

**Digital
Transformation
and the
Implications on the
Economies in
Emerging Markets**

**Role of Collaboration
and Innovation
Capital in MENA
Countries**

*From Closed to Open Innovation:
A Game Changer for Value*

Sherif Kamel

Dean, School of Business
The American University in Cairo

**Middle East North Africa Conference of
Information Systems (MENACIS)**

3 December 2020

1997: Was this a true prediction?

"Universities won't survive...higher education is in deep crisis...The college campus won't survive as a residential institution. Today's [college] buildings are hopelessly unsuited and totally unneeded"



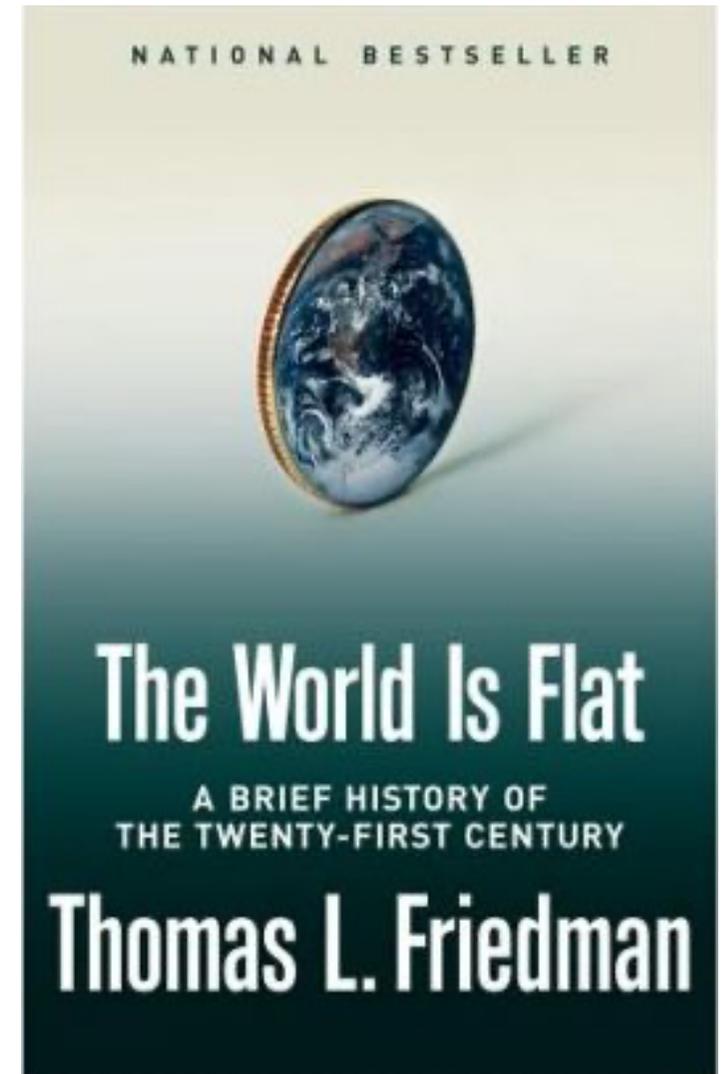
Peter Drucker, 1997

What do you think is going to happen next?

Are we 24+ years late in the transformation process?

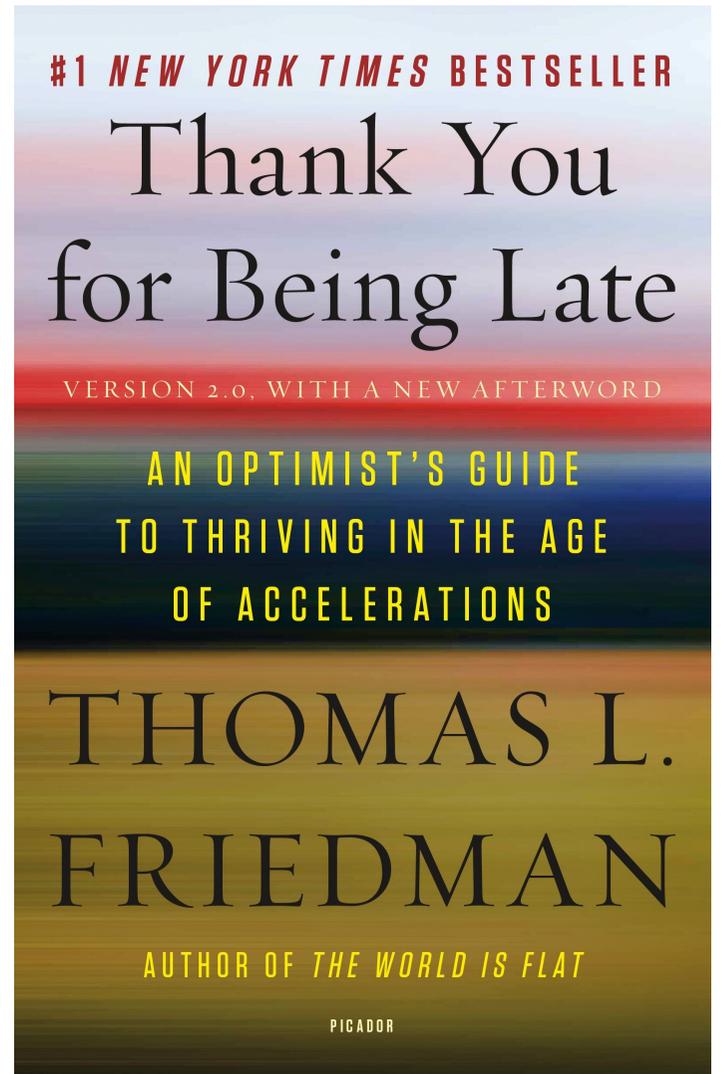
“Regardless of your profession;
lawyer, architect, accountant,
MD, engineer, entrepreneur
anything can be **digitized**,
outsourced to either the
smartest or the cheapest
producer”

Thomas Friedman (2005)



“Age of Accelerations of
technology, globalization
and the climate and how
to cope with our changing
planet”

Thomas Friedman (2016)



“We are at the beginning
of a revolution that is
fundamentally **changing**
the way we live, and
relate to each other”

Klaus Schwab (2016)



The Fourth Industrial Revolution

**Klaus
Schwab**

Founder and Executive Chairman,
World Economic Forum

“The 4th Industrial Revolution is changing everything from the way we work, communicate, study, shop and what it means to be human”

Klaus Schwab (2018)

Foreword by Satya Nadella, CEO of Microsoft

Shaping the Future of the Fourth Industrial Revolution

Klaus
Schwab

Founder and Executive Chairman, World Economic Forum
with Nicholas Davis

“The merging of **infotech** and **biotech** is proving that there will be no boundaries to the prospects for what lies ahead”

Yuval Noah Hariri (2018)

