

NETWORK
THINKING



Open Data Leaders Network Digest

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Introduction

These are all common questions we hear from civil servants leading open data initiatives around the world.

These leaders are entrepreneurs. They have a compelling vision about how they want to transform society, and a new tool – open data – to pioneer. Like all entrepreneurs, they face the uphill task of gaining support for their idea, and securing the necessary long-term resources to scale up and sustain their plans. The journey of the government entrepreneur can be a lonely one, with little in the way of supportive structures or tried and tested blueprints to follow.

That's why in 2015, we started to bring leaders of open data initiatives together to form the Open Data Leaders Network. This peer network is a space for civil servants from around the world to exchange knowledge, challenges, practices, plans and tools. In doing so, it provides a source of mutual support, inspiration and opportunities for collaboration – creating conducive conditions for innovation. It is an incubator for government entrepreneurs.

The digest represents a collection of reflections from these leaders about their experience in driving change, with insights about embedding reform, working in coalition, tackling implementation challenges and stimulating innovative uses of data. Also included are observations from the ODI on the qualities of effective open data leaders, the role of openness during times of political transition and the future of a data-driven civil service.

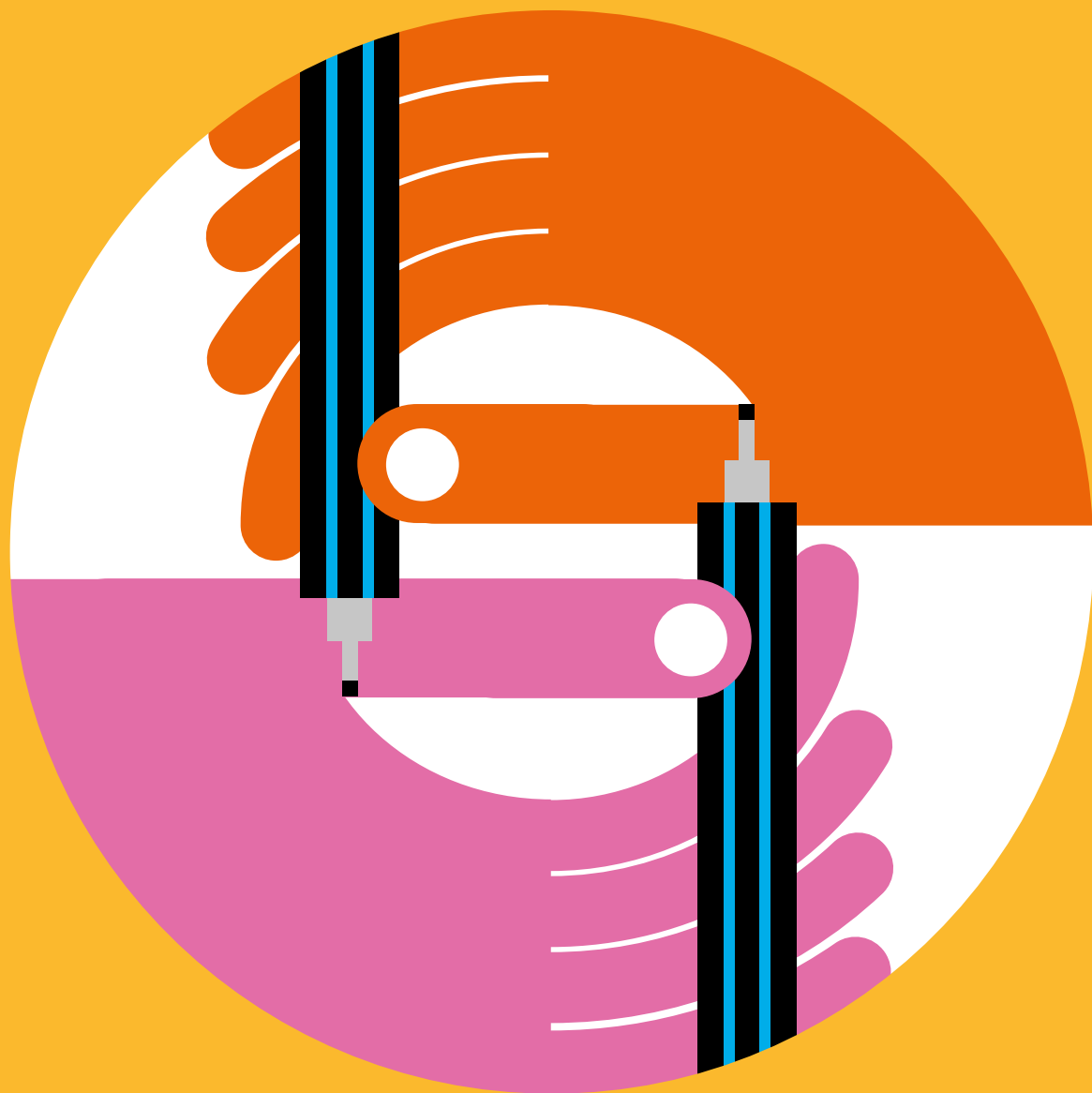
While it focuses on challenges for civil servants, many of the techniques and lessons discussed in the digest can also apply to open data leaders in private or third-sector organisations

This collection is designed to provide fresh ideas, knowledge and lessons for subsequent generations of entrepreneurs in and outside of government, public policy researchers, open data supporters and innovators.

“How do I help my colleagues in other ministries overcome their fears about publishing data?”

“How do I sustain political support for open data beyond the next election?”

“How do I encourage the private sector to use the data we are producing?”



Chapter 1

Foundations of success

In this chapter we focus on the origins of some open data initiatives, and how their leaders plan for long-term success.

Based on her experience working with the Open Data Leaders Network, the ODI's Fiona Smith reflects on common traits of effective open data leaders. She discusses network-thinking, strategic vision, advocacy skills, humility and agility, and actively modelling openness.

Fernanda Campagnucci, an open data leader from São Paulo, then writes about how an inquisitive spirit and passion for education reform, combined with a government mandate for increased transparency, fuelled the growth of open data in her city.

