National Statistics versus Big Data Analytics

**National Statistics**
- Nation-state scale
- All residents in households
- Pre-cooked categories for people
- Often public, open, revealed
- Create a shared truth, upon which consensus-forming claims can be made in decision making

**Big Data Analytics**
- Any spatial scale
- Anybody, anywhere
- Emergent categories for people
- Often private, closed, secret
- Detect trends, sense moods, spot things as they bubble up → create various truths
### National Statistics
- Simplify society
- Ostensibly public interest
- Diffuse controversy
- First ask a question, then collect related data
- NS officers are public servants, accountable to government
- Slow, high cost

### Big Data Analytics
- Complexify society
- Often not clear to whose interest
- Often amplify controversy
- First hoover any data, then ask as many questions as you want
- Data analytics experts often accountable only to CEOs
- Fast, low cost
National Statistics versus Big Data Analytics

National Statistics
• slow, high cost

Worst case scenario
• Disasters and humanitarian crises in weak states

Consequence
• Hollowing out of the state
• Privacy violations

Big Data Analytics
• Fast, low cost
FEMA publicly acknowledged that it shared personal data from 2.3 million disaster survivors with a contractor.


FEMA exposed survivors to identity theft.
FEMA shared with the contractor

**Necessary data:**
- First, Middle Last Name
- Date of Birth
- Last 4 digits of Applicant’s Social Security Number
- Disaster Number
- Authorization for TSA
- Number of Occupants in Applicants Household
- Eligibility Start and End Date
- Global Name
- Export Sequence Number
- FEMA Registration Number

**20 unnecessary data, including six with sensitive information:**

- Applicant Street Address
- Applicant City Name
- Applicant Zip Code
- Applicant’s Financial Institution Name
- Applicant’s Electronic Funds Transfer Number
- Applicant’s Bank Transit Number
Global Responsible data actors

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<tr>
<th>National Statistics</th>
<th>Recommendation 1</th>
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<tr>
<td>• slow, high cost</td>
<td>• Strengthen scientific method in national mapping &amp; statistics organisations</td>
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<td>Recommendation 2</td>
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<td>• Harmonise responsible data guidelines with national data protection laws &amp; privacy cultures</td>
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STI and SDGs: An Economics lens

Examine country circumstance?

Private, UN, Others

Largely UN & public

Limited

Scarce

Supply of STI Support

Awareness of STI impact?

1. NO POVERTY
2. ZERO HUNGER
3. GOOD HEALTH AND WELL-BEING
4. QUALITY EDUCATION
5. GENDER EQUALITY
6. CLEAN WATER AND SANITATION
7. AFFORDABLE AND CLEAN ENERGY
8. DECENT WORK AND ECONOMIC GROWTH
9. INDUSTRY, INNOVATION AND INFRASTRUCTURE
10. REDUCED INEQUALITIES
11. SUSTAINABLE CITIES AND COMMUNITIES
12. RESPONSIBLE CONSUMPTION AND PRODUCTION
13. CLIMATE ACTION
14. LIFE ON LAND
15. LIFE BELOW WATER
16. PEACE, JUSTICE AND STRONG INSTITUTIONS

Low Middle High

‘Demand’ for STI support to achieve the SDGs

Clarify division of labor

Mobilize and catalyze

Fill the critical gaps

Source: Klaus Tilmes & Naoto Kanehira, World Bank Group 2017
STI and SDGs: A Politics lens

STI and SDGs: A Politics lens

Social groups

Excluded

Included

Power of social groups

Marginal

Disruptive

Lowest probability of inclusive benefits via SDGs (and STI)

Low probability of inclusive benefits via SDGs (and STI)

Medium probability of inclusive benefits via SDGs (and STI)

High probability of inclusive benefits via SDGs (and STI)

STI and SDGs: A Politics lens – Which priorities?

Recommendations for the STI for SDGs Road Map for Africa

Recommendations

- Strengthen scientific method in national mapping & statistics organisations
- Harmonise global responsible data guidelines with national data protection laws & privacy cultures
- Use both an economics and a politics lens to prioritize (and distribute labor for providing) assistance to nation-states aspiring to STI for SDGs