INTERNATIONAL BESTSELLER

AUTHOR OF *SAPIENS*

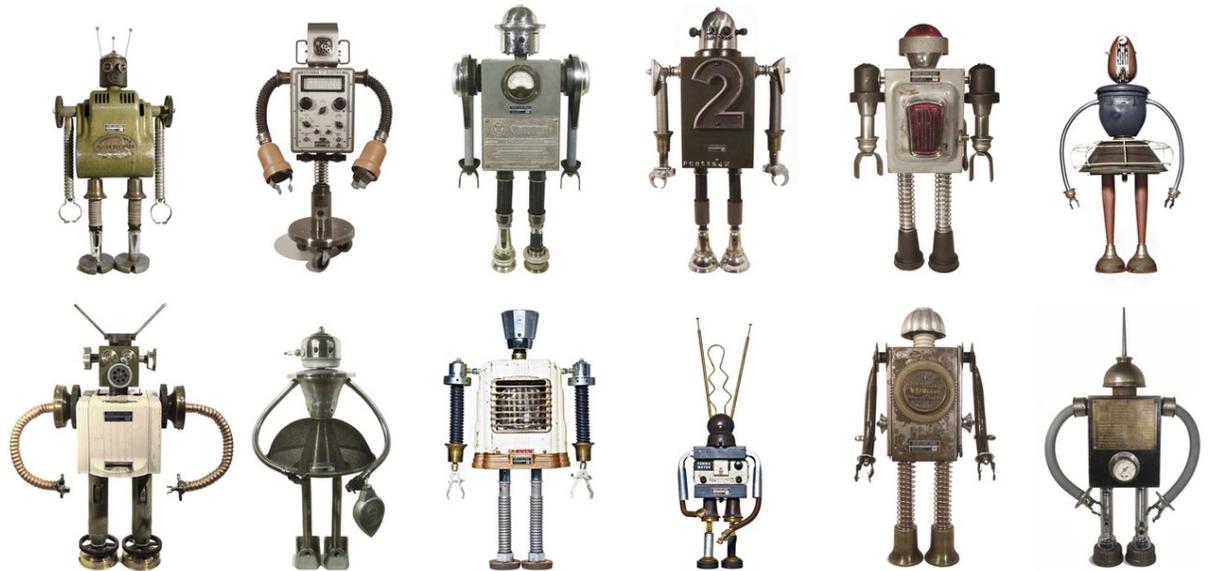
Yuval Noah
Hariri



21 Lessons
for the
21st Century

“Offers a helpful framework for processing the news
and thinking about the challenges we face.”
—BILL GATES, IN “5 BOOKS I LOVED IN 2018”

Man-Machine Collaboration



Three Eras of Automation

If this wave of automation seems scarier than previous ones, it's for good reason. As machines encroach on decision making, it's hard to see the higher ground to which humans might move.

ERA ONE 19TH CENTURY

Machines take away the **dirty and dangerous**—industrial equipment, from looms to the cotton gin, relieves humans of onerous manual labor.

ERA TWO 20TH CENTURY

Machines take away the **dull**—automated interfaces, from airline kiosks to call centers, relieve humans of routine service transactions and clerical chores.

ERA THREE 21ST CENTURY

Machines take away **decisions**—intelligent systems, from airfare pricing to IBM's Watson, make better choices than humans, reliably and fast.

SOURCE THOMAS H. DAVENPORT AND JULIA KIRBY
FROM "BEYOND AUTOMATION," JUNE 2015

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NUMBER OF YEARS IT TOOK FOR EACH PRODUCT TO GAIN 50 MILLION USERS:



The increasing
pace of
acceleration,
change and
transformation

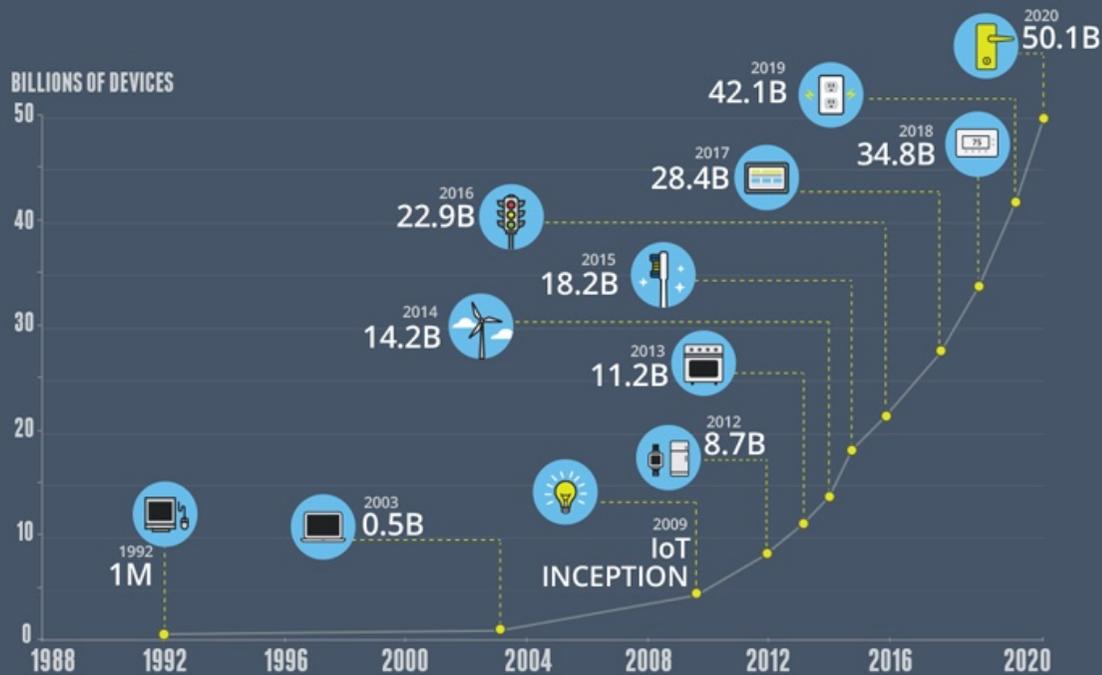
What's Next?

Are you ready?

What do you
need?

