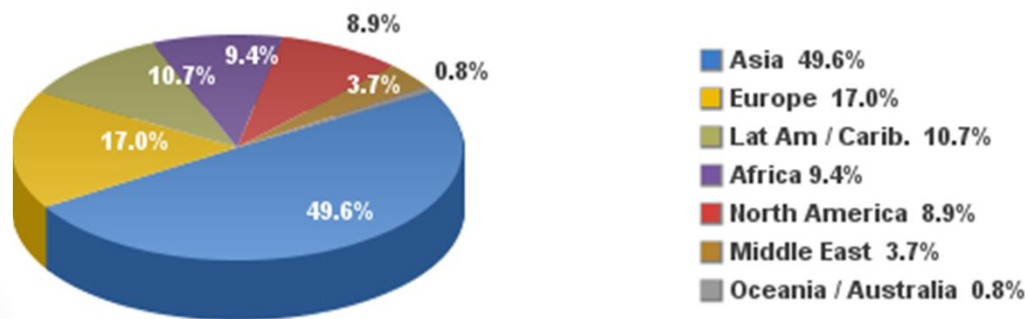# IG4D
Internet Governance for Development

Christine Arida | MEAC-SIG 2016

Beirut, Lebanon | 8-12August 2016

The Internet: An Enabler for Development

- Unique platform for innovation, economic opportunity and social inclusion
- Central to the digital economy
  - Enabling new products and services
  - Improving economic efficiency
  - Transforming access to information
  - Facilitating greater collaboration between governments, businesses and citizens
- A critical enabler of social and economic change
- Increased impact on developed and developing countries
- Offers new ways of addressing development challenges

World Regions	Population (2016 Est.)	Population % of World	Internet Users 30 June 2016	Penetration (% Population)	Growth 2000-2016
Africa	1,185,529,578	16.2 %	339,283,342	28.6 %	7,415.6%
Asia	4,052,652,889	55.2 %	1,792,163,654	44.2 %	1,467.9%
Europe	832,073,224	11.3 %	614,979,903	73.9 %	485.2%
Latin America / Caribbean	626,054,392	8.5 %	384,751,302	61.5 %	2,029.4%
Middle East	246,700,900	3.4 %	132,589,765	53.7 %	3,936.5%
North America	359,492,293	4.9 %	320,067,193	89.0 %	196.1%
Oceania / Australia	37,590,704	0.5 %	27,540,654	73.3 %	261.4%
WORLD TOTAL	7,340,093,980	100.0 %	3,611,375,813	49.2 %	900.4%

Internet Users in the World by Regions
June 2016

8.9%
9.4%
10.7%
3.7%
0.8%
17.0%
49.6%

- Asia 49.6%
- Europe 17.0%
- Lat Am / Carib. 10.7%
- Africa 9.4%
- North America 8.9%
- Middle East 3.7%
- Oceania / Australia 0.8%

Global Internet Usage

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Source: Internet World Stats

Will Internet-Accelerated Changes Reduce or Broaden the Digital Divide?

Broadening the Divide	Bridging the Gap
• First-comers have dominant position - Local companies in emerging economies frozen out of e-commerce • Power shift from seller to buyer: alternative supplier is just a mouse-click away - Producers mainly from developing countries harmed • High-tech interest higher in rich economies - Investor interest in developing countries reduced	• Offshoring enabled - Lower labour costs in developing countries • Rapid technology diffusion across borders compared to earlier technologies • Opportunity to leapfrog old technologies - Skip intermediate stages • Firm size optimization - Closer to the needs - Easier startups

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A Worldwide Agenda for Sustainable Development

- Sustainable development, the focus of international public policy since 1992

- Goal to achieve "development that meets the needs of the present without compromising the ability of future generations to meet their own needs"

- 3 core objectives: economic growth - social inclusion - environmental sustainability

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The Millennium Development Goals - MDGs

- 8 MDGs set in 2000 by the United Nations to reduce poverty and secure basic human needs

- Called for public-private cooperation to 'make available the benefits of new technologies, especially ICTs

- 15-year agenda with 2015 target date

- ICTs contribution to MDGs, especially in developing countries:
  - Enabling access to information and educational resources
  - Improving food production and distribution
  - Facilitating participation in decision-making
  - Ensuring early warning of threats to vulnerable communities

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The Sustainable Development Goals - SDGs

