world development report

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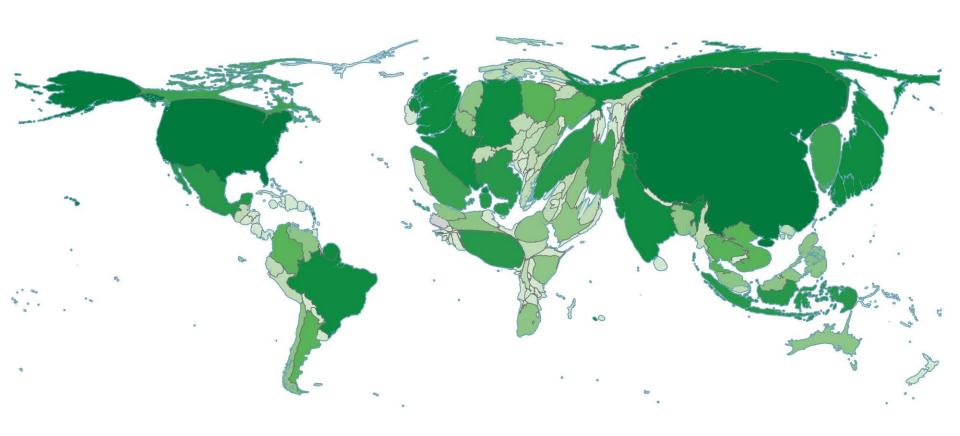
### DIGITAL DIVIDENDS

#wdr2016 www.worldbank.org/wdr2016



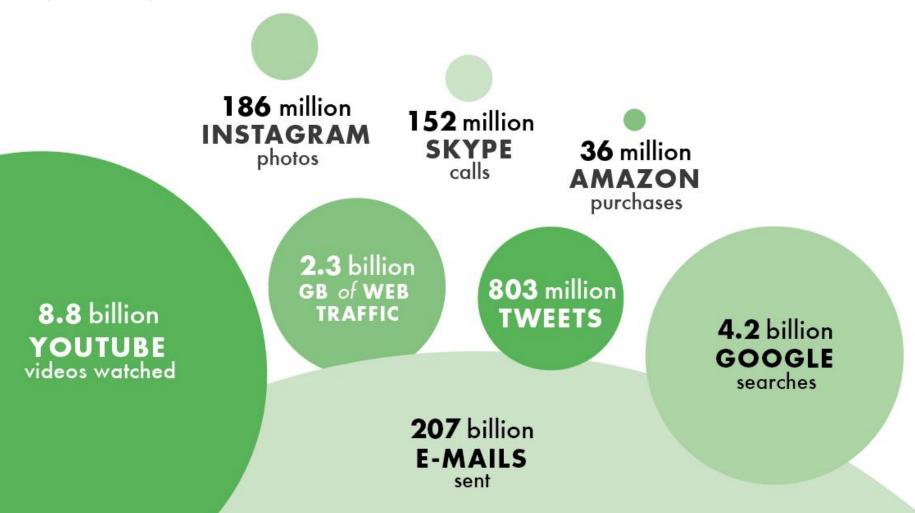
#### Digital technologies have spread rapidly

The world, based on internet population (2014)

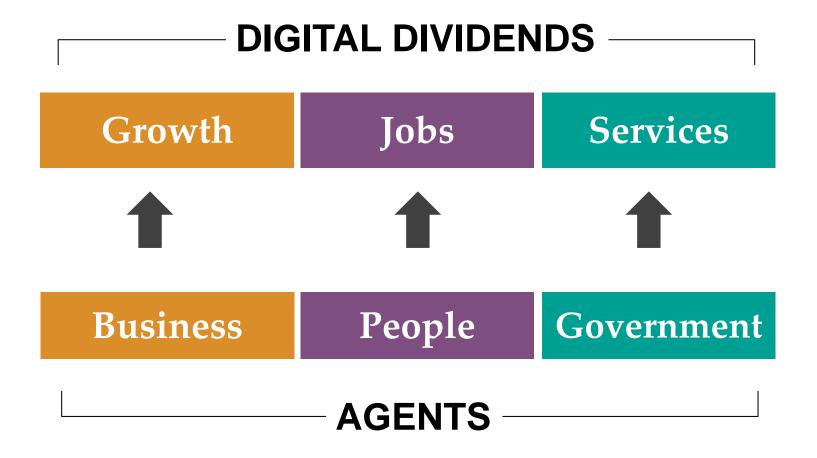


#### Digital revolution has brought many private benefits

A typical day in the life of the internet



But are countries reaping sizable digital dividends?



Are the benefits reaching everyone, everywhere?

