STARTING CONVERSATIONS BETWEEN CITIZENS AND THE STATE WITH OPEN DATA

INSIGHTS FROM THE EDUCATION SECTOR
IN BANDA ACEH, INDONESIA

LESSONS LEARNED PAPER

Summary

Freedom of Information (FOI) and open data are two sides of the same coin. Both seek to increase government transparency and accountability and put power into the hands of citizens. However, traditional FOI is reactive and relies on citizen requests for information, whereas open data is proactive, with governments voluntarily and consistently releasing key data sets in open formats.

Moreover, open data is a relatively new idea, whereas FOI frameworks and laws are often better established. In many countries though, FOI rights are not being widely exercised by citizens. The province of Aceh, in the north of Indonesia, is one example. Despite appointing an officer in every district to carry out public awareness campaigns and facilitate FOI requests, the provincial government received only 22 such requests in 2014. Meanwhile, the province's capital, the city of Banda Aceh, received just 40 FOI requests in the same period.

This paper summarises how the Web Foundation's Open Data Lab Jakarta teamed up with local CSO GeRAK Aceh and USAID's Kinerja[1] program to stimulate greater demand for information in the education sector using open data - the proactive release of government data sets in freely reusable, machine-readable formats. **The keys to success were a participatory, bottom-up process in which interested groups (including the media, researchers, and civil society organisations) identified which data sets would be most valuable to them, coupled with close collaboration with the government to build the trust needed to release that data.** This approach, which we call **"responsive data"**, differs both from the purely demand-based models of FOI and from some of the heavily supply-driven models of open data. It is worth further exploring the potential of this "responsive data" approach in other contexts and sectors.

[1] For more information on our partners for this project, visit https://twitter.com/gerakaceh (GeRAK Aceh) and http://www.kinerja.or.id/ (USAID Kinerja).

1. Background

The concept of open data is widely gaining currency across the world as a desired form for proactive disclosure of data held by public bodies. Open data advocates call on governments to actively open up data in machine-readable[2] formats and under open licenses[3]. This data can then be used by citizens to ensure that governments are transparent and responsive to their needs. The idea of making data 'open by default' challenges entrenched cultures of state secrecy and calls for data to be treated as a public resource, available to support citizen participation, improve the delivery of public services, and hasten innovation and entrepreneurship. For sustained impact, the supply of open data must be matched by healthy demand and use by citizens.

In a similar vein, FOI places the right to request information from governments into the hands of citizens. However, FOI models traditionally depend on "reactive disclosure", where government officials wait for a citizen request before releasing information. FOI advocates note that this ensures that the highest value information is released by government in response to citizen demand. Increasingly, "proactive disclosure" clauses, which mandate the government to proactively publish information of particular varieties, have been incorporated into FOI laws, including the Indonesian Freedom of Information Act (FOIA) of 2008.[4] This can make the information architecture more efficient by reducing the time spent on extracting and providing information upon requests filed by citizens.

After Indonesia passed a national FOIA, the provincial government of Aceh appointed Information Management and Documentation Officers (PPIDs) in each of its 23 districts. Thereafter, the city government, with the support of USAID's Kinerja programme then made significant investments in developing the regulatory framework, creating standard operating procedures, training the PPIDs and conducting public awareness campaigns. Despite these efforts, however, citizens are not frequently requesting release of information under the FOIA, with fewer than 100 requests logged at city or provincial level in 2014.[5]

We set out to discover why, and uncovered two major barriers.

- Delivery and Capacity Challenges: Exact processes to follow remained unclear to some officials, and FOI responsibilities were not clearly defined across all relevant job descriptions. In practice, this meant that speed and willingness to respond to FOI requests vary significantly across government offices.

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[2] Machine-readable means that the data is in a format that can be understood by a computer. This can be JSON, RDF, XML or CSV. For details on these file formats please see http://opendatahandbook.org/guide/en/appendices/file-formats/

[3] Open license means that the data can be reused by users with access to it.
The most common reusable licence is creative commons. See for example http://creativecommons.org/

[4] Source: http://www.right2info.org/resources/publications/laws-1/Indonesia-Public-Information-Disclosure-Act-2008.doc/view

[5] The provincial government received a total of 22 offline FOIA requests in 2014. 40 requests were submitted to the city government of Banda Aceh.

