



Fostering a Critical Development Perspective on Open Government Data

Dates:	2012, April, 16th
Venue:	Centro de Gestão e Estudos Estratégicos (CGEE) SCN Quadra 2, Bloco A, Ed. Corporate Financial Center, 11º andar, Sala 1102, CEP 70712-900 Brasília, DF
Organizers:	International Development Research Centre World Wide Web Foundation Berkman Center at Harvard University

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Summary

In recent years, a diverse coalition of actors has pushed the creation and diffusion of open data programmes around the world. Governments, international organizations, businesses, academics, media, civil society organizations, and web developers have embraced and sponsored open data programs creating large expectations a suitable remedy for challenges of good governance, economic growth, social inclusion, innovation, and participation.

Though in many cases this may be true, there is a need for a critical perspective on whether the outcomes indeed occur and under what circumstances. There is a widespread lack of empirical evidence underlying the implementation of Open Data initiative and that can guide better practice and policy formulation, particularly as it spreads to developing countries. Thus, this initial consultation explored substantive and procedural options for the implementation of a research agenda aimed at better understanding the impact of open data.

This meeting brought together 20 renowned policy-oriented academics coming from diverse geographical areas and backgrounds in order to discuss an interdisciplinary research agenda on the impact of Open Government Data (OGD) initiatives under political, economic and social dimensions. The meeting included a debate on potential research questions and approaches that could inform an international research network on the impact of Open Government Data (OGD) in developing countries.

The participants also expressed the commitment to the further development of the research agenda and demonstrated their interest in participate in a research network in different forms. They added a number of considerations and contributions for the development of a research network that would address these challenges.

Workshop Objectives

The objective of the meeting was to discuss a policy-oriented research agenda that would ensure that Open Government Data programs in the Global South: (i) Foster greater quality of openness, (ii) Support citizens' rights, and (iii) are inclusive. The key issue to be explored was how Open Data - particularly in the developing world - could challenge democratic deficits, create economic value and foster inclusion.

Also, the workshop aimed to collect inputs from potential partners exploring the next steps towards the articulation of a research network exploring the impact of Open Data in developing countries.

Initial considerations for the development of the agenda

In the initial session, the participants highlighted the importance of building OGD initiatives that promotes:

- Greater transparency and accountability of governments
- Greater participation of the civil society
- Innovation in the creation and improvement of public services
- Efficiency and efficacy of Public Service Delivery
- New/disruptive models of government/governance
- Better governance in fragile states (post-conflict countries)
- Improved quality of records/data
- Improved functioning of markets
- Growth
- The quality of policy-oriented research
- Diversity and gender equality
- Inclusion of marginalized groups
- Environmental sustainability

In order to guide OGD programmes towards these desirable impacts, a research agenda should help understand the underlying mechanisms and processes that lead to different outcomes and longer term impacts. This includes a better understanding of:

- the feedback mechanisms between of Open Data and policy change
- the beneficiaries of greater data openness and how they empower different groups
- the role of policy entrepreneurs and digital activists
- existing structures, interests and incentives
- the limitations of government in terms of capabilities and attitudes
- sustainable models and practices
- innovations created by civic entrepreneurs and SMEs
- the balance between civil society demands and the government data supply
- the costs related to Open Data
- the role of data disclosure by a wider number of stakeholders, including particularly private companies
- the capacity of different groups (particularly marginalized groups) to use data
- the use of technology by marginalized communities
- the interaction with right to Information

Also, it is important to explore a number of strategic tensions in the development of the research agenda, including:

- Data that government holds vs Data useful for governance of Society - In terms of scope, a research agenda should include other forms of open data beyond the data that the government holds directly. It

should go beyond the data related to expenditure and government operations (political data). It should include data that government holds about individuals, data about entities regulated by government and even information about markets. The notion of Open Governance Data – open data as it influences multistakeholder governance in different levels and sectors - was considered as a potentially useful approach.

