Atlantic Council

Horizon Scanning
Envisioning Post-2015

Mathew J. Burrows
Director, Strategic Foresight Initiative

Why Strategic Foresight?

IT WAS the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity…we had everything before us, we had nothing before us, we were all going direct to Heaven, we were all going direct the other way…

Charles Dickens

Strategic Foresight Is Itself *A Growing Trend* for Many Countries

China
India
Japan
South Korea

Kenya
Nigeria
Botswana
South Africa

Canada

Russia

Brazil
Mexico
Chile

United Kingdom
Germany
France
The European Union
Sweden
Denmark
The Netherlands
Canada

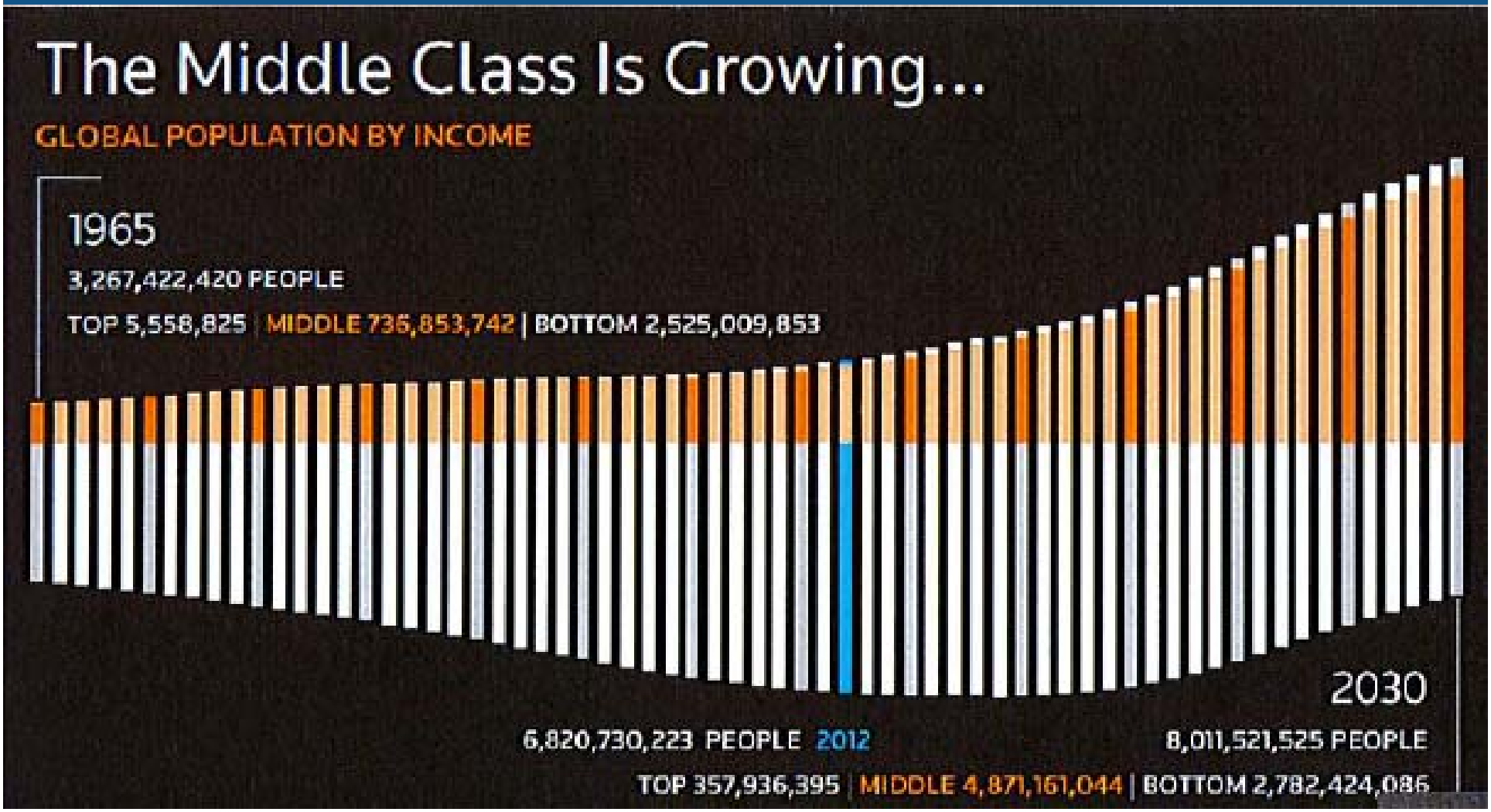
Unprecedented Number of Tectonic Shifts

- Growth of the Global Middle Class
- Wider Access to Lethal and Disruptive Technologies
- Definitive Shift of Economic Power to the East and South
- Unprecedented and Widespread Aging
- Urbanization
- Food and Water Pressures
- Youth Bulges

