

***"Opening Cities: Open Data in Buenos Aires,
Montevideo and Sao Paulo"***

Report:

***City of Buenos Aires
Open Government Data initiative***

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1. INTRODUCTION¹

Several local governments in Latin America, and around the world, have begun to implement Open Government Data (OGD) policies. It is often argued that local governments are the closest level of government to the people and, in that sense, they can produce greater changes to people's lives. Not only they are the closest to the citizens but also they are frequently at the forefront of openness and participation experiments (Worthy 2013; Wilson and Game 2011).

This document aims to provide an overview of the Open Government Data initiative in the City of Buenos Aires. This research is part of a broader initiative on Open Government Data policies in local governments in 3 important cities in the Southern Cone of Latin America: Buenos Aires, Montevideo and Sao Paulo. This research, *"Opening Cities: Open Data in Buenos Aires, Montevideo and Sao Paulo"*, is part of a broader project on the impact of Open Data policies in Developing Countries (ODDC) supported by the Web Foundation and IDRC².

Opening Cities is based on 3 case studies on each of the selected city. Each report seeks to identify how OGD policies emerged and explore the impacts these policies are producing.

A set of dimensions was developed with the agreement of the main researchers to provide a homogeneous structure to the reports. Through semi-structured interviews the researchers gathered information on each of the 5 dimensions (see annex 1) of open government data policies from relevant stakeholders (hackers groups, web developers, civil society users, government officials, among others).

The information gathered through interviews was complemented with the conversations during a workshop, held in Montevideo (June 28, 2013). This workshop was organized in

¹ At the moment of ending this work (April 2014), the Office is about to move to report directly to the Minister of Modernization, which could mean recognition to their work. Furthermore, according to interviews (April 2014) the Office is currently focusing on publishing more politically important data regarding budgets, vendors, among other topics.

² The project is funded by the Canadian International Development Research Centre (through grant 107075) and is managed by the World Wide Web Foundation.

the context of the first regional conference for Latin America and the Caribbean on Open Data. This exercise provided a good opportunity to exchange ideas and experiences among relevant actors from the 3 selected cities. The main points of those discussions informed each of the study cases.

2. BACKGROUND

Freedom of Information (FOI) and Open Government Data (OGD) are two ways of approaching the disclosure of information produced by governments. While FOI legislation allows individuals (mainly via a request) to access the information governments hold, Open Government Data policies proactively provides people with data in reusable formats for them to use and reuse in the way they prefer.

Since the early 90s, more than 80 countries have adopted laws and decrees to regulate the access to governmental information. (Vleugels 2011) The main features of these regulations are the provisions to enable people to request, on an individual basis, information produced and held by governments.

Around the second half of the first decade of this new century, the approach to FOI as the ability to ask and receive public information has been transformed, partially as a product of ICT developments. As Alasdair Roberts (2006) and Rick Snell (2008), in a similar line, both note, there was a transformation from the access to official documents to emails and data. There was also a shift from the exclusively reactive access (via requests under FOI legislation) to a complement between the availability to access information via requests and the proactive disclosure by governments (mainly via their websites).

A new generation of FOI legislation and practice is needed. A FOI Version 2.0 model would represent a shift to a more dynamic, structured and intellectually coherent system of increasing the flow and quality of information. This is FOI for the Google age. The legislative design and cultural practices of the system need to ensure adequate incentives for pro-active and improved disclosure. Simultaneously a small but necessary zone of secrecy and confidentiality has to be protected. (Snell 2008)

This FOI version 2.0, mentioned by Snell, can be understood as a new way to interact with government-held information, where the emphasis is on the proactive publication of

the information. Thus, governments are required to publish the information they produce without the presence of a request, unless contrary to public interest. This shift from reactive to proactive disclosure is the main characteristic of the so-called FOI 2.0 initiatives.

Almost in parallel, the concept of accessing governmental information has been extended to cover the idea of having access not only to information but also raw digital data, known as Open Government Data (OGD). In this case, the emphasis is placed on the formats and not only on the information that is disclosed. Thus, the key principle of 'Open Government Data' is that structured public data (raw component to produce a meaningful output known as information) should be proactively disclosed in reusable formats allowing third parties not only to access but also to re-use the data, in the way they prefer.

OGD has gone from non-existent to being a key feature for government officials, practitioners and advocates in just a few years. However, these developments would be unthinkable without the previous work (mainly during late 90's and early 2000s) of FOI advocacy groups (internationally and domestically). To exercise the right to access government documents and information was the first step to make this OGD movement a reality.

