



From Data to Development: Exploring the Emerging Impacts of Open Data in Developing Countries

4th Interim Report

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Country/Region: Latin America (Brazil, Argentina, Uruguay); Africa (Sierra Leone, Kenya, Uganda, Nigeria, South Africa), Asia (India, Philippines, Nepal, Indonesia)

Synthesis

The Exploring the Emerging Impacts of Open Data in Developing Countries (ODDC) project has built a global research network to generate evidence on the efficacy of open data, and to inform government, donor and civil society strategies in pursuing or responding to open data agendas in developing countries. The project has been divided into two phases, the first funding 17 independent case studies, and the second working on synthesis of findings and turning research into action.

The period covered by this report has focussed on dissemination from Phase I activities, and establishing Phase II synthesis, research and action projects. It has also been a transition period for the project with a change of research lead at the Web Foundation. We have also engaged in a range of responsive activities over this period, including working with the UN Independent Expert Advisory Group on the Data Revolution, whose work is influencing the framing of data elements in the post-2015 framework. Finally, a major output was the second edition of the Open Data Barometer, reviewing 12 datasets in 86 countries.

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The research problem

The overall objective of the ODDC research project is to establish practical and actionable knowledge about effective strategies for employing open data as a means to achieve greater quality of openness in government, to support citizens' rights, and to promote more inclusive development in developing countries. Open data, it is argued, can support significant gains in transparency and accountability, innovation and economic growth, and enable more inclusive models of governance. This research is motivated by a recognition that a focus on access to open data has rapidly become a significant part of the policy landscape in governance discussions, yet little is understood about how open data can or will drive change in practice, nor about how open data interventions should be contextualised in light of different legal, political, economic and social contexts around the world.

2014 has seen continued and growing focus on data as a key resource for development. However, whilst donors and governments continue to invest in projects explicitly concerned with open data, there is a growing recognition of the need for a more critical dialogue around open data, in particular around open data and privacy issues, and much of the emphasis in discourses around the UN Data Revolution is on big, centralised and privately owned datasets, as opposed to open and re-usable data.

Capturing and analysing evidence on the impacts of open data remains vital: however, the pressing challenge in the coming year is to demonstrate how openness can be effectively integrated as part of wider data-related reforms, and to identify best-fit models for implementing open data in developing countries.

Against this backdrop, the four main research goals of the project remain current:

1. To explore how open data improve governance, support citizens' rights, and promote more inclusive development in developing countries;
2. To support knowledge sharing, policy learning and evaluation based on, and feeding into, the developing research findings;
3. To develop and test common methods for assessing the context, and the strengths and weaknesses, of open data initiatives over time;
4. To identify how global standards, platforms and infrastructures for open data impact upon the use of open data in developing countries;

However, an increasing emphasis over the coming period should be placed on translating critical learning from Phase I about the way context affects the **implementation** and **use** of open data into interventions which can be evaluated, leading to strengthened understanding of best-fit interventions that have the best chance of generating impacts that improve governance, support citizens rights, and promote more inclusive development.

As a result of this, in the last report, we proposed inclusion of an additional goal:

- To support research-driven in-country capacity building around implementation and critical assessment of open data activities.

The cross-cutting research objectives of:

- Understanding how global standards, platforms, infrastructure and ‘eco-systems’ of open data affect local contexts.
- Understanding the distribution of benefits from open data initiatives.

remain relevant, but have been difficult to incorporate explicitly into Phase II activities. The wider work of the Web Foundation on the Open Contracting Data Standard does however contribute to the first of these objectives, and the Open Data Barometer addresses the second on a macro-level.

Research findings

The specific objectives set out in the grant agreement are:

1. To generate strong foundations of academic work on the emerging impacts of open data interventions, and the factors that affect those impacts;
2. To generate relevant policy and practice findings that can inform both local and global debates;
3. To build the capacity of researchers across the world to explore the emerging impacts of open data and related issues;

During the last period of the project we have primarily focussed on starting Phase II research activities, with the main research findings emerging from the macro-level Open Data Barometer. This year it has included 86 countries, and has found:

- A growing ‘data divide’ between high-capacity countries with the resources for building strong open data initiatives, and many developing countries that face substantial barriers to building effective national government led open data initiatives modelled on the Data.gov approach;
- Backward moves for the Kenya open data initiative, and limited impact of Ghana’s activities, whilst initiatives in India, Indonesia and the Philippines are slow to translate into impact;
- Initial evidence of a correlation between sub-national open data initiatives and perceptions of political and social impact, and suggestions that general capacity building and support for innovation are effective in creating perception of social, political and economic impact;
- Further evidence that license issues are not a major concern in many parts of the world, and a more critical approach to the open data definition is needed;

The second year of the Open Data Barometer also provides a valuable corpus of data for secondary research, and that can be compared with other studies including the Open Knowledge Open Data Index,

through the Common Assessment Methods for Open Data framework, to critically appraise different methodological approaches to evaluating open data.

