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Open government data platforms and third party innovation in Latin America

Evidence from Buenos Aires, Mexico City and Montevideo

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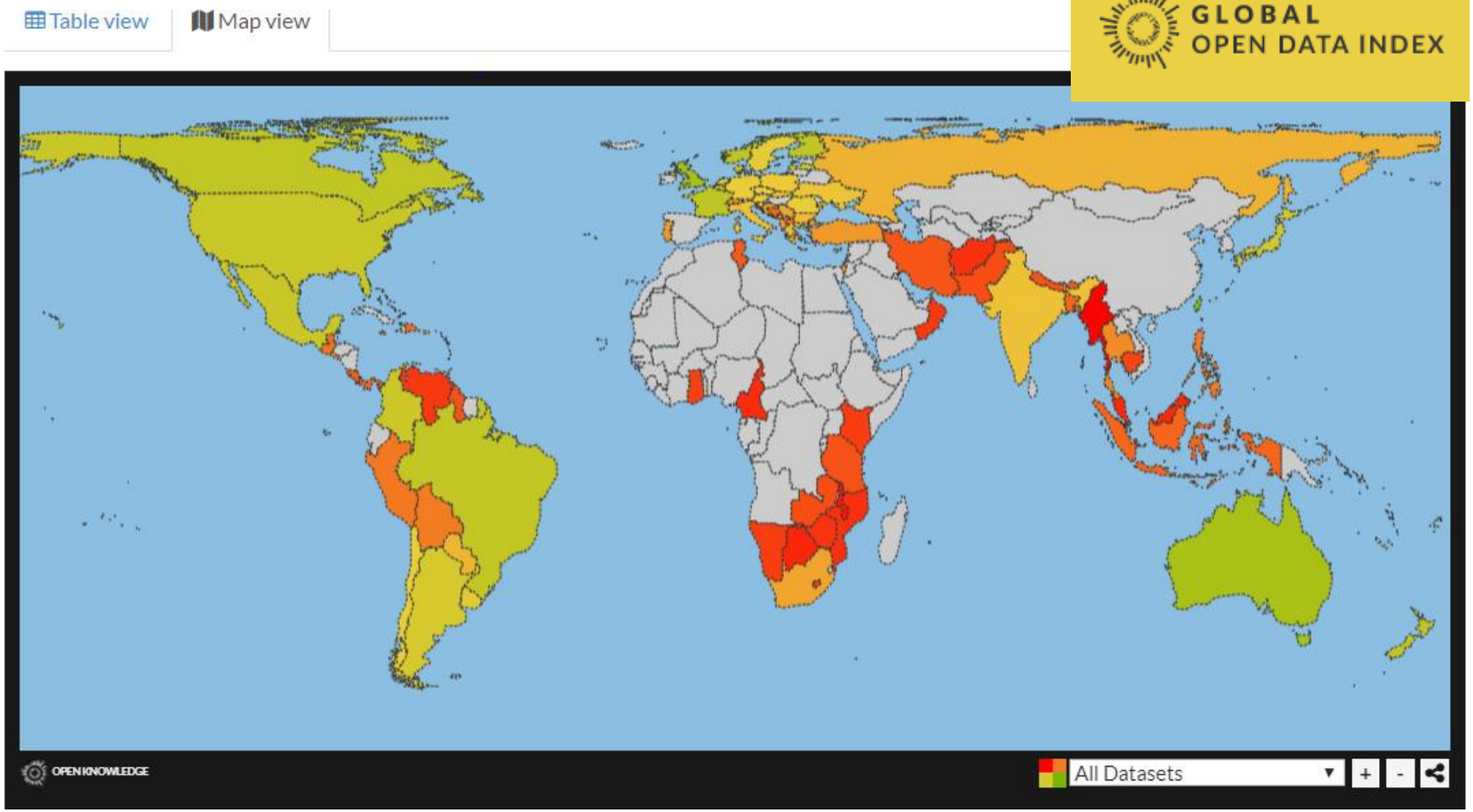
Motivation (I)

Open Gov Data Platforms: growing importance in the global South/Latin America



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Motivation (I)

Latin America leads the developing world

OD as a vehicle for innovation

Struggle to make the ecosystem grow and generate broader impacts

This regional snapshot covers the 15 Latin American countries assessed in the fourth edition of the Barometer. Four new countries have been added since the third edition of the Barometer: Bolivia, El Salvador, Panama and Paraguay.

