Some pertinent questions

- **What issues does the Post-2015 agenda address?**

- **Conclusions and Recommendations?**

- **Why now?**

- **Do these issues fit the Human Activity Model?**

- **What is the polity of information society?**

- **Are statistics agencies fit for purpose?**

  - **Does location have meaning in this agenda?**

  - **Does cybernetics have meaning in this agenda?**

  - **Does informatics have meaning in this agenda?**

  - **What are the challenges of the sovereign over the cyber in this agenda?**

  - **Does autonomy have meaning in this agenda?**

- **Goals Target and Indicators an issue or a red herring for measurement**

Issues that Post-2015 agenda addresses

Leave no one behind

Put sustainable development at the core

Transform economies for jobs and inclusive growth

Build peace and effective, open and accountable institutions

Forge a new global partnership

Conclusions and Recommendations

How to create institutions that are fit for purpose

- Complete the lifecycle of oversight by radically reviewing the location and authority of statistics/information systems in sovereigns

- Sovereigns should purposeful and speedily pursue institutionalising the integration of information systems and institutions, particularly: geography, informatics and statistics (e.g Brazil and Mexico)

- Transform the UN Statistics Commission by creating a UN Commission that integrates geography, statistics and informatics as a transformative catalyst for meaningful and faster delivery through science based measurement

Statistics are facts about the state. Their absence is less governance and less statehood

Why now?

More than ever and especially in Africa countries:

Are embracing measurement and evidence as the basis for policy making

Are conducting Censuses in the 2010 Round

Concluded the International Comparisons Programme

Initiated importantly the Civil Registration and Vital Statistics the single most ubiquitous data system that can revolutionarise the world

Reviewing their national strategies for development of statistics

Reviewing and amending statistical laws and legislation

Emphasising regional blocks

Embraced technology

The SDGs provide a window and possibly the last to do right without war

So we need to act boldly

Statistics are facts about the state. Their absence is less governance and less statehood

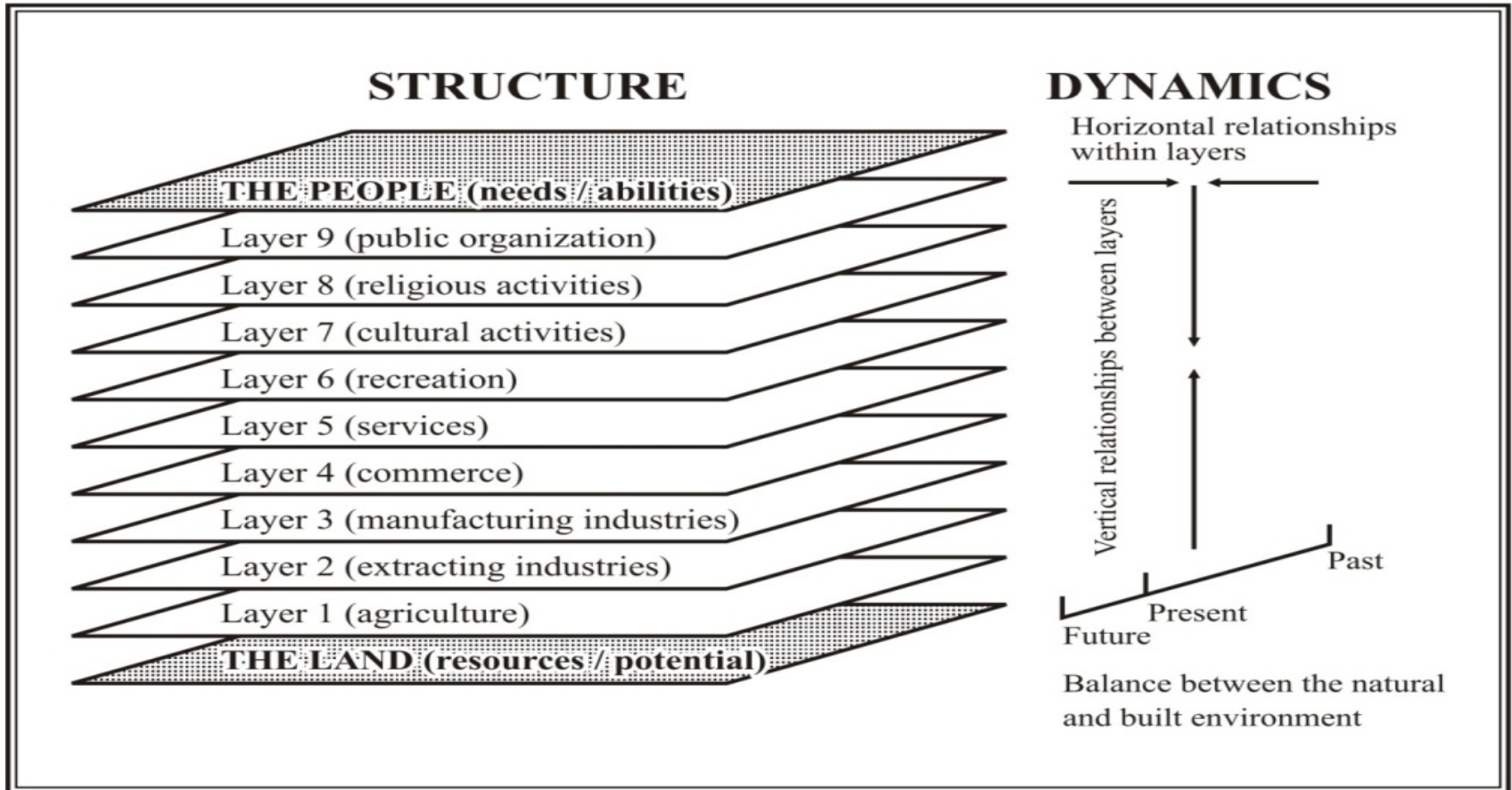# What is the polity of a knowledge or information society

