Driving a Big Data Revolution for Sustainable Development Goals

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Sustainable Development Goals

http://www.data4sdgs.org/

http://www.undatarevolution.org/
Global Pulse Big Data Innovation

What people say
- Social media (content focus)
- Online advertisement
- Complaint system
- Radio

What people do
- Social media (location focus)
- Mobile data
- Utility usage data
- Postal data
- Transportation data
- Searching keywords
- On-/offline retail data
- Remote sensing
What people say & do – Social Media

- Issues related to laws or crime
- Public health issues
- Disrupted activities
- Casualty information
- Status of displaced communities
- Specific status of affected citizens
- Need for a mask

Most Discussed Topic

Number of hotspots and number of tweets referring to different conversations on Sumatra Island, 2004

Number of Conversations

Weeks

0 500 1000 1500 2000 2500

0 500 750 1000 1250

0 500 1000 1500 2000

0 260 530 760 990

Number Of Hotspots

Weeks

0 10 20 30 40 50

0 5 10 15 20 25 30 35

0 40K 30K 20K 10K 0K -10K -20K -30K

Model Price

Official Price

Number Of Tweets

Chicken

Model Price

Official Price

Number Of Tweets

18 Jun 2012

11 May 2013

14 Apr 2014

1000

100

316

30

3

1
What people say – Radio Mining

"hailstorm triggered floods which washed away crop gardens"

"you know I used to work in a government hospital and it took like six months without my name being on payroll"
What people do – Mobile Data
What people do – Financial Data
What people do – Satellite Imagery
Ongoing tests with new big data sources!

Real-time bus location & real-time traffic data with Jakarta Government

Postal data with Universal Postal Union
UNITED NATIONS GLOBAL PULSE
Harnessing big data for development and humanitarian action

BIG DATA FOR DEVELOPMENT: A PRIMER

WHAT IS BIG DATA?

Big Data is an analytical tool referring to the huge volume of digital data continuously generated by the modern society. It is the receipt and treatment of enormous amounts of data that could not have been managed or analyzed in the past. This data can be structured or unstructured, and can be generated by public or private institutions, in order to leverage analytics techniques to generate actionable insights for decision-makers.

WHAT ARE CDRs?

CDRs, or Call Detail Records, are a database of call details recorded by telecommunication providers. They are used for billing and services such as call forwarding or voicemail. Each CDR contains information such as the duration of the call, the time and date of the call, and the caller and callee numbers. This data is a valuable source of information for understanding human behavior and patterns.

Global Pulse is a United Nations innovation initiative that explores how new, digital data sources and real-time analytics technologies can provide a better understanding of changes in human well-being and emerging vulnerabilities. However, legitimate concerns about privacy and data protection present challenges to harnessing Big Data sets for public benefit.

Global Pulse’s Approach to Data Privacy

Global Pulse respects and values individuals’ privacy and protecting it forms the cornerstone of our work.

In consultation with privacy experts, Global Pulse has developed a set of Privacy Principles.

Global Pulse has established a Data Privacy Advisory Group comprised of experts from public and private sector, academia and civil society, as a forum to engage in a continuous dialogue on critical topics related to data protection and privacy with the objective of unearthing precedents, good practices, and strengthen the overall understanding of how privacy protected analysis of big data can contribute to sustainable development and humanitarian action.