- New global agenda for sustainable development, Post-2015
- Adopted by UN Member States in September 2015
- 17 global goals at its core and 169 targets
- End poverty by 2030 – a sustainable future
- New era of national actions and international cooperation
- ICTs as cross-cutting enablers of development across the whole 2030 Agenda
- Internet policies affect information flows and exchange of knowledge – are at the core of the emerging digital economy
- Questions of sustainable development cannot be tackled in isolation from ICTs and Internet policies

The 2030 Agenda for Sustainable Development

WSIS: The Nexus of Development and IG

- The World Summit on the Information Society over 2 phases: Geneva 2003 & Tunis 2005

- "Achieve a common vision, desire and commitment to build a people-centric, inclusive and development-oriented Information Society where everyone can create, access, utilize and share information."

- Challenge: Harness the potential of ICT to achieve sustainable development

Sustainable Development → a critical goal

Internet Governance → a critical debate

IG4D Notion

- Emergence in 2006 as an overall theme and cross-cutting topic within the Internet Governance Forum IGF

- Explore linkages between IG issues and sustainable development

- IG shaping the evolution of global communication and knowledge exchange crucial for Sustainable Development

- Outcome of IG dialogue on issue of: access – diversity – trust – openness – security – rights – multi-stakeholder participation … among others

   → will impact our ability to manage socio-economic aspects of Sustainable Development

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WSIS+10 & WSIS-SDG Matrix

- WSIS+10: Overall review of the implementation of the Summit Outcomes conducted in 2015

- UNGA called for close alignment between WSIS and SDG process

- Beyond 2015: WSIS Forum to discuss the role of ICTs as a means to implement the SDGs

- WSIS-SDG Matrix: Linking WSIS Action Lines with Sustainable Development Goals

WSIS-SDG Matrix

	C1	C2	C3	C4	C5	C6	e-gov	e-bus	e-lea	e-hea	e-emp	e-env	e-agr	e-sci	C8	C9	C10	C11
SDG 1																		
SDG 2																		
SDG 3																		
SDG 4																		
SDG 5																		
SDG 6																		
SDG 7																		
SDG 8																		
SDG 9																		
SDG 10																		
SDG 11																		
SDG 12																		
SDG 13																		
SDG 14																		
SDG 15																		
SDG 16																		
SDG 17																		

II. SDGs (with sub-goals) and WSIS Action Lines Matrix

Sustainable Development Goal (Please press ctrl+click to see SGDs)	Relevant WSIS Action Line (Please press ctrl+click to see rationale)
Goal 1. End poverty in all its forms everywhere (1.4, 1.5, 1.b)	C1, C2, C3, C4, C5, C7 e-business, C7 e-health, C7 e-agriculture, C7 e-science, C10
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture (2.3, 2.4, 2.5, 2.a)	C3, C4, C6, C7 e-business, C7 e-health, C7 e-agriculture, C8, C10
Goal 3. Ensure healthy lives and promote well-being for all at all ages (3.3, 3.7, 3.8, 3.b, 3.d)	C1, C3, C4, C7 e-health, C7 e-agriculture, C10
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (4.1, 4.3, 4.4, 4.5, 4.7)	C3, C4, C5, C6, C7 e-learning, C7 e-employment, C7 e-agriculture, C7 e-science, C8, C10
Goal 5. Achieve gender equality and empower all women and girls (5.5, 5.6, 5.b)	C1, C3, C4, C5, C6, C7 e-business, C7 e-health, C7 e-agriculture, C9, C10
Goal 6. Ensure availability and sustainable management of water and sanitation for all (6.a, 6.b)	C3, C4, C7 e-science, C8
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all (7.1, 7.a, 7.b)	C3, C5, C7 e-science
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (8.1, 8.2, 8.3, 8.5, 8.9, 8.10)	C2, C3, C5, C6, C7 e-business, C7 e-employment, C7 e-agriculture, C8, C10
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (9.1, 9.3, 9.4, 9.a, 9.c)	C2, C3, C5, C6, C7 e-government, C7 e-business, C7 e-environment, C7 e-agriculture, C9, C10
Goal 10. Reduce inequality within and among countries (10.2, 10.3, 10.c)	C1, C3, C6, C7 e-employment, C10
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable (11.3, 11.4, 11.5, 11.6, 11.b)	C2, C3, C5, C6, C7 e-env...
Goal 12. Ensure sustainable consumption and production patterns (12.6, 12.7, 12.8, 12.a, 12.b)	C3, C4
Goal 13. Take urgent action to combat climate change ...pacts (13.1, 13.2, 13.3, 13.b)	