Knowledge Society:
- Is a well informed Society in fact, that should become increasingly better informed
- In a complete knowledge society, all the knowledge of the world will be:
    - available to everyone
    - available everywhere
    - available simultaneously
    - available freely

Pre-conditions for leaving no one behind
- Non-technological infrastructure should first be upgraded
    - Literacy
    - Promotion of use
    - Promotion of access
    - Basic freedoms
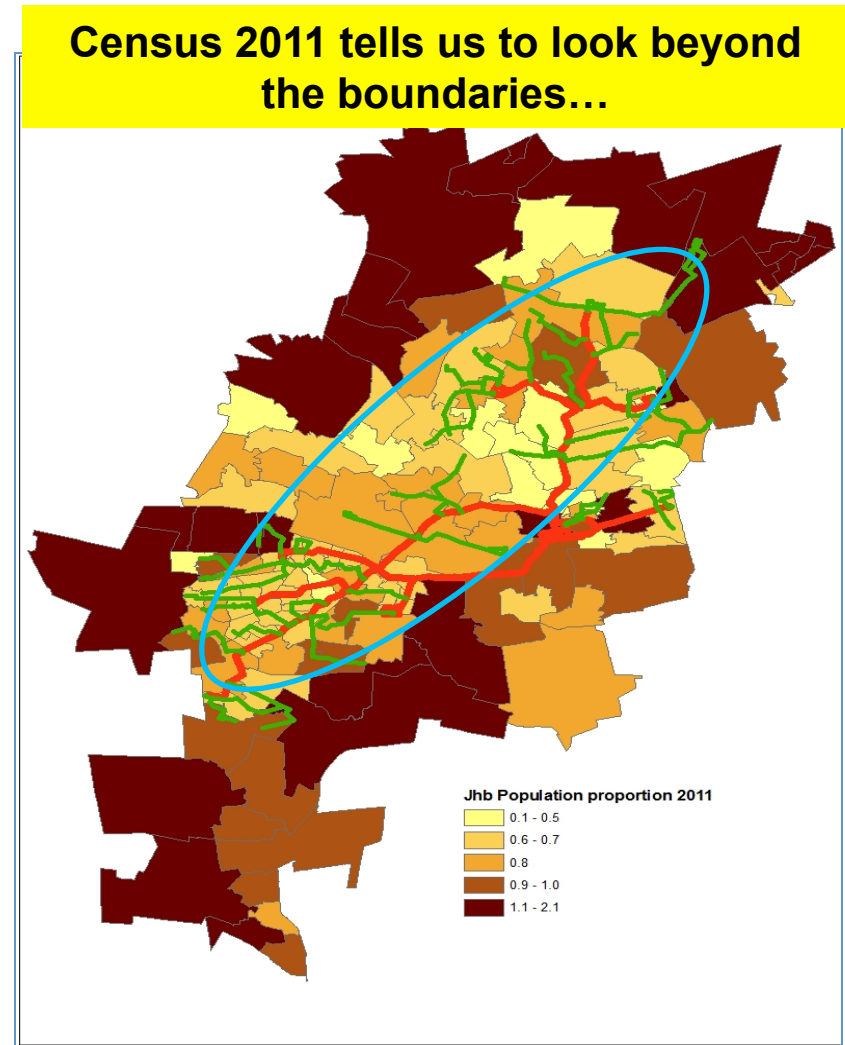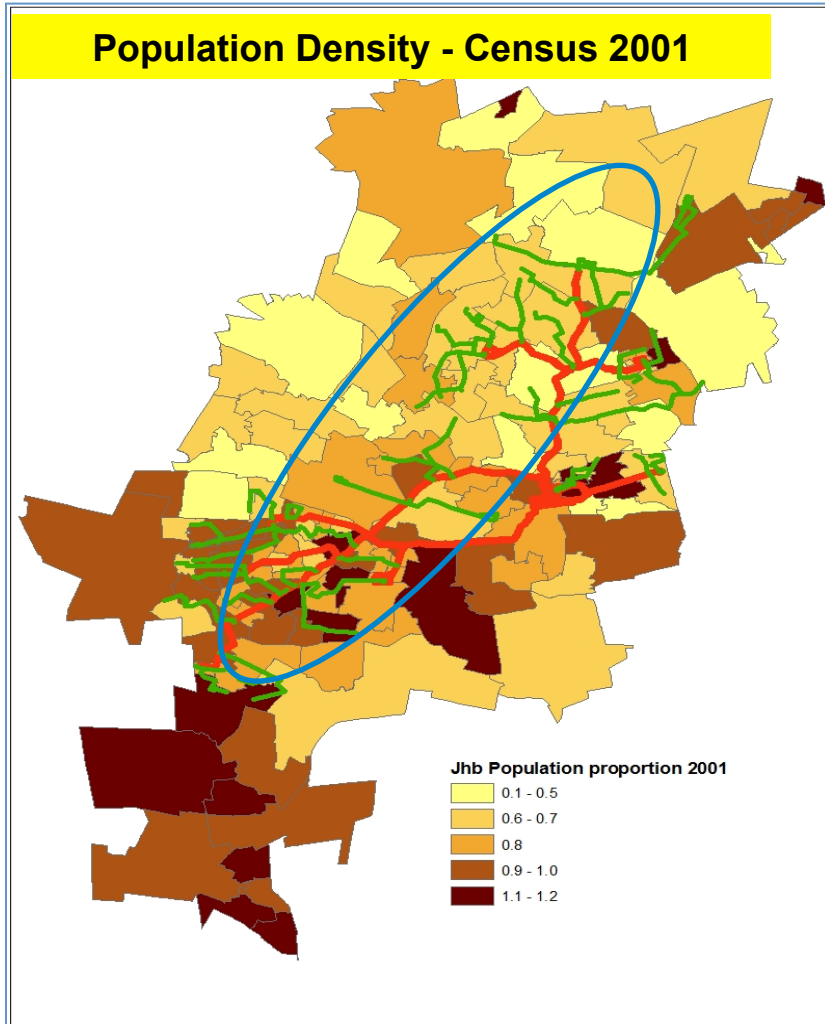
Does location have meaning in this agenda?

