THE MATERIALITY OF DATA TRANSPARENCY AND THE (RE)CONFIGURATION OF ENVIRONMENTAL ACTIVISM IN THE BRAZILIAN AMAZON

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Introduction

- Transparency
  - … refers to "the degree to which information is available to outsiders that enables them to have informed voice in decision and/or assess the decisions made by insiders" (Florini 2007, p.5).
- Open data & open government
  - … are associated with claims on increased transparency and accountability
- Open publics & environmental activism
  - A new generation of technically-skilled activists has emerged that have become 'essential change agents in urban environments' (Schrock 2016, p.2)
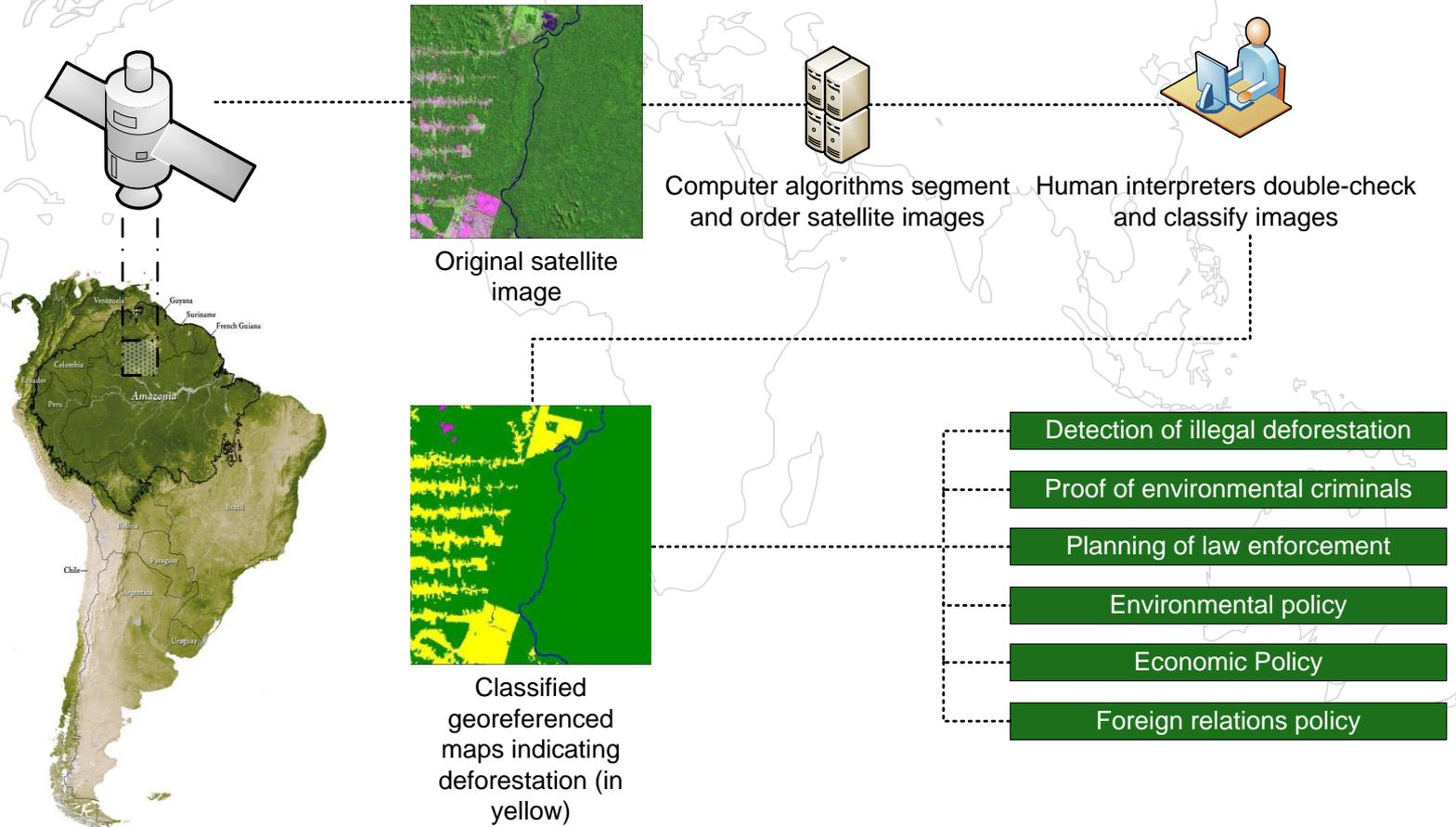
Theoretical framework: Data & materiality

- Data do not just exist as such but

  - … data have materiality (e.g. access, format, aggregation level) and are embedded in wider sociomaterial assemblages.