GROWTH IN THE INTERNET OF THINGS

THE NUMBER OF CONNECTED DEVICES WILL EXCEED 50 BILLION BY 2020



Future-ready
leadership

This requires
a different
type of
innovative
leaders

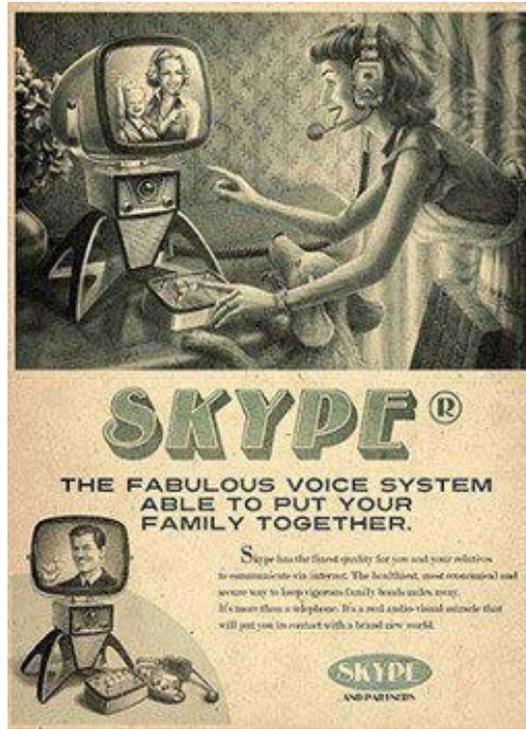
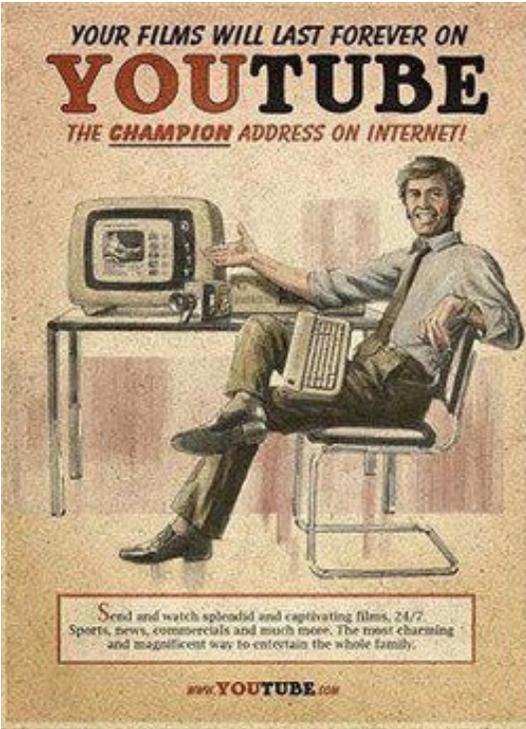
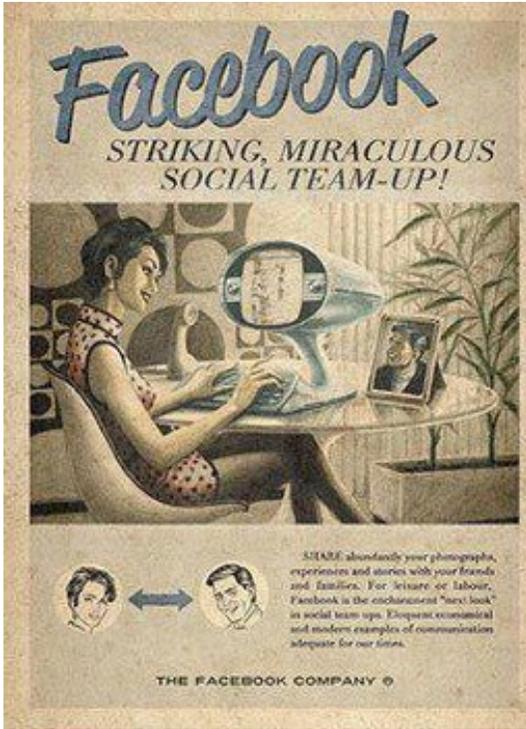
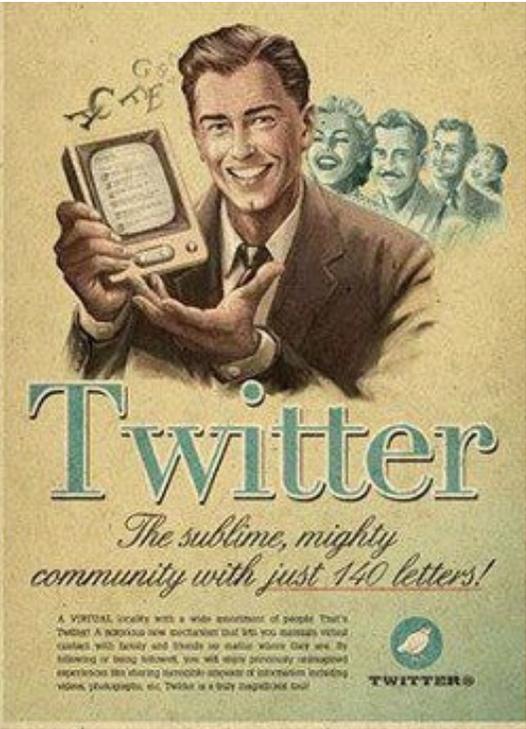
The World Today!

Navigating the next industrial revolution

2020 This Is What Happens In An Internet Minute



Revolution	Year	What happened?
	1 1784	Steam, water, mechanical production equipment
	2 1870	Division of labour, electricity, mass production
	3 1969	The computer, electronics and the internet
	4 ?	The barriers between man and machine dissolve



How long have we been using these platforms?

For fun and for business

Disruption has been in the making for years...
INNOVATION

Innovative business models

Uber – The global transportation company with **no cars**.

Airbnb – The largest accommodation platform with **no real estate**.

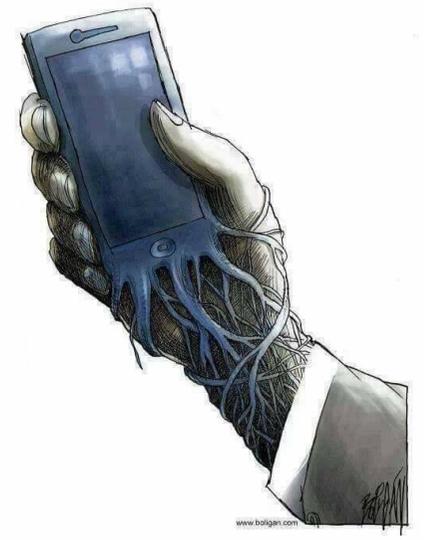
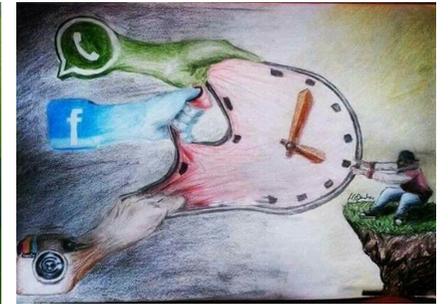
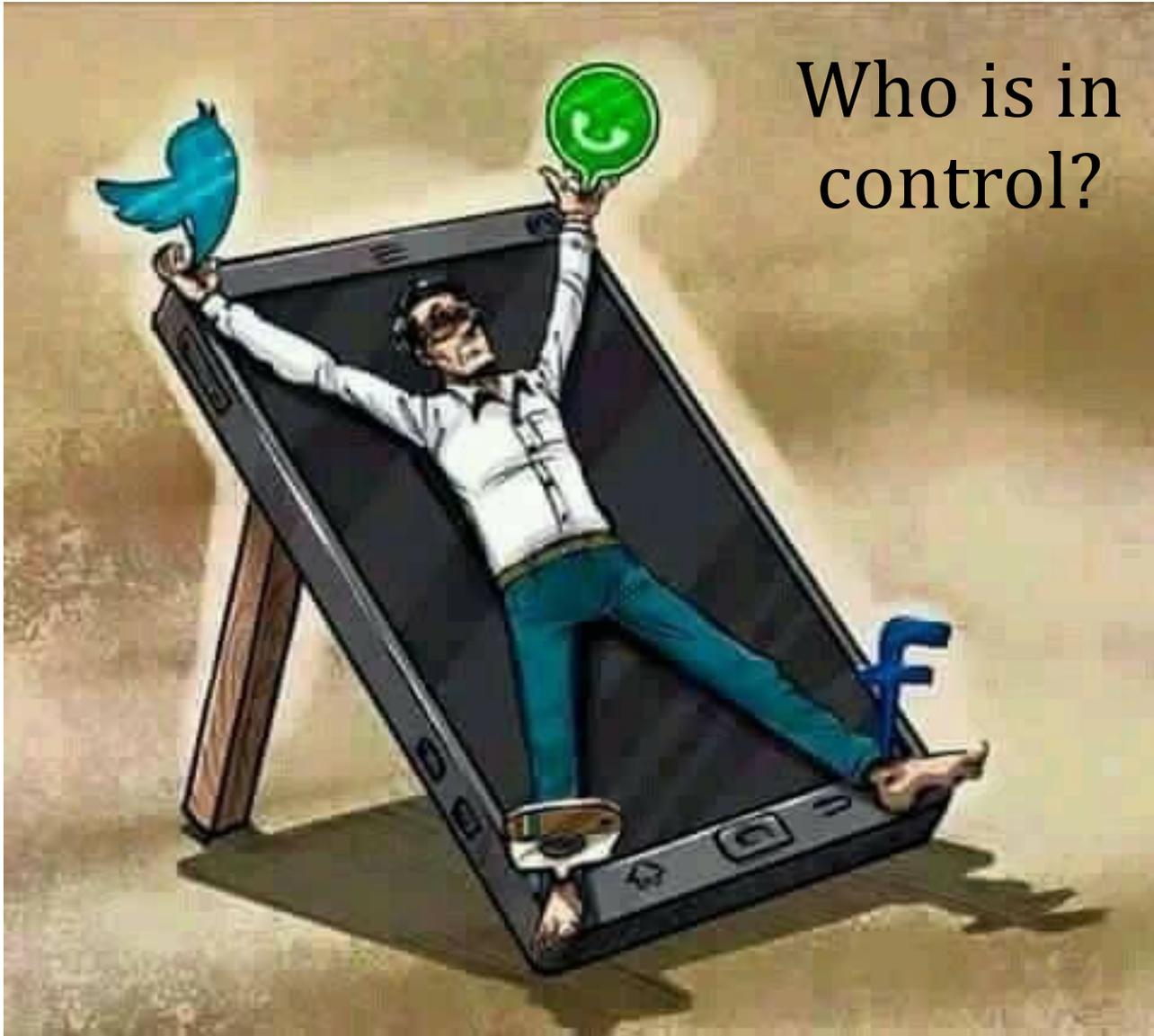
Ali Baba – The global retailer in the click and mortar space with **no inventory**.