Figure 1.1 A human activities model

STRUCTURE

THE PEOPLE (needs / abilities)
Layer 9 (public organization)
Layer 8 (religious activities)
Layer 7 (cultural activities)
Layer 6 (recreation)
Layer 5 (services)
Layer 4 (commerce)
Layer 3 (manufacturing industries)
Layer 2 (extracting industries)
Layer 1 (agriculture)
THE LAND (resources / potential)

DYNAMICS

Horizontal relationships within layers

Vertical relationships between layers

Past

Present

Future

Balance between the natural and built environment

Source: Geyer, 2001

Spatio-Cultural and Temporal Dimensions of Measurement

Using the census data – planning of capital projects (where to invest), monitoring & evaluation of spending outcomes (*impact* on quality of life)

Population Density - Census 2001

Jhb Population proportion 2001
- 0.1 - 0.5
- 0.6 - 0.7
- 0.8
- 0.9 - 1.0
- 1.1 - 1.2

Census 2011 tells us to look beyond the boundaries…

Jhb Population proportion 2011
- 0.1 - 0.5
- 0.6 - 0.7
- 0.8
- 0.9 - 1.0
- 1.1 - 2.1

Spatio-Cultural and Temporal Dimensions of Measurement

Does location have meaning in this agenda?

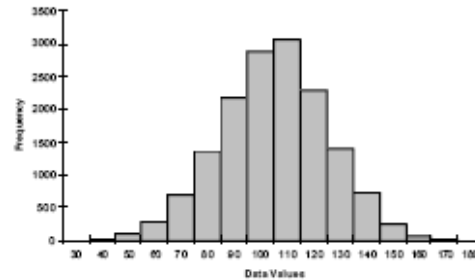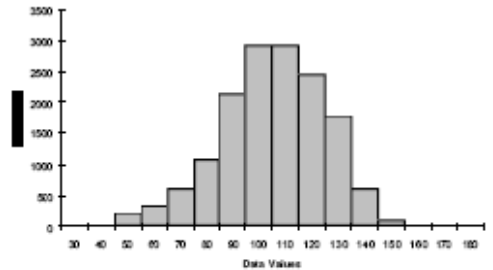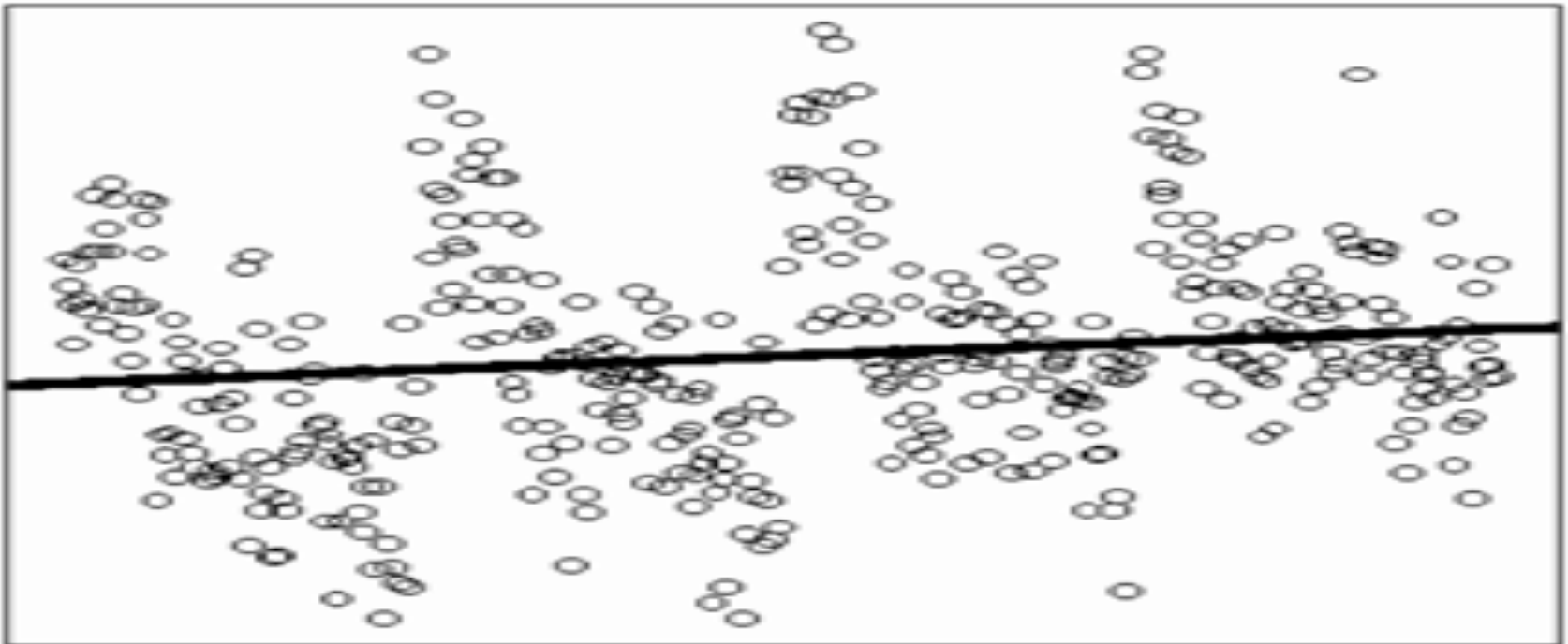|	A	B
Count	15251	15251
Average	100.00	100.00
Standard Deviation	20.00	20.00
Median	100.35	100.92
10 Percentile	73.89	73.95
90 Percentile	125.61	124.72

Figure 1.1 Data Set **A** Histogram

Figure 1.2 Data Set **B** Histogram

Spatio-Cultural and Temporal Dimensions of Measurement

Does location have meaning in this agenda?

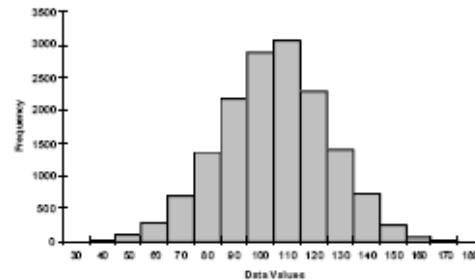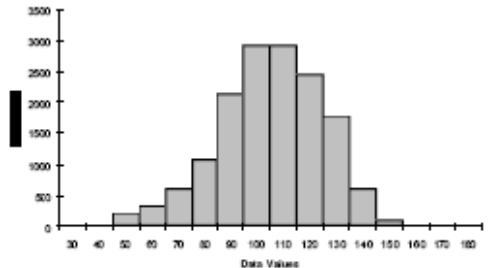|	A	B
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Figure 1.1 Data Set **A** Histogram