External demands for transparency and participation provided fertile

conditions for open data to take off in Edo State, Nigeria.

Nkechi Okwuone discusses how a combination of political will, civil society demand and internal change agents are driving the open data agenda within government.

And Irena Bojadzvieška from Macedonia dissects the strategy she followed to harness early-stage momentum for open data, using agility and advocacy skills to drive policy change, community engagement and partnerships with civil society and academia.

Common traits of effective open data leaders



Fiona Smith
International Development Manager,
Open Data Institute

Open data is changing the way governments relate to citizens, businesses and other public agencies in a way that Francis Maude, former UK Cabinet Office Minister, compared to such disruptive historical programmes as overhauling London's Victorian sewer network or the building of the National Grid.

In response to this challenge, governments at all levels around the world have appointed dedicated Chief Data Officers and created a range of new positions and units focused on activating digital and data transformation. As the movement accelerates, the role of open data leaders has shifted from just helping governments to become better publishers of data, to promoting use of data. This includes both encouraging internal consumption of data, at the same time as catalysing external data-driven innovation.

This new dual function requires a unique mentality and skillset that is not typically found in the traditional civil servant mould.

Throughout my involvement with the Open Data Leaders Network, I have met inspiring leaders from all walks of life: lawyers, techies, political scientists, entrepreneurs, career civil servants and even hackers. So what does the profile an open data leader look like? The following common characteristics disregard experience and cut across city, state and national divides:

Network-thinkers. Promoting innovation is a complex task and rarely a solo activity. The web of data relies on exploiting connections to derive new solutions. Similarly, effective leaders can harness the power of networks to achieve greater collective impact. Success lies in recognising that what is necessary to implement change can often lie outside. This means actively reaching out to non-traditional groups, building coalitions of support and inviting collaboration from those outside government.

Strategists, not specialists. While there is an element of technical knowledge involved, open data leaders are primarily skilled architects of change. They understand how

to pick the right team, and can collaborate across siloed agencies. This requires a good understanding of how data is being produced and used, an ability to motivate people around a vision, to manage for change, to inspire trust and to take responsibility.

Advocates. Not everyone in government will buy into open data. Existing incentives may even operate against the direction of reform. Open data leaders must be able to respond to genuine concerns while continually making the business case for open data to different audiences. An effect tactic can be to encourage government departments to open, share and consume data, thereby demonstrating its value.

Humble inventors. The most impactful open data initiatives are problem-focused and have a strong supporting theory of change that is linked to solving real world challenges. Many inventive apps and glossy portals have fallen by the wayside because they were not designed with users in mind, or lacked a grasp of the problem they were solving. Being receptive to feedback, monitoring for effectiveness and adapting plans along the way are as important as creativity.

Open by default. An underlying commitment to the notion of 'openness' as a concept should be the hallmark of an open data leader. This means modelling transparency in the way they make decisions, solve problems, design programmes, share learning and communicate progress. This way of operating cuts against the grain of often hierarchical, centralised and opaque public sector work cultures.

No matter how talented they are, an individual leader can succeed in driving change only so far. Peer networks that connect leaders across jurisdictions can provide a source of mutual support, inspiration and professional development, but for open data to become embedded across society we need a more innovative public sector culture as a whole. If we are serious about supporting the 'disruption' that is open data, we need to first support the disrupters.



How I became involved in open data... hacking from the inside

Fernanda Campagnucci

Public Policy Analyst, Education Agency, São Paulo
Former Head of Transparency and Integrity, São Paulo

As a journalist I attempted to discover the world, and explain it, through words, numbers and images. When I started to get interested in data journalism, it was as a way of gathering these three languages into meaningful stories.

I was first able to put this into action in a Brazilian NGO called 'Ação Educativa' ('Educational Action'), which holds a well known programme in this field: the Observatory on Education. Until 2012, Brazil lacked a Freedom of Information Act, and it soon became clear to me that the fight for the Right to Education would strongly benefit from such a mechanism. The Constitution of 1988 already guaranteed Freedom of Information; however, without clear legislation, the act of demanding data or information from the government was still an uncertain and tiring exercise.

Civil society was engaged in pushing for this legislation, and this is how I became involved in the civic hacker movement, building connections in this field. Through a combination of scraping data, obtaining data through the new Freedom Of Information Act, and sometimes through independent crowdsourcing and collection, I began to produce really cool stuff: a visualisation on 'education councilors', both from the city and the state; investigative journalism on education policies; and even a hackathon-winning project, ('School We Want') on schools' indicators data all over Brazil.

In 2013 I received an unexpected invitation to join the city government – to help build a new agency dedicated to transparency and public integrity, including implementing a Freedom of Information Act at the city level.

I didn't plan on a career in the public sector, but the chance to understand the mechanisms of government from the inside appealed to me. Three years on I don't regret this choice. With a team, I helped to develop and implement the São Paulo Open Data Portal, built on CKAN; the disclosure of São Paulo property register; 'Free Diary', the Official Journal of the City of São Paulo in a free and open format version; and Answered Inquiry! (Pedido Respondido!), a platform that publishes all answered information requests made to

São Paulo City Hall agencies and entities through the Electronic Access to Information System.

I believe that, just as much as opening data matters, so does the process of opening data. That's why we launched the Cafe Hacker project, a programme to engage people in the process of opening public data through structured meetups and hackathons. We bring together people from different backgrounds – activists, journalists, civil servants, researchers and popular councilors – in order to discuss relevant subjects.

Some wonderful moments have come out of this project that illustrate our objectives. A 70-year-old woman, experienced in health activism, asked what in the world was the API everybody was talking about. A hacker was able to explain it to her in such a way that she recognized its importance and eventually started to demand APIs as well.

After three years working as an appointed civil servant, and 10 years since I began promoting transparency and open data in education, I decided to take the civil service examination. Today I work as a Public Policy Analyst in the Education Agency of São Paulo Government, trying to hack the machine from the inside, and improving the state of open data in São Paulo.