Facebook – The 2+ billion (26% of the world population) citizens' network “borderless continent” with **no content**.

How can business schools adapt to the needs of the individuals who can/want to impact the future/society?

Innovation + business/management education = societal transformation

Who is in control?



Something
happened...

An invisible
stealth attack

Affected lives and
livelihoods

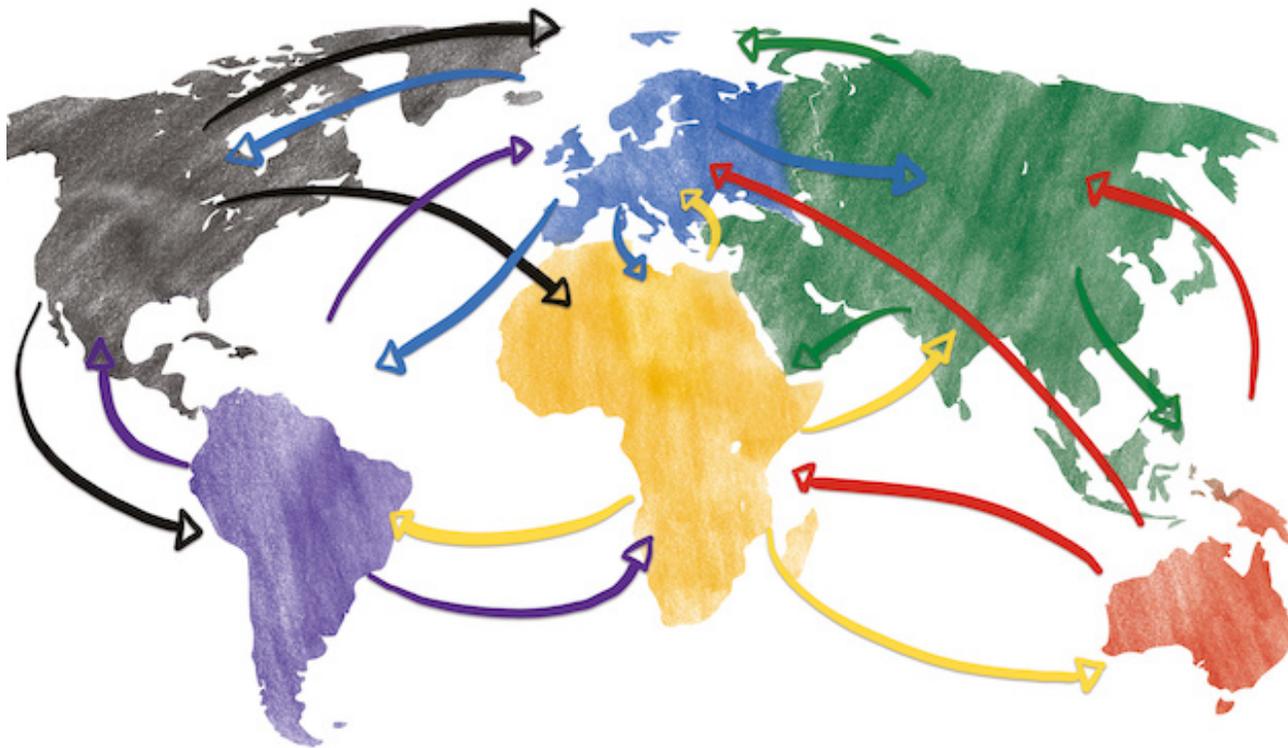
Disruption



A calendar for November 2019. The title is "November 2019". The days of the week are abbreviated as S, M, T, W, T, F, S. The dates are arranged in a grid. The date 17 is circled in blue. The calendar is set against a light blue background with a dark blue header.

November 2019						
S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

Sunday, Nov 17th 2019



Slowed down
economies

Affected **financial**
markets

Disrupted **value-**
chains

What's next for
globalization?

