

# Delineating administrative boundaries using mobile network big data

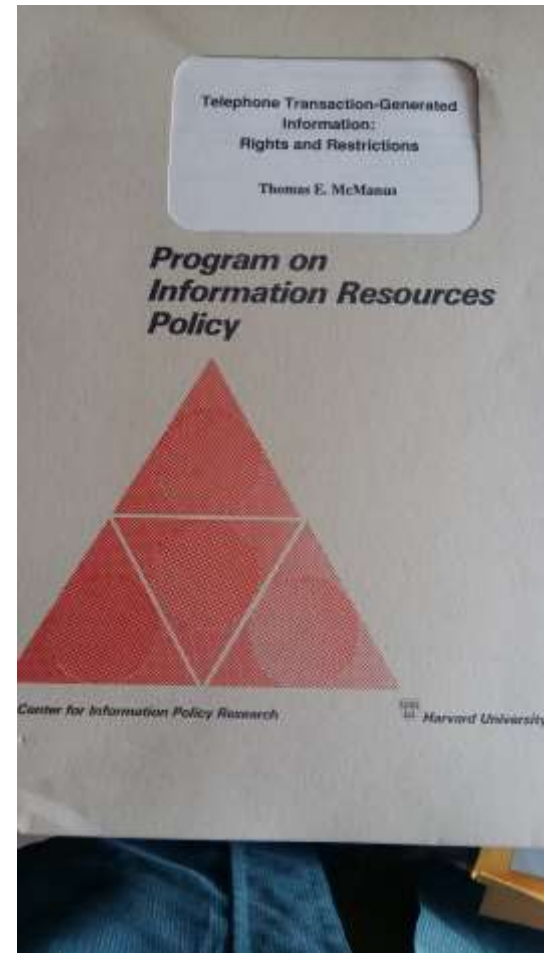
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Panel on Big Data uses and policies, 21<sup>st</sup> Biennial ITS Conference, Taipei,  
Taiwan

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# Policy relevant to telecom big data was being studied in 1990