1. Background

- Awareness: The majority of civil society, media and academia representatives we asked were simply not aware of their right to file FOI requests to demand information from the government. If they were aware of this right, in many cases they were unsure how, or which office should be the target of their requests.[6]

We also set out to examine the state of open data in Banda Aceh. We found that proactive disclosure of government data in machine-readable formats and under an open license was virtually non-existent in Banda Aceh. When we began work, there were no data sets available as true open data, nor was there a policy or roadmap for opening up government data. While some data was publicly available, it was often in an aggregated form (e.g. data summaries that lack specific details) and not machine-readable (e.g. in PDFs).

At a deeper level, among other factors, Aceh's complex and turbulent history[7] has created low levels of trust between civil society groups and government.[8] Citizens have limited trust in official information sources, and conversely, some government officials are still apprehensive about what will happen if they communicate more openly.

However, the municipal government is committed to promoting government transparency and accountability. Together with the local CSO GeRAK Aceh and USAID's Kinerja programme (the project team), we teamed up with the municipal information commission to explore if open data could strengthen the uptake and implementation of FOI.[9]

We agreed that the education sector should be our initial focus. Interested groups - such as local media, civil society and researchers - had voiced a desire to find out more about the drivers of performance of individual schools, so that they could design interventions more effectively.[10] The quality of teachers, school infrastructure, learning environment, and overall level of funding by school were all suggested as factors that could impact performance. Kinerja already had extensive experience in the education sector, another plus.

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[6] From the 19 organisations we engaged with, only five ever filed an information request.

[7] Source: http://www.ari.nus.edu.sg/wps/wps10_138.pdf

[8] Source: https://www.internews.org/sites/default/files/resources/InternewsEU_ASEAN_FoE_and_RTI_Study_2014.pdf

[9] For the remainder of the paper, we use the phrase 'project team' to refer to individuals from the Open Data Lab Jakarta, Kinjera and GeRAK Aceh who worked together on this project.

[10] Through the rest of this paper, we've used the phrase "interested groups" to represent the blend of local civil society organisation, media institutions and individual citizens we worked with throughout this project.

2. What did we want to achieve?

We aimed to explore and build on the very necessary and useful link between FOI and open data, between the reactive and proactive sides of information disclosures, and to outline a model for future open data initiatives, especially in contexts where the interest, capacity, and resources within government to make significant amounts of data proactively available are limited. By trialling this in the education sector, we hoped to set the stage for improved governance and outcomes in this important arena.

Picture 1. *Workshop participants analysing the newly opened education data and making online and offline visualisations of their findings*

3. What did we do? And what did we find?

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This project was designed as an action research intervention - meaning that as well as gathering information, the project team aimed to equip and support partners at each step of the process. Importantly, we also saw this as a valuable learning opportunity and set out to refine our thinking and approach as we went along. We took the following steps:

3.1 UNDERSTANDING CITIZEN NEEDS

The project kicked off by investigating the issues, needs, and challenges of different sets of stakeholders in depth - an essential first step in designing an appropriate model of responsive engagement. This stage included understanding what data citizens really wanted and needed to help improve education outcomes.

The key education data sets identified by interested groups as a priority for disclosure were as follows:

Rank	Data Category	Priority Data Needs
1	School Performance	Test results, performance in competitions, acceptance rates
2	School Facilities	Facilities/infrastructure, accreditation, address, public/private status
3	School Profile	Management staff, school regulations, curriculum per level
4	Student Profile	Number of students (male, female), teacher to student ratio
5	Status of Library	Presence/absence of a library, number of collections, number of visits
6	Teaching Staff	Number of teaching staff, education, employment status, qualifications, distribution
7	Non-teaching Staff	Number of non-teaching staff, employment status, qualifications
8	School Finance	Budget plans, report on expenditures, list of scholarship grantees
9	Funding Profile	Sources of funding

Table 1. *Priority Education Data Needs – Banda Aceh*

It was quite apparent that interested groups want education data that would inform them about how the government spends public funds to achieve education outcomes. They want to know levels of

3. What did we do? And what did we find?

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investment in educational and human resources, education policies and practices, and sources and uses of education funds.