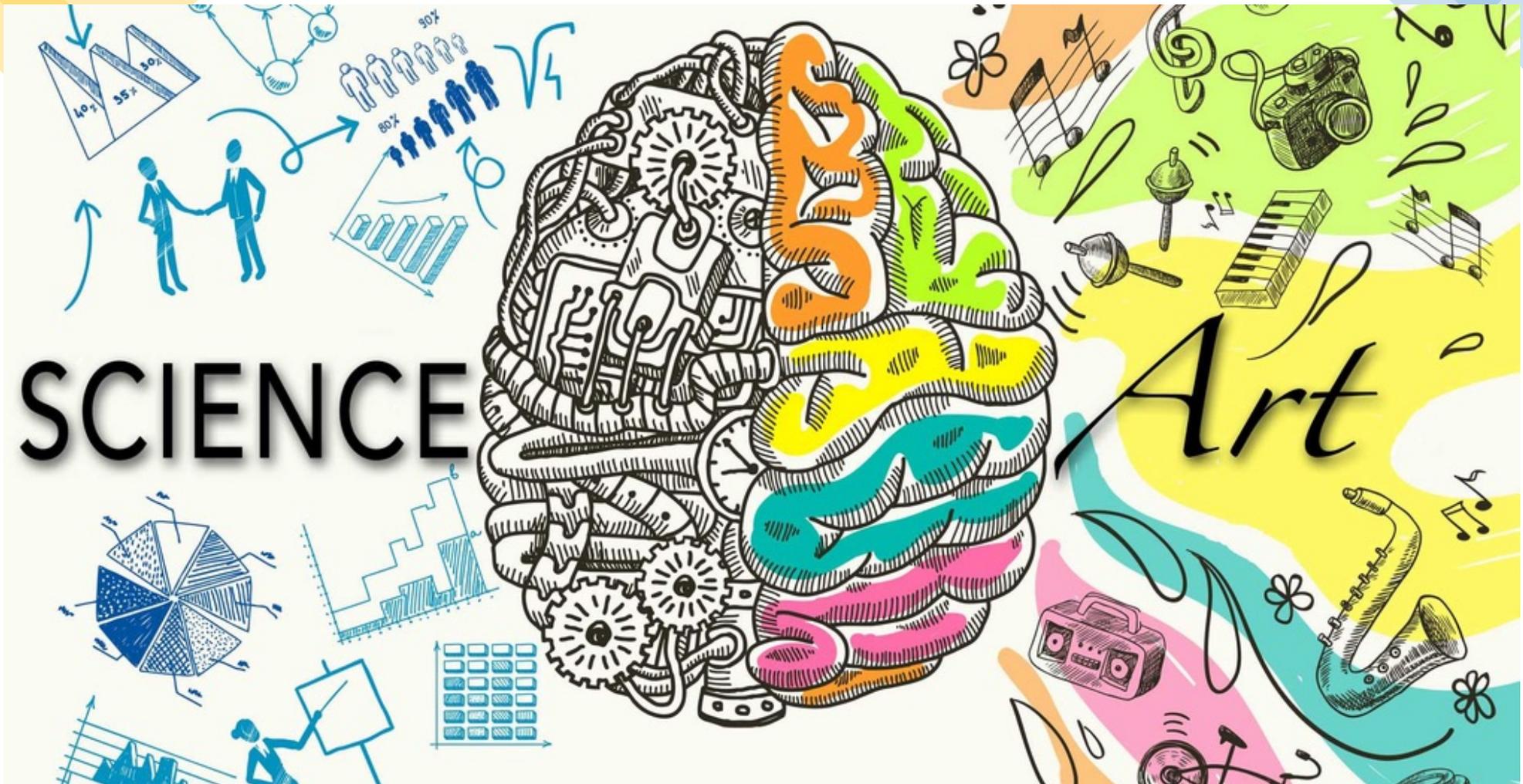


What happened?

The world was/is on **lockdown...**

but **who** came and continues to relatively save the day?

Digital Transformation should be perceived as...





Futurologie

How will the future look like?

Work

Study

Shop

Connect

Travel

LIVE

The Future of Learning

4 KINDS OF LEADERS WHO CREATE THE FUTURE

AM I LEARNING AS FAST AS THE WORLD IS CHANGING?
learn > apply > reflect
the learning zealot

YOU CAN'T INVENT THE FUTURE IF YOU CLING TO OUT-OF-DATE IDEAS...
THEY KNOW WHEN TO DISRUPT THEMSELVES
the personal disruptor

future is created by highly motivated enthusiasts who want something very much or believe very much...
the tough-minded optimist

support a lot of ideas to find a few that work
the eager experimenter

Insights by: Bill Taylor, HBR Sketchnote by: Tanmay Vora | @tnvora | QAspire.com

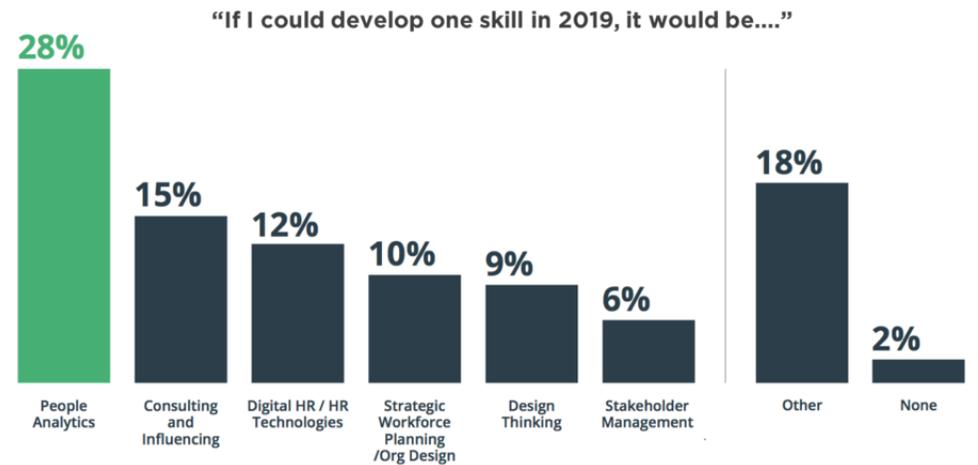
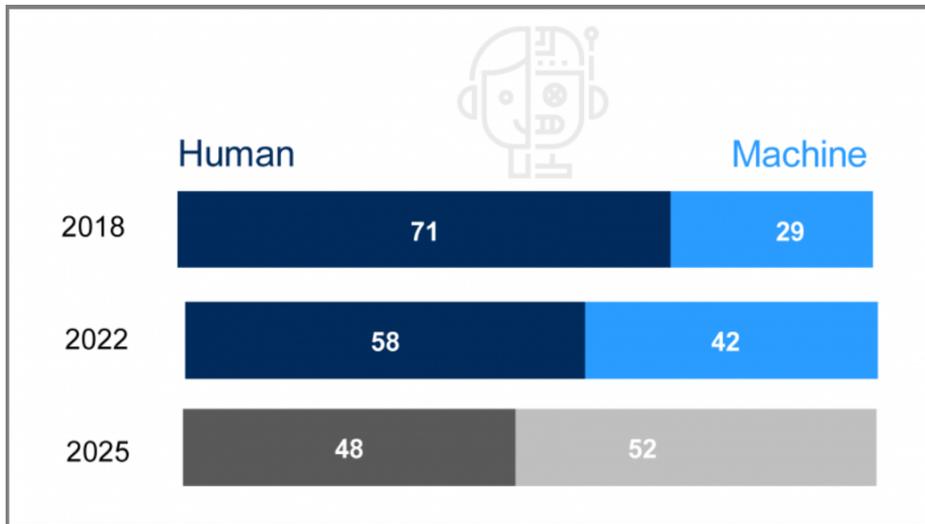
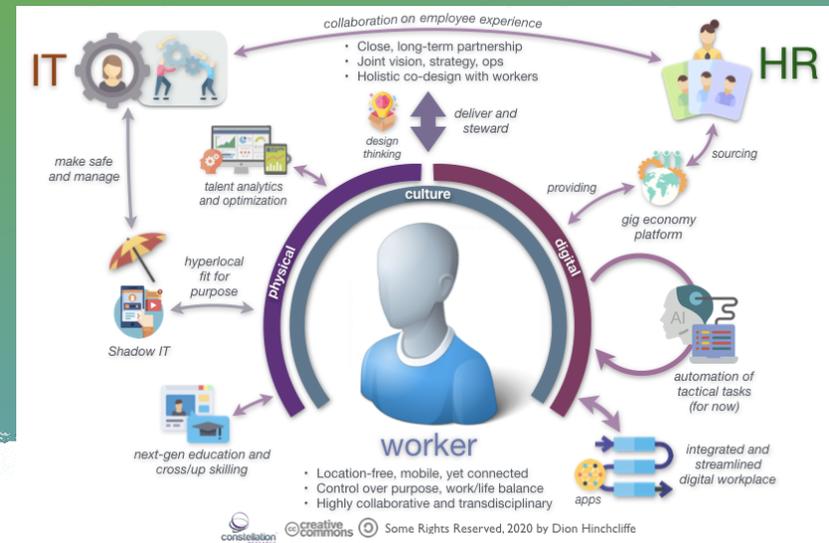


Instrumented

Interconnected

Intelligent

Future of work insights!



In the age of acceleration, organizations will look for upskilling and reskilling

...and it keeps changing

The Jobs Landscape in 2022

emerging
roles,
global
change
by 2022



Top 10 Emerging

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. General and Operations Managers
4. Software and Applications Developers and Analysts
5. Sales and Marketing Professionals
6. Big Data Specialists
7. Digital Transformation Specialists
8. New Technology Specialists
9. Organisational Development Specialists
10. Information Technology Services

declining
roles,
global
change
by 2022



Top 10 Declining

1. Data Entry Clerks
2. Accounting, Bookkeeping and Payroll Clerks
3. Administrative and Executive Secretaries
4. Assembly and Factory Workers
5. Client Information and Customer Service Workers
6. Business Services and Administration Managers
7. Accountants and Auditors
8. Material-Recording and Stock-Keeping Clerks
9. General and Operations Managers
10. Postal Service Clerks

“Do you want a glimpse of the **new norm**? The next **disruption**?