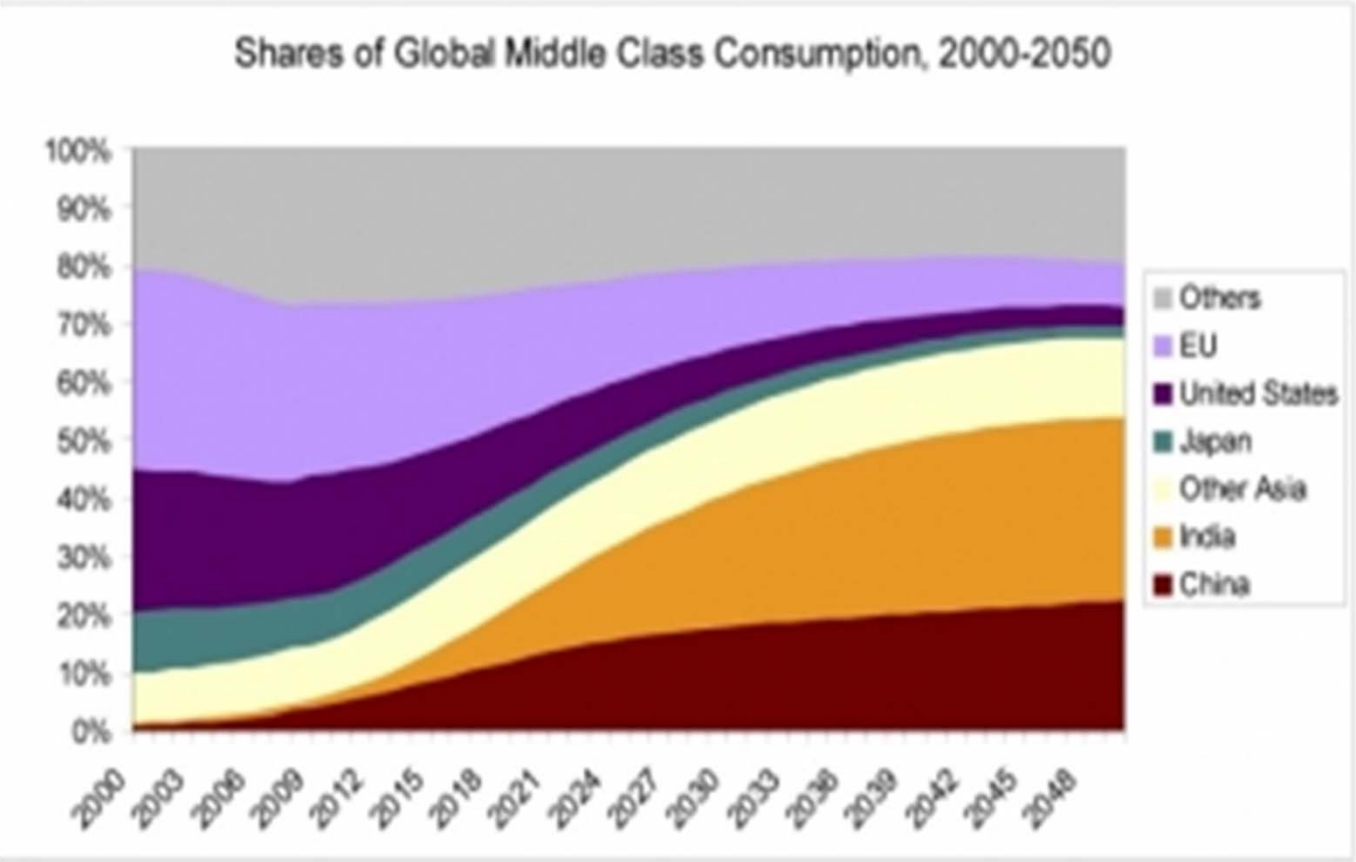
Biggest Shift: Individual Empowerment

- Root of the other big changes—expanding global economy, rapid growth of developing countries and widespread exploitation of new enabling technologies.
- Explosion of Educated Middle Class in Developing World and Drop in Poverty Rate.
- Demand for Opportunities as Individuals move into the middle class.
- Sense of Insecurity Will Persist—Particularly in the West Now, But Developing World Too