How many libraries and laboratories are in each school?
What are the credentials of the staff? What is the ratio of students to teachers?
How much budget is given to each school and how do they allocate it?
And how does all of this relate to school and student performance?

Prioritising these data sets means that citizens are far more likely to engage with the data to drive change. It also avoids any costs associated with making data sets available that are not of value to citizens.

3.2. SUPPORTING THE GOVERNMENT IN OPENING UP DATA

While consultations were ongoing, we worked closely with officials in the education department to understand their existing data management and reactive data disclosure process. This process also helped identify the challenges that would lie ahead in proactive data disclosure and built the capacity of local civil servants in open data.

The list of data sets the interested groups prioritised (see Table 1 above) were then presented to the education agency to discuss if and how these could be released as open data. While initially skeptical, city government officials, after a series of presentations from the project team and peer advice from the Jakarta provincial government, came to realise the value of open data as a necessary link towards achieving a more transparent and responsive government. Ultimately, government officials showed a great degree of receptiveness and commitment to open up data.

However, achieving this was not without challenges. Government officials were initially apprehensive to proactively disclose data in open formats for several reasons. First, they equated openness of data with information transparency, being convinced that access to information in the form of PDF documents could already be considered open data. When suggested by the project team that for data to be considered 'easily' re-usable it would need to be in appropriate open formats, concerns were raised regarding the perceived lack of technical skills among government officials to produce such data.

Moreover, government officials were concerned that opening up data in the suggested form would result in the loss of government control in tracking who was using the data and for what purpose. As one official pointed out, FOIA requests made it easy to keep track of the users who demanded public information, which would be impossible if data were made completely open. Also, they feared that open data could be distorted by users, thus the preference to publish data in PDF.

3. What did we do? And what did we find?

Nonetheless, city government officials saw the rationale for and value of government data to be made available to the public. They committed to opening up the education datasets per the priorities identified through a basic open data portal that was developed with support by the project team.[11] **A total of 16 data sets were published online by the education agency, addressing the listed priority needs of the interested groups.[12]** An unintended result achieved was the publication of eight data sets by the transportation and communication agencies, borne out of interest to test skills in open data publication and also inform the public.

3.3. TRAINING USERS TO TURN DATA INTO INFORMATION

Third, the project team strengthened the capacity of potential users of the data to understand, analyse, and translate government data into actionable information and to act as data or information intermediaries between government and citizens. To achieve this, we went back to those interested groups we consulted with in step one, and held a series of workshops and hands-on sessions, using the newly released data.

Picture 2. Representatives of the Jakarta city government showing their own open data practices and initiatives to Aceh's government officials, as part of the capacity building workshop

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[11] Source: http://data.bandaacehkota.info/

[12] This is available at http://data2.bandaacehkota.info/group/disdikpora-banda-aceh

3. What did we do? And what did we find?

3.4. A TWO-WAY CONVERSATION

Finally, the project provided a space for the interested groups and government to discuss issues and concerns arising from the newly-analysed data.

During a public event, interested groups involved in the project presented the results of their analysis and data visualisation exercise. **This allowed the groups to raise critical issues with the education agency regarding the use of funds and performance of schools, and other concerns they had. Equally, it allowed officials from the education agency to understand these issues from a well-informed citizen perspective.** For instance, a handful of specific schools were identified who were relatively well-funded, but performed less well than expected. These schools were singled out for further investigation. It was also identified that some schools were not spending special funds allocated for infrastructure improvements that could improve learning outcomes. Officials undertook to find out why and provide updates on the progress of the inquiry, while the Web Foundation's Open Data Lab Jakarta team will continue working with the Banda Aceh city government in making their efforts into open data sustainable.