Get ready with different **models** such as...

Work from Home (**WfH**)

Work from Work (**WfW**)

Work from Anywhere
(**WfA**)”

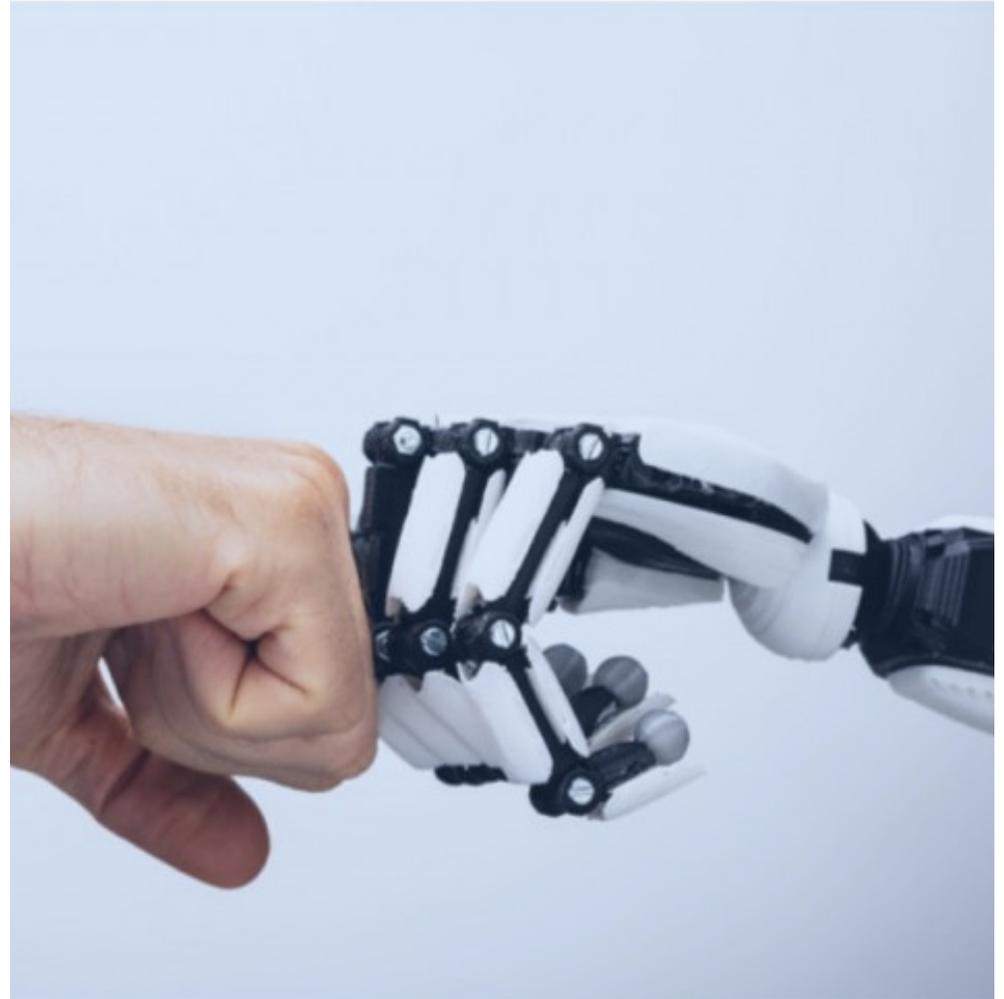


*“I can't remember—do I work at home or
do I live at work?”*

Keep in mind that
in the **office of**
the future...



“Technologies have decreased the demand for low-skilled **human capital** but have increased it for highly skilled ones”



“A lot of brain work cannot be codified such as, **a vision, aspirations, empathy and compassion...**

...human capital will remain invaluable in any setting”



SOURCE THOMAS H. DAVENPORT AND JULIA KIRBY
FROM "BEYOND AUTOMATION," JUNE 2015

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Interesting quote...especially in the age of
digital transformation

“PEOPLE KNOW HOW TO
TAKE A COURSE, BUT THEY **NEED TO**
LEARN HOW TO LEARN.”

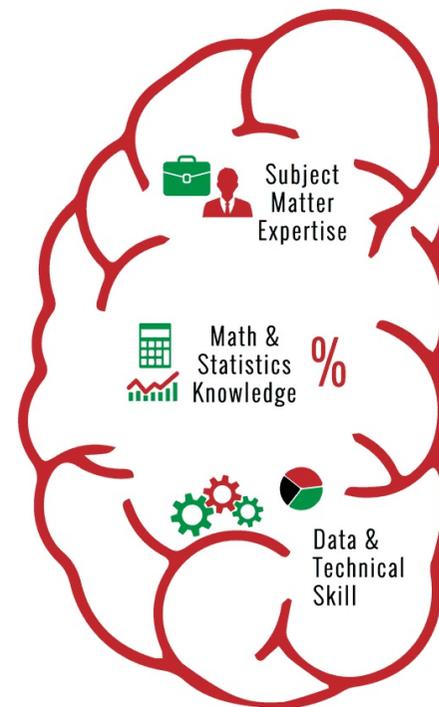
JOHN LEUTNER, HEAD OF GLOBAL LEARNING AT XEROX

Transformation, regardless the sector, is a journey, for it to succeed, it should be **data-driven, institutional** and integral to the **organizational culture**

THE MOST IMPORTANT SKILLS YOU NEED AS A PURPOSE-DRIVEN DATA SCIENTIST

@agrassoblog

HARD SKILLS



SOFT SKILLS



data source: Aiconcept



Role of Collaboration and Innovation Capital in MENA Countries

Economic Outlook

In 2020...

With an overall fragile global economy, MENA was growing barely above **1%** with limited fiscal and policy space when Covid-19 hit

Credit to governments, for the unprecedented **fiscal** and **monetary stimulus** packages to save **lives** and **livelihoods**

Packages offered in MENA do not exceed **2%** of GDP < **3%** offered in emerging economies

IFIs, expect MENA to contract by **4-5%** (Egypt **3.6%**)



Economic Outlook

In 2021...

MENA will rebound of up to 3%

According to IFIs, a few countries will demonstrate **decent** levels of growth including Jordan, Morocco, Tunisia and Saudi Arabia



I. Uncertainty (global)

- Prolonged **crisis**, second wave? Others?
- Development and distribution (affordability) of the **vaccine**.
- Deficit in global **collaboration/international cooperation**.

II. Monetary and fiscal fatigue (MENA)

- Public debt will go from **45%** to **60%** of GDP in 2022 (the highest ever).
- An **encore** of fiscal stimulus, monetary measures and social policies to mitigate the repercussions of the crisis (no fiscal consolidation soon).
- Key sources of revenues will remain below average including **remittances** = double sometimes triple the annual aggregate FDI received by several countries.

MENA

Economic and
Strategic
Challenges

III. Human capital (MENA)

- **Unemployment** rates, a problem.
- Poverty to increase with **15-25 million** people falling into extreme poverty.
- **Inequality** on the rise, informal sector, youth, etc.
- Education, lifelong learning, technical education, what's next?

IV. Geopolitical landscape (MENA)

- Tensions and instability.
- Disputes.

