Big Data for Better or Worse: Transforming Stakeholders & Development; Influenced by ICT Governance/Policy

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1000 Bytes = 1 Kilobyte
1000 Kilobytes = 1 Megabyte
1000 Megabytes = 1 Gigabyte
1000 Gigabytes = 1 Terabyte
1000 Terabytes = 1 Petabyte
1000 Petabytes = 1 Exabyte
1000 Exabytes = 1 Zettabyte
1000 Zettabytes = 1 Brontobyte
(that is a 1 followed by 27 zeroes)

What’s next.....

Global Digital Data
2000 - 3 Exabytes
2005 – 150 Exabytes
2010 – 1200 Exabytes
2011 – 1.8 Zettabytes (today’s estimate)
2020 estimate - 35 zettabytes (IDC estimate)
Figure 1: Growth in global storage capacity, 1986 to 2021

Storage capacity growing
Amount of new data stored varies across geography

New data stored\(^1\) by geography, 2010

Petabytes

- North America: >3,500
- Europe: >2,000
- China: >250
- Japan: >400
- Middle East and Africa: >200
- India: >50
- Latin America: >50
- Rest of APAC: >300

\(^1\) New data stored defined as the amount of available storage used in a given year; see appendix for more on the definition and assumptions.

SOURCE: IDC storage reports; McKinsey Global Institute analysis
THE PACE AT WHICH MOBILE PHONES SPREAD GLOBALLY IS UNMATCHED IN THE HISTORY OF TECHNOLOGY.

6 BILLION MOBILE SUBSCRIPTIONS WORLDWIDE

75% of the world now has access to a mobile phone.

The developing world is now more mobile than the developed world.

Most phones are owned by people living in low-income regions.

Access to a range of mobile applications has increased dramatically throughout the last decade.

Countries with the most internet users:
- China: 420 million
- EU: 337 million
- USA: 239 million
- Japan: 99 million
- India: 81 million

Countries with the fewest internet users:
- Barbados: 142,000
- Gambia: 130,000
- Namibia: 128,000
- Papua New Guinea: 125,000
- Botswana: 120,000

Internet Penetration Around The World

An exploration of the growth of internet penetration over countries around the world.

Penetration (% of Population) | World Regions | Growth 2000-2010
--- | --- | ---
10.8% | Africa | 2,357.3%
21.5% | Asia | 621.8%
58.4% | Europe | 352.0%
29.8% | Middle East | 1,825.3%
77.4% | North America | 146.3%
34.5% | Latin America/Caribbean | 1,032.8%
61.3% | Oceania/Australia | 179.0%
28.7% | World Total | 444.8%
Transforming Government

Transforming Industry

Big Data Investments by Industry

Has your organization already invested in technology specifically designed to address the big data challenge?

- Don’t know
- No, but plan to within two years
- No, but plan to within the next year
- Yes

Graph showing the percentage of organizations in different industries that have invested in technology to address the big data challenge.

Source: Gartner (July 2013)

Transforming Development

Transforming Policy

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Machines driven by big data is helping us to process our information, but are there consequences?
Some Unknowns

What type of data will be produced?

How will multiple stakeholders work together to use big data for the benefit of mankind?

How will privacy affect the use of big data?

What will be the effect on Developing countries?

What will be the consequences of big data misuse?

How will changes in Internet Governance affect big data?

What decisions will policy makers take?
... But let’s all focus on using big data for good.

Thank you!

You can also read the briefing paper, upon which this is based

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