During this period initial workshops have taken place at the ICEGov conference in Portugal to deepen theoretical understandings of Open Data Intermediaries, building towards anticipated research findings on this in a synthesis paper in early 2015.

Addressing the objective of generating “*relevant policy and practice findings*” work has taken place to contextualise research findings as input into the UN Data Revolution debate, including written submissions from ODDC partners to the consultation process, events held with the chair of the Expert Group, and an ODDC partner participating on a panel in Tunisia titled “Data Revolution: What's at Stake for Africa?” alongside the StatCom-Africa meeting. This is an area for further focus on 2015.

Through the Phase II activities, which encourage collaboration between different research partners, and through the creation of a journal special issue on open data with the Journal of Community Informatics, we are providing continued support to research capacity building.

Project implementation and management

During this reporting period day-to-day management of ODDC has transitioned from Tim Davies to Savita Bailur. Tim has left the World Wide Web Foundation to focus on his PhD studies, and Savita has joined as Open Data Research Lead, responsible for ODDC, and other open data research projects at the Foundation. Detailed handover notes were prepared, and a handover period during November and December, plus stronger time commitment from Jose (program manager), has ensured a smooth transition.

Based on the call for proposals issued in August, and a selection process, over the reporting period we have initiated the following contracts (* indicates lead organisation/contact):

- **Open Data Intermediaries**

Partners: STEP Consulting* (Philippines), Sumandro (India), Francois (South Africa)

This study will produce a synthesis paper addressing "What are the different types of intermediaries that have emerged (and are emerging) across the ODDC developing countries to facilitate the collection, curation, management, sharing and use of open data (supplied by both government and non-government sources)?"

- **Institutionalising Open Data in Africa**

Partners: UCT IP Unit* (South Africa)

Synthesis work and primary research to address the questions:

- Is open data practice being institutionalised in public agencies in Africa?
- What are the possible indicators of open data practice being institutionalised in public agencies?

- What do the indicators reveal about resistance to the adoption of open data practice in public agencies?
 - What are different effects of multiple institutional domains that may be at play in government as an organisation?
- **Building Open Data Infrastructure and Strategies for Effective Citizen Engagement**
Partners: Jesuit Hakimani Center* (Kenya), iHub Research (Kenya)
 Developing a research report and policy briefing paper that will be used as an advocacy tool with policy makers, civil society and activists, academia and private sector actor to address the following issues:
 - How do/can grassroots in Kenya and Uganda effectively access open data;
 - What open data models and sources promote the utilization of data by the grassroots;
 - Summarizing the current context and landscape of open data in Kenya and Uganda;
 - Recommending policy frameworks that could potentially lead to improved open data use at the grassroots.
 - **Open Sub-national Governments**
Partners: STEP Consulting* (Philippines), Satyarupa Shekar (India), Sinergantara (Indonesia)
 Producing a synthesis paper to address the following questions:
 - What context, governance setting, and actions hasten the emergence of open government data in developing countries? (context, governance setting and actions in the ODDC framework)
 - What facilitates or hinders the supply and use of government data in sub-national contexts in developing countries? (supply of open data, technical platforms and standards, and intermediaries in the ODDC framework)
 - What lessons can be learned from the cases in terms of creating and sustaining the supply and use of open government data in the subnational-contexts of developing countries?

We are also refining the proposals for:

- **Right to Information and Open Data**
Partners: Silvana Fumega* (Argentina)
 Developing a working paper to:
 - Set out a conceptual framework for thinking about the relationship of Open Data and RTI;
 - Survey prior work on the relationship between the two - including notes from grey literature, and ODDC Phase I;
 - Discuss options for empirical research to understand the conflicts and complementary roles of RTI and Open Data in practice in different settings around the world: including giving consideration to methods such as survey research, observational research; and experimental research;
 - Propose a direction for future empirical research

- **Open Data Educational Research & Capacity Building**

Partners: Sherwin Ona* (Philippines), Ome Mejabi (Nigeria), Jesuit Hakimani Center (Kenya)

- Develop educational and research materials for training on open data
- Possibly demo preliminary modules at IOGDC
- Work with institutions on rolling out training (we have asked the partners for clarification on content and above points)

In addition, final Phase I reports have been added from a number of partners, leaving two final Phase I reports outstanding:

- GPOPAI: [Exploring the impacts of online budget information at the sub-national level in Brazil](#) - the report is currently awaiting translation from Portuguese, and was delayed by University disruptions affecting the responsible department at University of Sao Paulo. However, due to lack of responses and no evidence of report, GPOPAI have been informed of termination of contract if the report is not received by 31 January 2015.
- SDI: [Taking Stock of the Effectiveness and Efficiency of Open Data Initiatives in Sierra Leone](#) - whilst we have seen earlier drafts of research, the final report has not been provided. The partner organisations work has been disrupted by the Ebola situation, limiting communication. We have sent reminders to SDI.