	WSIS Action Lines	SDGs
	C1: The role of governments and all stakeholders in the promotion of ICTs for development	Goal 1, 3.8, 3.d, Goal 5, 10.c, 16.5, 16.6, 16.10, 17.18
	C2: Information and communication infrastructure: an essential foundation for the Information Society	1.4, 8.2, 9.1, 9.a, 9.c, 11.5, 11.b
	C3: Access to information knowledge	Goal 1, Goal 2, Goal 3, Goal 4, Goal 5, Goal 6, Goal 7, Goal 8, Goal 9, Goal 10, Goal 11, Goal 12, Goal 13, Goal 14, Goal 15, Goal 16, Goal 17
	C4: Capacity building	1.b, 2., 3.7, 3.b, 3.d, 4.4, 4.7, 5.5, 5.b, 6.a, 12.7, 12.8, 12.a, 12.b, 13.2, 13.3, 13.b, 14.a, 16.a, 17.9, 17.18
	C5: Building confidence and security in the use of ICTs	1.4, 4.1, 4.3, 4.5, 5.b, 7.1, 7.a, 7.b, 8.1, 9.1, 9.c, 11.3, 11.b, 16.2, 17.8
	C6: Enabling environment	2.a, 4.4, 5.b, 8.2, 8.3, 9.1, 9.c, 10.3, 11.3, 11.b, 16.3, 16.6, 16.7, 16.10, 16.b, 17.6, 17.14, 17.16
	C7 ICT Applications: i. e-government	9.c, 16.6, 16.7, 16.10, 17.8
	C7 ICT Applications: ii. e-business	1.4, 2.3, 5.b, 8.3, 8.9, 8.10, 9.3, 17.11
	C7 ICT Applications: iii. e-learning	Goal 4
	C7 ICT Applications: iv. e-health	1.3, 1.4, 1.5, 2.1, 2.2, Goal 3, 3.3, 3.8, 5.6, 5.b, 17.8, 17.19
	C7 ICT Applications: v. e-employment	4.5, 8.5, 10.2, 12.6, 17.9
	C7 ICT Applications: vi. e-environment	9.4, 11.6, 11.b, 13.1, 13.3, 13.b, Goal 14, Goal 15
	C7 ICT Applications: vii. e-agriculture	1.5, 2.3, 2.4, 2.a, 3.d, Goal ... 17.16, 17.17
	C7 ICT Applications: viii. e-science	1.5, 4 ...

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The Internet Governance Context

Almost every Internet governance issue has a developmental aspect – A few examples:

- Existence of telecommunication infrastructure the first precondition to overcome the digital divide

- Current economic models for Internet access, place a disproportionate burden on developing countries – Challenges to financing access to backbones

- "Free-rides" of Over-the-Top services and challenges of balancing their contributions to telecom sectors of developing countries – Issues of Taxation

- Global regulation of intellectual property rights reduce opportunities for developing countries to access knowledge and information online

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Access for All
An Opportunity or an Economic Barrier

- Deprived communities less likely to take advantage of Internet enabled services
  - Poor broadband and Internet access in many developing countries especially in rural areas
  - Affordability issues – Expensive Internet access in relation to average income
- Policies to overcome access cost barriers in developing countries - A global or national challenge?
  - Ways of financing the deployment of telecommunications infrastructure (fiber links, wireless connections and satellite)
  - Business models aimed at reducing economic barriers to Internet access
  - Reducing costs of accessing software-based applications and e-content for value added services
  - Developing human capacities required to build, maintain and effectively use Internet- and ICT-based services

Internet governance challenge: Should we be striving to achieve a global consensus on reducing barriers to affordable Internet access?