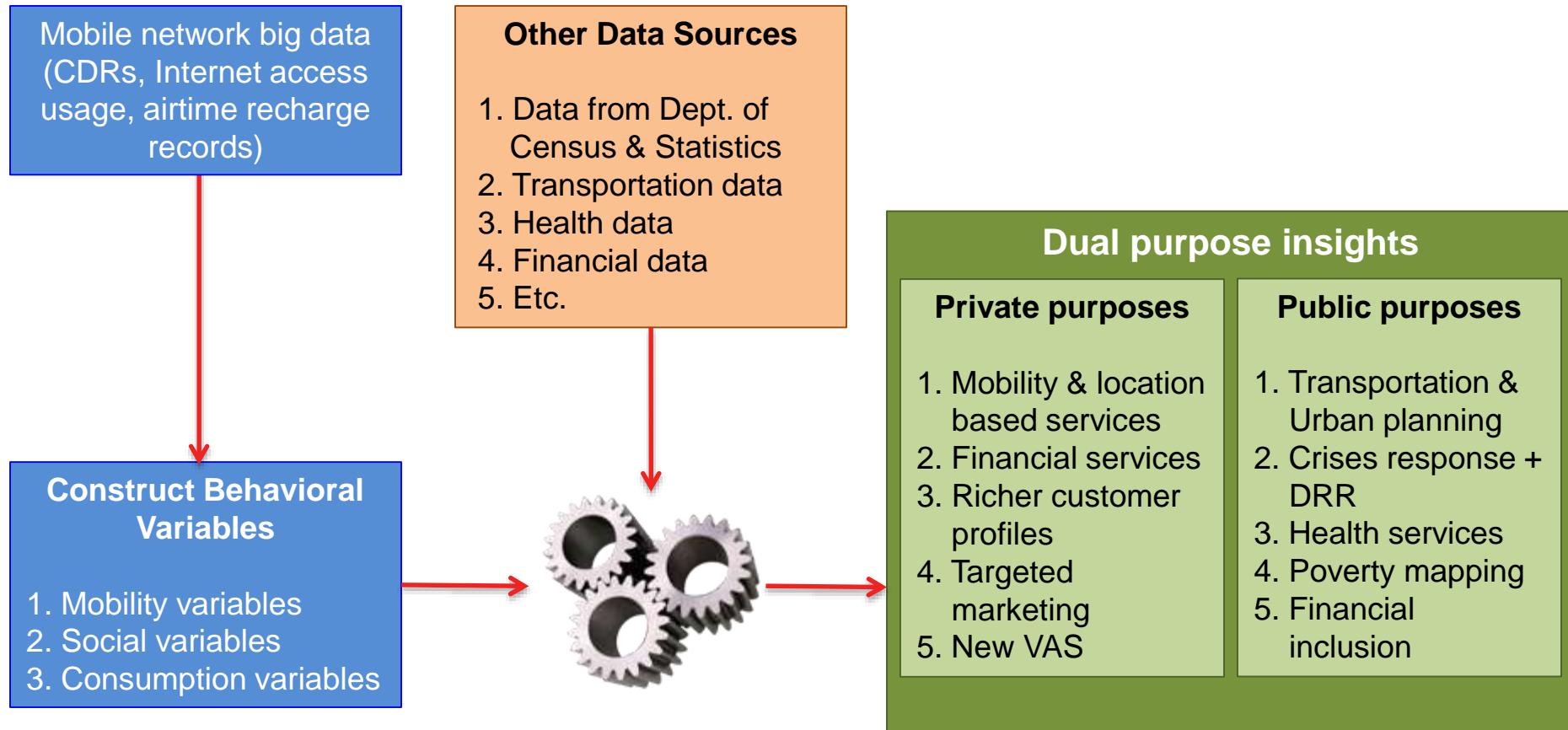


# Representivity matters: Mobile Network Big Data is most representative at this time

	Mobile SIMs/100	Internet users/100	Facebook users/100
Myanmar	50	2	12
Bangladesh	76	10	9
Pakistan	73	14	11
India	73	18	9
Sri Lanka	107	26	16
Philippines	112	40	41
Indonesia	125	17	25
Thailand	143	35	49

Source: ITU Measuring Information Society 2014; Facebook advertising portal

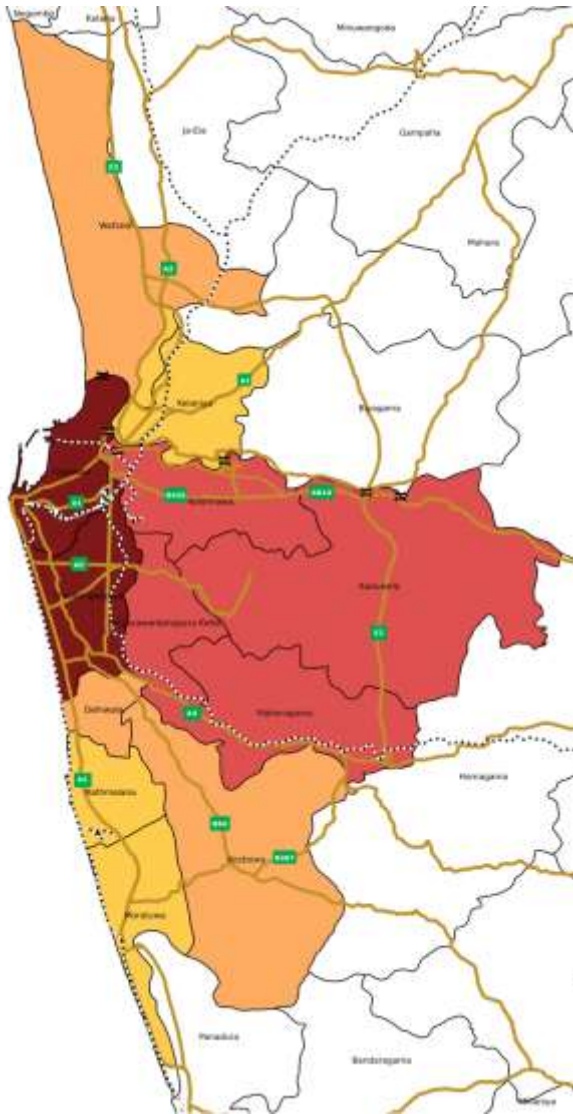
# Mobile network big data + other data → rich, timely insights that serve private **as well** as public purposes



# Current local government boundaries in Sri Lanka do not make sense

- The population of the capital, Colombo, has decreased to 550,000 as more residences get converted to business premises
- Commuters cause costs which are not reflected in city revenues
- Fragmented governance makes coherent planning for transport, flood control, solid waste management, etc. difficult

# Potential configurations of a Metropolitan Corporation



Home DSD	Population	Percentage contribution to Colombo's daytime population
Colombo City (2 DSDs)	555,031	53.1
<del>Maha</del> Maharagama	<del>195,855</del>	<del>53.7</del>
Kolonnawa	190,817	3.5
Kaduwela	252,057	3.3
Sri J'pura Kotte	107,508	2.9
<del>Dehi</del> Dehiwala	<del>1,387,884</del>	<del>62.6</del>
Kesbewa	244,062	2.5
Wattala	174,336	2.5
<del>Kota</del> Kottariya	<del>1,807,600</del>	<del>74.1</del>
Ratmalana	95,162	2.0
Moratuwa	167,160	1.8
<b>Total</b>	<b>2,204,015</b>	<b>79.9</b>