



# USING PHOTOGRAPHY TO CAPTURE DATA IN EVERYDAY LIFE

LESSONS LEARNED FROM OUR DATA AND CULTURE PROJECT IN  
YOGYAKARTA, INDONESIA



LESSONS LEARNED PAPER





# 1. Background

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Every day we produce and consume data. Data plays an increasingly central role in our daily lives, from the user-generated data companies use for targeted advertising to the data collected by governments as the basis for drafting and evaluating public policy.

While data permeates and impacts every sphere of our society, much of the public discourse revolves around abstract questions centred on the role of technology in the production and application of data in business and policy-making. From online platforms and mobile apps, to community notice boards, newspapers and telecentres, data flows through a range of channels reaching and influencing people in a number of ways. By creating a rich photographic record of open data in use, we can add substantial depth to our shared understanding of the opportunities and challenges around data.

It is important to see how data represents the realities that people face. If data is a basis for public policy-making or civil society advocacy, then it should be able to capture and accurately represent the processes that affect people's lives. The state of schools, the existence of roads and bridges, the status of medical supplies, while contained as data in government inventories, can also be represented by photographs that capture these everyday situations.

From June to November 2016, the Open Data Lab Jakarta of the World Wide Web Foundation, in partnership with the Goethe-Institut Indonesien, implemented a photography project entitled "Data2Life. Life2Data." The project, conducted in Yogyakarta, a city in central Java, Indonesia, aimed to use photography to:

1. Depict how different stakeholders produce, consume, and use data at the local level; and
2. Validate the accuracy of data by capturing actual objects, people, processes, and events that data represent.

The project intended to contribute to the wider goal of fostering a culture of data, where different stakeholders produce, use, and consume data to achieve better social, political, and economic outcomes.

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**Cover photo:** David Löhmüller

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This paper was written by Michael Cañares. Denise Karunungan provided the text on the sample story on access to clean water.

## 2. What did we want to achieve?

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The wider goal of the project was to show that ordinary people interact with data – particularly government data – on a daily basis. We used photography to create a visual record of these interactions.

We worked with eight organisations advocating for financial transparency in Yogyakarta, training them to use photography to capture how people interact with data in a range of contexts. In the “Data2Life” component, we taught these advocates how to use photography to record people’s daily interactions with government data. In the “Life2Data” component, we helped them use photography as a medium to hold governments to account, by tracing government spending data back to the communities it intended to help, to evaluate whether it was effectively used.

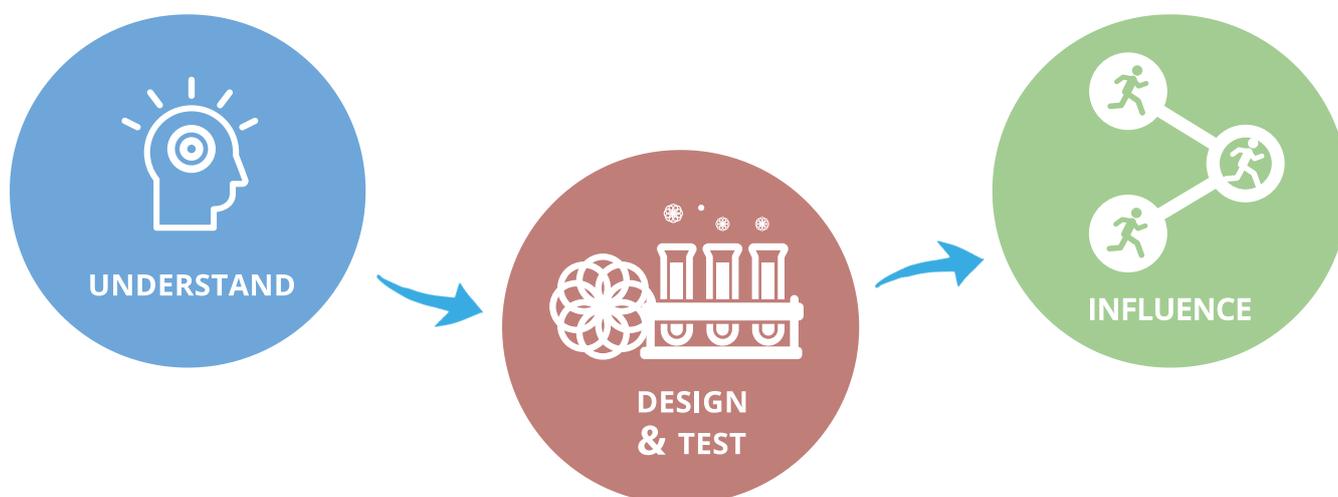
By showing participating organisations how to combine open data with photography to monitor government transactions, we helped them appreciate how data can enhance their advocacy for a transparent and accountable government.

