Openness & Legibility: Mapping Cases from India

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NWO-Wotro Integrated Research Program:
“Using spatial information infrastructure in urban governance networks: reducing urban deprivations in Indian cities?”
Aim of presentation

• To conceptualize differences between non-GIS-based and GIS-based mapping interventions in urban governance
• To situate various geoICT-based interventions into tension between legibility and openness
• Point out possible future directions for geoICT-based interventions to inhabit the tension between openness and legibility in urban governance
Situating our research between...

**Point of departure:** E-Government through GeoICT (e.g. SDI since 1992)

Empirical focus in *Indian cities:*

*Slum mapping* and *GIS property mapping*

**And a new paradigm:** E-governance through Open Government Data (OGD) since 2009
## Legibility & Openness

<table>
<thead>
<tr>
<th>The geospatial response to …</th>
<th>Key Concept</th>
<th>Key Concept implies …</th>
<th>Aim</th>
<th>Extreme forms and degenerate effects</th>
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<tr>
<td>NSDI 1992</td>
<td>Electronic Government via (geo)ICT</td>
<td><strong>LEGIBILITY</strong> for the state of the territory and society</td>
<td>Permanence</td>
<td>Authoritarian states</td>
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<td>Information flows leading a life of their own</td>
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Empirical Cases

**GIS Property Mapping:** state intervention to develop database of properties and owners as part of implementation of 74th Amendment decentralization efforts (for instance: increase municipal tax base).

**Slum Mapping:** state intervention to identify “beneficiaries” of various programs that target urban poverty, especially through housing and physical infrastructure provision.
Empirical Cases

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| GIS Property Database       | Electronic Governance via (geo)ICT | **LEGIBILITY** for the state of the territory and society | Permanence  
Disambiguation  
Standardization  
Comprehensiveness  
Simplification | Governability | Authoritarian states  
Deletions & transformation of reality  
Information flows leading a life of their own |
| Slum Mapping                | Electronic Governance via (geo)ICT | **OPENNESS** for the citizen of state information and to decision making arenas | Transparency  
Participation | Public Accountability | State Paralysis  
Blame games  
Decrease in trust and efficiency  
Undermining relationship between transparency and participation |
Legibility of people/territory for the state

Openness of government for people

High Legibility:
- Permanence
- Disambiguation
- Standardization
- Comprehensiveness
- Simplification

GIS PROPERTY MAPPING
GIS Property Mapping: too much legibility, not enough openness?

Deleting urban spaces & nobody notices until it is permanent.

Example from Pune, 25 May 2011

New Delhi, 23 Dec 2010
High Openness
State-citizen co-construction and exchange of information in face-to-face interaction in public meetings, local offices of the bureaucracy, and personal relations between residents, politicians and bureaucrats.

SLUM MAPPING

GIS PROPERTY MAPPING
Slum Mapping: too much openness, not enough legibility?

Lack of efficiency
List fraud & strong-arm politics

Point 1: contractor's/builder's
Point 2: where we draw the paper version of this map & also approximate place (outside) where meetings with KDMC and contractor took place about the scheme
4: public toilet for transition camp

Not to scale, schematic & approximate drawing from field only
Drawn together with transition camp resident & translator on 20 April 2012
Low Openness of government for people

Low Legibility of people/territory for the state

High Slovene

EVICCTIONS - low openness and low legibility?

Image source: http://www.guardian.co.uk/world/gallery/2012/may/08/nepal-squatters-evicted-kathmandu/?picture=389805695&index=1

GIS PROPERTY MAPPING

SLUM MAPPING
Future Directions: Inhabiting the tension between openness and legibility
Legibility of people/territory for the state

Openness of government for people

Low

High

SLUM MAPPING

Government Guidelines

“Counter – Governmentality”

GIS PROPERTY MAPPING

EVICTIONS

Low

High

Advocacy

Legibility of people/territory for the state

Low

High
Legibility of people/territory for the state

Openness of government for people

Inhabiting the tension?
Example: The Karnataka Disaster Monitoring Cell

• Timing is important: for initiation & continuation
• Farmer feedback via mobile phone
• Combined with GIS data integration and analysis in state-level autonomous agency
• Reports and maps empower both farmer and lower level bureaucrats (vis-a-vis politicians) at village level
Considerations for geoICT interventions to inhabit the tension between openness and legibility

• Timing & type of problem
• Combinations, versatility of (new) technologies: PGIS, Web 2.0, combinations
• Re-consider simplistic dichotomies, such as state versus citizen or municipal versus national level

>>> what opportunities exist in the blurred spaces?
Thank you.
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| **GIS Property Mapping**    | **LEGIBILITY** by outsiders of the city (state level agencies and private entities) of city residents and lower levels of municipal administration | **Disambiguate:** property boundaries and owner identity  
**Standardize:** survey method and data format for all cities across state  
**Comprehensify:** capture each and every property within municipal boundary  
**Simplify:** ignore roadside shops, pavement dwellers, flexible rental arrangements  
**Make permanent:** final geo-database of properties (one-time) | Governability: state’s ability to supervise, assess, judge, calculate the conduct, qualities and merits of bill collectors, municipal administrators, urban residents in order to increase tax revenue and monitor progress, for strategic planning at state level | **Low openness**  
- In process Deletion of access to property, land claims  
- Ignoring flexible settings that provide people with livelihoods |
| **Slum Mapping**            | **OPENNESS** by the “slum” resident to information and decision making arena | Transparency + Participation: co-construction of slum lists and maps is ongoing, dispersed, through face-to-face interaction in public meetings, local offices of the bureaucracy, and personal relations between residents, politicians and bureaucrats | Negotiate the criteria for implementation of nationally driven urban poverty programs and local needs and realities | **Low legibility:**  
- Strong arm politics, fraud, and patronage include those not eligible at the cost of those legible to benefit  
- Difficult for “third party” objectivity to balance the above  
- Delays in implementation due to land ownership and claims ambiguity and negative ripple effects for those already implicated by the program |