In addition, in this period we have:

- Continued to host web meetings.
- Contributed to an I&N review of Open Development concepts and frameworks;
- Supported a network-led effort to create an Open Data Special Issue of the Journal of Community Informatics - including papers from ODDC partners. This is due for publication in mid-2015;
- Supported dissemination activities at events in Kenya ([Buntwani Conference](#)), Portugal ([ICEGov2014](#)), China (WeGo Assembly), Tunisia (StatCom-Africa);
- Launched a [Call for Papers for an academic symposium](#) alongside the 2015 International Open Government Data Conference in Ottawa;
- Completed research for and published the 2015 [Open Data Barometer](#). We have seen extensive interest on this.

- Published a structured [Open Data Research Bibliography](#) of over 120 papers, providing the basis for future research into the open data literature. Very positive feedback from the open data community on LinkedIn.

The Open Data Barometer consumed significantly more of the personnel's time than anticipated during September and October, and another Web Foundation project, the Open Contracting Data Standard, placed a significant squeeze on capacity in October and November. The project plan has always included a reduced amount of coordinator time in Phase II, and this will continue to be a constraint on the activities of ODDC Phase II. However, through making connections with the new IDRC-Web Foundation open data project, under the OD4D banner, these constraints can be mitigated to some extent.

Project outputs and dissemination:

As noted above we supported a range of dissemination activities both locally and internationally.

The project is building a strong network for policy influence www.opendataresearch.org which also features stories from the research cases. We have over 780 subscribers to the project mailing list (up from 620¹), 865 members of the project LinkedIn group (up from 680), 2,519 twitter followers (up from 1,827), and 2,160 visitors a month to the project website (up from 2,120 monthly).

Impact

The [Metrics and Evaluation Framework spreadsheet](#) logs all outputs from the project, and the [synthesis of final Phase I monitoring reports](#) records impacts seen by partners, including:

- Substantial contributions to the PhD studies of at least three partners;
- High-profile coverage of research funded through ODDC in Brazil into the implementation of budget transparency (e.g. [‘Portals Fail at Transparency Test’](#))
- New relationships for partners with their governments, leading to projects such as the digitization of local gazetteers in Nigeria and Brazil, and the creation of the Por Mi Barrio project in Uruguay, and to new policy relationships in Kenya.
- Kick starting debates around open data in the judiciary in Latin America.
- Engagement of project partners in the development of OGD initiatives in Nigeria and South Africa.

An independent outcome evaluation was published at the start of this period, and notes the strong contributions of the project to capacity building. This evaluation is available, along with the Web Foundation response, [on our website](#).

¹ Numbers compared to last reported period.

Google Scholar records [48 citations](#) for the Open Data Barometer (2013) and [26 citations](#) for Researching the emerging impacts of open data. It is too early to track citations of other papers from the project.

Recommendations

At present we have no specific recommendations to IDRC for any significant alterations to the project management or project plan. We do note, however:

1. We've spent more time and resource on the Open Data Barometer than anticipated, limiting our capacity to work on qualitative synthesis work centrally at the Web Foundation. We recommend that future collaboration on the Barometer will need to consider the appropriate levels of resource for this project to be sustained and developed in future.
2. The management of a significant and varied number of partners has been more complex than originally expected needing additional time allocation from the project personnel. The intended reduction in number of partners on Phase II should, at least partially, address this issue, allowing us to focus more on deeper research activities.
3. The finances of the project have been affected by an increasing number of bank related costs and a significant CAD/USD exchange rate loss, currently of more than \$80,000 and projected to be of more than USD110,000 at the end of the project at the time of writing. Following project semesters will see an adjustment in budget lines to address this issue and to keep the project expenses within budget. We'll report with detail on the next financial report.
4. Having several projects funded by IDRC under the new OD4D banner at the Web Foundation is adding extra management and administrative costs. We recommend IDRC to consider the merge of some or all of these projects in the future under common goals and activities as reasonably possible in order to increase synergies and efficiencies.

Feedback on the extent to which our current project state is in line with expectations, and continued opportunities to interact with other projects in the I&N portfolio, would be valuable as we plan for the future. We will also be focusing our open data strategy within the Web Foundation more tightly and of course consult with IDRC on this.