MENA

Economic and
Strategic
Challenges

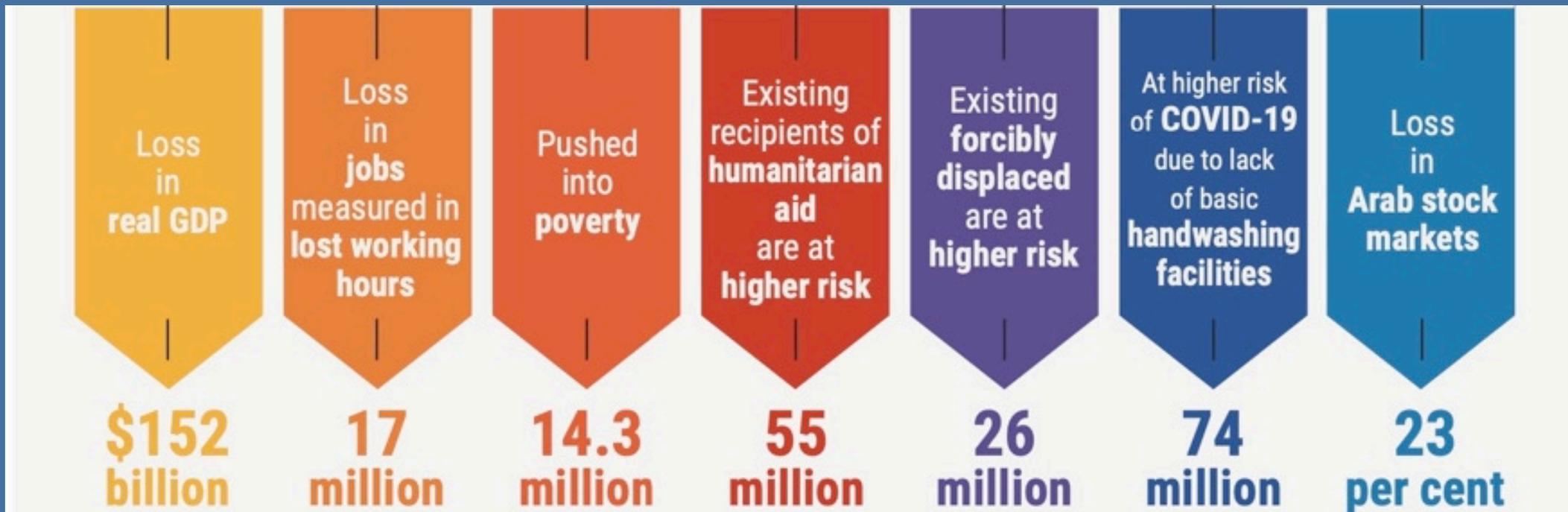
Societal, Economic, Technology and other Implications

- Increased reliance on the Internet
- More family, friends ties – physical distancing!
- Businesses, governments, experiencing a new mode of operation?
- Blended learning, the solution not online learning
- Is the infrastructure/infostructure ready?
- How about the digital divide?
- What needs to be improved?
- How to **transform into a digital economy?**



Human Capital

The most
invaluable
asset in society



Impact of Covid-19 on MENA in Numbers

Which one are you?



1/2 FULL?



1/2 EMPTY?

...and which way do we want to go?

Investing in Innovation Capital

Learning

Commerce and
trade

Agriculture

Nature and
mobility of work

Healthcare

Banking and
financial markets

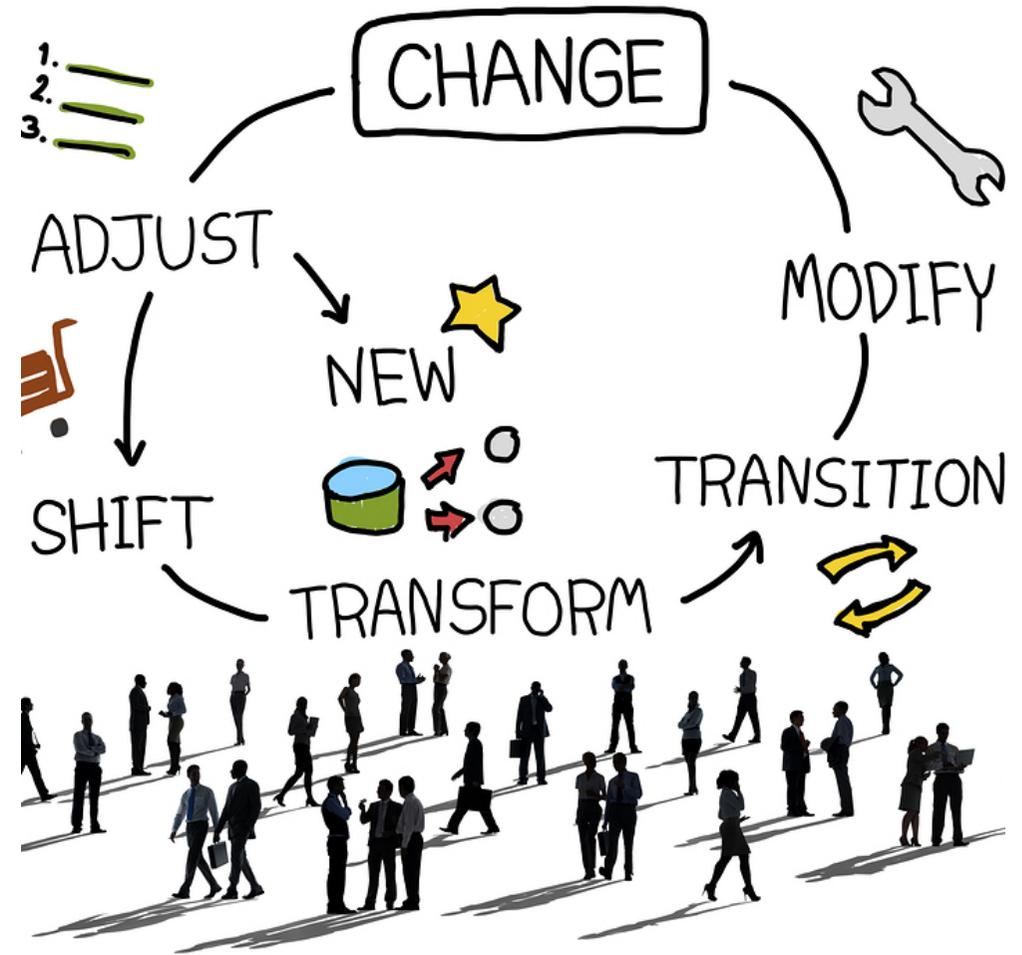
Manufacturing

Entrepreneurship

We live in a world of
constant
transformational
change

and

There is no one
formula that fits all



What did the
**2020 Network
Readiness (NRI) Index**
tell us about Digital
Transformation in MENA
and beyond?

- Market approach needs to be holistic.
- Some form of digital divide might be inevitable.
- Creating an ecosystem of trust and security is key.
- Achieving an acceleration that CIOs and CTOs failed to realize in 40+ years.
- Upskilling and reskilling of human capital is invaluable.
- Accelerating the implementation of SDGs should always be the priority.
- Revisiting globalization and international cooperation is not an option.



Are SDGs affected? Is there an opportunity through digital transformation?