Growth of the Global Middle Class



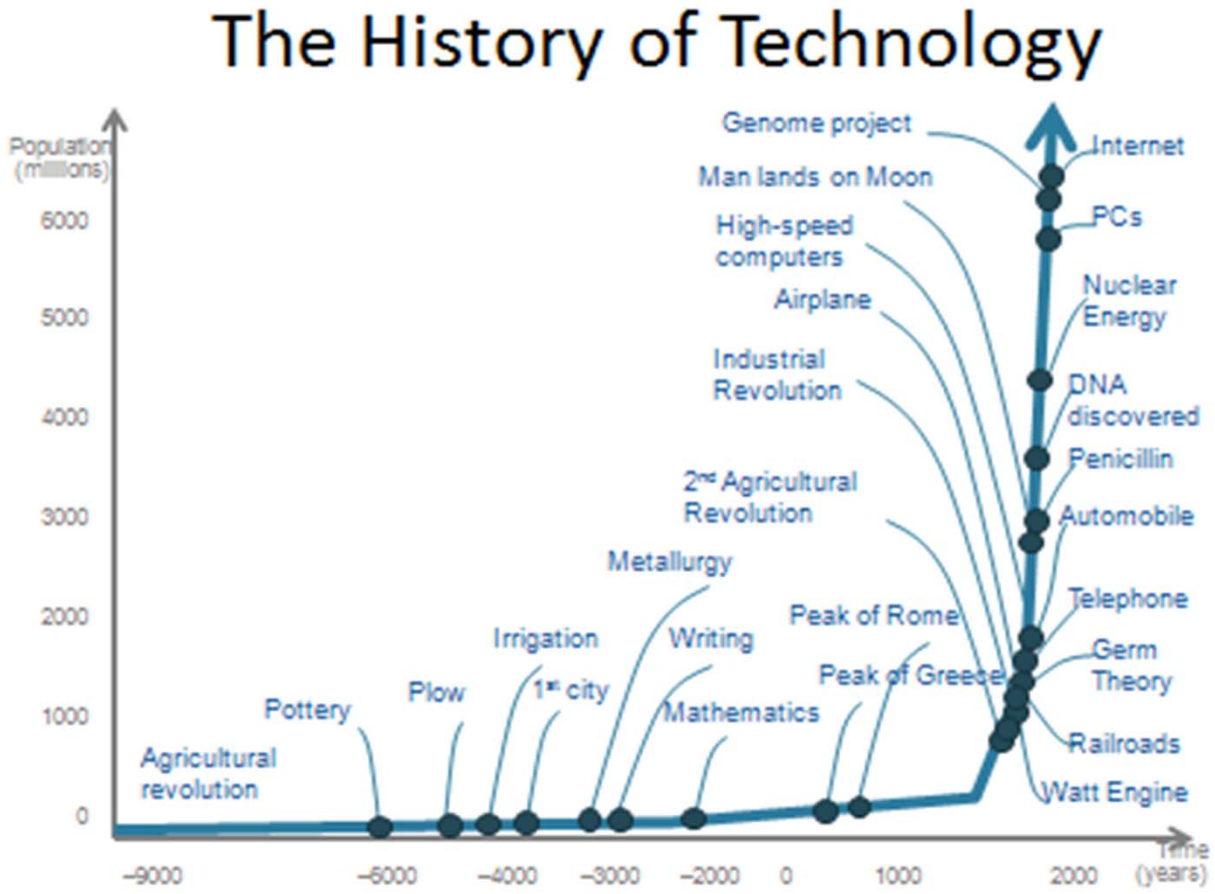
…and Moving Eastward



Disruptive Technologies

- Rapid growth in computing innovation leads to subsequent new revolutions

- Moore's Law is now applicable to more than computing, which means several technologies are evolving exponentially at the same time