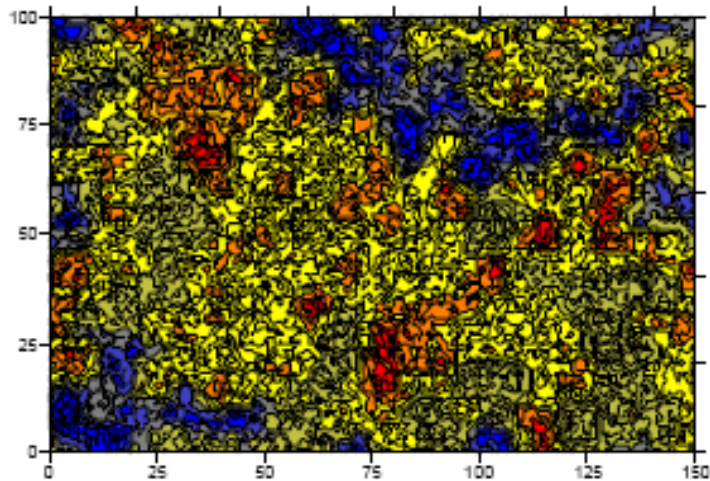Figure 1.2 Data Set **B** Histogram

Texture
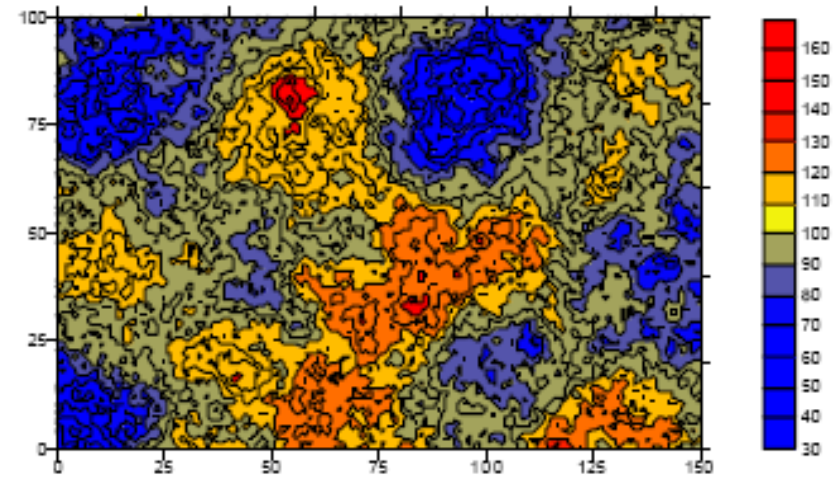

Figure 1.3 Data Set **A** Contour Plot

Figure 1.4 Data Set **B** Contour Plot

Spatio-Cultural and Temporal Dimensions of Measurement

Does location have meaning in this agenda?

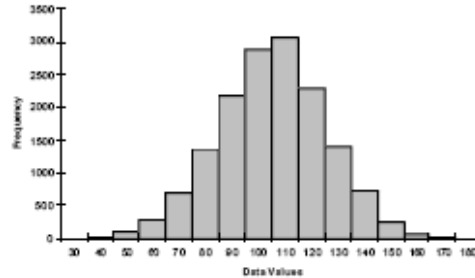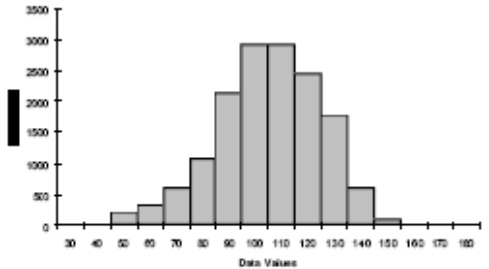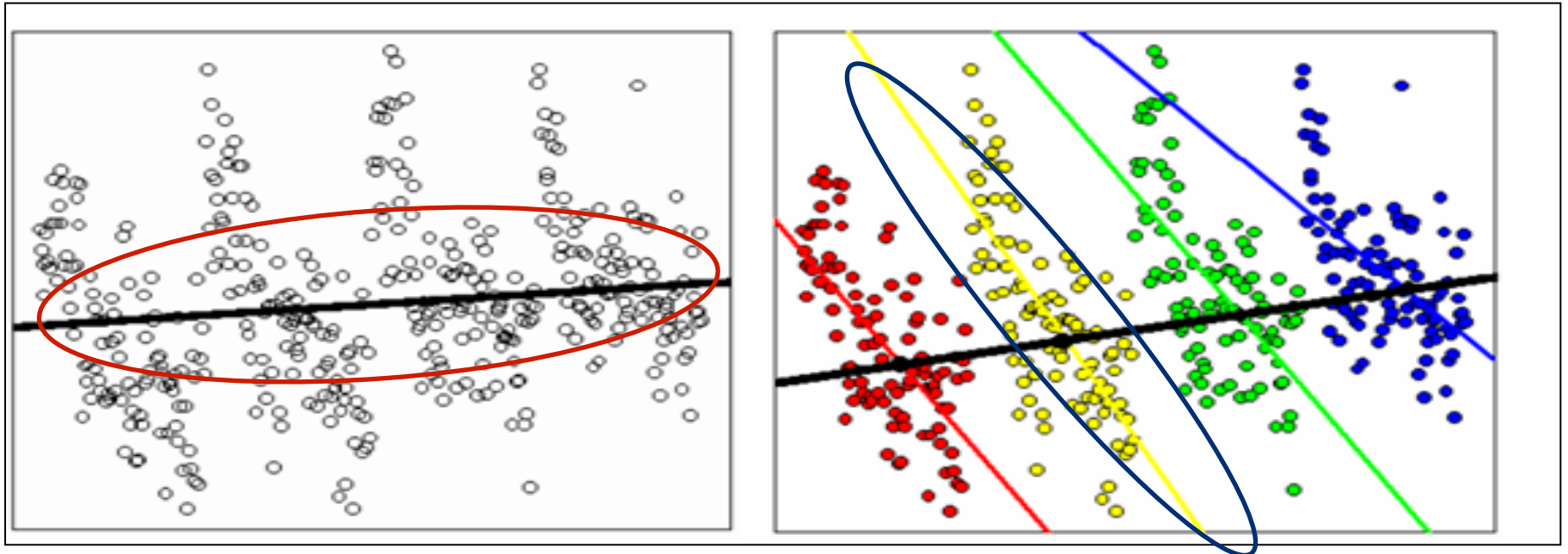|	A	B
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Figure 1.1 Data Set A Histogram