Developments on Freedom of Information legislation as well as the implementation of Open Data policies are possible because of the changes experienced in the way citizens and governments interact with information mainly due to the developments in information and communication technology (ICT). Not only has technology modified the way people produce and interact with information but also, specifically in terms of government information, secrecy is not longer the operating norm for governments. If governments want to withhold information, they need to justify that action.

Recently, many cities around the world have begun to adopt this new trend on disclosing government data. In the United States, for example, Washington, San Francisco, New York, Boston, Chicago, and Seattle adopted this initiative, among many others³; in

³ <http://sunlightfoundation.com/policy/opendatamap/>

Europe, some of the cities involved in this trend are the Barcelona, London, and Paris. Canada already developed Open Data portals in the cities of Vancouver, Ottawa and Toronto⁴, while in Latin America, OGD portals can be found in Montevideo and Lima. In early 2012 the City of Buenos Aires took the first step towards implementing this type of policy.

This document includes, after a brief historical and political background of the City of Buenos Aires, a section with information regarding the initial steps of the Open Government Data initiative within the context of this city. Secondly, it presents an analysis of the design and implementation of the OGD policy in the district. Then, it introduces a section focused on the OGD users, together with some considerations on measuring impact of this policy. Lastly, some final thoughts are presented.

3. THE JOURNEY OF OPEN GOVERNMENT DATA IN THE CITY OF BUENOS AIRES

In order to analyze the first steps of the Open Government Data policy in the City of Buenos Aires, as well as in many other cases, it is necessary to understand the role of policy entrepreneurs (within and outside the public administration) in the implementation of innovative ideas.

Policy entrepreneurs, according to Kingdon, are able to identify and use "windows of opportunity" to promote changes in policy environments. (Kingdon 1984) In this context, as in other areas, opportunities must be early recognized in order to achieve the desired outcomes. These early advocates for change can be found inside the public sector, outside the public sector, or in both areas. The latter is the case of the OGD policy in Buenos Aires. Even more, in the City of Buenos Aires, the Open Government Data policy can be attributed to a combination of three elements: 1) "entrepreneurs" within the public sector, 2) "entrepreneurs" outside the public sector, and along with 3) a stream of ideas emerging from some countries of the northern hemisphere. These three elements

⁴ For more information on Open Data in Municipal Governments in Canada: Currie, L. (2013). The Role of Canadian Municipal Open Data: A Multi-city Evaluation.

in relation to the particular case of the City of Buenos Aires will be analyzed in the following subsections.

The City of Buenos Aires: Overview

Buenos Aires is the capital and largest city of Argentina (and the second largest metropolitan area in South America, after São Paulo^a). After decades of political disputes, in 1880, Buenos Aires was selected to be the capital of the country (Law 1029). Since the late 19th century to 1994 (year of the amendment of the National Constitution), the national government ruled over the City of Buenos Aires, appointing the mayor of the city, among other provisions.

In 1994^b Buenos Aires became an autonomous city and its political authorities started to be selected by popular vote. Nevertheless, a year after the constitutional amendment, the National Congress enacted the Law 24.588^c, known as "Cafiero Law" (named after the senator who introduced the bill), which established that security forces as well as other federal institutions based in the city, for example, the Supreme Court building, remained in the hands of the National Government.

Currently, the Chief of Government (Jefe de Gobierno) is elected for a four-year period (with the possibility of re-election for just one additional term). Sixty members constitute the Legislature of the city. Those legislators are elected for a four-year term as well. However, half of them have to renew their seats every two years. Elections are held by the D'Hondt electoral system of proportional representation.

In 1996 the elections to select the first Chief of Government were held. Fernando De La Rúa (UCR), who later became president of Argentina between 1999 and 2001, was voted as the first Chief of Government. His successor, Aníbal Ibarra^d, won two consecutive elections (2000 and 2003).

In the election of 2007, the main candidates were Macri, Filmus, and Telerman. The election was held on June 3, and the winning candidate was Macri with 45.62% of the votes, followed by Filmus with 23.77% and Telerman with 20.70%. As none of the candidates reached 50% of the votes, a runoff between the two most voted candidates had to be held^e. Mauricio Macri (PRO1) won the second round and became head of government. He took office on December 10, 2007. He was re-elected for the period 2011-2015.