How I became involved in open data... improving public service delivery

Nkechi Okwuone
Open Data Manager, Edo State,
Nigeria

Transparency, citizen engagement and access to information: these are the major challenges in the democratic government in Nigeria. The country's Freedom of Information Law was passed in 2011, but years later the law has yet to be adopted by the 36 states that make up the federation. Citizens are not involved in governance and therefore elected leaders are not held accountable for their actions and inactions.

Driven by a passion for change and dissatisfaction with the status quo, I decided to forsake the allure of the private sector and joined the public sector immediately after obtaining a university degree, specifically opting for the Information Communication Technology Agency (ICTA) of the Edo State government. The institution's primary goal is to make technology a critical enabler in improving service delivery in the public sector.

The Edo State government has been known for its inclusive approach in governance, from regular town hall meetings to open investment opportunities through public private partnerships. In the past seven years, the government has taken strides in curbing corruption and leakages by introducing technology and innovation to improve service delivery. Digital technology has been introduced into the tax system, education management information system and other essential public services.

These platforms have formed the foundation of Edo State's readiness assessment for open government. We received technical assistance from the World Bank to develop an open data initiative to advance socio-economic growth and prosperity, with an acute commitment to citizen engagement.

Being part of the technology community in public service over the last five years has given me the opportunity to use my background in electronics and engineering to solve social challenges in an innovative way. I soon developed an interest in the open data initiative and its potential to improve public sector efficiency, reduce corruption, create jobs and change the way in which government

works. I joined the open data working group, contributed to the open data readiness assessment of the state, and led the team that launched the first sub-national open data portal in Africa and the only portal in Nigeria, www.data.edostate.gov.ng.

Although the process has by no means been entirely smooth, engaging with networks and focus groups has been the backbone of success and sustainability for us. Open Data Leaders Network at the ODI, School of Data from Open Knowledge (OK), Open Data for Development (OD4D), the Global Open Data for Agriculture and Nutrition initiative (GODAN), Connected Development Nigeria, BudgIT, as well as online resources and focused events have all provided support that has made us operative to date and helped us to build open data capacity. What is of paramount importance for us right now is the need to develop case studies that translate open data into economic prosperity and to encourage entrepreneurs, civil society, journalists and users to see lapses in governance as an opportunity, rather than a failure of the system.



How I became involved in open data... public sector strategist

Irena Bojadzieska

PhD, Head of International Unit,
Agency for Audio and Audiovisual Media Services,
Macedonia

Successful open data leadership can be summarised by three things: good national and international coordination, lots of energy, and strategy.

While I was working in the Macedonian Ministry of Information Society and Administration, the Minister at the time, Ivo Ivanovski, was inspired by an open data based app he had discovered in the United States to bring open data to Macedonia.

When the ministry declared that we would be starting an open data initiative, there was a buzz around the Open Government Partnership (OGP). The OGP programme was usually run by the Department for Foreign Affairs, but since interest in the OGP coincided with open data, the Ministry of Information Society and Administration took over both programmes, and I became responsible for both initiatives.

The work was challenging but also complementary to my PhD in e-Governance which I was undertaking at the time, and which meant that openness and transparency were not new concepts to me. There was little time to get stuck into theoretical material, however. The ministry was challenged to demonstrate results so we needed quick wins, not only to demonstrate that open data was a great concept, but to embed that concept and begin to change the culture across ministries and agencies. If we wanted them to open up their data we had to produce convincing evidence to showcase its value.

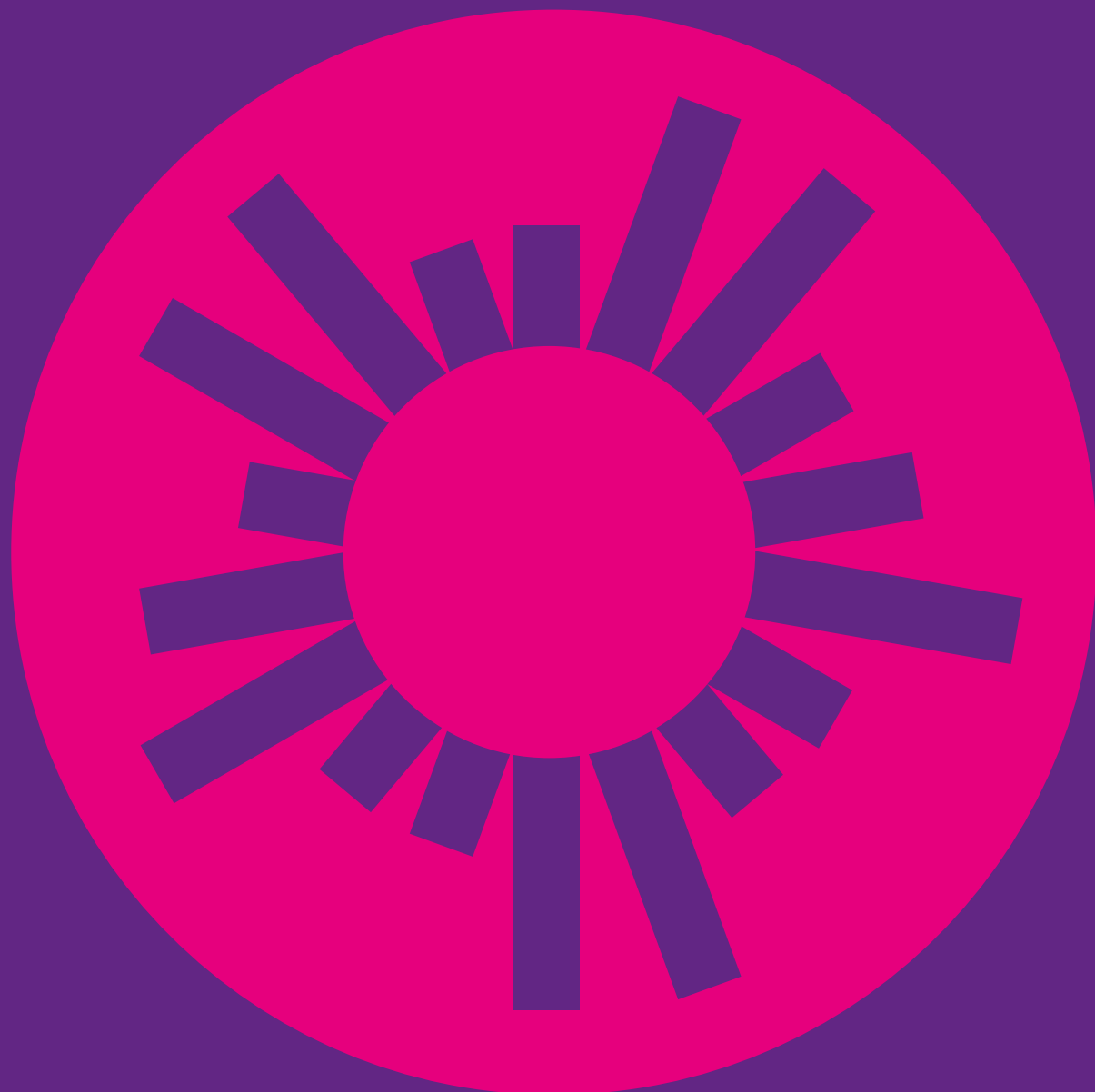
We soon realised that such wins would not come as quickly as desired. We had to act strategically. We decided to work on all things in parallel: research, delivery of white papers, engagement meetings, presentations and lobbying, as well as attending civil society events.

