

Leveraging Mobile Phone Data (MPD) in development: experiential learnings

Sriganesh Lokanathan, Pulse Lab Jakarta, UN Global Pulse

WTIS20 : World Telecommunication/ICT Indicators Symposium
1st – 2nd Dec 2020



Pulse Lab Jakarta employs a **mixed-method approach**, through which it harnesses alternative data sources and **advanced data analytics** methods to obtain actionable insights and applies **human-centered design** to ground-truth insights from its data analysis and research, providing evidence to inform policy makers.

The Lab functions to:



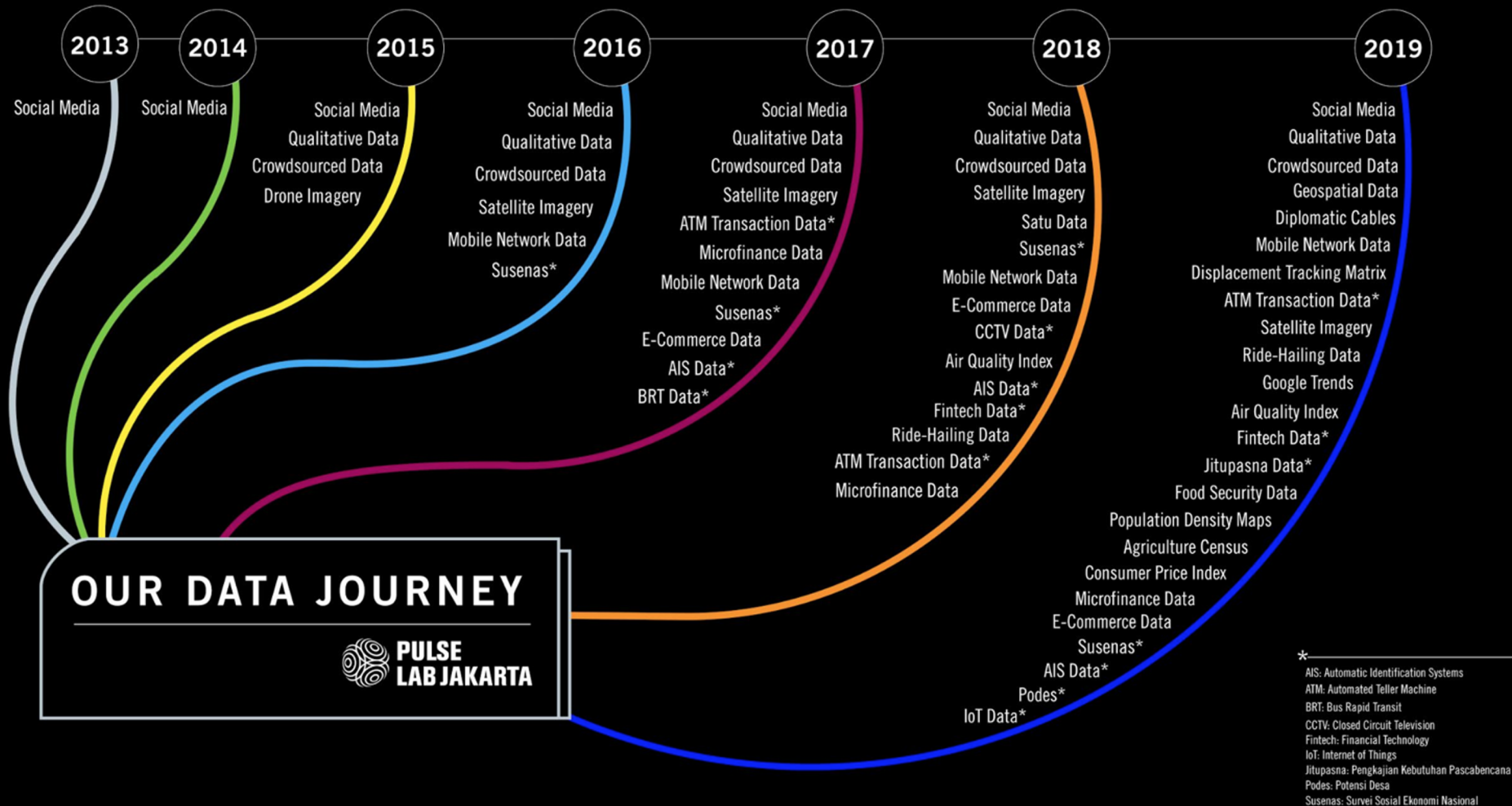
Drive **exploratory research** on new insights that can be gleaned from unconventional data sources