**Picture 1.** A representative of SID DLINGO documenting and photographing the village cultural festival. Photo taken by David Löhmüller.



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

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The project involved three phases - understand, design and test, and influence. These phases correspond to the Lab's innovation framework, an approach that we use in implementing our projects.

#### PHASE 1: UNDERSTAND

At this stage, we did a **rapid assessment of potential partners** to identify who to work with, what kind of issues we intended to address, and the appropriate entry points for using photography to capture data and people's interactions with it. We decided to focus on the topic of financial transparency and work with three key actors:

1. **Perkumpulan IDEA**, a civil society organisation in Yogyakarta advocating for fiscal transparency.
2. **Pannafoto**, a prominent photography group based in Jakarta which tackles social issues through photography.
3. **David Löhmüller**, a third-party photographer who had previously done photographic documentary work in Indonesia and could provide photography training and advice to participating organisations.

In parallel, we had **consultative dialogues** to understand how stakeholders in Yogyakarta collect, produce, consume, and use budgetary data to help us determine what scenarios to capture ("Data2Life"). We also worked to identify government budget data that could be represented by objects, people, and events ("Life2Data").

Perkumpulan IDEA nominated "photography participants" – transparency advocates working in sectors such as education, health, and environmental sanitation. After a quick assessment of their open data knowledge and photography skills, these participants began the process of learning about open data and capturing it in stills.

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

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#### PHASE 2: DESIGN & TEST

Based on the results of phase one, we developed a project implementation design in consultation with partners. The design, implemented over four months, included a **training on visual ethnography** to increase participants' appreciation of how to record everyday realities of people and their communities, an **open data training** to increase their understanding of data and its importance in their advocacy work, **basic photography training** to improve photography skills, and a **training on creating narratives** to hone their storytelling skills using data, photographs, and text.

*Picture 2. Participants of the photography workshop looking at the results of their training and mini-documentation session.*



#### PHASE 3: INFLUENCE

A group of project partner representatives then combed through hundreds of photographs taken by the participants, selecting those that would be included in the project exhibit. The photos captured events, people and public facilities from five locations, across five themes: access to water, basic education, women empowerment, irrigation systems, and social enterprise. The photographers were mostly amateurs, and captured images using a range of equipment, from powerful DSLRs to point-and-shoot cameras, and even mobile phones.

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

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With the help of their field notes, we worked with the project participants to build the stories shown in their photographs. These narratives, alongside the photos, articulated not only the participants' understanding of the context of the photographs, but also the dreams, aspirations and experiences of the people in them. After the photographs and text had been finalised, we worked with our project partners to curate an exhibition with 78 photographs depicting eight stories and themes.

The exhibit was launched in Yogyakarta, Indonesia before being showcased at the International Open Data Conference in Madrid, Spain in October 2016. A month later, the exhibition was shown in Jakarta, Indonesia along with a panel where project partners spoke about the results of the project. In May 2017, the exhibit traveled to Berlin, Germany for Re:publica<sup>2</sup>. An online exhibit was launched on the Goethe-Institut website<sup>3</sup>. The pictures are also available online at the Open Data Lab Jakarta's picture repository<sup>4</sup>.

**Picture 3-5.** Participants of the photography and narrative training workshops in action. Top left shows some of the results from the photography training, top right are the participants in the streets of Jakarta putting their skills into action, and bottom are the participants practicing storyboarding.



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<sup>2</sup> Re:publica is an annual conference focusing on topics such digitisation and society, media and tech, health, mobility, cities and more.

Learn more about the event at <https://re-publica.com/>

<sup>3</sup> Source: <https://www.goethe.de/ins/id/en/kul/pkt/opd/ire.html>

<sup>4</sup> Source: <https://www.flickr.com/photos/128334607@N03/albums>

## Straight from the exhibit

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### **ACCESS TO CLEAN WATER IS CRUCIAL TO IMPROVE QUALITY OF LIFE IN RURAL COMMUNITIES.**

PAMSIMAS is a national programme funded by the Indonesian government and implemented by local communities, with the intention of providing clean water for drinking and sanitation. The second phase of the project, PAMSIMAS II, started in 2014 in Kulon Progo – a district facing problems of access to water due to its hilly topography.