- Contextual differences between developed and developing countries – There are a number of contextual elements that need to be considered in greater depth when exploring OGD in developing countries, such as quality of the databases, mistrust in government, the role of other institutions that hold better data, the limited adherence to wider standards including extensive non-digital records, smaller markets of intermediaries, limited capacity of the civil society to work with Open Data/ Platforms, limited track of privacy protection. Also, important data may only be available in offline records, and the overall quality of record keeping has a critical role in guaranteeing the quality of datasets that could be part of open data initiatives.
- Outcomes vs Impact – It is important to be clearer about whether we will measure outcomes of specific initiatives versus longer term or wider impacts of Open Data, particularly when initiatives in developing countries are still in initial stages. It is also important to understand if specific OGD initiatives had intended policy objectives that can be measured or whether they focused on available data in a cross-cutting approach (thus, relying on unintended outcomes/impacts).
- Qualitative vs Quantitative methods – As in other areas, a wide range of methods could be used to explore the impact of OGD, including methods such as narratives, cases, best practices, surveys, metrics, indexes, indicators, pilot projects. In any case, it will be difficult to quantify many aspects of the OGD ecosystem and account for unintended dimensions in a first glance. It will also depend on the way the impact analysis is framed. Framing is also an important aspect. Approaches would differ whether you refer to consumer vs citizens, information availability vs transformation, government vs grassroots, convenience vs empowerment.

It was agreed that further development in this area would demand a combination of methods and disciplines, engaging particularly political, economic and social impacts of open data. An analysis under these three different vectors will be the focus of further group discussion. Environmental impacts should also be considered in a cross-cutting manner. However, because of the break-down of participants into groups in the workshop, in this report the environmental dimension is explored together with the social dimensions.

Exploring the different vectors

To understand how open data may impact upon sustainable development outcomes we need to identify different theories of change that connect open data and impact, and to explore mediating factors which influence the extent to which impact may or not be achieved.

Economic impacts of Open Data

Much of the work done on exploring the economic impact of open data has been done in terms of market impact, i.e. restricted to a specific outcome of interest for, mainly, private businesses. We tried to go a few steps beyond this and explore not only economic impact on the demand side, but also within government; and not only in terms of figures and market size, but also in terms of potential benefits for the various actors such as increased government efficiency and effectiveness, better public services, cost savings or job creation.

Approaches

The potential impacts can be clustered in the aforementioned areas and can affect the various types of actors:

1. **Government:** producing more and better services at reduced costs due to easing access to information within government and easing integration across Ministries, Departments and Agencies (MDAs), and lowering the entry barrier for infomediaries.
2. **Citizens:** receiving an improved service through improved actions of the state or other agencies and through infomediaries.
3. **Infomediaries:** Increasing the number of services to citizens and government due to increased data availability. Fostering job creation due to increased demand, and innovation and entrepreneurship due to lower entry barriers and new data availabilities.

Theories of change

Within those clusters and related to those actors we identified a range of theories of change, including:

- Open Data reducing transaction costs within government and across jurisdictions.
- Open Data generating an economic surplus within government
 - and the difficulties of assessing the appropriation of such surplus.
- Open Data generating increased availability and quality of public services.
- Open Data generating new revenue models.
- Open Data empowering transformation in specific sectors such as the financial one.
- Open Data generating new kinds of Public-Private partnership models.
- Open Data policies accelerating the process of private businesses releasing its own data.
- Open Data disrupting traditional business models, lowering entry barriers and making the services industry more modular.
- Open Data policies requiring publicly funded work to be released as Open Data.
- Private businesses requiring minimum sustainability features in Open Data release to build services atop of it.
- Open Data fostering innovation and competition in the private sector.
- Open Data making standards emerge.
- Open Data creating economic benefits that are geographically clustered.

(n.b. we refer here to private businesses as other civil society actors are ultimately focused on social and not economic impact)

Social and environmental impacts of Open Data

The potential 'social and sustainable development' outcomes of open data covers a broad range of impacts, from supporting poverty reduction, to addressing environmental degradation and empowering marginalized groups. It can cover improving livelihoods and access to essential services, as well as addressing social divides and inequality. Some of the mechanics by which these outcomes can be realised fall within the political or economic domains, but by taking a social and developmental lens to explore open data impacts, we are focussing not only on reforms to political systems, or creation of new economic enterprises, but we are also looking at how the benefits from such open-data driven or enabled changes are transmitted to communities at the grassroots.

Three approaches to open data enabled development:

Open data can impact on citizens in three ways:

- **(1) Citizens as beneficiaries:** receiving an improved service through improved actions of the state or other agencies. Citizens as the 'objects' of development outcomes.
- **(2) Citizens as partners:** co-creating development outcomes with the state/other agencies, usually through intermediary groups (e.g. associations; civil society organisations).
- **(3) Citizens as empowered actors:** afforded autonomy to directly shape their own access to developmental outcomes. Citizens as 'subjects' of development outcomes.

