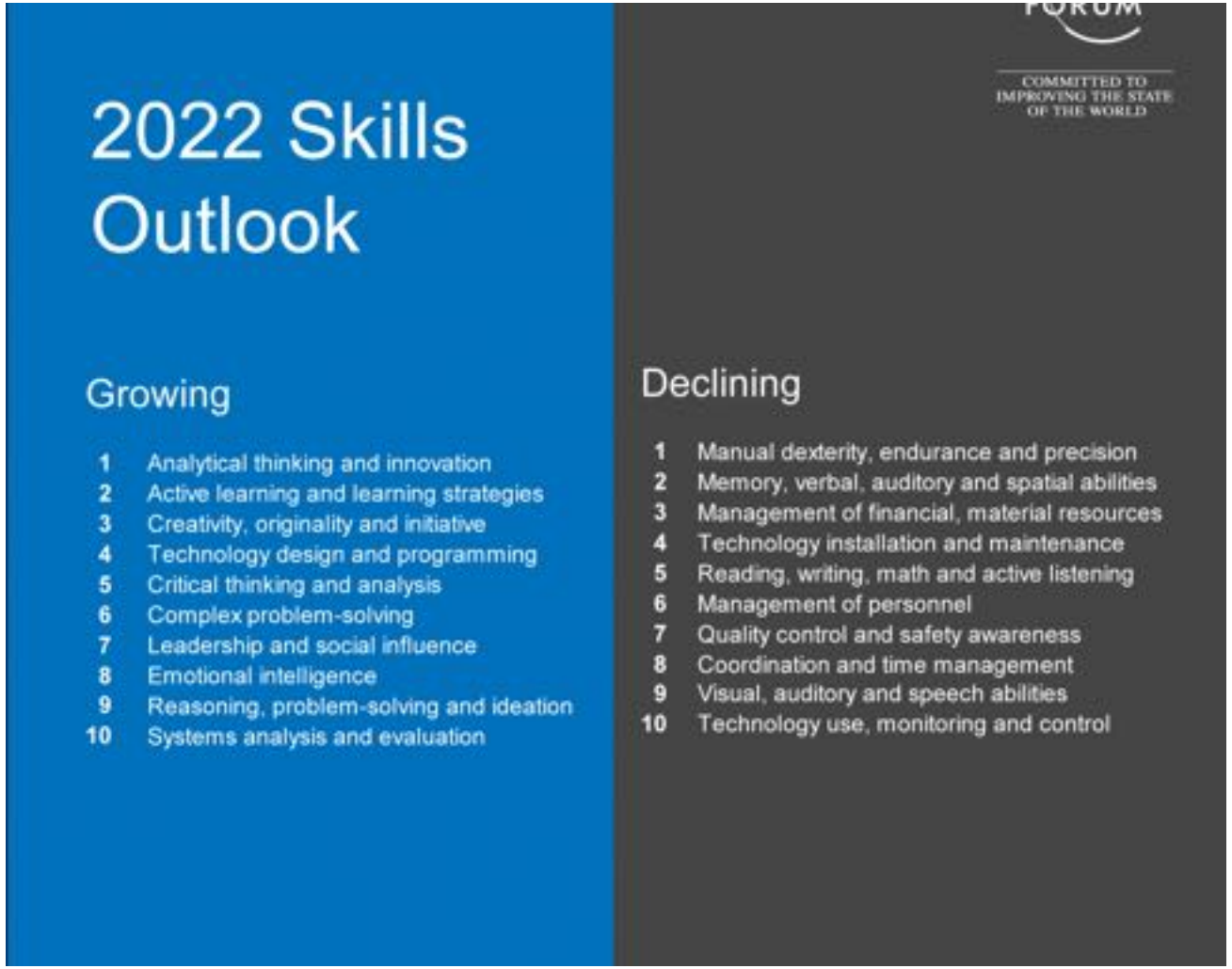
RETRAINING WORKERS [SKILLS]

REDUCING WORK HOURS [TIME]

REDISTRIBUTING INCOME [COMPENSATION]

THE 4 Cs

1. CRITICAL THINKING
2. COMMUNICATION
3. COLLABORATION
4. CREATIVITY



Digital Transformation Challenges

1- Building a public digital and data infrastructure

2- Building a supportive eco-system around technological and digital start-ups

3- Governance of the Digital Economy

“developing legal and regulatory framework”

4- Confronting Disbenefits (Digital Exclusion/ Security / Privacy)


Digital Transformation and Independence
Requires

1- Policy for national digital industry protection.

2- “National Data Centers” so data remains within the country.

3- National Internet Giants (Search Engines)

4- Robust Digital Infrastructure.

5- Training for organisations and government officials to protect their data.

6- Polices to avoid e-colonisation.

7- Help workers adopt to new forms of work.

THE INTERNET IS CONTROLLED BY :

ICANN [INTERNET CORPORATION for ASSIGNED NAMES & NUMBERS]
For setting & managing the Domain Name System [DNS]

IETF [INTERNET ENGINEERING TASK FORCE]
For setting the standards of the internet

THE DATA ON THE INTERNET IS STORED IN “ DATA CENTERS “ AND EXCHANGED BETWEEN THEM AND THE USERS VIA :

“ INTERNET EXCHANGE POINTS “ { IXPs }

IXPs like airports for data

تسجيل المواقع في مصر تابع للمجلس الاعلي للجامعات

200 مليون موقع في العالم و50000 في مصر


Emerging economies have opportunities to
“leapfrog” dependent on technology
adoption and building the talent pool and
digital infrastructure.

EGYPTIAN YOUTH IS OUR DRIVER IN THE DIGITAL AGE

GLOBAL SERVICES LOCATION INDEX [SHARED SERVICES & OUTSOURCING :

EGYPT IS RANKED # 14 GLOBAL AND # 1 IN MEA

THE COMPANIES IN THE LEFT HAVE TRANSFERED THEIR ACTIVITIES TO EGYPT WITH A $4 BILLIONS SALES IN 2018


Thank you