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Access to Knowledge
Critical Input to Decision-Making

- Challenges to the current Intellectual property rights (IPR) model governing access to knowledge via the Internet
- Spread of IPR violations, particularly in developing regions and by youth everywhere
  - Traditional forms of "piracy" (unlicensed copies)
  - Emergence of alternate sharing technologies (P2P)
  - "Mash-ups" from different information sources and distribution via social network
- Need for widespread, affordable access to information and knowledge
  - Eliminate obstacles created by traditional proprietary approaches particularly in developing countries
  - Make use of opportunities presented by the Internet to reduce cost and improve ease of access

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Access to knowledge
Critical input to decision-making

- Internet governance challenge: Devise new models for governing the generation, dissemination and use of information and knowledge that:
  - Yield greater economic and social benefits than traditional IPR regimes
  - Are based on a cooperative approach (creative commons licensing – open source software …)
  - Are designed to lower the cost of accessing these products
  - Encourage users to add value and in turn make the results of their work freely available

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IGF Special Focus on Development "Connecting the Next Billion"

- IGF intersessional program launched in 2015 "Policy Options for Connecting the Next Billion"

- A multi-stakeholder approach to address the issue

- Synthesis of over 70 submission including 22 from national and regional IGFs

- 5 main policy dimensions for increasing connectivity identified by the IGF community: Deploying infrastructure - Increasing usability - Enabling users - Ensuring affordability - Creating an enabling environment

- Paths for the way forward laid out

- Phase II in 2016 to further develop these policy options by emphasizing local and regional specificities

- Phase II to demonstrate how Connecting and Enabling the Next Billion contributes to reaching the SDGs

Thoughts for the Way Forward

To what extent have Internet Policies:

- Improved the market efficiency and supported innovation in developing countries, or contributed to the economic marginalization of developing countries by excluding them from global markets?

- Promoted cultural diversity or cultural homogenization?

- Helped the development of rural communities or reinforced rural-to-urban migration?

- Led to improvements in education, health care and public services, and to the exercise of human rights or increased inequality in those areas?

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Thoughts for the Way Forward

- How will sustainable development needs shape Internet governance and the development of Internet technology, applications and content?

- How can developing countries' demand for affordable access to broadband networks, Internet services and localize content be more effectively met?

- How can Internet security and quality of service be improved, to meet infrastructure standards critical for economic development, public security, disaster warning and emergency assistance?

- How can the rights citizens online be better protected to enhance trust in the Internet as a medium for socio-economic development?

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Thoughts for the Way Forward

- Within the global IG arena, the IGF needs to continue discussing those questions, proposing solutions and answers while maintaining a special focus on development
- On national and regional levels the potential offered by National and Regional IGF initiatives needs to be further explored
- The link between the global IG agenda and national IG processes will remain crucial to address Internet governance for development
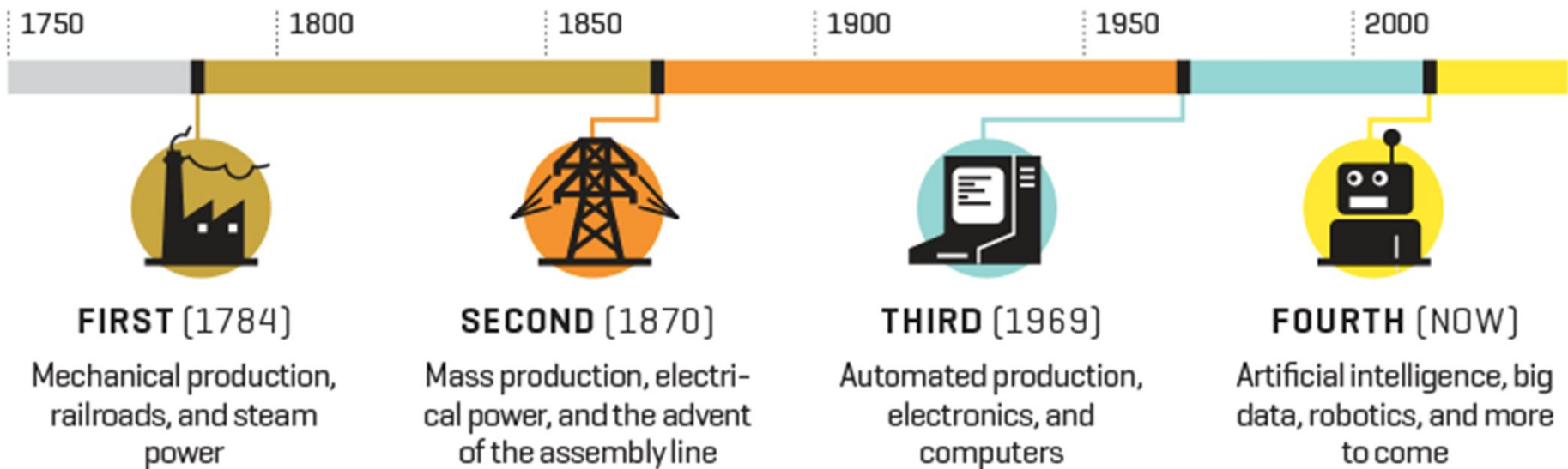
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ANY QUESTIONS???