In his second period, Macri enacted a decree on "Open Government" (156/2012). Despite its name, and certain items that involve a larger plan, the aforementioned regulation focuses on the proactive disclosure of data in digital reusable formats, together with other elements/activities surrounding the disclosure. To develop the Open Data portal of the City of Buenos Aires, among other tasks, the "General Directorate of Information and Open Government", in the orbit of the Ministry of Modernisation, was created. This Unit is currently taking the first steps towards the implementation of the Open Government Data policy.

Sources:

- a) <http://www.citypopulation.de/world/Agglomerations.html>
- b) Article 129- National Constitution. <http://www.constitution.org/cons/argentin.htm>
- c) <http://www.infoleg.gov.ar/infolegInternet/anexos/30000-34999/30444/texact.htm> (in Spanish)
- d) Ibarra's second term ended as a result of the events of December 30, 2004. That night a nightclub in the city of Buenos Aires caught fire and 194 people were killed. Aníbal Ibarra was impeached for his responsibility on the irregularities in the licensing and fire inspection of the club. On March 7, 2006, the impeachment commission ordered the dismissal of Ibarra as Head of Government. <<http://news.bbc.co.uk/2/hi/americas/4137135.stm>>
- e) http://www.buenosaires.gov.ar/areas/seguridad_justicia/dg_electoral/elecciones_portenas.php

3.1 Stream of Ideas

Since the late 80s, there have been significant transformations in technology, together with developments in the area of access to public information, as previously mentioned. The changes in the ICT field are particularly related to the development and “massification” of “web” technology.

The first generation of Web technology, usually named Web 1.0, had focused on static environments, with HTML pages, and few updates without user interaction. After 20 years, this technology has evolved into dynamic applications that allow users to perform all types of online transactions and collaborate in content generation, and share information in a variety of ways, creating new forms of social interaction (Web 2.0⁵). (Fumega 2010)

These changes, together with other developments in terms of ICT, have had an impact in many areas, including governments. In this regard, some initiatives related to the use of “raw” data in digital format were developed, firstly, in local governments between the late 1990’s and the beginning of the new century.

According to Joshua Tauberer, the Mayor of the City of Baltimore (U.S.), Martin O'Malley, implemented one of the first public data-related initiatives coming from a public agency in 1999: CitiStat. This tool aimed at addressing a number of problems associated with the poor performance of that local government (high levels of crime, costly taxes and a government that had high levels of staff absenteeism). Even though it was first intended to monitor only the level of absenteeism among public officials, it eventually expanded to monitor all social programs in the city. This initiative set the basis for creating a website, in 2003, to allow public access to social programs’ statistics in Baltimore. This same initiative was replicated in other cities, such as Maryland and NYC. (Tauberer 2012)

“Although CitiStat, StateStat, and NYCStat focused on performance reports and metrics rather than raw underlying data, they proved through practice that data was valuable to keeping governments productive and accountable” (Tauberer 2012)

⁵ The term web 2.0 became popular in 2004, with the first web 2.0 conference hosted by O'Reilly Media.

Around that same period, the city of Philadelphia released its Geographic information system (GIS) data free to the public (Thomler 2013). This type of developments, together with other initiatives and actors, started to establish the foundations for the future open data movement.

These initial ideas were not only coming from local governments. During the first years of this new century, some civil society groups and individual started to take advantage of ICT developments to rethink the way they accessed and worked with public information, particularly raw government data. Examples of those were organizations like MySociety and The Open Knowledge Foundation (OKFN)⁶ in the UK, and developers like Carl Malamud and Joshua Tauberer⁷ in the US.

After these initial steps, one of the first actual examples of an open data portal, created by a public organization, came in 2007 from the District of Columbia (DC) and its Chief Technology Officer, Vivek Kundra⁸. The District of Columbia was one of the pioneers in launching an OGD portal, where everybody could access and reuse those datasets⁹. This DC initiative set precedents for the memorandum on “Open Government” signed in January 2009 by the recently elected president of the United States, Barack Obama. With this memorandum, Obama committed his administration to achieve an unprecedented level of openness, transparency, participation and collaboration in order to strengthen democracy and promote efficiency and effectiveness within the public sector. The need to distance his administration from the secrecy of the Bush era,

⁶ My Society was created in 2003. Since then, this British group has launched numerous websites that allow people to access valuable data for their daily lives, in different areas. Some of the examples are WriteToThem.com, PledgeBank.com, HearFromYourMP.com, No. 10 Downing Street Web Requests (<http://petitions.number10.gov.uk>) FixMyStreet.com, theyworkforyou.com and WhatDoTheyKnow.com. OKFN was created in 2004. This foundation is responsible for the development of CKAN, the software used by many governments in their open data portals, among other initiatives.