Figure 1.2 Data Set B Histogram

Texture creates Simpson/amalgamation Paradox

Spatio-Cultural and Temporal Dimensions of Measurement

Does location have meaning in this agenda?

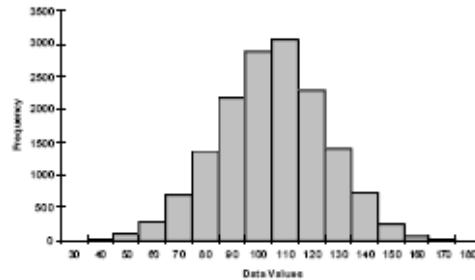|	A	B
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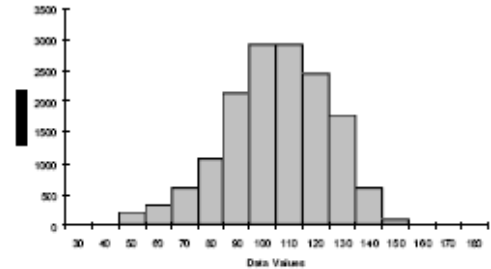
Figure 1.2 Data Set **B** Histogram
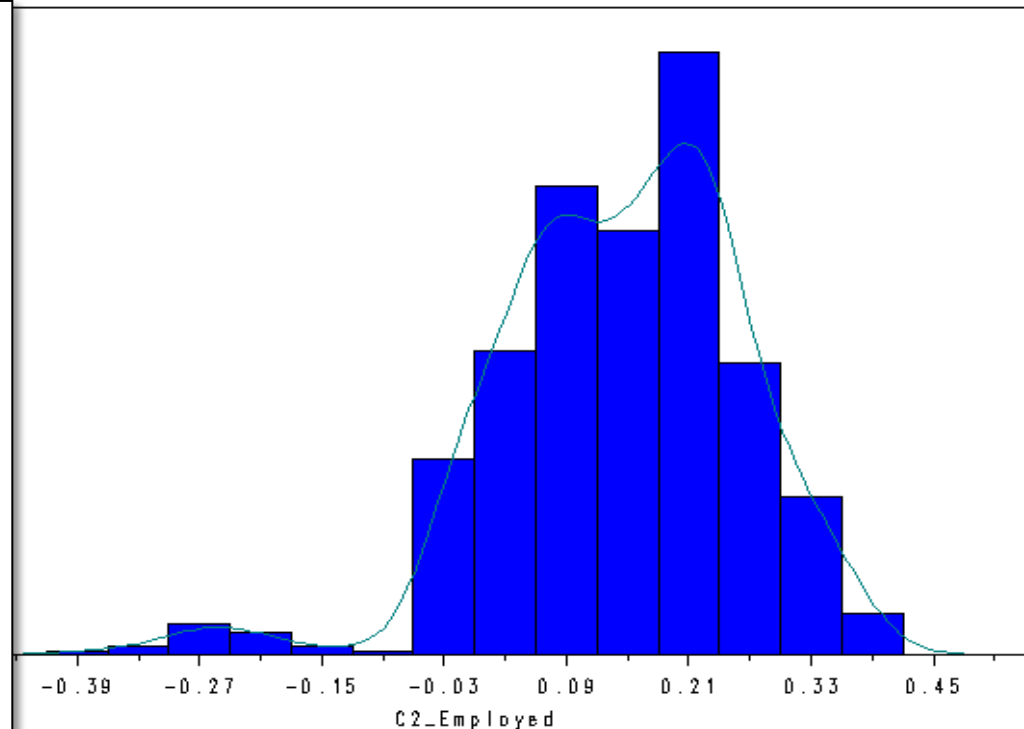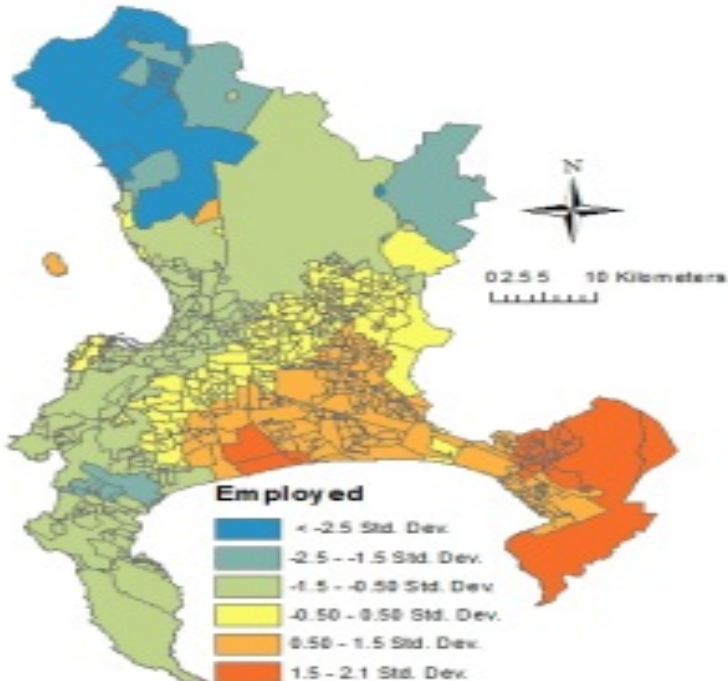
Spatio-Cultural and Temporal Dimensions of Measurement