From Digital Divide to Digital Economy

Baher Esmat | MEAC-SIG 2016 |
Beirut, Lebanon | 8-12 August 2016

Eric Schmidt on the future of the web: *"I will answer very simply that the Internet will disappear"*

The fourth industrial revolution
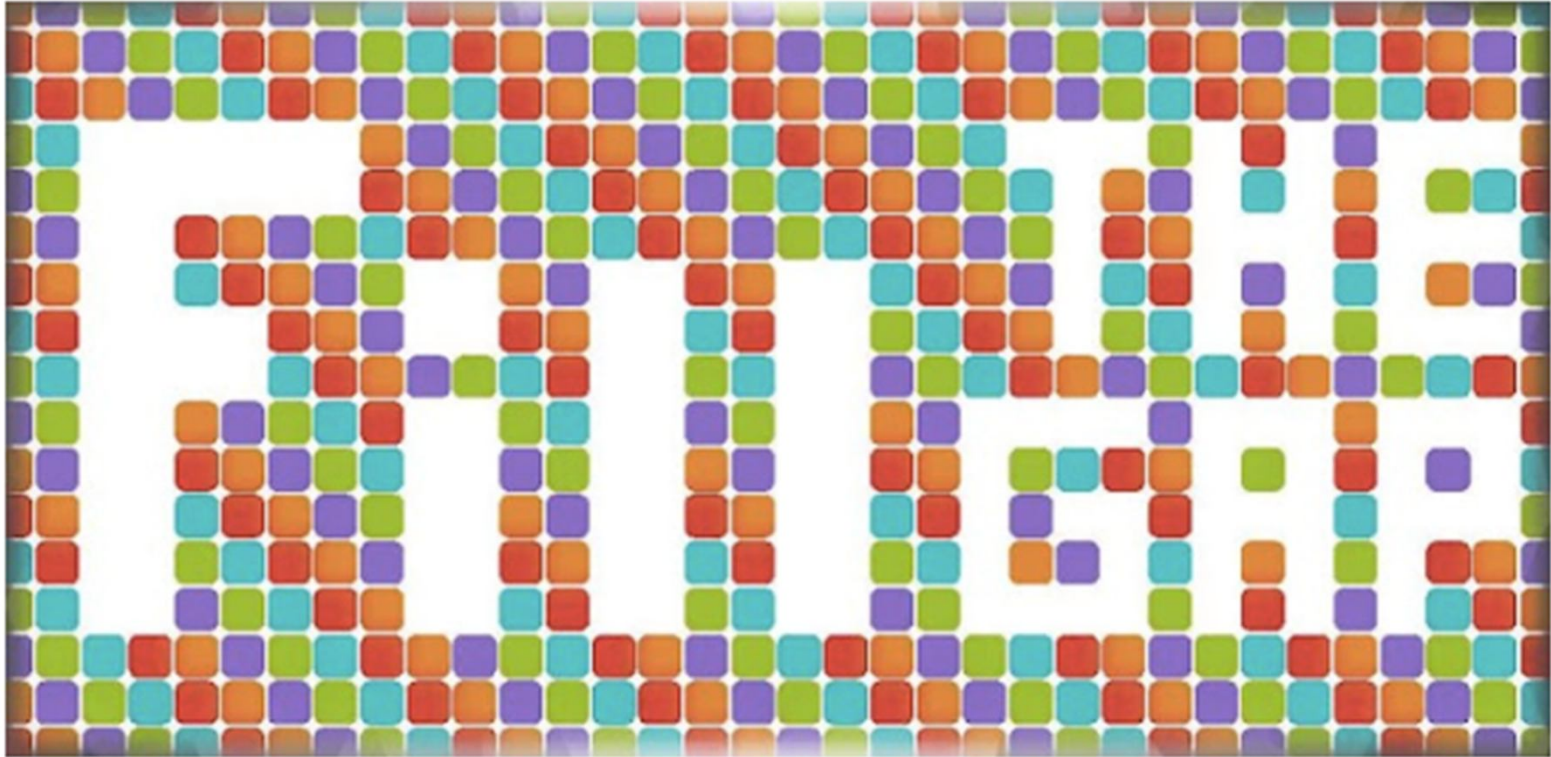
THE FOUR INDUSTRIAL REVOLUTIONS

| 1750 | 1800 | 1850 | 1900 | 1950 | 2000 |

FIRST [1784]
Mechanical production, railroads, and steam power

SECOND [1870]
Mass production, electrical power, and the advent of the assembly line