We carried out comparative analysis research to demonstrate the benefits seen at the time by more advanced countries like the UK and US, as a result of open data. The results contained figures of earned income, as well as examples of how data can be used for potential businesses. In an attempt to inspire SMEs to

become familiar with open data and tell us which data they needed, we presented the research to the Government Committee for Innovation and Entrepreneurship and the Chambers of Commerce.

We cooperated with universities, helping them organise contests for students who develop applications. We engaged with these communities to help prove the value of the data. We attended international events, exchanged experience and applied it at home, where possible. By harnessing networks, we were able to obtain training and support from the UNDP, World Bank and the ODI. Under the OGP, we cooperated intensively with NGOs. They were already offering us support through projects on open data and helped disseminate the message across civil society stakeholders.

These were just some of the many breakthroughs that paved the way and contributed to our ultimate success: we created an open data law and an open data portal to enable data publication in Macedonia.



Chapter 2

Mechanisms for change

In this chapter we consider how to build from early successes, advocate internally to broaden support and embed open culture change for the long term.

One of the critical factors throughout this process is leadership. Richard Stirling, International Director at the ODI, sets out a framework for approaching transformational public sector leadership. Based on experience within the UK and globally, he reflects on the different phases involved, including gaining senior sponsorship, executing the vision, penetrating the mainstream and knowing when to draw to a close.

Armend Vokshi recounts his personal journey as Director of the Department of Public Administration in Gjakova, scaling up open government efforts across Kosovo. In an inspiring account, he explains how one pilot e-procurement project was scaled

across the country and spread into other sectors.

Compelling stories demonstrate the value of open data and stimulate continued demand for its supply. Paul Stone, Open Government Data Programme Leader, New Zealand, discusses their importance.

ODI Associate Liz Carolan addresses the challenge of how to lock in reforms, especially in the context of political transitions such as elections. Writing from her recent experience supporting open data in Burkina Faso, she observes different options for building sustainability, including introducing legislation. She has found that, ultimately, open data is a culture change that is bigger than a single project and takes time to nurture.



Getting an idea into the mainstream: the lifecycle of public sector leadership

Richard Stirling
International Director,
Open Data Institute

The 'lifecycle of leadership' describes the transition of ideas from a small group of innovators to mainstream implementation in the public sector.

Introducing any idea requires building a compelling narrative, and the need to make officials and peers in government buy into it. In the context of open data, leaders in government have to demonstrate creativity and a desire to innovate. Although the lifecycle of leadership changes according to political context, these key lessons about building momentum apply universally:

- Leadership should adapt as an idea progresses through its lifecycle
- Innovation is about execution rather than institutions or particular practices
- Leaders should seek partnerships and senior support to ensure viability of ideas

Stages of innovation

Vision – Getting senior leadership and politicians marshalled behind an idea.

Allowing civil servants to shift from the status of 'lone heroes' to 'lone heroes with a minister'. Stimulation for the idea is often generated by talking to groups outside of government who are finding innovative ways to solve social problems. Crucially, this stage requires civil servants who are willing to challenge the status quo and inspire people to follow their lead in the heart of government.

Growth – Leaders are beginning to execute a vision: they assemble a team and create implementation plans. Leaders at this stage are sharing their vision, developing buy-in, creating proof-of-concept projects and building partnerships that can pay dividends as their plans progress. Such leadership might be described as 'evangelical'. The examples and proofs of concept are used to build momentum and make the case to peers.

Stability – When the innovation begins to become mainstream. At this stage, leaders are no longer trying to convince people of the value of an idea. Instead, the impact of the innovation is becoming apparent and relationships with delivery partners inside and outside government grow and need to be maintained. The skillset required to lead an initiative at this stage may change as programmes become more operational and look towards scale.

Auto-pilot – When an innovation is fully mainstream and integrated into service delivery. In the context of open data, many have marked this as when 'open by default' is reached. Here, teams are looking to improve processes and create efficiencies while maintaining the service's 'business as usual'.

A wise leader will work out which stage their portfolio is at, drive the initiative forward, and hand the baton on when the stage no longer requires their unique mix of skills.



How can open data drive culture change in government?

Armend Vokshi

Director, Department of Public Administration,
Gjakova, Kosovo

There has always been a close relationship between public institutions and citizens in Gjakova, with the goal of enabling economic stability and overall development for the region. In 2014, I had the opportunity to persuade our Mayor of the viability of open data for our municipality, starting with open procurement. Today, opening data is becoming more routine, and is a process involving citizens and civil servants alike.

The starting point for culture change towards open data in the city was the e-procurement platform, where it is possible to access data for public budget expenditures and procurement procedures.