Does cybernetics have meaning in this agenda?

A ROUGH SKETCH
OF THE MODEL
OF ANY VIABLE
SYSTEM

Rough it may be -
but do notice
that it is
mathematically
exact ...

... the RED
parts precisely
reduplicate
the whole.

FIGURE 1

Cybernetic Theory of Organizational Systems.

STAFFORD BEER.

"DIAGNOSING THE SYSTEM

FOR ORGANIZATIONS"

1985

Variety
Recursion

Source: Gilberto Calvillo Vives Former head of INEGI Pretoria South Africa August 2009

Does cybernetics have meaning in this agenda?

The Cybernetic Approach

- A systems approach that develops intelligence through feedback loops:
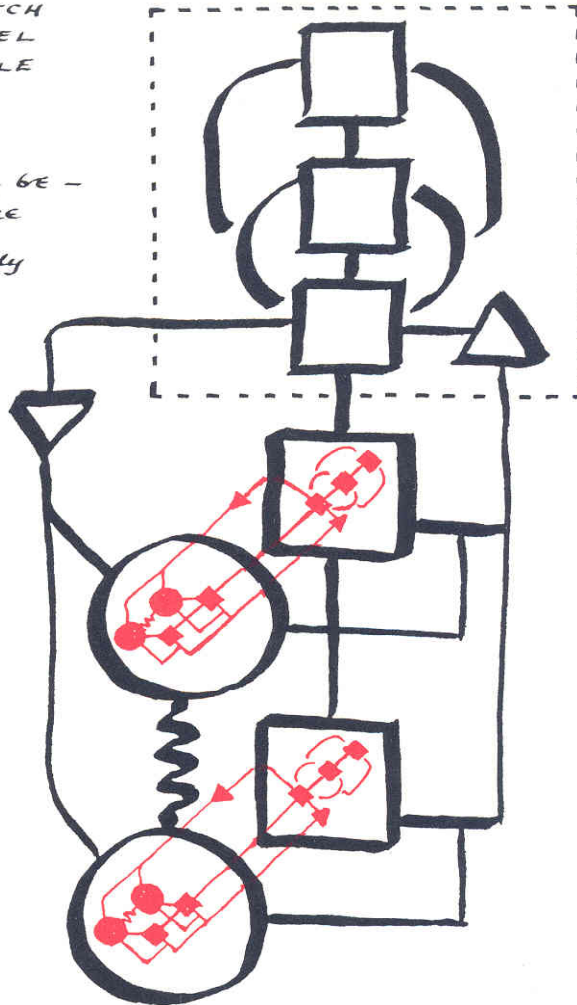
  Knowing the true north exists and the challenge is undertaking a trip to get there.

  Landing a spaceship on the moon or a self navigating missile to a target

- Variety (P) = number of states of a portion P of the system or of its environment

- The design of the system is based on the management of variety e.g., Big Data, which has variety, speed and volume

- There are variety based principles of organization:

  - Example "Only variety can absorb variety" coming from statistics, geography, informatics, culture
  - Hence the call for Data Revolution to manage variety for better outcomes

Does cybernetics have meaning in this agenda?
The Cybernetic Approach

- Recursion is a mathematical property that appears in nature and in organizations. The cybernetic approaches use it.