  - … meaning and form of open data are the outcome of a series of complex and conflictual practices (Schrock 2016).

  - … through the work of experts from non-governmental organization, government data may become evidence of misconduct and provide the ground for public action.

  - … hence increasing importance of open data is transforming both social activism and policy-making.
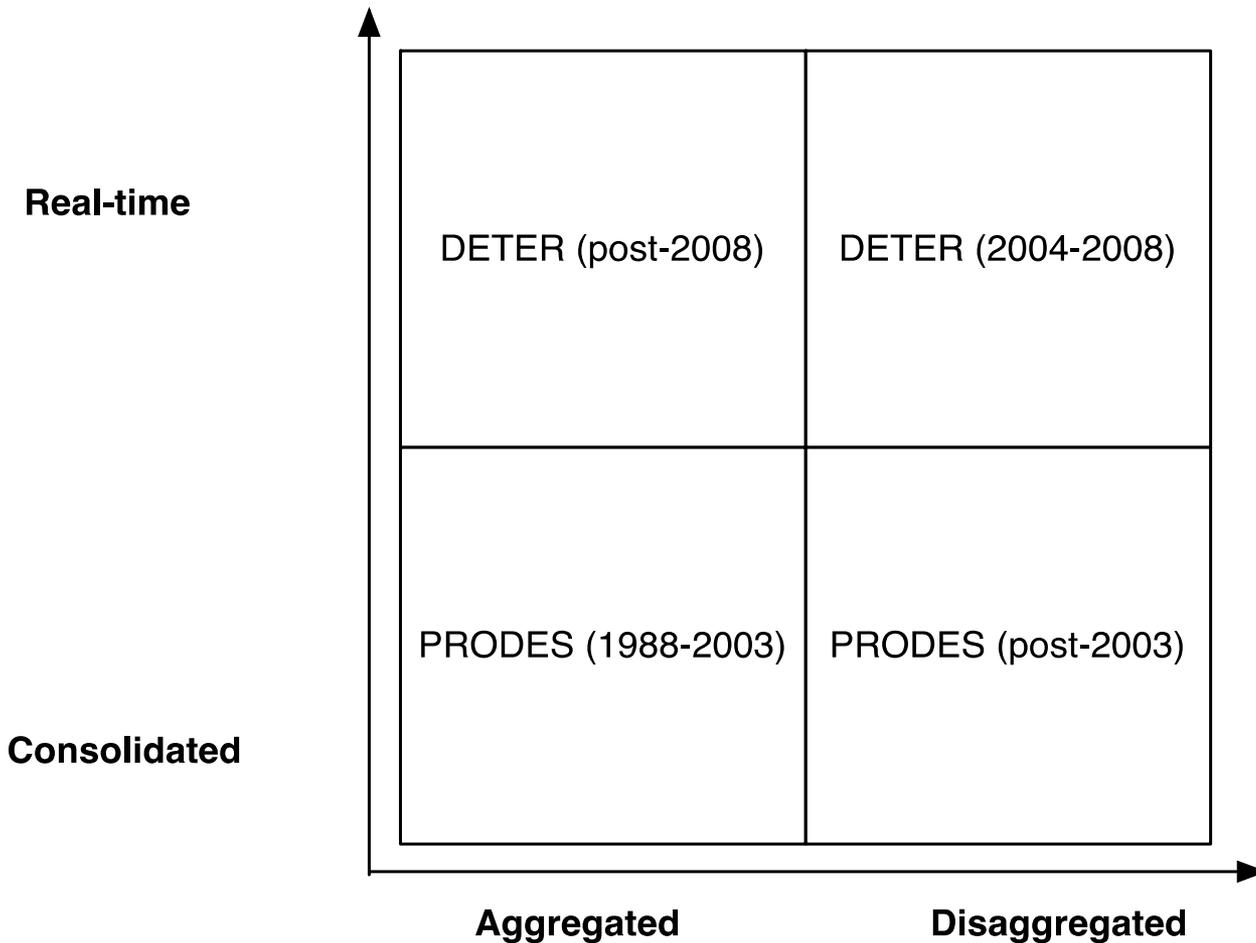
Theoretical framework: Data & materiality (cont.)