JMKP is a community-based organisation that looked into the data of PAMSIMAS II in the Donomulyo village. They found that 270,000,000 Indonesian rupiah (approximately US \$20,500) was allocated to the project to resolve water, sanitation and access issues. JMKP used this information to verify that the water infrastructure had indeed been built.

The success of PAMSIMAS meant clean water became readily accessible to citizens. This led to behavioural changes within the community, including:

- Women no longer rely on the village well or the river for water. They have taps installed in their homes for clean water.
- Villagers no longer use the public gardens as a latrine because they have clean water in the comfort of their home.
- Children now play without worrying about the “after” cleanup. They are also healthier as they can wash their hands more often, and with clean water.

The availability of open data allows independent verification of public spending to happen more quickly, ensuring that relevant government programmes are meeting people’s needs. With water projects such as this, open data can also help answer other relevant questions. Are the pipes well-maintained? Are the sources of water clean and sustainable? Are people satisfied with the service? Expanding data collection to include the data needed to answer these questions is vital. Also critical is ensuring that when such data are collected, they are proactively published.



## Straight from the exhibit

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From top to bottom, photos taken by:  
1. JMKP of a citizen washing her hands  
2. David Löhmuller of JMKP in action  
3. JMKP of the water towers in the village

Photos were displayed at the exhibits in Yogyakarta and Jakarta, Indonesia, Berlin, Germany and Madrid, Spain.

## Straight from the exhibit

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**Pictures 9-11.** Documentation of the impact of trash in the village. This resulted in the village identifying the need for a village-owned enterprise managing and finding solutions to their waste build-up. Photos taken by IRE and displayed at the exhibits in Yogyakarta and Jakarta, Indonesia, Berlin, Germany and Madrid, Spain.

## Straight from the exhibit

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**Pictures 12 to 14.** The top photo shows a school in Yogyakarta where JKPGK tracked the school's funding allocation. Some of the money was spent on better music instruments and reinforcing fences for safer play. Bottom left photo is taken by CRI and INFEST of the village canal in progress. Bottom right is taken by FKPP Wonolelo documenting women's empowerment programmes in Yogyakarta. Photos were displayed at the exhibits in Yogyakarta and Jakarta, Indonesia, Berlin, Germany and Madrid, Spain.

## 4. What did we learn?

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We often talk about data in an abstract way. This project shows that by illustrating how people experience data directly, we can bring data to life and provide a more tangible way to engage with it. Fiscal transparency advocates were able to see data as part of their daily realities and as part of their culture in a way that is often overlooked, and used this insight to advocate for more transparent, accountable governance. Reflecting on the project, our partner Christel Mahnke, then Regional Head of Information & Library Department in Southeast Asia/Australia/New Zealand of the Goethe-Institut Indonesien, said:



“Data is a commodity, produced by everybody, every day. It is part of our economy, society and therefore part of our culture. The medium of documentary photography seems especially suitable to capture the meaning of open data—a way of visual storytelling. The impact of data on everyday life – which influences culture – is visualised, as well as the process of understanding and using open data.”

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We also learned that one of the primary challenges in helping people understand the value of open data is the perception that data is overly complex, requires expertise, and is something that only skilled, tech-adept individuals can understand. Adhitya Randy, our data scientist and project manager for this project, said:



“This wasn’t an easy project - data is a complex concept, and capturing it so everyone can understand it posed a big challenge. We worked hard with our partners Perkumpulan IDEA and PannaFoto to organise the workshops, and trained eager community-based organisations. It has been inspiring to see how the organisations took the skills they learned to create incredible visual stories of data affecting the daily lives of people in Yogyakarta. These are stories everyone can all relate to.”

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# 5. What are our key take-aways?

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Looking back at our experience in running the project, together with our partners, we identified five key takeaways.

Lesson

1

**By making open data relatable, we can humanise discussions and help inspire people to put open data into action.**

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One of the difficulties of open data discussions is a tendency to use technical jargon to describe open data and what it can do. People we talk to often believe that open data is a complex topic, requiring a high degree of expertise, irrelevant to their daily lives. Using photographs to capture not only what open data is, but how people interact with it on a regular basis, shows people that open data is not abstract but real — a resource they can both use and create. As one of the participants said:



“When we were discussing in one of the trainings what open data is, I actually did not realise that it was something important to me and my work. I thought this was an innovative technology that I may not necessarily care about. But after a while, I found out that open data is about all things I care about – budgets, spending data, projects, people, location – all at the very core of my advocacy in realising better governance of my community.”