Importantly, the culture change spread from Gjakova to Kosovo as a whole. When the application was implemented, everyone was surprised by the success of open procurement. Based on that success, six municipalities are now running open data procurement programmes. In 2014, we won a prize for being the first open municipality in Kosovo.

The change was achieved through collaboration. Initially it was the municipality's initiative, then civil society became involved, specifically through Open Data Kosovo and UNDP. The final stage was the involvement of volunteers and local youth NGOs, who gave an entrepreneurial perspective.

We did not have a formal action plan or strategy for open data prior to starting. Open Data Kosovo suggested using prototypes for implementing open data programmes from other countries in the global south. These prototypes followed a structured format: starting with a data assessment, with recommendations that formed the basis of an implementation plan. The model we used was more creative, however, when, in an unprecedented move, we put all the companies on public tender in Gjakova.

We used the momentum of this e-procurement success to build interconnected platforms for opening data from budget expenditure to interactive maps of schools, health institutions and businesses.

We did, however, face some challenges implementing the initiative. Civil servants were not used to working with digital services and applications. Although this did not present an issue for officials in terms of political will, training civil servants was a challenge. We had to resort to the help of young entrepreneurs and developers, who had the necessary skills and creativity.

As there was a lot of reluctance, I wanted to change the government's attitude. The most common question asked of me was, "Why do we need this?". I told them that as a civil servant, their task would be greatly facilitated by access to open data on procurement, public tenders, company information and administrative services. Today, my peers use the portal and don't need to use a notebook anymore – they have all the information they need put together in one place.

When speaking to foreign government officials who want to embed a similar change in their countries, I stress that open data does not have an immediately visible output. Rather, it is a product with long-term prospects. Their work should not be siloed in implementing open data reforms; instead, they should embrace the help of civil society and youth in order to carry out change more efficiently.



What are some successful strategies that make open data work?

Paul Stone

Open Government Data Programme Leader,
New Zealand

When open data is 'working', entrepreneurs, businesses, researchers, community groups and individuals will be innovating, creating new insights and acting as informed participants in government decisions. By using open data that is systematically released by organisations as 'business as usual' this can be achieved.

To reach this vision, we need to address both the supply and demand for open data, and to understand how they feed off each other. We need government agencies that want to release data, and we need data users that know about the value of data and that are capable of using it well. Where data starts to really work, and grows its value, is in its reuse.

People are motivated when they see a reason for doing something. In order to reach a point where agencies want to release data, they must be motivated to do their part and enable this process by seeing that their efforts to release open data will be leading to some worthwhile, positive impact. Time after time, the best way to help people see the point has been through telling compelling stories of how others have reused open data to make an impact. It is important to explain the potential, theoretical benefits such as improved social outcomes, enabling economic growth, and transparency and participation in government.

And yet, when you start telling stories of those innovative examples you can see the lights go on in people's eyes. Sometimes you can use examples of reuse of data similar to what the agency holds. If there are no existing examples, you have to use some imagination, and tell them of a realistic possibility – if the data was openly available. Having said that, it is also important to demonstrate that one cannot put limits on the possibilities of how data can be used imaginatively.

If you come across people saying "Who would want our data anyway?", it's useful to have a story about data being used in unexpected ways. One such story is the ANZ Truckometer in New Zealand, where economists have been using traffic volume data from the New Zealand Transport Agency and its relationship to General Domestic Product (GDP) data

from Statistics New Zealand to predict the direction of the economy. These predictions are published in a regular newsletter that is well read, and used by businesses to plan and make investment decisions.

On the supply side, through stories agencies get to understand the nature of demand for data, what people want to use data for, and they become more motivated to release their own data. On the demand side, the same stories can work to increase demand among potential data users who are not yet aware that they could be users. Stories contain ideas, and ideas can trigger more ideas.

We want to increase demand because the existence of demand means someone has an idea, or a problem to solve, that will lead to the data, if it is released as open data, making an immediate impact and added value. The more demand for data is met, the more stories are generated that demonstrate that open data really can and does add value. The more we can demonstrate open data adds value, the less effort is required to convince people it's a good idea to release whatever data they safely can, to be open by default.



Open data in times of political transition

Liz Carolan
Associate, Open Data Institute

Opening data is a political act. Making public commitments to openness can generate political capital – goodwill, trust and influence with the public and with other political actors. Seeing these commitments through requires expending it. This is especially true at times of political transition: during elections, leadership changes or large scale changes to the political system.

For those officials already in government who have been making progress, transitions can create conditions of uncertainty. The removal from office of a champion can hit initiatives hard, especially where there are still strong hostilities to reform. Elections or leadership challenges can also distract energy and resources away from reforms, or can make leaders less likely to take the risks and fight the battles that are required to see implementation through.

For those wishing to implement open data reforms from inside governments, transitions can present opportunities. One, perhaps extreme, example was seen in Burkina Faso during its recent transition to multi-party elections, where a fledgling open data initiative was given a strengthened mandate and budget by the interim administration following the overthrow of its longstanding leader in 2014. For the interim leaders, charged with re-building confidence in the state, open data was seen as a vehicle for distinguishing itself from the previous administration.

Open data reforms necessitate a transformation in how the state interacts with its citizens and with the other actors that make up economies and societies. Investment of political capital is required to deal with the inevitable resistance to change that this inspires¹. So once in power, post-election, getting things done requires expending a lot of goodwill and influence.