In the workshop we noted that for (2) and (3), there may be different impacts depending on the socio-economic situation of citizens. Middle-classes, who understand the language of government, the policy context, and who have access to the technical and organisational capacity to work with open data may have a more direct relationship with open government data (even if mediated through 'apps' and data access platforms), whereas excluded and marginalised groups are more likely to need intermediary organisations to help bridge the gap between their immediate concerns, needs and wishes, and the data that is accessible from government that relates to them.

Theories of change:

Within each of the broad ways open data can impact citizens we identified a range of theories of change, including:

- Open data allowing parliamentarians to spot inequalities in provision and to advocate for change [1]
- Open data supporting 'good bureaucrats' within an administration to highlight problems and to pursue their objectives [1/2]
- Open data supporting better collaboration between ministries, and between government and other agencies (e.g. donors) [1]
- Open data being used to hold private actors to account, for example, on environmental performance [1]
- Open data leading to more policy relevant research being produced, by academic researchers and others outside government [2]
- Open data being used by developers to create applications and tools that improve citizen access to, and experience of, public services [2]
- Open data supporting visualisation of policy information in order to make participation in decision making more accessible and engaging [3]
- Open data highlighting inequalities and mobilising grassroots movements for change [3]
- Open data addressing information inequalities between citizens and state, and helping individuals and communities to secure their rights [3]

(The numbers relate to the related broad approaches to impact outlined above)

Important intermediaries might include: news media, CSOs, parliamentarians and technology developers. It may be that open data is just one component of the information required to create change, and citizens need to use Right to Information (RTI) legislation to gain access to documents that, added to the open data, make the case for change, or help secure developmental rights. Crowdsourced data (such as in the SMS-sourced data used to run the 'Stock Out' campaign in South Africa and to secure better access to medicines) may also be important, suggesting the formula:

Official data + crowdsourced data/RTI = information [& engagement]

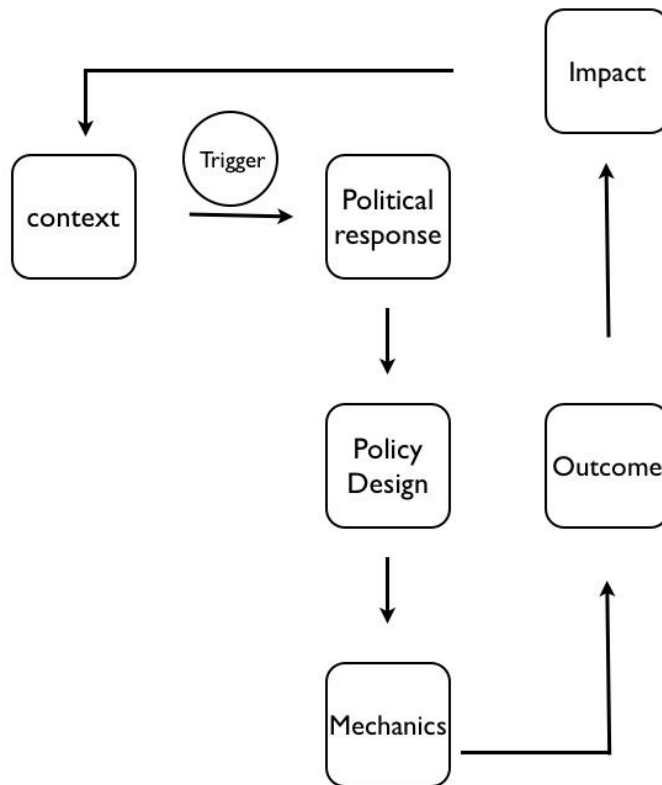
Political Impacts of Open Data

Though in many cases captured by political rhetoric, Open Data has been often highlighted as an antidote against corruption, an instrument to achieve citizen participation and engagement, as well as a way to foster overall transparency and accountability. To contest each of these claims requires to examine the implications behind them (What does it mean to increase transparency?, How can we test if authorities are more accountable as a result of Open Data? , or How exactly does open data channel citizen participation?).

Such examination was beyond the scope of the conversation in Brasilia, however it was agreed that beyond concrete indicators that could test open data outcomes, impact itself would depend on a variety of political factors that interact in the process of delivering Open Data.

A cycle of such process is illustrated and explained bellow:

The Open Data Political Cycle



1. Context: Overall outcomes and impact of Open Data will largely depend on the different implementation routes or paths it may take. The key starting point is defined by the context where later Open Data is embedded. The context creates a “path dependency” so that future steps are, in a way, “locked-in” by the institutional features that characterize the political, social and economic habitat where a particular open

data initiative is born.