THIRD [1969]
Automated production, electronics, and computers

FOURTH [NOW]
Artificial intelligence, big data, robotics, and more to come

Source: World Economic Forum
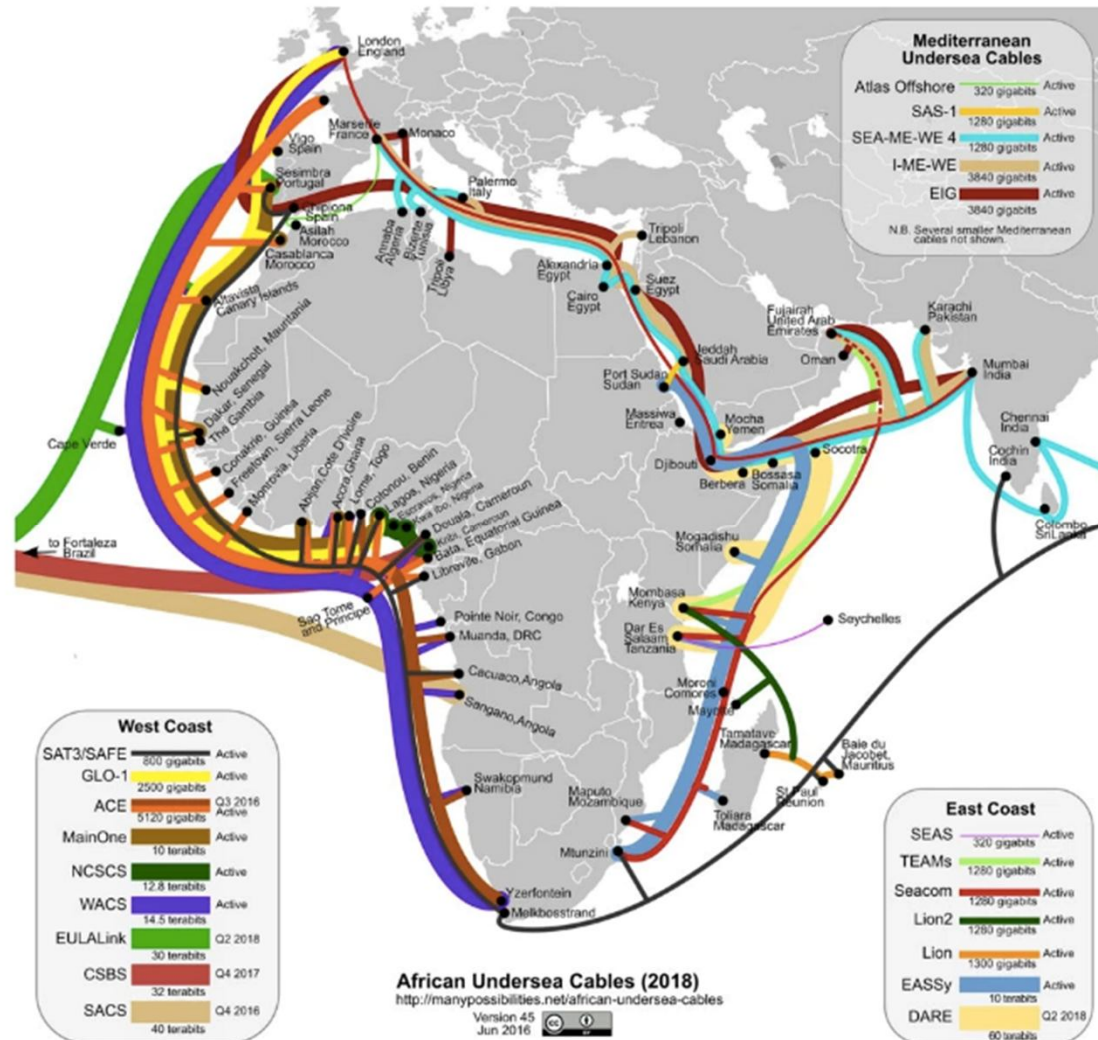
The digital divide

- **Issues:** Access, local content, ICT literacy, Internet identifiers, cyber security, trade, intellectual property, etc.
- **Actors:** UN, governments, international donors, private sector, civil society, technical community, IGF including national and regional IGFs, etc.
- **Actions:** Universal declarations, global initiatives, regional / national strategies, action plans, etc.