Open Data Barometer 4th edition - Regional ranking

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Motivation (II)

Platform innovation literature: in order to generate value, platforms need to nurture an ecosystem of third party developers

Fundamental feature of platforms are network effects: platforms become more valuable as more users use them (i.e. Parker and Van Alstyne 2005)

Theoretical concept of boundary resources from Information Systems research (Ghazawneh & Henfridsson 2013; Eaton et al 2015)

Open data as platforms understudied (i.e. Danneels et al 2017)

Platform Boundary Resources

"The software tools and regulations that serve as the interface for the arm's length relationship between the platform owner and the application developer" (Ghazawneh & Henfridsson 2013)

Resourcing: The process by which the scope and diversity of a platform is enhanced
Securing: The process by which the control of a platform and its related services is increased

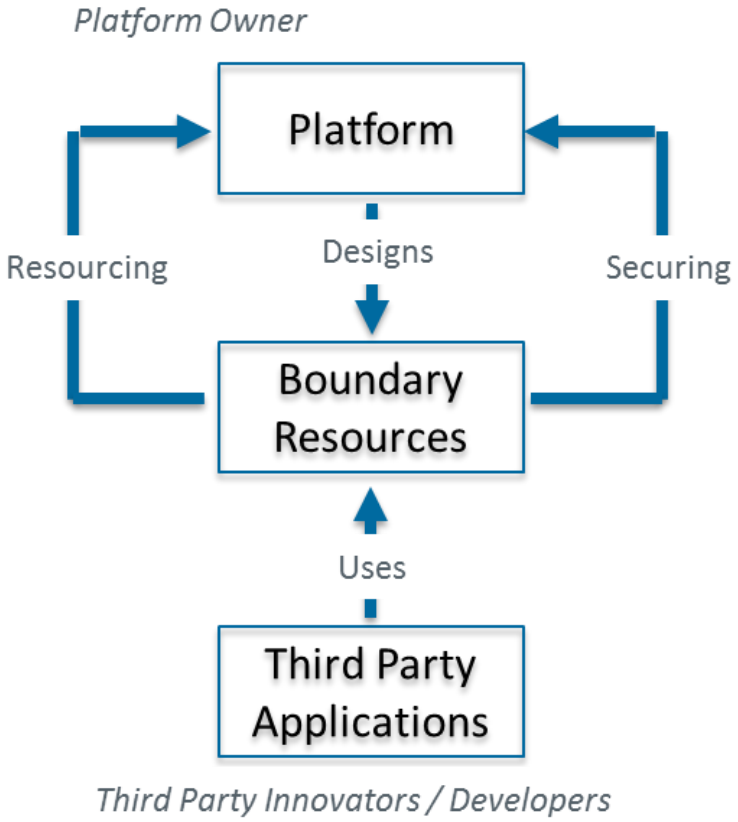
Theoretical foundation in boundary object theory (Star & Griesemer 1989) and innovation networks (Chesbrough et al. 2006)

Application to date in functional platforms (e.g. iOS)

Platform Boundary Resources

Resourcing ("Tools")

Software Artefacts, e.g.
- Interfaces (APIs etc)
- Software Development Kits
- Etc



Securing ("Rules")

Contractual Artefacts, e.g.
- Licensing Conditions
- Terms of use

Platform Boundary Resources

Example: SiriKit

Research question

How are boundary resources developed in order to cultivate an installed base of third party innovators for open government data platforms?