- Intra-action (Barad 2007)

  - … 'to work in thinking about the ways in which particular entanglements matter to the production of subjects and objects' (p.232)

  - … subjects and objects do not pre-exist their 'intra-action' as independent entities but are produced through performing associations

- Configuration (Suchman 2012)

  - … draws attention to the 'imaginaries' and 'materialities' that technologies 'join together' (p.48).

PRODES: data every year, aggregated => disaggregated

DETER: data every 15 days, disaggregated => aggregated

Original satellite image

Computer algorithms segment and order satellite images

Human interpreters double-check and classify images

Classified georeferenced maps indicating deforestation (in yellow)

Detection of illegal deforestation

Proof of environmental criminals

Planning of law enforcement

Environmental policy

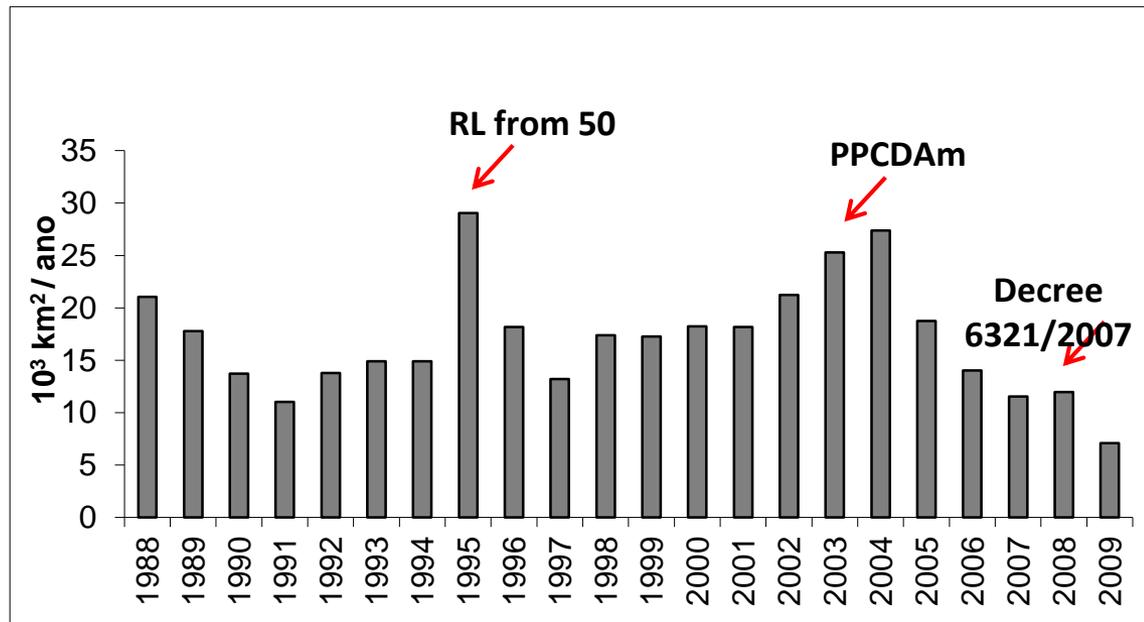Economic Policy

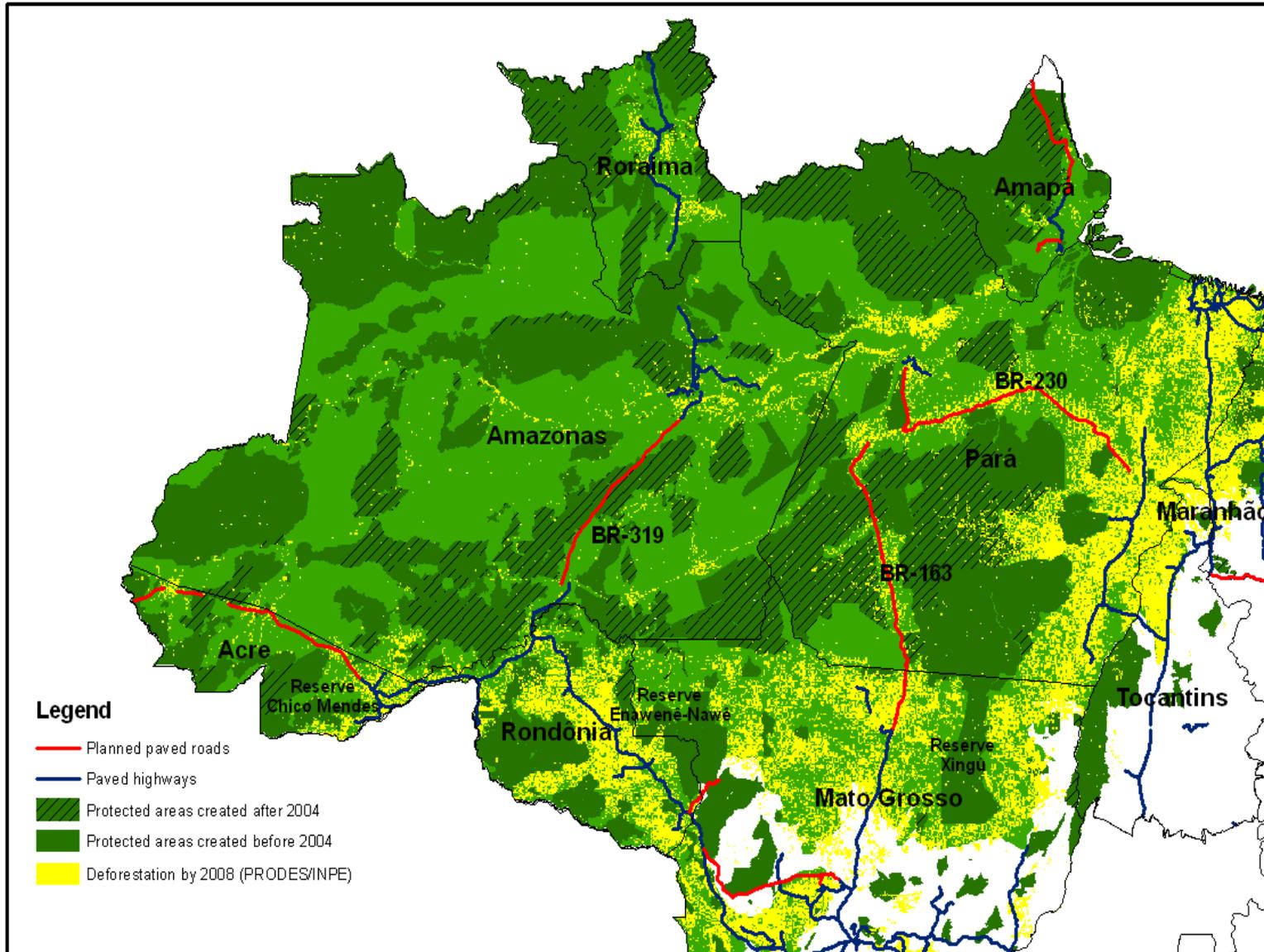Foreign relations policy

Overview

Data for saving the Amazon

- 1979: Brazil's Institute for Space Research (INPE) pioneered the use of satellite images to assess the loss of "forest resources" in the years 1975 and 1978

- 1980: pressure to stop colonization policies

- 1988: based on the same "developmental" technology INPE created **PRODES** to provide annual deforestation data (measure=>control)

- Amazon constituted as "finite"

