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Governance of the Future and Digital Transformation in the Arab region

Dr. Nibal Idlebi
Chief of Innovation Section
Governance in the Arab region

- Many Arab Countries made progress in controlling corruption and in providing effective services
- However most of the Arab countries are still weak in voice and Accountability

WorldBank 2017, Worldwide Governance Indicators
Technology for Government transformation

- Digital technologies and frontier technologies are powerful tools for enhancing transparency, accountability, participation and the delivery of services.
- Since 2003, Arab governments relied on ICT for enhancing the service delivery and for building reliable information society.
- The development, adoption and use of e-government has been steadily evolving in the past years in most countries.
- Many factors helped the progress of e-government: growing number of Internet users, rapid uptake of mobile devices and social media.
- However, the political instability has negatively affected the development of government transformation in many countries.
Technology for Government transformation

Technologies

- Infrastructure,
- Cyber space,
- Social media,
- Collaborative tools
- Open Data

Frontier Technologies

- Open Data
- Big Data
- Internet of Things
- Artificial Intelligence

Innovation

Better Governance
Digital transformation in the Arab region

- The Arab region is very heterogenous in the use of technology
- Open Government: Tunisia, Morocco, UAE, and Jordan are leaders
- Open Data: Tunisia, UAE, Qatar, Bahrain and Saudi Arabia are leaders
- Smart government: UAE, Bahrain, Qatar and Saudi Arabia

Information Society in the Arab region

First cluster: most GCC: UAE and Qatar then Bahrain, KSA and Oman

Second cluster: Tunisia, Jordan, Egypt, Morocco, Kuwait, Lebanon

Third cluster: countries under crises, Iraq, Syria, Palestine, Sudan, Yemen and Libya
Access to Infrastructure

- The average penetration rate of mobile services reached 109.3% > the global average at 98.2% (in 2016).
- The average of Internet penetration is 41.8% < the world average 45.9.
- Weak broadband access in the Arab countries, except in GCC.
Access to Information
Legislative & openness

- Legislations for access to information and data protection are still lacking in many Arab countries
- Access to Information Law exist only in: Jordan, Tunisia, Lebanon and Yemen
- Personal data protection law is adopted only in: Tunisia, Morocco, Qatar
- Draft laws in many countries

Open Data Initiatives have been launched in many Arab countries: Bahrain, Jordan, KSA, Oman, Qatar, Morocco, Tunisia and UAE
E-Government and e-Participation in the Arab region

e-Government index 2016, DESA World Bank Efficiency Index 2016

Morocco is the leader in the Arab region

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Frontier Technologies in the Arab region
Bright example: UAE & Dubai

- UAE has Minister of State for Artificial Intelligence (Oct 2017)
- UAE has a strategy for AI for enhancing the government performance.
- UAE Government also launched the UAE Strategy for Fourth Industrial Revolution (September 2017) to increase its contribution to the national economy by means of advancing innovation and future technologies.
- Smart Dubai was established to empower, deliver and promote an efficient, seamless, safe and impactful city experience.
- Internet of Things strategy was launched in Dubai in 2017, and its targets objectives will be achieved in 2021.
Frontier Technologies in the Arab region - Big Data (BD)

- Arab institutions, in selected sectors, are interested in BD.
- Many Arab countries started working on BD at University Level, private companies or government level: Morocco, Tunisia, UAE, Oman, Qatar, Saudi Arabia, Egypt and GCC
- Applications: Statistic (NSO), Macro economy, financial sector, Geospatial, health and education
- Government decision makers are showing high interest in Big Data, and they launched initiatives at institutional level (rather than national level)
- Conferences and Hackathon are organized in the region, especially Gulf countries Tunisia and Morocco, on Big Data
Challenges of Big Data in the Arab region

• Access to big data at regular basis
• Need for technical skills expertise in the field of Big Data
• Partnership with data producers and agreement for data exchange
• Funding for launching and implementing Big Data projects
• Legislations related to confidentiality, privacy and integrity of data
• Lack of appropriate tools for data analysis
Frontier Technologies in the Arab region

Internet of Things

The Internet of Things is still limited in the Arab countries.

- UAE launched its strategy of Internet of Things in 2017
- Saudi Arabia and others have initiatives related to IOT

Based on the “Arab World Online 2017 report” (MBRSG):

- The number of personal IoT devices per internet user, is 4.6 devices (average of 1.2 for each person).
- 63% of internet-connected devices are computing devices.
- Wearable IoTs, such as smart watches, smart bracelets, smart shoes, etc. are used only by 4.2% of internet users in the region.
Frontier Technologies in the Arab region

Artificial Intelligence

• UAE made the first steps towards becoming a hub for AI development and related legislation.

Based on the “Arab World Online 2017 report”:

• More than 70% are concerned that AI could lead to violations of privacy and 46% are worried that AI could cause widespread unemployment.

• More than half of internet users view that artificial intelligence may raise ethical concerns (51%)

AI, if wisely managed, can help Arab countries meet some of the world’s greatest challenges and redefine the future of regional development.
Frontier Technologies for better governance in the Arab region

Many Arab countries have initiatives related to smart government, Open government, or exploring the potential of frontier technologies for better Government.

Main Challenges:

- Useful and impactful applications
- Technical Skills and expertise
- Data availability, usability and accessibility
- Legislation and regulation
- Awareness of citizen
- Infrastructure in some countries / except GCC
The way forward for FTs in the Arab region

- Understand the nature of frontier technology (FTs) and innovations; and identify the potential applications that address the challenges in the Arab region.

- Identify the real needs of citizen to select the appropriate technologies and develop innovative applications.

- Improve capacities to localise, develop and apply new technologies and innovations.

- Prepare society for new technologies in order to manage technological impacts.

- Improve infrastructure, policies, legislations and frameworks in order to maximize technology’s good impact on society.
The UN Role

- Promote and draft template adequate policies, strategies, guidelines, framework and regulation relevant to frontier technologies and their applications.
- Convening conversations among stakeholders at international and regional level
- Conduct studies related to technological innovation and scientific discoveries.
- Measurement, benchmarking and conducting survey about frontier technology in different countries
- Define, converse and agree on new concept (Open, smart, digital government).
**Objective:** To build the capacity of ESCWA Member States to utilize technology to increase transparency and accountability and to adopt more effective and efficient participatory approaches in order to address root causes of conflict and prevent its potential relapse.

**ESCWA Framework for Open Government**

- Preliminary stage
- Openness for Transparency
- Participation
- Collaboration
- Engagement
Thank you