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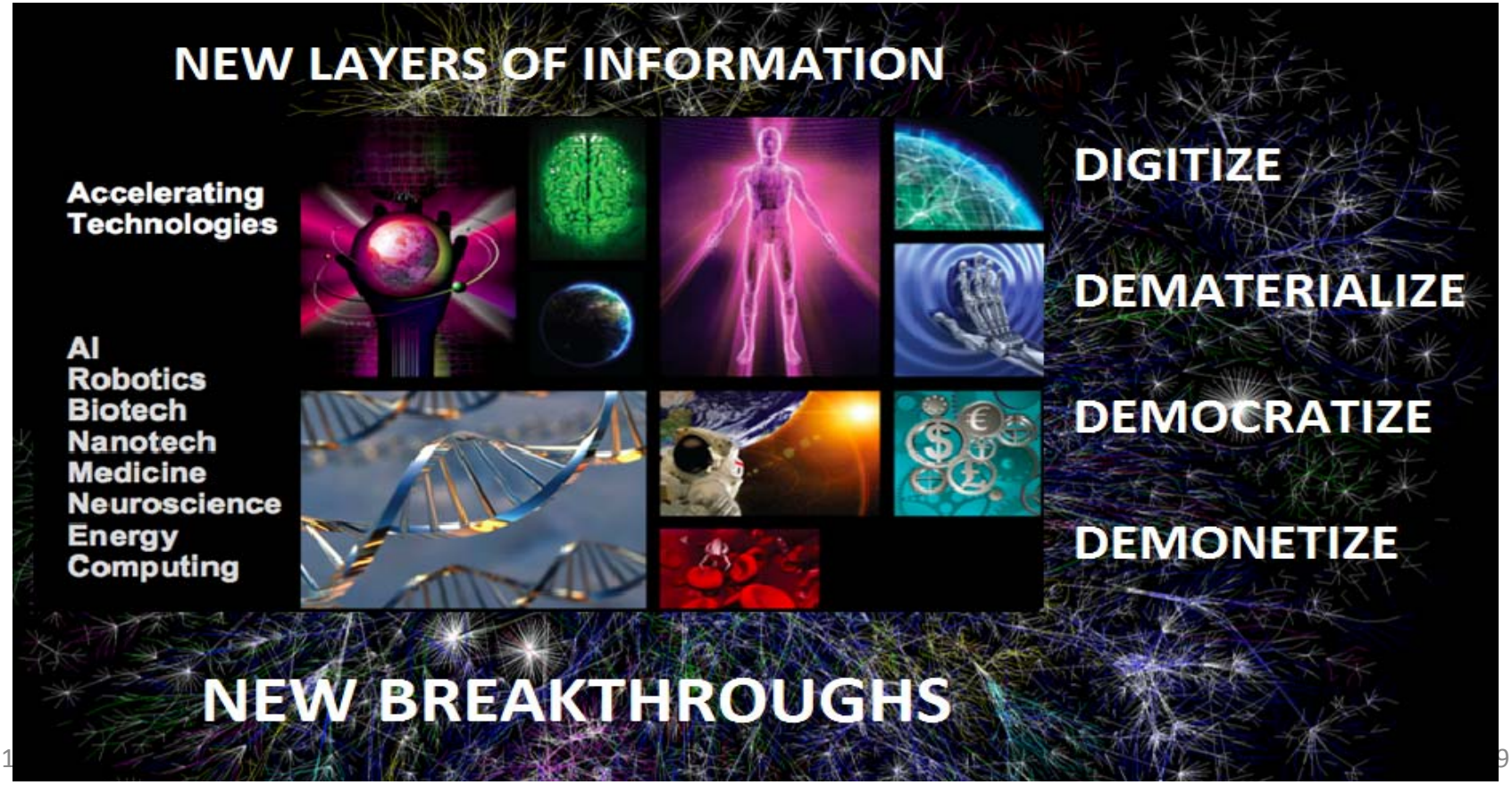