- The context may include: the form of Government (eg: democracy, autocracy, majoritarian, proportional); the logics of power (interest groups and veto players); the level of economic development (GDP, GDPPC, Gini, HDI, Poverty Line, etc). the Civil Society Capacity (degree of development and autonomy of civil society organizations).
- Bureaucracy (Professionalism)
- The Media (Freedom of the Press, role, size of the media industry).
- International Actors (Role of international organizations, both political and economic, eg: UN, World Bank, IMF, OECD, European Union)
- The Public agenda (what drives the current socio, political and economic agenda).
- Existing Regulation (the regulation habitat includes Constitutional rights, international treaties, laws and executive decrees). For example: Secrecy Laws, Freedom of Information Law, Copyright, Public Archive regulation.

2. The Trigger: Though the context may be a relevant necessary condition for Open Data to unfold, in most cases it will require a trigger to unleash implementation. Factors that trigger the context may include:

- New Leadership (eg: a new political leadership in office; or Civil Society leadership pushing for transparency).
- Corruption scandal (a particular situation that creates enough momentum to respond with a transparency initiative).
- International Pressure (International bodies may pressure to commit or adopt transparency reforms).
- Regulation (A new piece of regulation, for example at a constitutional level, may require a policy response towards transparency).

1. Political Response: The trigger leads to political rhetoric and in some cases towards a political response from the public authority, that commits to transparency and open data as a way to respond to the momentum caused by the trigger. In other words, by committing to transparency reform, or announcing open data implementation, public authorities give a political response to the reform incentive caused by the trigger. At this level, there is no concrete policy yet, just the general idea of committing to transparency reforms and policies with big announcements that may include a concrete piece of regulation ("I will send to Congress a FOIA bill" or "I will sign an open government directive"), but with no detailed policy decisions made (eg: which exceptions will FOIA include, or to what standards may the open government directive commit to).

2. Policy Design: A political response is then followed by strategic policy design on how to actually implement open data, to what extent, by whom, within which limits etc. Decisions on policy design include:

- Decide which hierarchy of regulation will be used (Constitution, law, decree).
- Determine which institutions will be involved in the implementation of Open Data (New institutions like the 'Chief Technology officer', or existing institutions such as a given ministry, or an autonomous body such as the 'Information Commissioner' or the 'Ombudsman').
- Plan how data itself will be treated (Which data to release?, Under which license?, In which formats will the data be made available?, How to make data discoverable?, In which repositories or portals?, How can it be used to make open data meaningful? How to liaise with academia, NGOs, businesses and crowd-source innovation?).

3. Mechanics: Deliberative policy designs later interact with the social, economic and political mechanics of each particular context (highlighted in number 1), leading to diverse outcomes (expected, unexpected) and

impacts that may confirm or deny Open Data's ability to achieve transparency, accountability, participation, economic growth, equality, innovation, or any other among existing expectations.

Final considerations

The participants expressed the commitment to the further development of the research agenda and demonstrated their interest in participate in a research network in different forms. They also added the following considerations for the development of the work:

- Each of the theories of change above could be articulated in more detail and tested in empirical contexts. However, comparative case study approaches may be more appropriate to look at the impact of OGD on development, looking to uncover evidence for, rather than presuppose, the correlations and links between open data and economic, political and developmental impact.
- It is also important to explore new methodologies for measuring relevant aspects in a quantitative manner (such as using a 'Web Observatory' approach and drawing on traces of open data use that can be captured by crawling the web and compiling 'Big data' datasets).
- Various participants highlighted the important to build an overall framework in order to build consist cross-country and cross-cases comparisons. One promising line of work in terms of framework is the shift from Open government data to open governance data, as it assumes a more systemic understanding of the decision-making systems that may be impacted by open data.
- The framework should help to distinguish between the value proposition and mechanics, while allowing for different lenses to be applied. The initial framework should bring a link with a wider literature and improve definitions.
- The future research network should include mechanisms of engagement, such with empirical contexts in order to test in real environment (towards evaluation of applications/implementations). This also includes different forms of communicating the results to different stakeholders.
- A mentorship mechanism would benefit the development of capacity in the South related to this specific team. A number of participants volunteered to this role.
- It is also important to explore platforms for collaboration, including case repositories or other mechanisms that could allow a longitudinal analysis of cases. (open science approach).

Annex 1 - Agenda

April, 15th

19:30 Social Event – Dinner

Restaurante Coco Bambu

SCES Trecho 02 Conj. 36 - Icone Parque

Tel.: (+55) 61 3224-5585

([Map](#))

April, 16th

8:30- 9:00 Coffee

9:00- 9:30 Introduction to the aim of the meeting and the overall research project

9:30- 11:00 Plenary discussion: Measuring impact: What and Why?