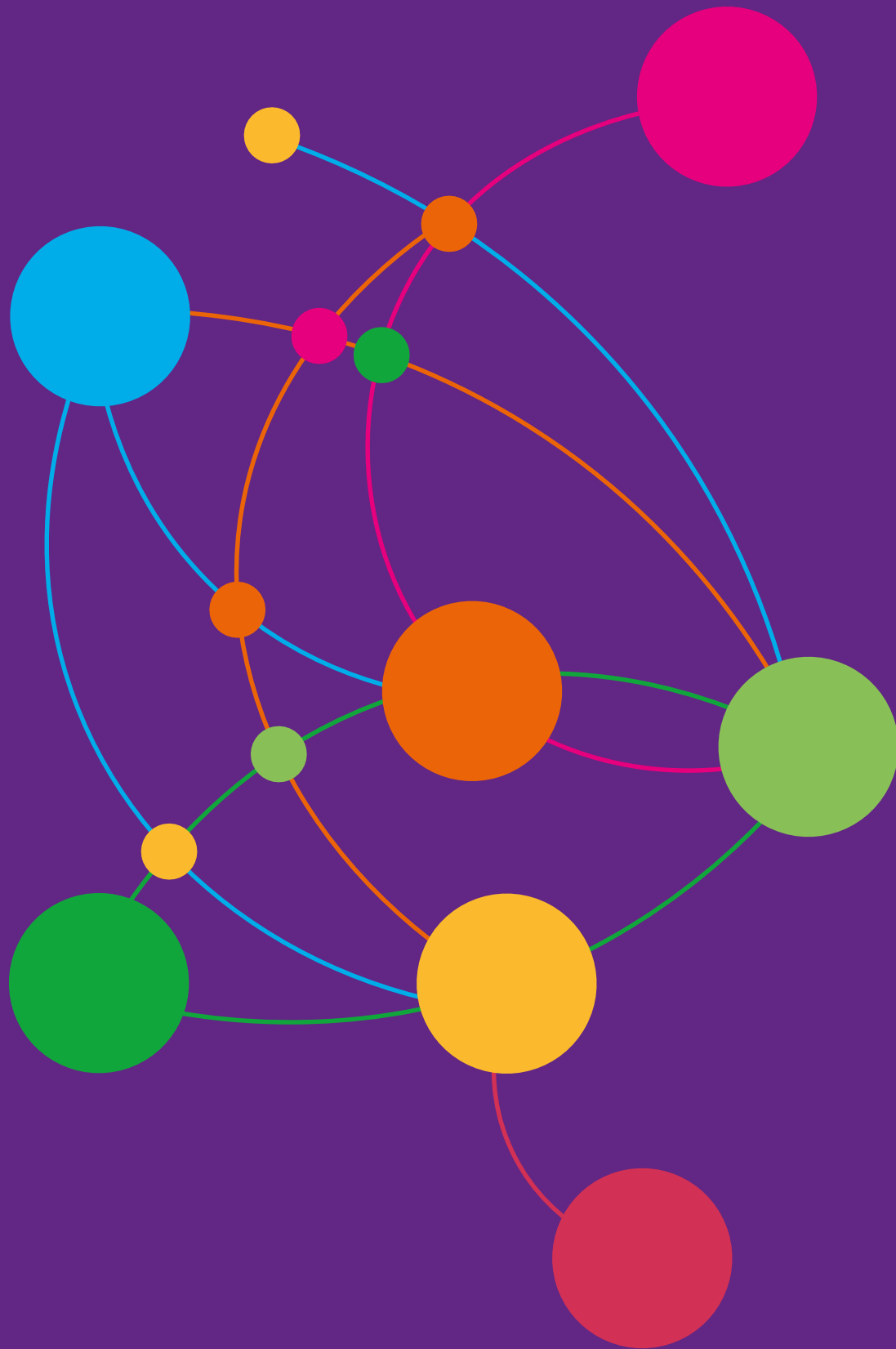
Goodwill from the public is not the same as influence with other political actors: political capital gained from commitments in an election period does not necessarily generate transparency or innovation. Nevertheless, we do often see new leaders use their fresh popular mandate from the electorate to take steps to push for difficult reforms.

The ODLN leaders we work with have spoken about the risks inherent in such times of uncertainty, and shared their strategies to mitigate them. Central to these strategies are plans to embed reforms in culture and practice in ways that generate, as one member hoped, “irreversible change”. Ideas ranged from embedding reform in legislation, to moving initiatives from politically powerful but exposed offices at the centre of government to other offices with more functional cross-government support mandates.

As well as the risks, many of the leaders who participate in our programme also recognise the opportunities that political transitions present. In systems where political transitions can be anticipated, for example where a leader will change on a fixed date, the time-bound nature of the project can help maintain momentum and keep complacency in check.

Adoption of open data by government will soon reach saturation level, at least at a national level. As that time approaches, sustainability of the initiatives will be the true test of whether the investments made have led to long-lasting changes. We are best placed to achieve this if we understand, and learn to survive and exploit, the dynamics of political transitions.

¹ <http://theodi.org/open-data-in-government-how-to-bring-about-change>



Chapter 3

Stimulating innovation

In this final section, we look at the critical issue of innovation and how to strengthen the overall data ecosystem to promote data-driven impact.

In a follow-up piece on the distinguishing features of public sector innovation, Richard Stirling of the ODI argues there is wide scope for data ‘entrepreneurs’ to innovate from the inside, build partnerships for delivery, and eventually build a data ecosystem involving government, civil society and the public as stakeholders.

The Undersecretary of Public Innovation and Open Government in Argentina, Rudi Borrmann, compares different methods for promoting public engagement and community building including hackathons, camps and other open spaces. The key, he argues, is to collaborate while continuing to build innovation skills

and an open mindset within the civil service.

Enrique Zapata, Deputy General Director of Open Data at the Office of the President of Mexico, unpacks some of the common challenges open data leaders might face when building the open data ecosystem. In a response piece, Emma Truswell shares current thinking on how they are approaching the issue of stimulating data use within the Mexican startup community by working in partnership with civil society, ODI experts and the Mexican government.

To close, Ellen Broad and Simon Bullmore of the ODI comment on what capabilities will be required by the civil service of the future to execute the vision of open data innovation. Data literacy, and an understanding the role of data in policymaking, will be key.



Open data and public sector innovation

Richard Stirling
International Director, Open Data Institute

What makes civil servants good innovators is their ability to execute a vision in a complex environment. The ability to convert good ideas into high quality delivery stems from a combination of their inherent drive, vision, a degree of personal risk appetite and an ability to deliver a minimum viable product early. There are also environmental factors that facilitate the process, such as senior politicians giving civil servants licence to assume risks. When the political structure backs up this risk-taking and affords civil servants the resources to achieve it, the potential to innovate increases accordingly.

