Are countries reaping sizable digital dividends?

Are the benefits reaching everyone, everywhere?
Digital technologies are transforming:

**Business**

Number of small & medium enterprises on Taobao (Alibaba):
5 MILLION & COUNTING

**People’s lives**

Number of mobile money accounts worldwide:
300 MILLION & COUNTING (end of 2014)

**Governments**

Indians with digital identity:
950 MILLION & COUNTING

*SOURCE:* Total Economy Database, Conference Board; and WDR 2016 team; Christoph Lakner and Branko Milanovic 2013; Bishop and Hoeffler 2014.
The main mechanisms to promote development

**DIGITAL TECHNOLOGIES**

- Search and information
- Automation and coordination
- Scale economies and platforms

**INCLUSION**

**EFFICIENCY**

**INNOVATION**

Expand the information base, lower information costs and create information goods

**SOURCE:** WDR 2016
Then why the deep pessimism surrounding the global economy?

 SOURCE: Total Economy Database, Conference Board; and WDR 2016 team; Christoph Lakner and Branko Milanovic 2013; Bishop and Hoeffler 2014.
A significant digital divide remains …

- **6 BILLION** without BROADBAND
- **4 BILLION** without INTERNET
- **2 BILLION** without MOBILE PHONES
- **0.4 BILLION** without A DIGITAL SIGNAL

**SOURCE:** WDR 2016 team based on Research ICT Africa and ITU data
... between and within countries—in access and capability

SOURCE: WDR 2016 team, based on Research ICT Africa surveys (various years) for 10 African countries.
Citizen use of e-services, however, lags supply even in the EU countries and is highly sensitive to income.
3. Digital technologies hold benefits as well as risks

What are those complements?
Digital technology can accelerate growth …

**TRADE**

The internet enables more firms to reach new markets, 2001-12

**PRODUCTIVITY**

Vietnamese firms using e-commerce have higher total factor productivity growth, 2007-12

**COMPETITION**

Average monthly trips per traditional taxi in San Francisco after Uber started operation

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**SOURCE:** Chapter 1, WDR 2016 (http://www.worldbank.org/en/publication/wdr2016)
Scale without **COMPETITION**

 Analog economy

 Digital economy (4–5% of GDP; 1–2% of jobs)

 Vested interests

 Regulatory uncertainty

 Digital monopoly

**SOURCE:** Eurostat, circa 2014, WDR 2016 Team
Digital technology can expand opportunities...

**JOB CREATION**

Number of oDesk contractors

**PRODUCTIVITY & CONSUMER SURPLUS**

Africa: Respondents that agree with each statement on benefits and use of mobile phones, 2011–12

…but automation without **SKILLS**

→ **risks of polarized labor markets and greater inequality**

Significant investments in e-government...

Core systems:
- e-customs
- financial management
- e-procurement
- tax management
- human resources
- e-ID
- e-filing
- e-services portal

Percentage of countries: High income, Middle income, Low income.
But high failure rates of e-government projects: example, WB funded e-government projects

Based on analysis of approx. 530 WB-funded ICT projects from 1995 to 2015
Digital technology can improve service delivery...

**CAPACITY**

Complaints were resolved quickly in the Nairobi water utility after the introduction of digital customer feedback.

**TRANSPARENCY**

e-government systems increase the transparency of government budgets, 2014

...but information without **ACCOUNTABILITY**

→ *risks of greater state control and elite capture*

**SOURCE:** WDR team, based on Polity IV 2015; UN 2014; Open Net Initiative 2013.
Race between technology and complements

Complements: *Index of quality of institutions, skills and regulations.*

Technology: *Index of quality of access to internet and related technologies.*

*SOURCE:* WDR 2016 team. For more details see figure 5.3 in the full Report.
The WDR 2016 proposes policies at three levels

SECTORAL  NATIONAL  GLOBAL
SECTORAL POLICIES

SUPPLY SIDE ISSUES

- Competition policy
- Public-private partnerships
- Effective telecom & internet regulation

Making internet access universal, affordable, open and safe
Analog foundations for a digital economy

**NATIONAL PRIORITIES**

**REGULATIONS**
that promote competition and entry

**SKILLS**
to leverage digital opportunities

**INSTITUTIONS**
that are capable and accountable

**EMERGING**
- Remove barriers to adoption
- Foundational skills and basic ICT literacy
- Mobile phone-based services and monitoring

**TRANSITIONING**
- Competition regulation and enforcement
- Prepare for careers instead of jobs
- e-government delivery and citizen engagement

**TRANSFORMING**
- Platform competition
- Facilitate lifelong learning
- Participatory policy making and digital collaboration

**SOURCE:** WDR 2016 team.
• A governance model for an open and safe internet
• Removing barriers to a global digital market
• Leveraging information for sustainable development
  • Get wired
  • Build platforms
  • Go global
Digital development strategies need to be broader than ICT strategies

Understand the importance of analog complements

- Regulations that allow firms to connect and compete
- Skills that leverage technology
- Institutions that are accountable and capable

Match policies to the level of digital development

- Emerging: Lay the foundations by promoting digital adoption
- Transitioning: Enable everyone to take advantage of new technologies
- Transforming: Deal with the wicked problems faced in the new economy

The payoff

- Increasing digital dividends:
  Faster growth, more jobs and better services