

# Theory-based SDI Research & Empirical Cases from the North and South

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June 15, 2009



INTERNATIONAL INSTITUTE FOR GEO-INFORMATION SCIENCE AND EARTH OBSERVATION



## Panelists

- Prof. Zorica Nedovic-Budic (UCD)
- Prof. Isa Baud (UvA)
- Dr. Joep Crompvoets (KUL)
- Prof. Francis Harvey (UoM)
- Dr. Gianluca Miscione (ITC)



## Goal and Focus

### Goal:

develop the theory-based research capacity of the participants, so that they can better understand and explain why local/regional SDIs succeed (or fail) in various circumstances around the globe, and how they can be scaled up and institutionalised.

### Focus:

link between theory, conceptual frameworks and methods as it affects the scientific rigor and validity of research results;

methods: qualitative, quantitative and mixed research approaches and tools.



## Design research challenge

how to design both the technology as well as the policies for the purpose of fostering sharing of geospatial data.

### key test = pragmatic

finding out 'what works' in specific circumstances and given specific design requirements



## Explanatory research challenge

to systematically **analyze** the link between design and performance

**key test = explanatory power:**

whether theory provides an **understanding** of how SDIs achieve or fail to achieve specific goals.



## Rhetorical challenge

how a statement of political intention towards some part of a target audience, initiates and guides action.

**Key test = Persuasiveness**

how it provides a shared meaning

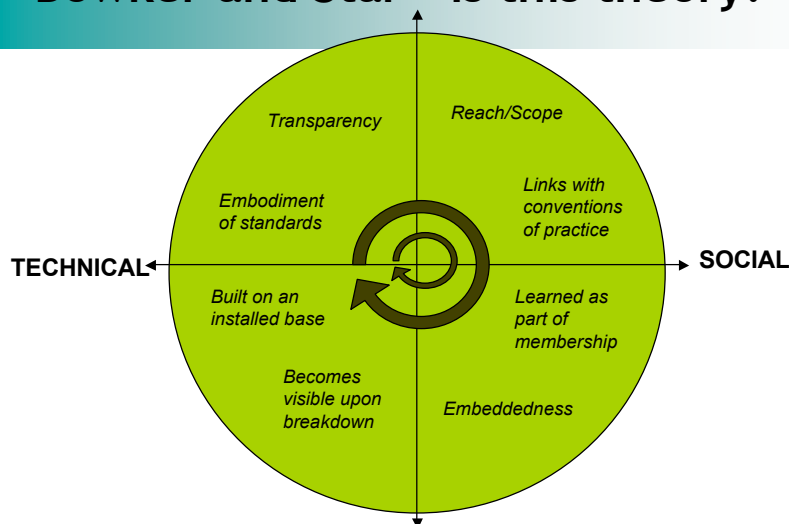


## National Research Council - is this theory?

- NRC. 1993. Toward a Coordinated Spatial Data Infrastructure for the Nation. Washington, D.C.: National Academy Press. p. 192
- NRC. 1994. Promoting the National Spatial Data Infrastructure Through Partnerships. Washington, D.C.: National Academy Press. p.128
- NRC. 2001. National Spatial Data Infrastructure Partnership Programs: Rethinking the Focus. Washington, D.C.: National Academy Press. p. 94
- NRC. 2002. Down to Earth: Geographical Information for Sustainable Development in Africa, Washington, D.C.: National Academies Press. p. 172
- NRC. 2007. National Land Parcel Data: A vision for the future. Washington, D.C.: National Academy Press. p. 158