Picture 3. Representatives of civil society groups and the education agency interacting and discussing education issues in the city based on the newly opened data during the public event
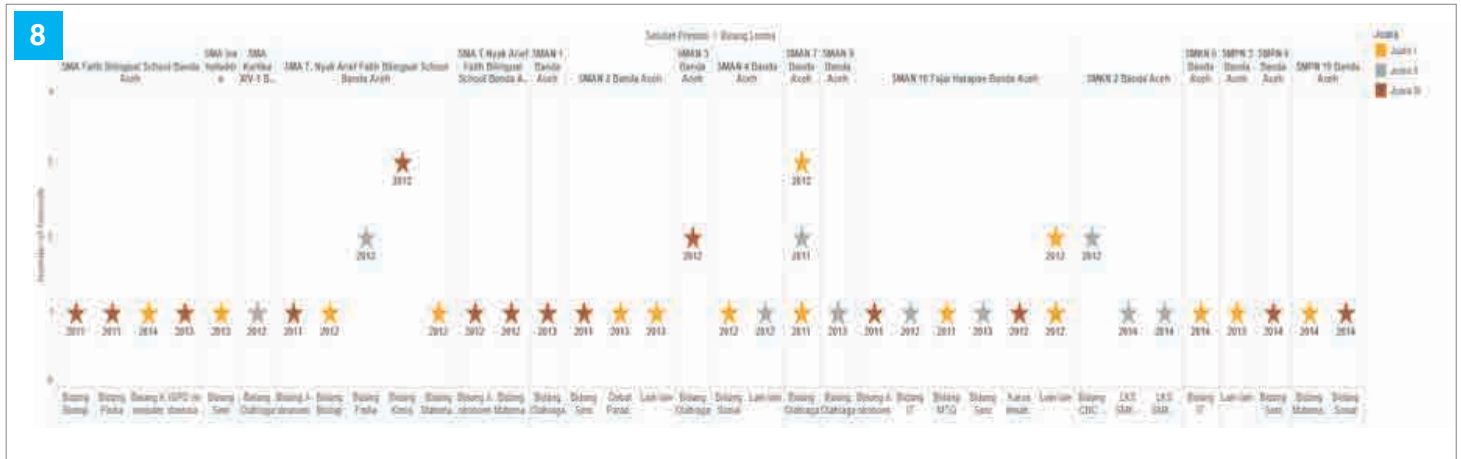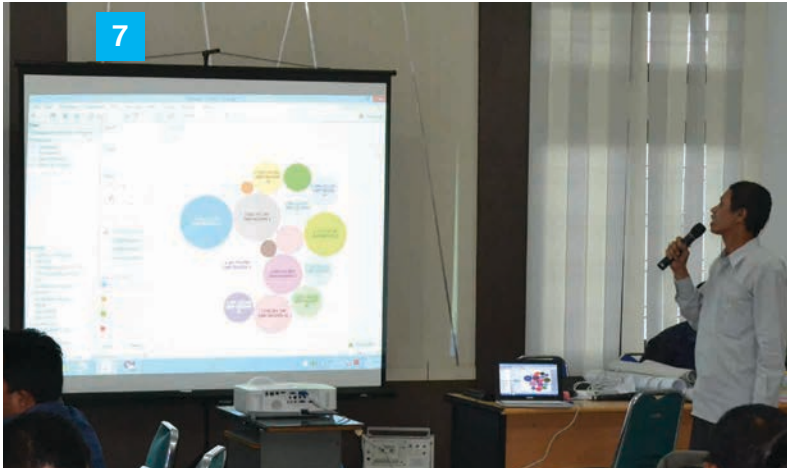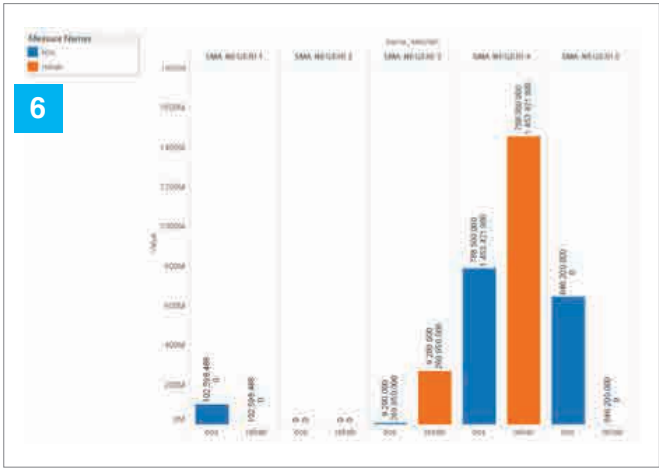
Picture 4 Civil society group representative presenting their offline data visualisation of schools performances based on their locations; Picture 5 Data visualisation of the average awards won of schools per school year; Picture 6 Online visualisation of the budget and spending for facilities of the schools in one area of Banda Aceh; Picture 7 A civil society group representative presenting their online data visualisation of funding amount and sources of specific schools; Picture 8 Online visualisation of school performances based on awards won