Is the digital divide hard to bridge?

- Yes – it cannot be bridged without tackling the more serious divides in the society; e.g. poverty, access to clean water, food, energy, education, healthcare, etc.

- And bridging it is becoming more and more challenging. Why?

- So what do we do?

Filling the gaps

African Undersea Cables (2018)
http://manypossibilities.net/african-undersea-cables
Version 45
Jun 2016

Source: https://manypossibilities.net/african-undersea-cables/

Filling the gaps

M-PESA, Kenya

- Mobile based money transfer and financing service for unbanked community

- Launched in 2007 by mobile operators in Kenya

- Currently available in 10 countries serving millions of people

Source: http://www.safaricom.co.ke/personal/m-pesa

Filling the gaps

Nafham, Egypt

- Largest crowd-sourced educational platform in the Middle East with 60 million video views, 600,000 active student per month

- Videos explain the public curriculum in 5 countries: Egypt, Saudi Arabia, Syria, Kuwait and Algeria

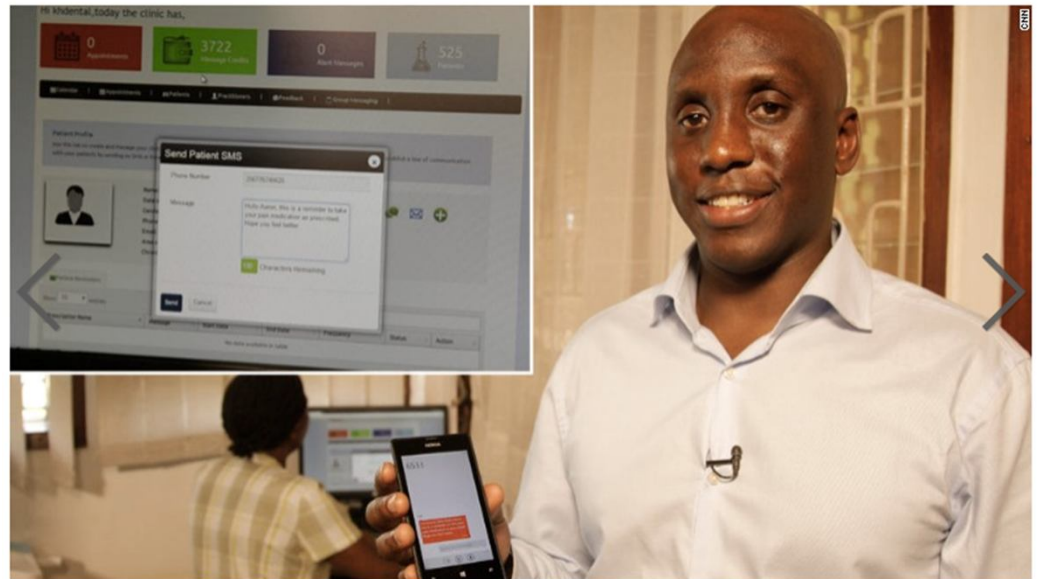*Source: https://www.nafham.com/*

Filling the gaps

Fieldlook, Sudan

- Use satellite images to improve water management and crop productivity

- Send SMS to farmers informing them of the best time to irrigate, when to apply fertilizer, etc.

- Increase crop yields by 60% on average

Source: *http://www.fieldlook.com.sd/*

Filling the gaps

Access Mobile, Uganda

- A web-based platform with a mobile app (Clinic Communicator) designed to facilitate interaction between patients and doctors

- Growing in Kenya through partnerships with healthcare facilities

Source: *http://www.accessmobileinc.com/*

The digital economy

The transition to digital economy

- **ICT Strategies**
  - Broadband
  - Access to computers
  - Local content
  - Capacity building
  - Regulatory frameworks

- **Digital Strategies**
  - Infrastructure
  - Services
  - Skills
  - Enabling environment

The transition to digital economy is a long journey that requires a paradigm shift on many levels.

A holistic approach is necessary in forging national digital strategies to ensure positive and considerable impact.

Questions?