Facilitate **partnerships** between governments, development agencies and private sector to optimise use of data

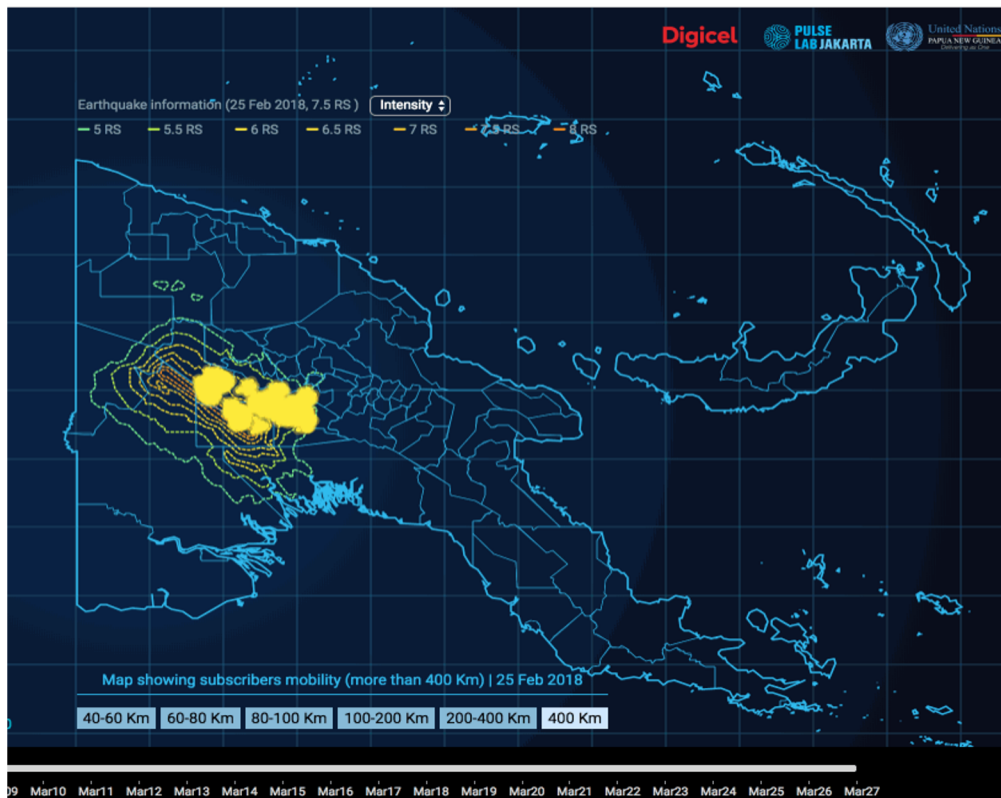


Identify **new data sources** and their potential for development while ensuring ethical use of data



Some examples of the use of mobile phone data for developmental purposes

Population Movement



Tracing population flow related to Cyclone:

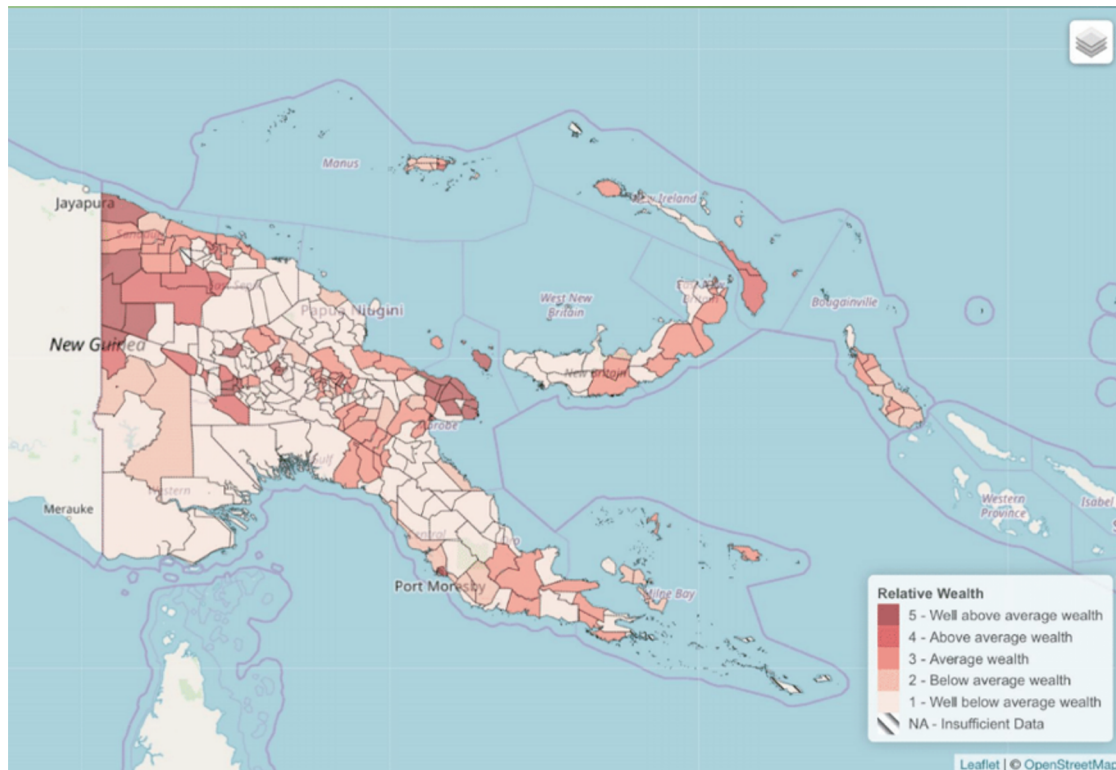
Donna in Vanuatu ([conference proceeding](#)) and Cyclone Gita in Samoa ([blog](#)) with mobile phone data.

Mapping population displacement after an

earthquake: in Palu, Indonesia ([blog](#)) and Papua New Guinea (PNG) with mobile phone data ([background paper](#)).

- Internal displacement
- Humanitarian assistance
- Mapping evacuations in near real-time
- Potential predictive models for evacuee destinations

Socio-Economic Indicators



- **Developing proxy indicators of education, household characteristics and expenditure** in Vanuatu with mobile phone data (poster presentation).
- **Mapping wealth distribution at high resolution** in PNG with the combination of telesurvey and mobile phone data (conference proceeding).

Two modes of data partnerships; both backed with agreements and NDAs



Data sharing (e.g. Digicel access in South Pacific)

- Secure access to a dedicated server inside operator premises containing pseudonymized data
- No data transferred outside of operator premises
- Compliant with GSMA guidelines



Insights sharing (e.g. Telekomsel in Indonesia)

- Develop algorithms which are then shared with operator for them to run and revert with insights
- Requires several iterations for quality assurance

Uses of MPD are many; but moving from one-off “projects” to mainstreaming requires more work

- Need informed and discerning consumers of insights from MPD
- Establishing provenance and quality assurance
- Standardized methods
- Standardized agreements
- Coherent and conducive policy and regulatory environment

Thank you!



plj@un.or.id



@PulseLabJakarta



@PulseLabJakarta



@PulseLabJakarta



Pulselabjakarta.org