4. What did we learn?

This model of engagement, which we refer to as the **'Responsive Open Data Model'**, is a departure from supply-driven open data disclosures as well as purely demand-driven FOI processes. It highlights the need for a proactive disclosure process based on what data citizens want, and not only on what governments can proactively provide as open data.
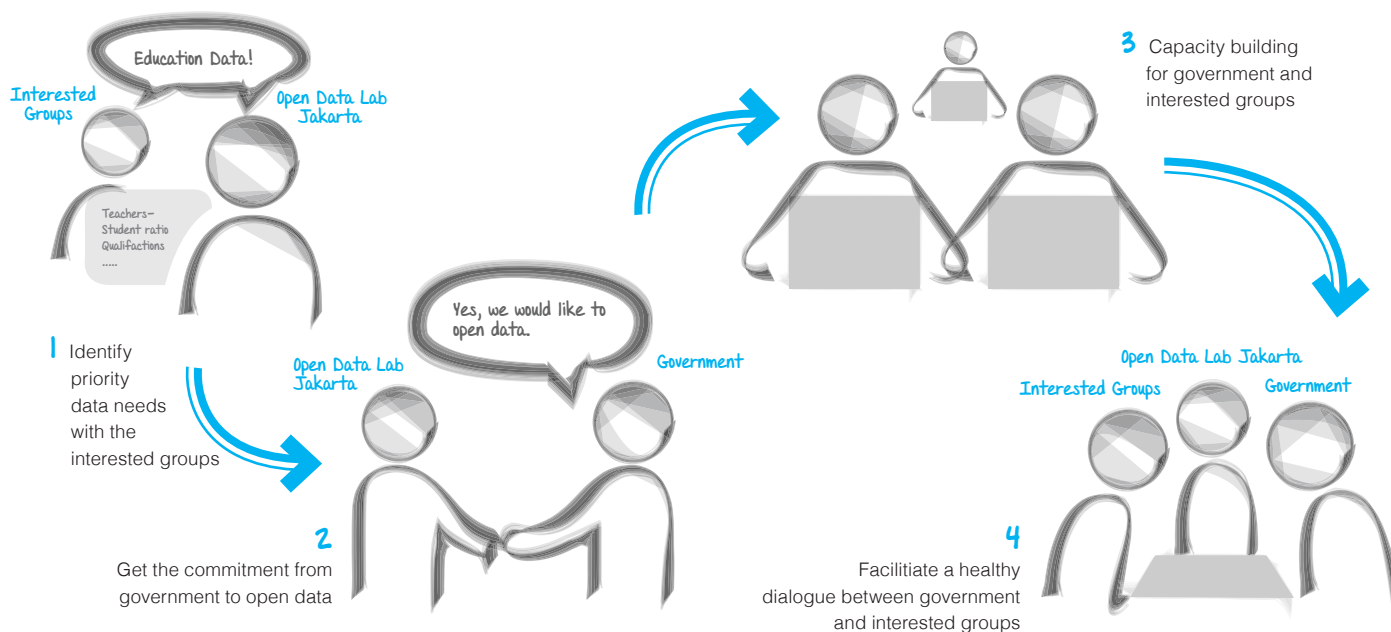

Figure 1. Responsive Open Data Model developed and tested in Banda Aceh

Demonstrating the potential of open data to interested groups was one of the key outcomes of this project. When the groups realised that they could obtain raw data in open formats from the government, this was seen as a significant step forward. The training programme provided by the project team, which taught these groups the data's relevance to their work, some tools to analyse it and how they can best use it to advance their aims and enjoy a more productive relationship with government, was also seen as a significant benefit.