## Bowker and Star - Is this theory?



**Boundaries between social and technical work can often be shifted in *either* direction**

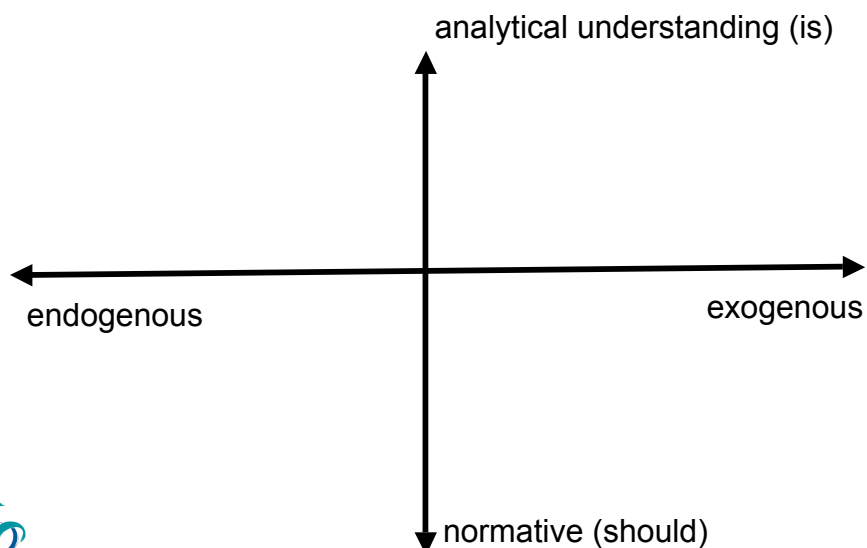


## PhD workshop - June 14, 2009, TUD

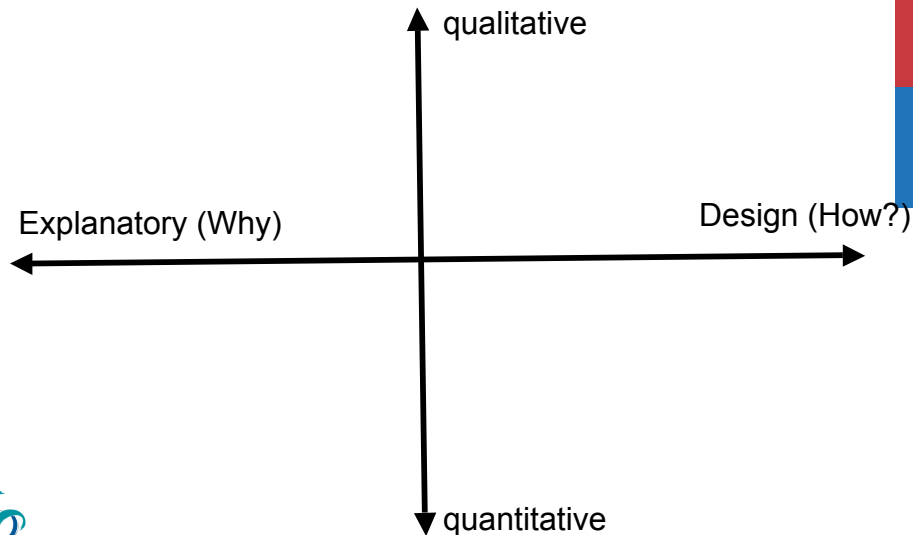
- Lucas Grus (*PhD student, U of Wageningen*)
- Frederika Welle Donker (*PhD student, TU Delft*)
- Walter de Vries (*PhD student, EU Rotterdam*)
- Dev Raj Paudyal (*PhD student, U of Southern Queensland*)
- Matthias Van Hoogenbemt (*PhD student, K.U.Leuven*)
- Tara van Dijk (*PhD student, U van Amsterdam*)
- Danny Vandenbroucke (*PhD student, KU Leuven*)
- Elisabetta Genovese (*PostDoc, U of Laval*)
- Prasanna Kolte (*PhD student, ITC*)
- Christine Richter (*PhD student, ITC*)
- Era Dessers (*PhD Student, KU Leuven*)
- Glenn Vancauwenberghe (*PhD student, KU Leuven*)
- Boris Mericksay (*PhD student, U of Laval*)
- Henk Koerten (*PhD student, TU Delft*)
- Ara Toomanian (*PhD student, U of Lund*)



## Research Map 1



## Research Map 2



## Group exercise - Prof. Harvey

**TASK:** Propose how would you best achieve one of the following objectives considering the questions, participants, methods, theories

**OBJECTIVE 1** - Assess the multi-level coordination potential across, for example, EU countries.

Questions:

- Which SDI development and coordination approaches are effectively used in, for example, different EU member countries?
- What are the commonalities and differences in those approaches?

**OBJECTIVE 2** - Understand the use of spatial data in local decision-making.

Questions:

- Does spatial data provided through an SDI make a difference?
- Does local context and participation culture make a difference?
- Does the level of socio-economic development make a difference?