In some ways, civil servants who innovate with data are performing the tasks of entrepreneurs. Like entrepreneurs they need to cast a vision, build teams and structures, and influence many people in order to succeed.

Nonetheless, there are truisms in how governments run themselves, which means that innovation is constrained by the dynamics of incentives, bureaucratic culture, and the degree of personal agency available to the civil servant. Public officials generally need permission to pursue their ideas, and usually require a strong, high-level mandate to pursue a novel product like open data.

In this sense, then, they are unlike private sector entrepreneurs. Civil servants working in open data are asking people to change their behaviour, and are therefore changing an often ingrained institutional culture. The special kind of leadership skills required to effect change in this environment include pragmatism and forging partnerships. Their challenges involve finding ways to embed change or overcome barriers to resistance and vested interests.

Governments choosing to open up data are also changing the state's relationship with its citizens. By opening data that can be shared, a government demonstrates two assumptions: that government data is collectively owned, and that its citizens will find it useful. Citizens may use data for information about crime rates in their neighbourhood to hold the government to account on its spending decisions; or to create a business that helps

people plan their journeys on public transport. Public support is critical in stimulating innovation and maintaining momentum once open data has been published.

The private sector and civil society also have a role to play in supporting innovation. During the initial stages of open data initiatives, their role is to provide inspiration to government, offering a multitude of possibilities of what impact can be achieved. At a more advanced stage, their role shifts from an inspirational one to an operational one as businesses and NGOs act as delivery partners. This paves the way for an open data ecosystem involving government, business, civil society and the public as stakeholders.

It is important to remember that the approach to public sector innovation will vary according to the local context and structure of government. In the UK, the model of innovation is not centralised within the Cabinet Office. Capability for innovation is built within departments, and civil servants are encouraged to learn and collaborate with other departments to deliver. Open data in this scenario forms a new tool for civil servants to innovate, while the centre provides shared resources for its implementation.



How to overcome barriers to innovation in government

Rudi Borrman

Undersecretary for Public Innovation and Open Government,
Argentina

There are a number of barriers that generally choke government innovation, regardless of the country or level of government. These include lack of information, poor incentives, fear of change, insufficient tools and no training.

What is vital for the transformation in the state that governments are experiencing worldwide is building the skills for innovation. Creating an open culture takes work and skilled civil servants. By building training matrixes that nimbly incorporate new trends, we can work together within the structures that already exist, such as government schools and public training institutes.

When seeking to make government public administration more open, we talked with a lot of public management teams about how to promote innovation within the government. Ideas involved organising hackathons, camps (Gobcamp), open data competitions and open spaces. As we develop our open data programme, our goals are to raise awareness and get organisations excited about the possibility of what open data can bring.

Most of the civil servants involved did not have an IT background. In many cases, they had a long history of working across the public sector. As a result of these gatherings, a flux of conversations, ideas and methodologies (rarely encountered in the public sector) took place.

We made the first Gobcamp we organised open to all employees in the Buenos Aires City Government, and participants commented that:

"I loved participating, I was able to approach people in different areas which normally have no contact and it was very interesting to hear different positions and opinions as well as to express mine."

"I found being at Gobcamp important to understand what solutions to problems are being developed. I asked myself, if I did not know that these programmes existed, how are we raising awareness and communicating with our citizens?"

Mixing traditional training with actions like hackathons, camps or open spaces engages the internal community. Although they are very simple events – workshops, projects, people simply talking – because many occur in a very short time, the social and cultural revenue is enormous. This, for the public sector, is a giant step.

Manuel Sadosky, the father of computing in Argentina, when asked about the lack of a tradition of research in mathematics in the country, answered: "It exists. A single person or a small group is a tradition. It's like a small flame, a little focus and there is, of course, a very big difference between lack of fire and a small flame."

At the moment, public innovation in the world is many burning flames, with varied experiences, incorporating agile methodologies, design thinking and entrepreneurial skills. Collaboration is vital.



What are the challenges faced by open data leaders in emerging markets?

Enrique Zapata

Deputy General Director of Open Data,
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More than 50 governments, international, civil, and private sector organisations have adopted the Open Data Charter², and there are more than 2,600 open data portals. Despite this, open data remains a somewhat esoteric issue. From my experience in Mexico, the common challenges faced by leaders revolve around the six Cs:

1. Achieving high level political **commitment**, because without it there is no leverage to enforce a transversal effort to open government data and put it to use.
2. Sustaining a champion **community** comprising civil society, private sector and the government itself that can ensure the continuous transformation of data from idle to impactful.
3. Securing continuous flows of **capital** to invest and sustain innovative implementation projects, test new ideas and scale those that work.
4. Changing a siloed and risk averse **culture** in government to one of openness, collaboration, learning and iteration.
5. Increasing the understanding of open data and its value through simple **communication** strategies, so that people can understand its potential as an enabler of their own objectives.
6. **Continuity**, for commitment, community, capital, culture, and communication have to be maintained in the long run to transcend administrations, novelty and trends.

Supporting public innovation in Mexico through partnerships

By Emma Truswell

Mexico has many of the open data starting conditions that other countries are working hard to create: a talented and passionate team, a strong political mandate and an active tech community. But use and reuse of open data among Mexico's civil society has not reached its potential.

In search of new ideas, enthusiasts and energy, the Government of Mexico teamed up with the ODI and with DEMOS, a local NGO helping social enterprises to thrive. With support from the UK Embassy in Mexico, we set to work bringing innovators and government together.

We believe the programme we've built together, Labora, is the first programme for startups that brings together a national government, an international non-profit and a local NGO. Each partner has a clear role: government provides data from across government and political cover, ODI provides international experience and connections, and DEMOS provides community links and day-to-day support for startups.

To us, Labora shows what a what a modern public private partnership can look like. Government acts as an enabler of innovation, with key actors in government becoming advocates for those outside. The partners play to their strengths, and we are all learning better ways to do things from one another.