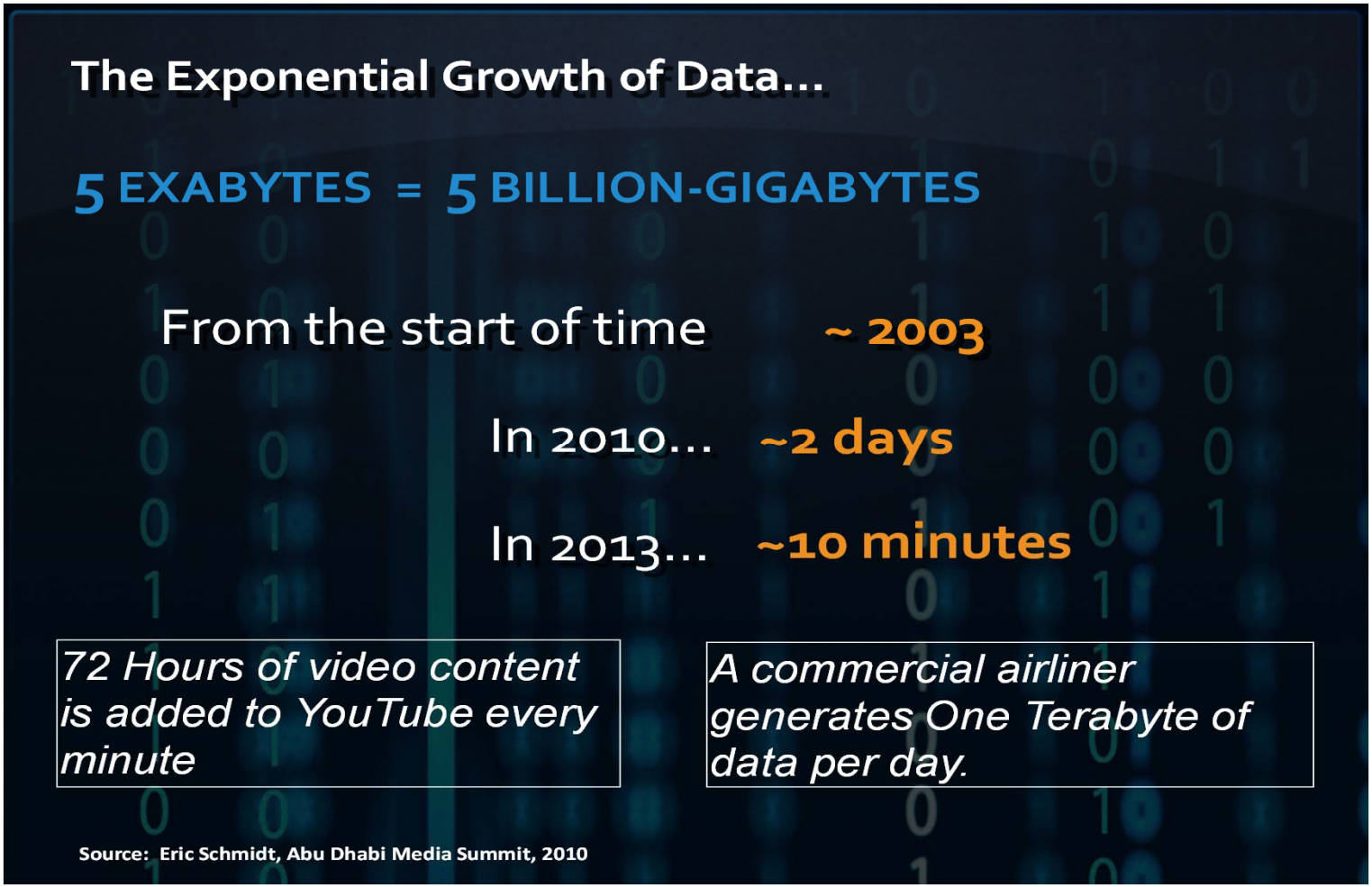
Disruptive Technologies