#### Digital technologies are transforming **BUSINESS**

#### **DIGITAL MARKETPLACE**

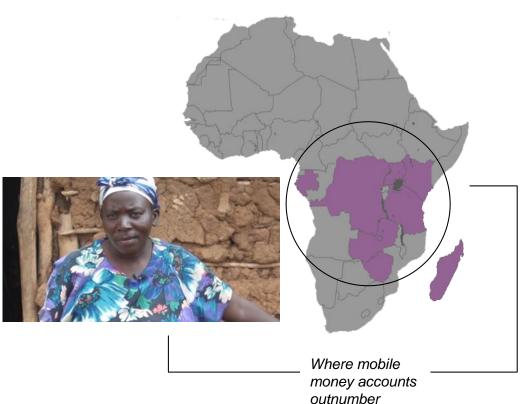


Number of small & medium enterprises on Taobao (Alibaba):

5 MILLION & COUNTING

#### Digital technologies are transforming PEOPLE'S LIVES

#### **DIGITAL PAYMENTS**



bank accounts

Number of mobile money accounts worldwide:

300 MILLION
& COUNTING
(end of 2014)

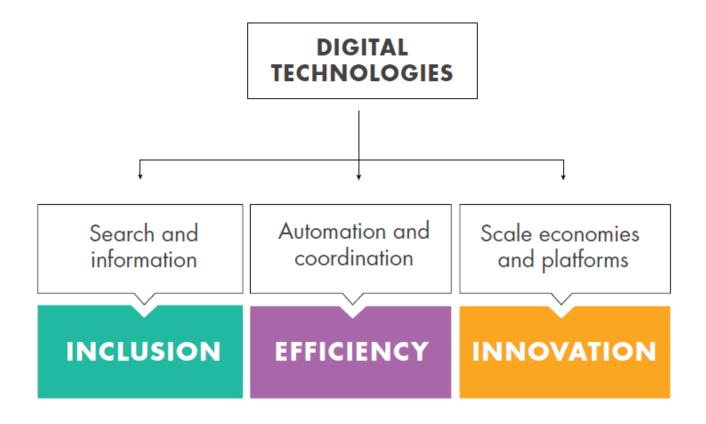
#### Digital technologies are transforming **GOVERNMENT**

#### **DIGITAL IDENTITY**



Indians with digital identity:950 MILLION& COUNTING

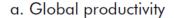
#### The main mechanisms to promote development



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

**SOURCE: WDR 2016** 

#### Then why the deep pessimism surrounding the global economy?



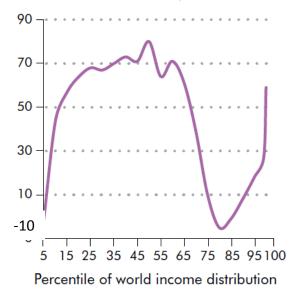
Five-year moving average of median growth of labor productivity per hour worked, in percent, in 87 countries.



#### Business

#### b. Global inequality

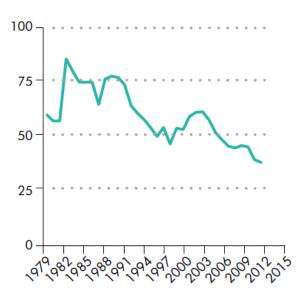
Percentage change in real income between 1998 and 2008 at different levels of world income distribution in 2003 prices



People

#### c. Global governance

Share of elections that are free and fair (%)



