Issues on Big Data Governance – Big Data Work in Central Banks and HR and IT Issues

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A Perspective on Big Data

My own experience and environment is within a National Statistics Office (NSO), and not a Central Bank.

Nevertheless, I believe the two communities have much to learn from each other.

NSOs have a long history of handling governance of large and confidential datasets (such as census and administrative records).

The same is true with Banks in general.
The main difference: NSOs have an obligation to disseminate statistics (and also microdata) to the public to the maximum extent possible without breaking the confidentiality ‘contract / promise’.

There’s no such pressure on most Central Banks.

How did NSOs cope: developing and adopting sophisticated methodology for confidentiality protection based on ‘risk – utility framework’. 
A Perspective on Big Data

Big data is like **genetic medicine**: it is here to stay.

There are huge **promises of utility**, but also large **risks**.

However we will not give it up because of the potential utility.

The challenge is indeed how to manage the risks while maximizing the utility!
1 – Does the existing Data Governance in your CB/ institution cope with the Big Data needs?

No, if we consider some big data sources which are being created.

We are ‘cloud averse’ – few, if any, NSOs operate with ‘cloud computing’.

Reasons are simple: disclosure risks are seen as too high.
1 – Does the existing Data Governance in your CB/ institution cope with the Big Data needs?

13/03/2017 – Reuters

“Canadian statistics agency hacked, security flaw patched – officials said”

http://www.reuters.com/article/canada-cyber-idUSL2N1GQ1KH

Attack also affected Canada Revenue Agency!

Most NSOs will operate ‘secluded’ data environments for holding their data.
1 – Does the existing Data Governance in your CB/ institution cope with the Big Data needs?

Some big data sources are `public` and `cloud based`.

Thus we will need to use cloud computing at some stage.

For the confidential big data sources, some solution is needed that mitigates the risks while preserving utility ➔ methodological research!
2 – Which are the challenges posed by Big Data in terms of organization, human and IT resources, and data management responsibilities?

Need to mobilize skills which may not be currently available `in house`: IT, methodology, legal, etc.

Most likely need to upgrade IT resources & consider `cloud computing`.

But essential also to bring in the methodological expertise to operate the risk – utility approach.
3 – Will the use of Big Data encourage cooperation/partnerships between and within your institutions?

Yes! It seems unlikely that any organization can ‘do it alone’.

We will be forced to partner / cooperate if we are to fully benefit from the new opportunities created by the Data Revolution.

Many opportunities exist for us to learn from each other and cooperate.
4 – Is Big Data simply a new data source or does it call for changing the business model of your institutions?

Not simple to answer – depends on the NSO or Central Bank current position.

ISI organized a side event to the 48th Session off the UNSC on the 8th March.

4 – Is Big Data simply a new data source or does it call for changing the business model of your institutions?

Netherlands CBS reported having created a ‘Center for big data statistics’ jointly with Korean NSO.
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Netherlands CBS also reported having created a ‘Data lake’, where Big Data can be sourced and used.
4 – Is Big Data simply a new data source or does it call for changing the business model of your institutions?

Slovenian NSO called for ‘continuous adaptation’. Mexican NSO relies on coordination role.

**SNIEG MODEL**

- **State Units**
  - Data users
  - Data producers
  - Data suppliers

Their inputs allow:
- Data generation and prioritization
- Quality assurance
- Enforce data sharing

State Units interaction takes place through executive & technical committees and is regulated by INEGI.
Summarizing

Leadership.

Adaptation.

Cooperation.

Innovation.

Persistence.
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