Disruptive convergence of breakthroughs will revolutionize individuals' abilities to create societal change



Information Technology: Big Data



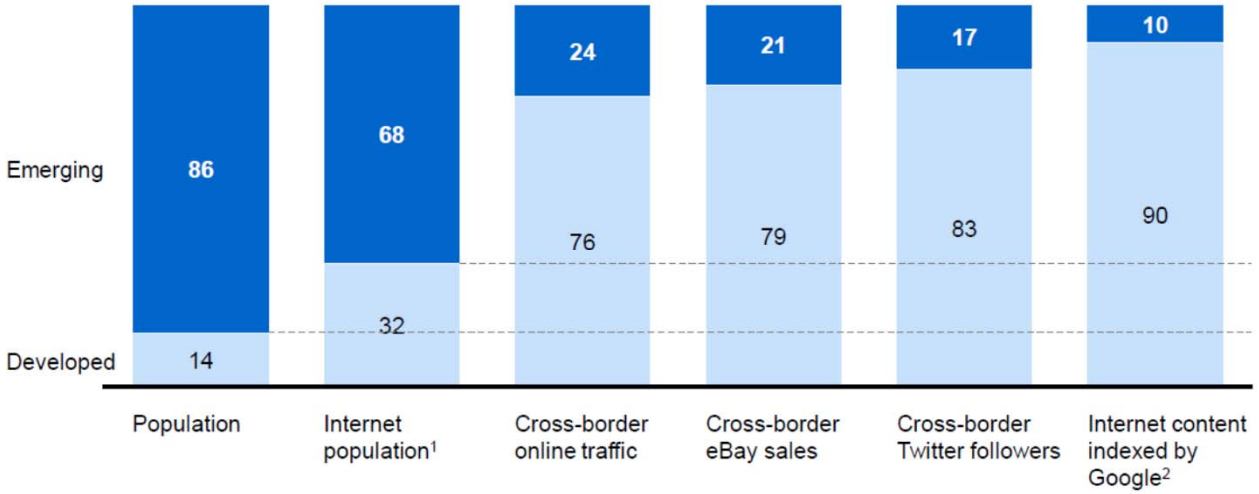
Scope for Improvement

Exhibit 23

Emerging economies' share of Internet population is large, but their share of data and communication flows remains low

Population and Internet activity, 2012

%



1 We define Internet population as total country population multiplied by the broadband penetration rate of the country.
2 Total amount of user-generated content indexed by Google in 2009. The United States, Europe, and Japan created 90% of total content.

SOURCE: World Development Indicators, World Bank; International Telecommunication Union; Telegeography; eBay; Twtrland; *Geographies of the world's knowledge*, Oxford Internet Institute, 2012; McKinsey Global Institute analysis

Huge Stakes in Urbanization

- How Urbanization is Managed will determine whether global war for sustainability is won or lost
- Biggest Risk is that We Don't Identify, Adapt and Scale the Most Promising Technologies

Third Industrial Revolution

- Convergence of Several Broad Technologies—Nano, Bio, IT, Advanced Manufacturing, Artificial Intelligence, New Materials and Robotics
- Transforming the Way Goods Are Made
- Creating But Also Destroying Jobs
- Need for STEM education and new skills training for modern workforce

Advanced Manufacturing (3DP/4DP)

- Democratization of production
- May enable adversaries to leapfrog to niche competitor
- Enables complex designed objects to be produced

Biotechnology

- Disease management → prolonged lifespan
- Greater resources (e.g., food, water, energy)
- Human augmentation

Mastering the Global Challenges