Governments

Not because of digital technologies, but in spite of them

#### 1. A significant digital divide remains



6 BILLION without BROADBAND



4 BILLION without INTERNET



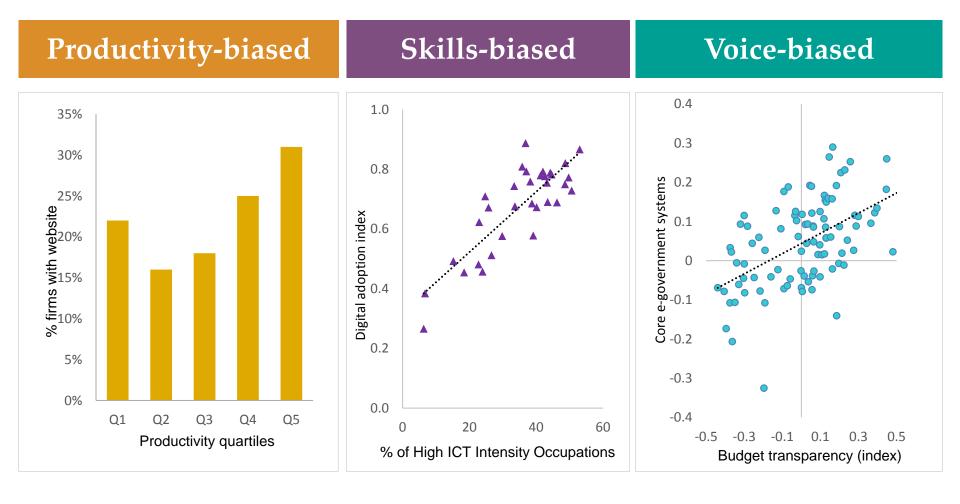
2 BILLION without MOBILE PHONES



0.4 BILLION without A DIGITAL SIGNAL

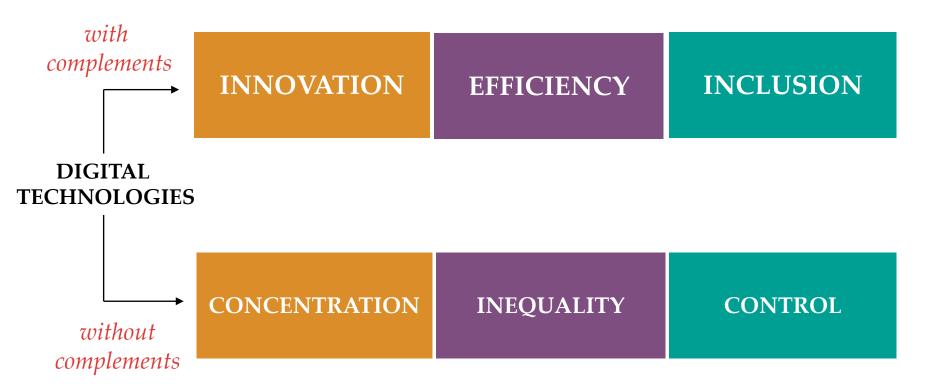
Divides persist between and within countries—in access and capability

#### 2. Digital technologies tend to be:



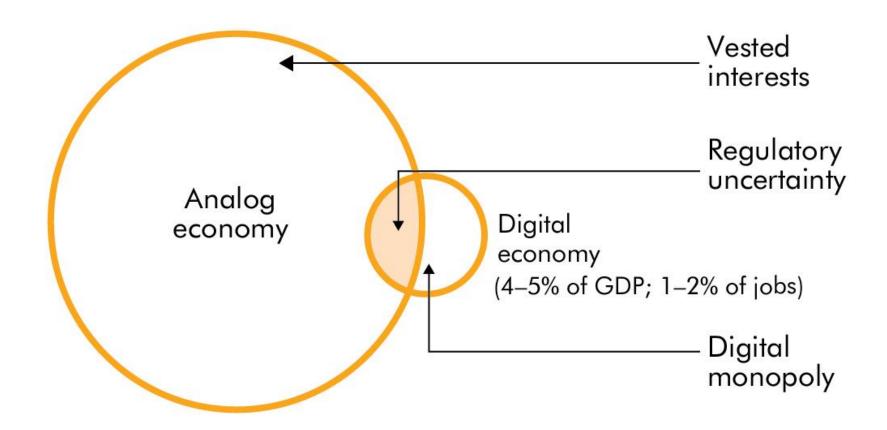
#### Limiting the aggregate gains from the digital revolution

#### 3. Digital technologies hold benefits as well as risks

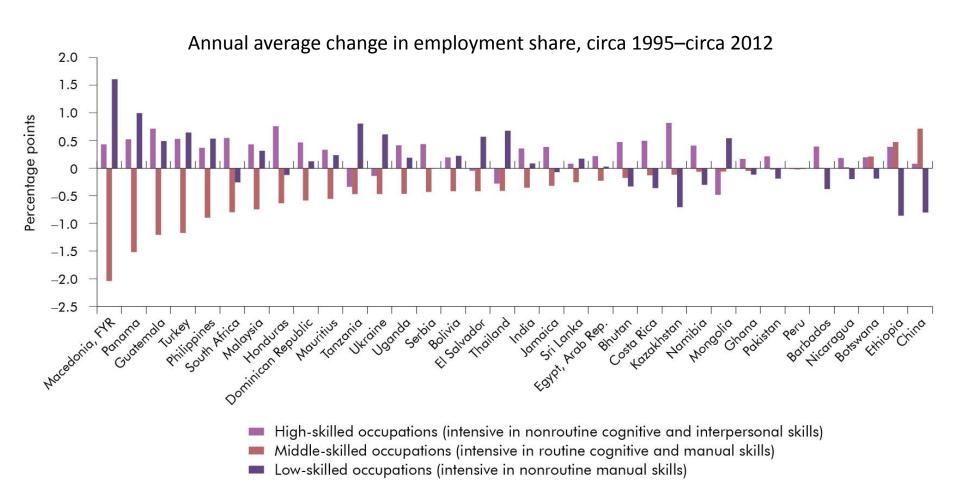


What are those complements?