- Classical hierarchical structures are recursive.
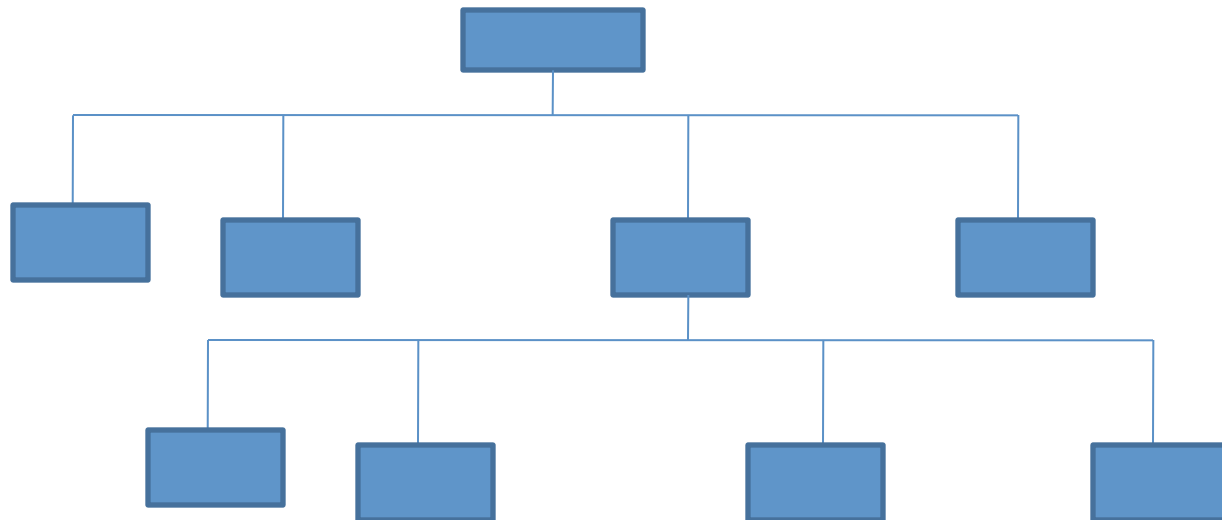
Does cybernetics have meaning in this agenda?
Complex Systems Theory

– Concepts of Self-organization

– Order as an emerging phenomenon of a complex system

– **Networks as a way of organization**

– Distributed knowledge

Does informatics have meaning in this agenda?

Properties of Knowledge
Cognitive Map of the knowledge society
as an aid to orientation: Big data and Official Statistics

Academic	Private	Commercial	Serious
Nonacademic	Public	Noncommercial	Light hearted
Technological	Historical world of experience		
Cultural & natural	Electronic world of networks		

Does informatics have meaning in this agenda?

Properties of Official Statistics
Cognitive Map of the knowledge society
For Official Statistics

Serious

Nonacademic   Public   Noncommercial

Technological

Electronic world of networks

What are the challenges of the sovereign over cyber?

- The electronic world of networks have created new forms of political, social, and economic citizenry

- A geographically bounded contiguous space is replaced by variable geometry and virtual citizenry, thus decreasing the size of the world dramatically

- Modern nomadic citizens are becoming an increasingly important sector of human geography

- King Moshoeshoe of the Basotho was asked a question by the British the extent of his territory. His answer was wherever you find a Mosotho is my territory as King of the Basotho putting paid the notion of a glocal citizen

- Information and statistical systems have to understand this complex human endeavour

Does autonomy have meaning in this agenda?

Properties of official statistics
Social Division of knowledge
from an official statistics perspective

Utilization

Research & Science

Processing

Documentation

Distribution

Social Division of knowledge
from an academia perspective

Research & Science

Processing

Documentation

Distribution

Utilization

Does autonomy have meaning in this agenda?

**Properties of Official statistics
Order Policy of Knowledge & the Need
For Separation**

Knowledge	Ideas	Theory	Knowledge institutions

Freely accessible

Disinterested handling (ideological)

Exoneration from actions

Independence

Property	Interests	Practice	Government

Goals, targets and indicators: The narrative

- There are 17 Goals, twice the number of MDGs,
- The targets are 169 four times the MDG targets
- Indicators are just over a 1000 almost five times the indicators
- Statisticians and statistics offices are barely coping with MDG measurement, How then can they cope with SDGs with so many indicators especially in developing countries
- There is however no principled objection to the importance of the SDGs especially the five outcome areas
- In fact the spectrum of goals is covered in totality albeit variably per country. So there is a blue print.
- However asking countries to measure these, will break the existing fragile systems especially the developing world
- But strengthening systems in countries and at a multilateral level will enable countries and global systems to progressively cope with the indicators
- Systems integration to increase capacity to manage complexity is a critical point of departure and can run concurrently with production
- Perhaps the interpretation of the question is wrong

Statistics are facts about the state. Their absence is less governance and less statehood

It's time to readjust our thinking in the context of a changing world

Integrating institutions, systems and content, Integrating Big Data and Official Statistics is about creating knew knowledge and is seeing and receiving light from afar