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Lesson

2

**Photography is a powerful way to tell stories behind open government data and to kick-start discussions between different stakeholders.**

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In the past, we have used data visualisations to inform the public about open data. These have been effective in starting conversations between government and civil society organisations on key social issues. We found that photographs reinforce these efforts, particularly because the stories they tell are

## 5. What are our key take-aways?

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direct representations of people interviewed or of real situations on the ground. Photographs provided a face to the data, telling stories of real people and real communities. As recalled by one participant:



“You cannot just take photographs. You must talk to the people. By talking to them, the photographs I took came to life. When I wrote the stories about the photographs, I brought their stories to the fore. During the exhibits, the photographs made people read the stories and understand better.”

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Lesson

3

**A context-relevant approach is needed to show what open data can do to promote accountability, public service delivery, and increased citizen participation.**

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The project team ensured that all activities were relevant to context, responsive to people’s needs, and reflective of reality. For example, we used concrete transparency issues, identified by the project participants, as starting points in discussions. We also adapted the photography trainings to suit the equipment the participants had. Most importantly, we made sure that we used methods that would help participants accomplish their advocacy goals. For example, we showed them how to use photography to monitor government performance and to highlight areas requiring the government’s attention for improvements. One participant said:



“While I was taking the photographs in my visits to the villages, I realised that this is something the people can do themselves. When I explained to them that they can use photographs to show governments what their needs are and how the projects implemented in their communities are performing, they realised that this is something that they can do themselves with their mobile phones.”

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## 5. What are our key take-aways?

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Lesson

4

**Data-driven advocacy is only possible when advocates realise the vast potential of data to drive evidence-based discussions with governments.**

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Transparency advocates use whatever information they have to engage with governments. However, all too often their arguments are based on opinion and anecdote. When discussions are underpinned by data that governments themselves publish, supplemented with evidence such as photographs, they can be more persuasive and productive. One of the project participants said:



“I realised that using open data in our discussions with government eliminates emotionally-charged and opinionated discussions on key issues that we both care about. Open data shows the context and the problem, so we have more time to focus on what could be done. I believe there should be more open data, especially on key issues in education and health. More openness in data means more information for citizens to hold their governments to account.”

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Lesson

5

**Open data initiatives but must be designed with due consideration of existing cultural practices in data information and sharing.**

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Initiatives are often framed as novel solutions to improve governance, changing how governments provide data to the public and how citizens can use data to make governments accountable. They are typically prescriptive, defining what governments should do and what skills civil society needs to acquire. But our experience in Yogyakarta has shown that data transparency is not necessarily new. There are diverse ways by which people produce and share data, and there are indigenous practices

## 5. What are our key take-aways?

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whereby citizens participate in community activities. Understanding these practices and how they can be used to strengthen open data initiatives is critical. One of our partners from Pannafoto observed:



“People share information and data in diverse ways. In the villages, people do this by informal interactions, by talking among neighbors rather than by visiting bulletin boards or accessing web-based portals. I think the challenge is how to use these current practices in designing open data initiatives and build on what people are accustomed to, rather than build something entirely different.”

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**Picture 15.** In some places, access to digital data is almost non-existent. Instead, citizens still rely on newspapers and infographics to understand government activities, budgeting and spending. Photo by David Löhmüller.



## 6. Areas for Future Research

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The project explored the value photography brings to open data in capturing how people produce, consume and share data, and how data is represented in real life. In doing this, the project was very successful. However, during implementation, it became apparent that there are diverse ways by which people produce, consume, and share data – practices that have endured over a long time. The project was not able to capture these processes well enough to be able to fully understand the origins and effects of these practices in the communities we worked with, or how these can be used to institutionalise an open data practice.

Our findings suggest further questions, such as:

- ↘ Is there such a thing as a “culture of data”? How does this materialise?
- ↘ Is the previous research on this topic showing that data-based decision-making is not a norm in most communities correct?
- ↘ If so, how can you make it a widespread practice?

Research into these questions is important to inform the design and implementation of future open data interventions.

For more information on this project, visit our website at [labs.webfoundation.org](https://labs.webfoundation.org) or get in touch with us directly at [info@labs.webfoundation.org](mailto: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

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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 the public good. We're working to open up data so that everyone can understand and use it to tackle the problems that matter to them.

## About the Open Data Lab Jakarta

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Established in 2014, the Web Foundation's Open Data Lab Jakarta is working with communities and governments 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.

## Acknowledgements

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Our sincerest thanks as well to the project mentors, who shared their time, expertise and ideas on how to further develop and scale the individual projects.

While our successes are shared with our colleagues and collaborators, any inaccuracies or errors in this paper are ours alone.

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### Open Data Lab Jakarta

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