BE CREATIVE

problem >> solution

"Think outside the box"



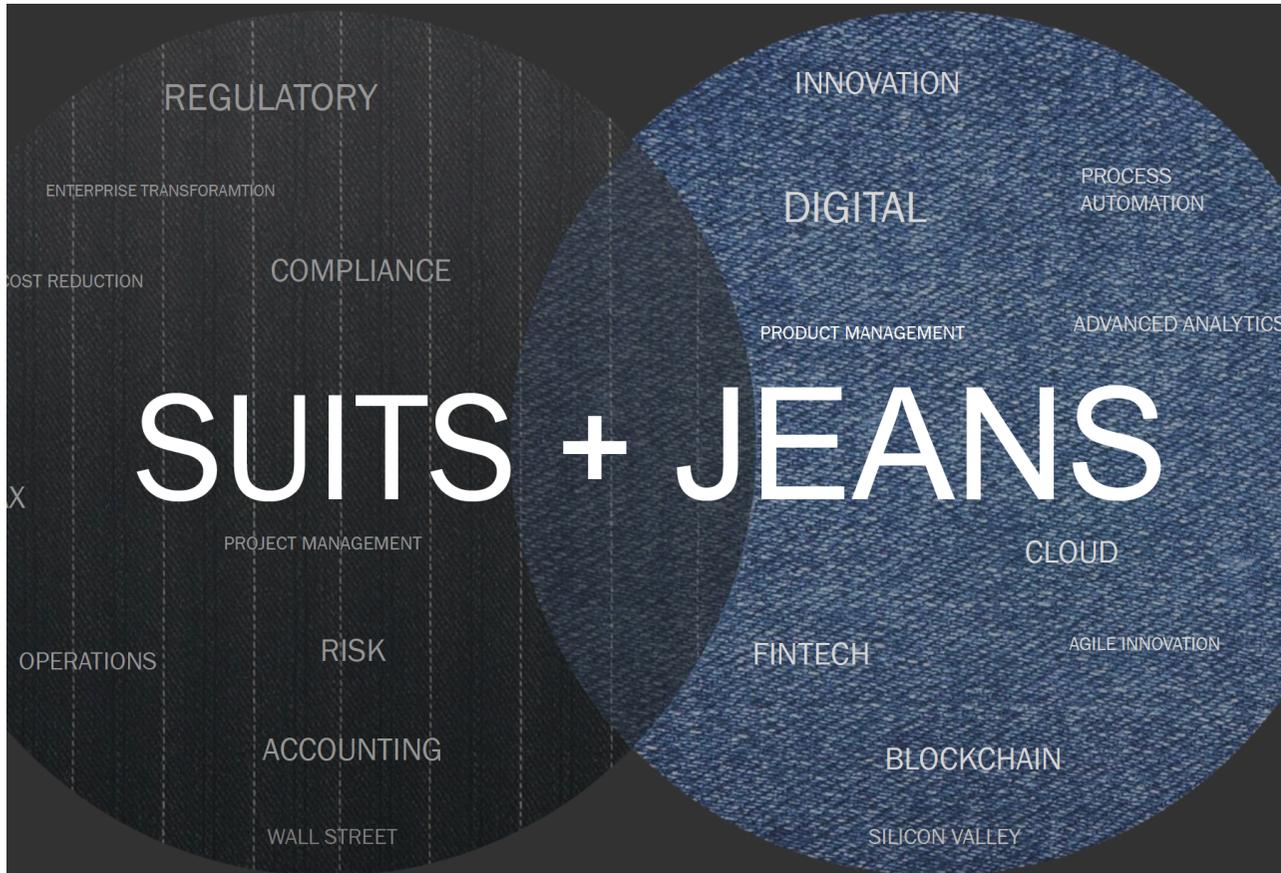
VISION

IMPOSSIBLE



Critical Success Factors

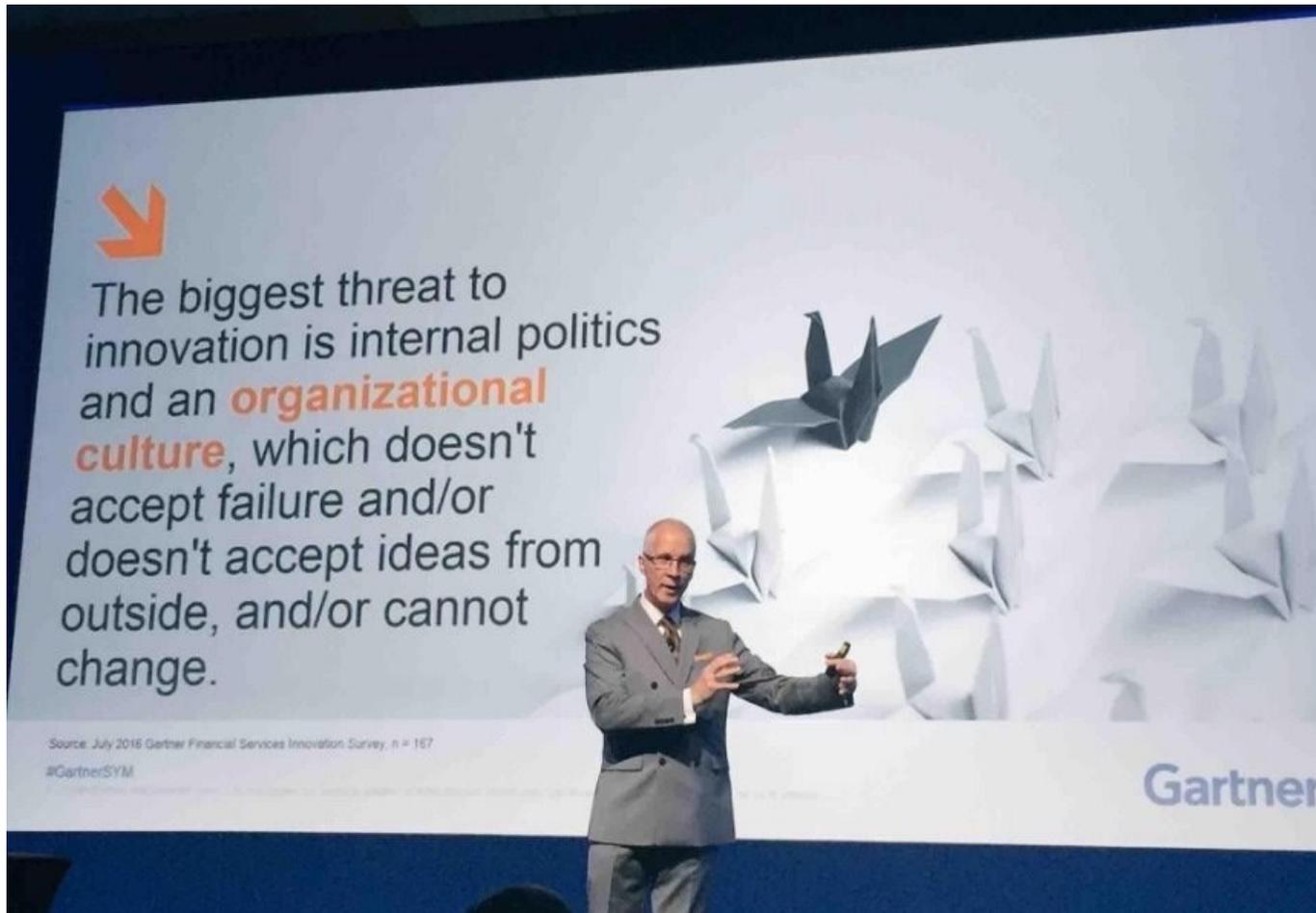
Intelligence
Flexibility
Creativity
Innovation
Adaptation
Collaboration
Prediction
Talent
Data



From suits
to jeans

From
verticals to
horizontal

New
normal?



The invaluable Quadrant

Leadership,
human capital,
innovation,
and
organizational
culture



**'Culture eats
strategy for
breakfast'**
- Peter Drucker

It is all about
the
organizational
culture

A Journey of
Adaptive
Continuous
Improvement

Remember, even in
the age of digital
transformation, it is
all about **people**,
attitude and staying
relevant



Usually people...
talk about change,
promote change,
push for change,
endorse change...but...
they never want to change

We have seen
something different
in **2020**

People do
change
and fast