Research context and design

We study the development and evolution of boundary resources in three open government data platforms in Buenos Aires, Mexico City and Montevideo

- Exploratory, cross case comparative study (2012-2014)
- Theoretical sampling/information selection
- Government teams or hybrid teams directly financed by the government

Findings (in progress)

	Buenos Aires	Mexico City	Montevideo
Contextual factors	3M (13,5M) inhabitants Team of digital government innovators, linked to international networks of OD since early days. Solid policy foundation from the begging (Open Gov Decree 2012). Established network of civic tech entrepreneurs.	8,9M (20M) inhabitants; half population under 29 years. Creation of innovation Lab in 2012; joint-venture government and NGO with entrepreneurial direction. Weak policy foundations in early days; two parallel open data platforms. Disperse network of civic entrepreneurs.	1,3M (1,95M) inhabitants. Home to strong programs in technology education. First to hold an open data platform (2010); solid policy foundations and IT team in open data and free software. A strong civic tech org leading civic tech movement

Findings (in progress, example)

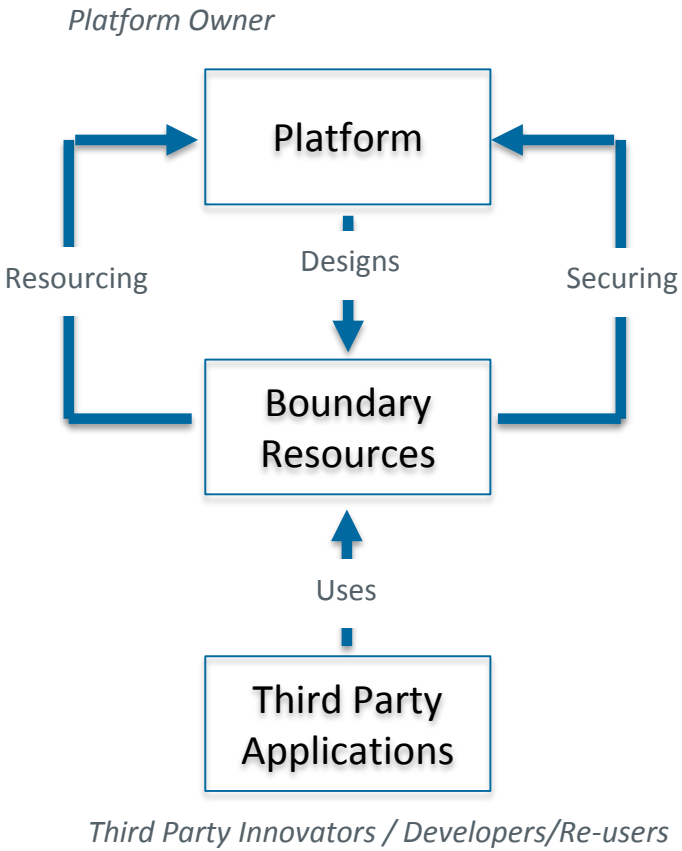
Buenos Aires
Gobierno de la Ciudad

Resourcing ("Tools")

Data artefacts
- From 40 to 166 datasets
- 8 formats
- Codebooks developed
- Search tool

Software artefacts
- 3 APIs claimed (in reality, software interfaces)
- 22 active apps by 2015

Social Artefacts
- 4 BA Hackathons
- BA Apps contest (2012 & 2013)
- IoT contest (2014/2015)
- Gov Camp



Securing ("Rules")

Contractual Artefacts
- Terms of use and licensing conditions of datasets released with platform updates (2012 onwards)
- Adoption of Creative Commons license for all content (2013)

Legislation/Policy
- Open Gov Decree (156/2012) establishes OD platform
- Decree 478/2013: open data by default
- Open data plan released 2014

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Summary preliminary findings

The three cases demonstrate governments choose very different paths to build their open data platforms

We find a correlation between the cases that put more efforts into resourcing and securing (tools and rules/boundary resources) the platform with the maturity they have reached

Expected contributions and policy implications

Empirical: A type of digital platform innovation that has not been investigated before

Theoretical: Dynamics of boundary resource development in the context of a public good rather than profit motivation

Policy: offer insights into the development of policy to facilitate the cultivation of an installed base of innovators, developers and re-users, and hence grow the value of OD platforms

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Thank you!

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Appendix. Research design

Data Multiple sources of evidence

- 24 interviews with open data leaders
- Participant observation government teams in Buenos Aires and Mexico City and specialised conferences
- Extensive review of documents, blogs, social media outlets and previous studies (Scrolini 2014; Fumega 2014; Belbis 2014)
- Available data from the open data platforms

Analysis

Within and cross case (Eisenhardt and Graebner 2007)

We examine the process of boundary resource development and evolution across the cases, develop a view of overarching patterns across the cases, and compare them with existing literature