Guiding questions:

- What social, economic and political impacts do we expect from OGD?
- Why is measuring impact important?

Process

- Short interventions identifying expected impacts and the rationale for their importance. These points will be grouped under political, economic and social dimensions.
- If possible, try to agree on some level of priority/importance on each one of the potential impacts. Also, make another ranking on ease and feasibility of measurement.

Result

Key areas that need to be considered when assessing impact of OGD, for example:

- Political dimension: governance, transparency & accountability.
- Economic dimension: better public services, greater efficiency and growth.
- Social Dimension: inclusion, poverty, diversity, gender, youth.

Point to be considered:

- Are these areas sufficient? Which other areas of impact may not be captured by the 3 vector proposition?

Background documents: Draft methodological guide of project “Open Data and Public Policy in LAC”.

11:00- 11:30 Coffee Break

11:30- 13:00 Measuring impact: How? (Refining the research questions)

Guiding questions:

- What are specific research questions under political, economic or social perspectives?
- To what degree can the question of OGD’s impact be addressed in these questions?
- What are the potential research designs or methodological options? What are the advantages and disadvantages?

Process:

- Break out into three groups that will debate one of the three areas (political, economic and social dimensions)
- Report to the group followed by discussion.

Expected results:

- A draft list of questions and methodological options in the three dimensions

13:00- 15:00 Lunch Break.

15:00- 16:30 Measuring Impact: Who?

- What are the opportunities to connect research and practice in different contexts?(e.g. How does this fit into the country action plans?)
- Who are the important players that should be considered?
- Which role should various players perform?

Process:

- The next step will be a workshop to take place at the Berkman Center at Harvard University. It is envisioned that this workshop will be a mix of public presentations and private group meetings to further develop a research proposal.
- A framing document and an open call for papers will be prepared based on the results of this meeting.

Results

- Collective identification of potential candidates (individuals/institutions) interested in participating in each one of the research tracks.

- Identification of potential candidates for leading the selection committee in each one of the tracks.

16:30- 18:00 Curation of Conclusions and next steps

April, 17th

- Follow-up meetings to prepare the draft open call (to be organized based on the results of the previous day)
- Identification of opportunities and cases in regional meetings that will happen inside the OGP agenda.

April, 18th

10:00- 12:30 OGP side event

Enhancing the Development Impact of Open Data through Research

- Open to the OGP attendants at large.
- Combination of a brief presentation of our initiative, a round table, and a plenary discussion to showcase our key ideas and invite an open dialogue.

Annex 2 - List of Participants

Participant	Institution
Allison Tilley	Open Democracy Forum, South Africa
Beth Noveck (video)	NYLS
Bruce Etling	Harvard Berkman Center
Carole Excell	World Resources Institute
David Eaves	Canadian Policy Entrepreneur
Elisa Calza	UN-ECLAC
Emmanuel Lallana	Philippines - Heads of Pan-gov network
Felipe Heusser	Ciudadano Inteligente/ Berkman Fellow at Harvard
Fernando Perini	IDRC
Jennifer Shkabatur	Berkman Center /Ash Center Harvard
Jose Carlos Vaz	USP
Jose Manuel Alonso	Web Foundation
Joshua Goldstein	Princeton University
Justus Wamukoya	Moi University
Laurent Elder	IDRC
Maurice McNaughton	University of West Indies - Mona Business School
Michael Gurstein	Centre for Community Informatics Research, Development and Training
Nigel Shadbolt (video)	University of Southampton
Renata Ávila	Global Voices Tech for Transparency
Tim Davies	Practical Participation
Tomasz Janowsky	United Nations University (Macau)
Vagner Diniz	W3C.br

1. Annex III – Background documents

- [Background Research Paper: "Understanding Open Government Data and addressing its Impact"](#)
- Introductory Remarks (videos)
 - [Beth Noveck](#)
 - [Nigel Shadbolt](#)
- Journal of Community Informatics Special Issue on Open Government Data <http://ci-journal.net/index.php/ciej/issue/view/41>
- The New Ambiguity of 'Open Government' http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2012489
- Gurstein, M. Two Worlds of Open Government Data: Getting the Lowdown on Public Toilets in Chennai and Other Matters <http://gurstein.wordpress.com/2012/04/10/two-worlds-of-open-government-data-getting-the-lowdown-on-public-toilets-in-chennai-and-other-matters/>



