

Assessing SDI Initiatives: A Ten Year Retrospective

Harlan Onsrud
Interim Executive Director, GSDI Association
Department of Spatial Information Science and Engineering
University of Maine, USA
Wageningen, The Netherlands 25 May 2007

1997 - GSDI 2, Chapel Hill

Survey proposed on status of SDIs in nations across the globe

1998 - SDI managers and heads of mapping agencies asked to respond to a standard questionnaire. Responses posted to web unedited

(<http://www.spatial.maine.edu/~onsrud/GSDI.htm>)

1998 - GSDI 3, Canberra

Initial findings reported

Objectives of the Global NSDI Survey (1997)

- **discover and track status of NSDI activities across globe**

QUESTIONNAIRE

- 23 open ended questions

Policy Issues - NSDI leadership, availability of spatial digital data, mechanics of access, legal and economic frameworks for access, data collection coordination, pricing, commercial involvement, public domain data sets, public good aspects of NSDI, and privacy protection

Operational Issues - legal authority for the NSDI, funding, inclusiveness, components of the NSDI, support of research, linkage to general information technology standards, global spatial datasets, ties to global or regional infrastructure initiatives, long term visions and strategic plans, grand challenges

Background Issues - respondent contact information, resources for finding further information about the specific NSDI

SURVEY OF NATIONAL SPATIAL DATA INFRASTRUCTURE ACTIVITIES AROUND THE WORLD

(Canberra, 1998)

- APPROXIMATELY 100 NATIONS CONTACTED
- RESPONSES FROM 24 NATIONS AND 3 MULTI-NATION REGIONS

Questionnaire still at

<http://www.spatial.maine.edu/~onsrud/gsd/questionnaire.htm>

E-mail, fax and letter responses

4. LEADERSHIP: Which agency or organization is coordinating or leading national spatial data infrastructure (NSDI) development efforts in your nation?

1. single agency, typically mapping agency (14)
2. interagency coordinating committee (4)
3. association with strong government representation (3)
4. lead split among multiple agencies (1)
5. non-government working group or association (1)

Since 1998:

- several continued solicitations of responses to same survey (54 national responses and 6 multi-nation initiative responses)
- numerous theory focused national and sub national SDI surveys and case studies with differing objectives

Personal Suggestions for 2007 GSDI Web-based Survey

**Part A. Basic Information Gathering on
Status of SDI Programs**

**Part B. Evaluating the Performance and
Impacts of SDIs**

Part A. Basic Information Gathering on Status of SDI Programs (GSDI primary interest)

Assumptions:

1. objective: who, what, when, where, why, how
2. web completion with e-mail option
3. questions: agency reviewed/agency completion/agency maintenance
4. auto publication of summary statistics on the web
5. auto publication of individual responses on the web

Part B. Evaluating the Performance and Impacts of SDIs (primary interest of scholars)

Assumptions:

1. Suggested research objectives/questions:

- evaluate performance of SDIs
- evaluate impacts of SDIs
- describe behavior of SDIs ... complex adaptive systems approach?

What are the questions for respondents (indicators) allowing research questions to be addressed?

Is web survey alone sufficient?

2. assume web completion of questionnaire
3. questionnaire items: scholar prepared /agency completion/scholar evaluation
4. auto publication of summary statistics on the web
5. auto feed of responses to database with restricted download of entire database to those researchers having institutional review board approval from their universities (typically anonymity protected unless needed ...)

6. web length and format will follow
recommendations for web based scholarly
surveys to greatest extent possible
(http://www.firstmonday.org/issues/issue7_12/gunn/)

Research Objective 1: Evaluate Performance of SDIs

- Select a theory-based approach for getting at performance (cost-benefit analysis - Longhorn, program evaluation- Cromptoets, performance-based management - Giff, SDI-readiness-Delgado, organizational - vanLoenen, eGovernance evaluation-Georgiadou/Lance, performance in context of budget-Lance, state of play approach - Vandenbroucke, complex adaptive system analysis - data mining of the responses to the others)
- Select key indicators using each approach
- What are questionnaire items that get at those key indicators
- Which questions are the same regardless of the theoretical approach used?

Research Objective 2: Evaluate Impacts of SDIs

- Select a theory-based approach for getting at performance (cost-benefit analysis - Longhorn, program evaluation- Cromptoets, performance-based management - Giff, SDI-readiness-Delgado, organizational - vanLoenen, eGovernance evaluation-, performance in context of budget-Lance, state of play approach - Vandenbroucke, complex adaptive system analysis - data mining of the responses to the others)
- Select key indicators using each approach
- What are questionnaire items that get at those key indicators
- Which questions are the same regardless of the theoretical approach used?

Research Objective 3: Describe Behavior of SDIs

- Select a theory-based approach for getting at performance (complex adaptive system analysis - data mining of the responses to the others)
- Select key indicators using each approach
- What are questionnaire items that get at those key indicators
- Which questions are the same regardless of the theoretical approach used?