


Development of Framework to Assess National Spatial Data Infrastructures

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Context

- Various NSDI activities and implementations across the world
- Much effort and money invested
- Need to better understand and assess those efforts in systematic and holistic way
- NSDI practitioners need a tool to evaluate their activities

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Objective

- To Develop a Framework to Assess National Spatial Data Infrastructures

Sub-objectives:

- Defining NSDI
- Exploring and identifying key variables
- Developing framework
- Assessing NSDIs
- Developing critical factors for success and failure

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Activities

- Literature study
- Collection of existing NSDI assessment activities
- Identification of NSDI variables
- Exploring evaluation/assessment theory and methods
- Exploring NSDI as Complex Adaptive System (defining NSDI)
- Developing Assessment Framework

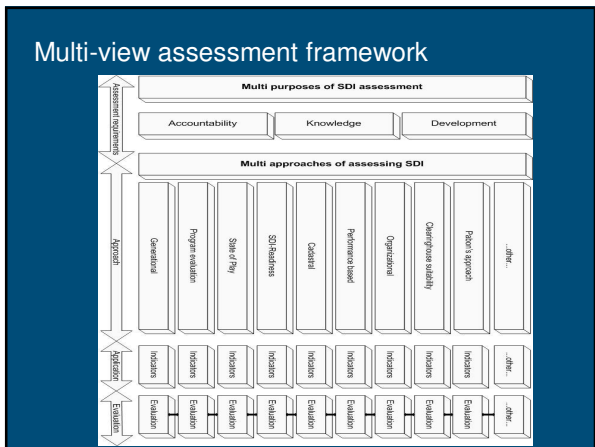
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Results

- CAS theory applicable to describe (N)SDI;
- New insight into complex nature of (N)SDI;
- Implications for NSDI assessment
- Multi-view framework
- Practical assessment framework (in progress)
- Multi-sourced data integrability assessment within SDI framework (in progress)

- One article published in international journal
- 2 conference articles (GSDI 9 - 2006, EC&GIS Workshop - 2007)
- 2 Workshops on "Exploring and assessing SDI"
- Thesis "NSDI as CAS"
- 3 months visit to Centre for Spatial Data Infrastructures and Land Administration at the University of Melbourne (plan to publish 2 peer-reviewed articles and 1 conference article)

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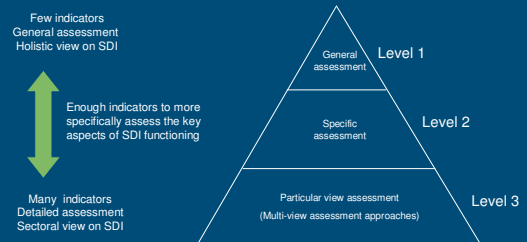


Multi-view assessment framework

Some characteristics:

- covers three general assessment purposes (Chelimsky, 1997): developmental, knowledge and accountability.
- acknowledges the complex and multi-faceted character of SDI (different views on SDI)
- reduces the potential biases of assessment outcomes

Practical framework to assess National SDIs



Practical framework to assess NSDI

- The aim of this framework is serve all potential users with their different needs and expectations from SDI assessment
- Propose measurable indicators for each assessment level

Framework datasets integrability

- To assess the success level of a number of NSDI's provision of integrable national framework datasets
- Use of an open tool initially designed to identify data integration inconsistencies
- Case studies: Netherlands, Australia, Malaysia, etc.

Technical issues	Non-technical issues
<ul style="list-style-type: none"> • lack of standards and specifications • lack of uniform discipline • mismatch of geographical extent • inconsistency in spatial accuracy • inconsistency in spatial accuracy • inconsistency in spatial reference system • diverse scales • diverse formats • inconsistency in conceptual and logical data model • lack of completeness • genericity inconsistency • lack of metadata • currency • logical inconsistency 	<ul style="list-style-type: none"> • Institutional issues • Policy issues • Legal issues • Social issues



Other and future activities

- Currently applying the Multi-view assessment framework (4 views at once) in a number of countries
- Planning to submit (at least) three articles to international journals
- Planning to concentrate on SDI assessment specifically from the user's perspective.