The public event, where CSOs presented their findings from the newly-open data, was both tense and lively. Government representatives were initially defensive, but by focusing on the data and what it showed, adversarial debate gave way to positive discussion of shared concerns about education outcomes and the future of the city. By the close of the meeting, the mood shifted from confrontational to constructive, and greater shared understanding of all parties' concerns, capacities and priorities had been reached.

Suppliers and users of data considered the link between FOIA and open data as absolutely crucial in achieving better engagement between government and citizens. Integrating open formats into FOI, as well as proactive disclosures by the government, creates better information

4. What did we learn?

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flow and trust between citizens and government. During the course of the project, representatives from interested groups and officials from the city government began to see these elements as two sides of the transparency coin. Emphasising the trust element of greater transparency, a group of participants summarised their understanding of the value of open data for strengthening the relationship between citizens and government as follows:

> "Through open data, the public can access information without exception, foster open and good governance, and citizens can actively critically monitor and engage with the government. Citizens therefore do not necessarily criticise their government, but instead provide constructive feedback."

This perspective was also echoed by the city government officials. The head of the local development planning agency stressed the importance of realising the complementary nature of FOIA and open data for championing greater government transparency and engagement with citizens.

Picture 9. Working together—members of different civil society organisations from Aceh, together with a representative from USAID Kinerja analysing data and planning sustainable actions points during the public event.

5. What are our key take-aways?

This Aceh project experience tells us that the success of integrating FOI and open data to advance educational reform depends largely on the collective effort of government, interested groups, and citizens – suppliers, traders, and consumers of data and information. Without disclosure and use, an open data initiative will not become sustainable, and without government action to respond to citizen demands, participation will taper as citizens become disillusioned.

Lesson

1

The 'Responsive Open Data Model' that prioritises data sets based on the needs articulated by interested groups, is useful in institutionalising proactive disclosure of education and other government data, in a context where open by default is not yet possible.

In some countries, one approach has been to open up all government data sets as rapidly as possible. In countries that have an active, skilled and engaged civil society and where the release of data sets is accompanied by sustained demand stimulation activities, this has proven successful. In others, however, it has been an expensive failure. Many governments have invested heavily in building open data portals and releasing data - only for data to lie unused, with civil society and government interest rapidly waning.

The 'Responsive Open Data Model' could prove a useful stepping stone to demonstrate the value and impact of open data, possibly allowing rapid scaling up to a full 'open by default' model. The model allows for greater initial engagement between the government and interested groups, resulting in the release of valued and relevant data sets, and a more responsive policy-making process likely to lead to impact. If such a model can leverage off existing FOI laws, implementation can be relatively swift and efficient.

As a journalist noted in one of the project workshops:

"Absence of citizen participation means less incentive for the local government to disclose data. We need to engage more and encourage more participation as civil society".

5. What are our key take-aways?

Lesson
2

Government goals not directly related to transparency can nonetheless drive investments in systems and processes that allow proactive disclosure of relevant government data.

The city government of Banda Aceh wants to position itself as a cyber city in Indonesia.[13] As such, the city government was open to investing resources and allowing its staff to build their capacity in collecting, storing, and curating data in open formats, so that proactive disclosure can become the norm. In this project, the city government of Banda Aceh used a dedicated portal to house their proactively disclosed data.

As discussed above however, a major difference between this project and many other open data initiatives, lay in the process of selecting what data to disclose first. While other government portals release data that can be conveniently disclosed, the Banda Aceh city government actively listened to the data needs of citizens as articulated by the interested groups.

Lesson
3

By increasing the uptake of existing data, we can create demand for additional data to be released.

For most of the interested groups we worked with, it was the first time they had come across the open data concept. Now that they have glimpsed its benefits, such as visualising data to support advocacy, they realise the need to make active use of the data put out by the city government in their research, campaigns, and advocacy. This not only helps convince government that open data investments are worthwhile, but also raises public awareness and interest in open data, encouraging citizens to demand more.

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13 The Banda Aceh Cyber City concept can be found in this link: http://www.bandaacehkota.go.id/images/dokumen/dokumen%20baicc.pdf

5. What are our key take-aways?

Lesson

4

The best intermediaries are the ones for whom data is a means to a clear end.