Already, we have eight startups creating new products and tools in Mexico. Their stories are inspiring. Andrea, for example, is in her early 20s and building an app to help people with depression to seek professional help sooner. Labora is helping her to access data and to work out what services she can point her users to.

Stories like these bring open data to life. They help the team in the Mexican Government to talk their colleagues into opening important data, and they inspire entrepreneurs to think big in addressing Mexico's social and economic challenges.

² www.opendatacharter.org



What does the civil servant of the future look like?

Ellen Broad
Associate, Open Data Institute

Simon Bullmore
Head of Learning, Open Data Institute

What will the role of open data be in shaping the future of the civil service?

The concept of open data isn't just about civil servants publishing data. Impact will come from civil servants using open data, and also becoming 'open' in a cultural sense – being open to new ideas, insights and perspectives from other teams. Adopting this approach will facilitate greater collaboration, better policy decisions and ultimately better outcomes. Hopefully, this will lead to organisations, both outside and inside government, building services using open data that teams publishing data may not have had capabilities to create themselves.

Three elements are key to creating efficient partnerships. Firstly, people need to be inspired to change their current practice. This inspiration can often come through success stories that motivate change. Secondly, both parties need to learn practical steps to making collaboration work, which includes being open to new ideas. Finally, leaders need to empower civil servants, giving them permission to collaborate, experiment and work in different ways.

One of the historical issues of government is that they are siloed within departments and teams. Structures inside government such as procurement, confidentiality and budgeting do not always allow for fruitful collaboration outside government. Traditional mechanisms for feedback, such as consultations, are often formal and it can be difficult to introduce agility and new ideas.

Central government has a role to play in empowering and connecting open data leaders across government. Balance should be created between top-down guidance from central government that commits departments to publishing data and soft encouragement that gives people the tools and mechanisms to collaborate.

Empowerment is often linked to confidence in one's own abilities and a supportive environment to execute skills. Governments therefore need to create the policies that allow leaders to use open data, and support can be as simple as training courses or public declarations from senior officials about open data.

Central government also needs to look at their civil service structures and consider which cultural issues, policies, systems and processes can hinder collaboration.

Innovation in government can happen at all levels. Many civil servants have great ideas for policy interventions but are impeded by a lack of time and space to explore bringing these to fruition. Innovation often happens at a municipal level through collaborations between administrations, companies and citizens. This is often as a result of people getting together to solve local problems local people care about – things like housing, education, crime and flooding. There can be strong relationships between policy makers, local organisers and data people at this level that makes doing projects together easier because the people involved are focused on solving tangible challenges for their community.

At a federal or national level, the policy challenges can be a bit more complex and also more distant for communities. Central administrators might find it harder to get people engaged around issues that don't directly impact people's daily lives. Things like trade, defence and national infrastructure are essential but not immediately compelling. Central administrators might therefore look at more longitudinal innovation approaches like the Open Data Challenge Series. In the UK, large challenges such as the UK leaving the European Union mean that lots of departments will be redesigning their policies to fulfil the UK's needs in the 21st century, hopefully using data to help do that.

Data literacy will be important for civil servants in the future. In the near term, civil servants will need to understand the kinds of data they can use, particularly in the shaping of policy. They will also need to understand the art of the possible – for example having an understanding of how data can be useful in conducting analyses and making decisions, and where they can get help. Like any modern profession it's going to be important for civil servants to understand how the world is changing around them and to take charge of their own development and adaptation.

⁸ <http://theodi.org/opendatachallengeseries>



Open Data Leaders Network

1st cohort (Left to right)

Top: Irena Bojadziewska, Dawn Duhaney (ODI), Enrique Zapata, Dr Karl Ng Kah Hou, Gavin Starks (ODI), Livia Turcanu, Liz Carolan (ODI), Sarah Lamrani
Bottom: Dave Tarrant (ODI), Fiona Smith (ODI), Emma Truswell (ODI), Natalia Carfi



2nd cohort (Left to right)

Top: Radu Puchiu, Paul Stone, Mwanaidi Mahiza
Bottom: Ivy Ong, Nkechi Okwuone, Rudi Borrmann, Carolina Pozo



3rd cohort (Left to right)

Top: Marco Bani, Malick Tapsoba, Alexey Vyskub
Bottom: Tezza Nur Rasikha, Marija Kujacic, Alka Mishra, Fernanda Campagnucci, Jose Subero, Pauline Riordan



4th cohort (Left to right)

Sandra Elena, Robertus Theodore, Benedikt Kotmel, Tadeusz Osowski, Linet Kwamboka Nyang'au, Alannah Hilt, Neil Hoorn

About this publication

This paper was supported by the Open Data for Development (OD4D) program, a partnership funded by Canada's International Development Research Centre (IDRC), the World Bank, United Kingdom's Department for International Development (DFID) and Global Affairs Canada (GAC).

About Open Data for Development

OD4D is a global network of leading organisations that are creating locally driven and sustainable open data ecosystems in Latin America, the Caribbean, Africa, and Asia and East Europe. The OD4D network builds knowledge and offers support to governments and policy-makers in key issues such as policies, standards, innovation and skills development.

OD4D is managed by Canada's International Development Research Centre (IDRC), and it is a donor partnership with the World Bank, United Kingdom's Department for International Development (DFID) and Global Affairs Canada (GAC). OD4D focuses on building up the supply of quality open data, and also on improving the use of that data by leaders in government, civil society, the media and business so that it furthers public interest and improves people's lives.

About the Open Data Institute

The Open Data Institute (ODI) connects, equips and inspires people around the world to innovate with data. It is independent, nonprofit and nonpartisan, founded in 2012 by Sir Tim Berners-Lee and Sir Nigel Shadbolt. From its headquarters in London and via its global network of startups, members and nodes, the ODI provides training, research and strategic advice for organisations looking to explore the possibilities of data.

Acknowledgements

Content managed by Dawn Duhaney, with coordination by Flavia Munteanu.

Copy editing by Charlotte Fleming.

Production managed by Laura Davis.

Design by Adrian Philpott.

With special thanks to Anna Scott and all of our individual contributors.

Get in touch

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