- Government constituted as (in)competent

Disaggregation of PRODES

- NGOs wanted to have access to the disaggregated data (maps) of deforestation to understand:
  - Where the deforestation was taking place
  - Who was to blame
  - How to stop it
- Government denied access to data as a matter of "national security"
- Lula takes office in 2003 and changes the data policy
- Engagement of NGOs: co-creation of policies (i.e. identifying problem/solutions)
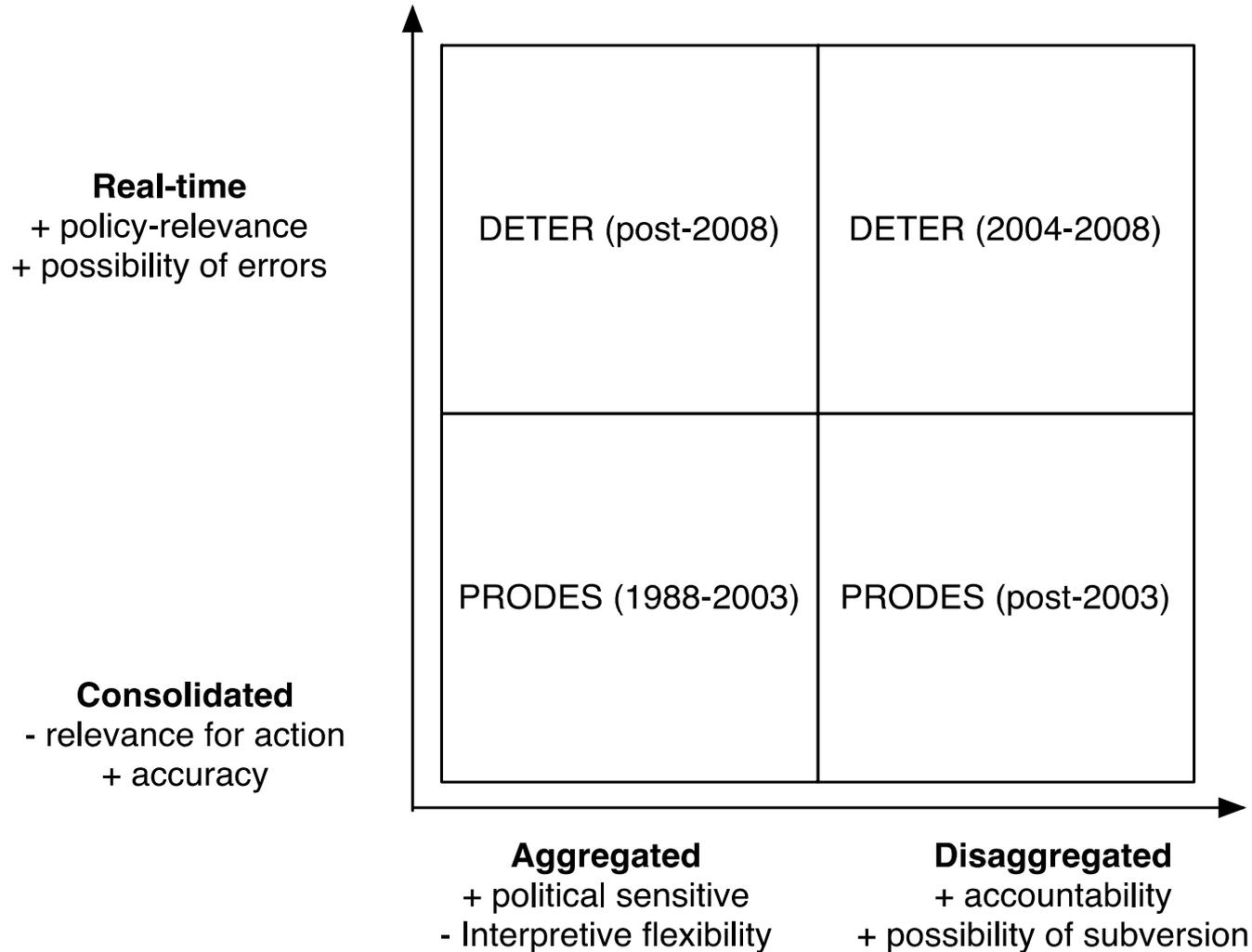
Disaggregation of PRODES

Aggregation of DETER

- DETER: New monitoring system created by INPE in 2004 to help forest rangers in the field
- Monthly deforestation reports sent privately to the Ministry of Environment.
- Government NOT reacting unpublished hikes
- Despite technical problems it was decided to start publishing DETER aggregated figures
- New forms of activism (re)configuring on a monthly basis the (in)competence of the government
- Reaction from the government: restrict bank loans to farmers in areas with high deforestation

Discussion

Real-time
+ policy-relevance
+ possibility of errors

	Aggregated	Disaggregated
Real-time	DETER (post-2008)	DETER (2004-2008)
Consolidated	PRODES (1988-2003)	PRODES (post-2003)

Consolidated
- relevance for action
+ accuracy

Aggregated
+ political sensitive
- Interpretive flexibility

Disaggregated
+ accountability
+ possibility of subversion

Conclusion

- Importance to consider not only data openness, but also what kind of data and what kinds of uses this data enables when evaluating and planning data transparency initiatives

- Pressures for accountability result in different kinds of disclosure, and disclosure practices facilitate different types of uses

- Environmental activist practices can only be understood in relation to the data practices that produce certain social realities about deforestation

- Different material configurations and data assemblages are not mere technical choices, but instead are part of political struggles between different social groups striving to shape the relation between data transparency and policy-making

References

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☐ Schrock, A. R. (2016). Civic hacking as data activism and advocacy: A history from publicity to open government data. *New Media & Society*.

☐ Suchman, L. (2012). Configuration. In C. Lury & N. Wakeford (Eds.), *Inventive Methods the Happening of the Social*. (pp. 48–60). Hoboken: Taylor and Francis.