While the representatives of the interested groups were able to produce meaningful data visualisations and narratives calling for the education agency of Banda Aceh to improve education policies and budgeting practices in the city, most of them were not able to sustain engagement with the city government on these issues. Part of the reason behind this is the fact that some of them do not focus their work and advocacy in education reform. As such, participants should have been more strategically selected in such a way that only groups working directly on education reform were the ones involved in the project. This way, use of data and subsequent engagement with government could have been made more sustainable. Creating effective open data champions[14] is not just about bringing together different organisations and training them on open data skills—it is more about assisting organisations who are already engaging with government on specific issues to increase their impact by acquiring skills in using and analysing open data.

Lesson

5

To take root, open data requires sustainable resources and efforts in building user capacity.

Education groups trained through this project displayed great enthusiasm for data-driven engagement, but the introductory level skills they acquired might not be adequate for them to easily mainstream data as part of their everyday work. More sustained capacity building is critical to improve the capacity of interested groups to request information, demand open formats and licensing of the data, use and disseminate it for wider impact.

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14 See here a good discussion about the role of open data intermediaries: http://www.opendataresearch.org/dl/symposium2015/odrs2015-paper8.pdf

6. Areas for Future Research

This project aimed to link open data and FOI by providing citizens with alternative routes to access government data. It also aimed to increase awareness of the existence and value of the data sets that the government's education department holds, and open gateways of opportunities to put them into use.

The intention was not to solve the problem of a low volume of FOIA requests, but to build a sustainable information disclosure practice that addresses and matches civil society and government's needs and supply, especially in a context where trust and communication between citizens and the state can be challenging; FOIA mechanisms are not clear, e.g. people get sent from one office to another when they ask for data; and the use of evidence and data to inform policy debates is not widespread. This process is hoped to make governance more responsive to citizen's needs and aspirations.

Based on our experience in Aceh, we are keen to see whether participatory open data initiatives would also work in other places to directly increase uptake of government information and facilitate constructive dialogue between government and citizens. Across Africa, for example, fewer than one in four of people surveyed by Afrobarometer in 2014/15 believe that local government councillors listen to them.[15] In post-Katrina New Orleans, Code for America found that the key to open data impact was not "throw[ing] together a cool app" but enabling "more productive communication … moving past angry and frustrated citizens on one end, and a paralysed city on the other."[16]

We have two additional untested hypotheses that will benefit from future research.

↘ First, **we still need to test whether proactive disclosure of government data could indirectly lead to greater use of FOIA mechanisms as more people will become aware of the types of data that government holds and the value it could have for them.**

↘ Second, **we still need to know whether exposing government agencies to open data initiatives may also make their responses to FOIA requests more efficient and helpful**, because open data initiatives help them to overcome some of their apprehension about providing data publicly.

Research on these two areas will help us understand better the link between proactive and reactive disclosure and the impact of open data initiatives on citizens right to information.

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15 Source: http://www.afrobarometer.org/online-data-analysis/analyse-online

16 Source: http://www.fastcoexist.com/1680759/revitalizing-new-orleans-by-crowdsourcing-renewal

For more information on this project, visit our website at labs.webfoundation.org or get in touch with us directly at info@labs.webfoundation.org. Other resources, such as our How-to Guide for this project and presentations talking about this project are also available in the resources section of our website.

About the World Wide Web Foundation

The World Wide Web Foundation was established in 2009 by Web inventor Sir Tim Berners-Lee to advance the open Web as a public good and a basic right. We're building a future in which the Web empowers everyone, everywhere, to take part in building a fairer world.

Part of our vision is that data - the lifeblood of digital societies - should be used for public good. We're working to open up data online so that everyone can understand and use it to tackle the problems that matter to them.

About the Open Data Lab Jakarta

Established in 2014, the Web Foundation's Open Data Lab Jakarta is working with communities and government across South East Asia to find innovative ways to use data to solve civic challenges. Our goal is to empower people to make data work for them.

The Jakarta Lab is the first in a planned series of Labs in developing countries, with a Lab in Africa on the horizon.

Acknowledgements

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