#### Scale without **COMPETITION**



#### Automation without **SKILLS**



#### Information without **ACCOUNTABILITY**

CHANNELS → IMPACT → OUTCOMES

( <del>}</del> )	Informing citizens	High
(2) (2) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	Automating tasks	Medium
( <del>}</del> )	Citizens feedback	Medium
(Loss of the control	Provider management	Low

GOVERNMENT CAPABILITY

Free and fair elections

High

Informed voting

Collective action

Low

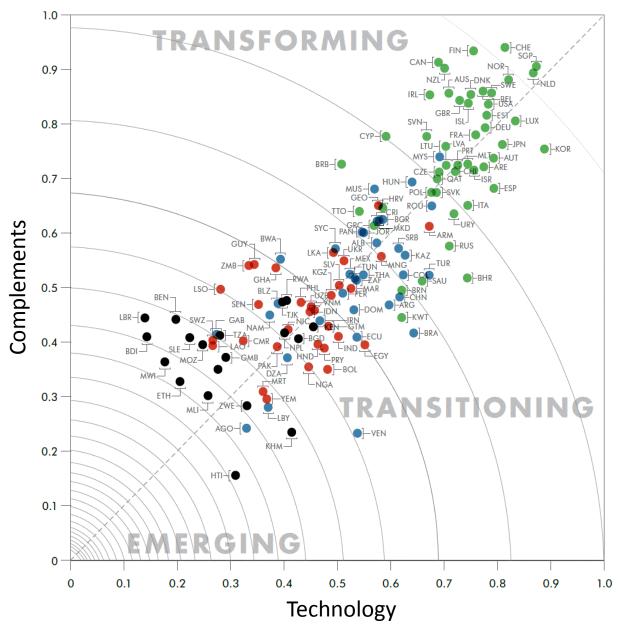
CITIZEN EMPOWERMENT











# Race between technology and complements

- High-income
- Upper-middle-income
- Lower-middle-income
- Low-income

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

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

The WDR 2016 proposes policies at three levels

**SECTORAL** 

**NATIONAL** 

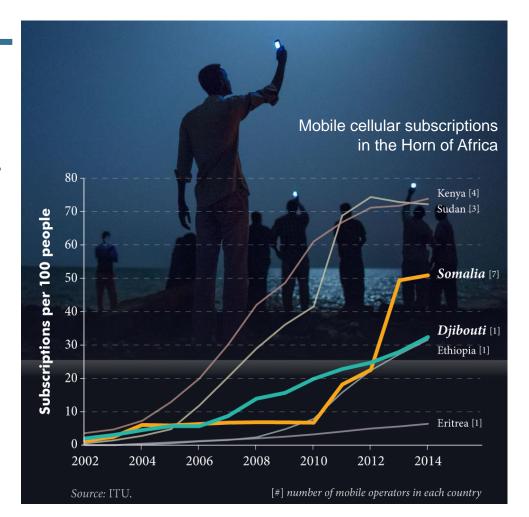
**GLOBAL** 

### SECTORAL POLICIES

# Making internet access universal, affordable, open and safe

#### **SUPPLY SIDE ISSUES**

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



### SECTORAL POLICIES

# Making internet access universal, affordable, open and safe

#### **DEMAND SIDE ISSUES**

- Protecting personal privacy
- Cybersecurity
- Censorship and content filtering

1993



"On the Internet, nobody knows you're a dog."

2014

"Now Google and its like are surveillance machines that know not only that you're a dog but whether you have fleas and which brand of meaty chunks you prefer." (Economist)

### NATIONAL PRIORITIES

# Analog foundations for a digital economy

#### **EMERGING TRANSITIONING TRANSFORMING REGULATIONS** Competition **Platform** Remove barriers regulation and that promote competition to adoption enforcement competition and entry **SKILLS** Foundational skills **Facilitate** Prepare for and basic ICT careers lifelong to leverage literacy instead of jobs learning digital opportunities Participatory e-government Mobile phone-**INSTITUTIONS** delivery and policy making based services that are capable and digital citizen and monitoring and accountable collaboration engagement

**SOURCE:** WDR 2016 team.

### **GLOBAL** COOPERATION

### International consensus on cross-border issues

- 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

world development report

2016

### DIGITAL DIVIDENDS

#wdr2016 www.worldbank.org/wdr2016