⁷ Carl Malamud is the founder of resource.org- a public organization aimed at publishing information from local and federal governments-. Both, Carl Malamud and Joshua Tauberer had, in the early years of their work with public information, to invest large amounts of hours of work to convert government information into reusable data.

⁸ Kundra would later be appointed Federal Chief Information under the first administration of Barak Obama and would be responsible for the development of Data.gov.

⁹ Civil society performed a dual function: on one side, they advocated for greater government openness and information, and on the other side, they encourage the reuse of information in innovative ways. Civil society's initiatives began to emerge to reuse public data to hold governments accountable, to conduct research or/and to create applications to offer new services. Some early examples are theyworkforyou.com, a British website that collects and discloses information from the members of the British Parliament; and fixmystreet.com, which allows users to be report and also to be aware of problems with certain streets or roads in their area.

together with the support he received during his campaign from tech-savvy activists, along with the influence of the Federal Chief Information Officer, Vivek Kundra, all created a window of opportunity for this type of reform. A few months later (May 2009) the first version of the US data portal was launched. In a similar path, the British government soon followed suit by launching the British Open Government Data Portal <http://data.gov.uk> in January 2010 (following the launch of a private beta site in September 2009). Both portals have paved the way for future national and local initiatives.

3.2 Policy entrepreneurs from the public sector in the City of Buenos Aires

As previously mentioned, it is necessary to analyze the role of policy entrepreneurs in the process of adding innovative ideas to the policy agenda. In that sense, following Mintrom and Norman, policy entrepreneurs can be described as individuals (or small teams) who are able to draw attention to public policy issues and innovative solutions. (Mintrom and Norman 2009)

In the case of the City of Buenos Aires, during Macri's first term, some ideas about the use and disclosure of Open Government Data caught the attention of a small group of actors who were working in the local Executive branch. These actors - close to the social media and e-government units¹⁰ - began to explore the subject. They became fully aware of the stream of ideas coming from the other places in the world, even though the issue was not so popular in the Argentine context¹¹.

It is worth noting that these innovators were not only found at the local executive branch. In the national Congress, around 2010, there were also actors working on Open

¹⁰ In particular, it is important to highlight the role of Rudi Bormann and Daniel Abadie. They were both working in the areas - under the orbit of the General Secretariat of the Government of the City of Buenos Aires- of "new media" and also e-government. The particular areas of interests and work helped them to be aware of the innovations in other cities around the world. Moreover, as most policy entrepreneurs, they had no previous history of political activism but a strong interest in management.

Both of them joined the public sector in a professional capacity. They both got close to the General Secretary of Government, Marcos Peña. The generational closeness between these actors also contributed to the good reception of innovative ideas. (Interview with Gonzalo Iglesias, June 2013, Buenos Aires)

¹¹ The OGD platform was launched in mid August 2013: <http://datospublicos.gob.ar/>. This initiative is part of the Argentinean commitments for the first year as member of the Open Government Partnership.

Government bills¹². While the main focus of these bills was to regulate the access to public information¹³ (FOI), which is produced and held by the State, there were also some provisions about the access to raw digital data. Even though these actors, who came from the same political party as the City's Chief of Government, were working on the legislative arena, they had a close relationship with several actors from the executive branch in the City of Buenos Aires and they helped to introduce the OGD topic in the local agenda.

Moreover, many examples of policy innovation emerge from the close interactions between civil servants, policy entrepreneurs¹⁴ (within or outside the public sector) and politicians. This sort of collaboration among different actors has not been the traditional way of developing policies in Latin America, although innovations such as OGD policies appear to have some elements of this type of design. (Fumega and Scrollini 2012). Thus, it is important not only to explore in research the actors within the public sector, but also those working on the topic from civil society organizations.

3.3 Civil Society in the City of Buenos Aires

Not only actors inside the public administration were aware of the developments regarding the access to government data in reusable formats. By the late 2008 and early 2009, some actors working for civil society organizations, or in their individual capacity, started to draw their attention to the topic. Even though there were a small number of actors around the topic by that time, some initiatives can be identified.

Those civil society projects had started to be developed in 2008 and they were strengthened during 2009. Although the projects were not necessarily related to the use of data coming from the City of Buenos Aires, the actors and organizations were based

¹² One of the main actors in that group was Laura Alonso, national legislator from the City of Buenos Aires (from the same political party ruling the City of Buenos Aires). Together with one of her policy advisors, Gonzalo Iglesias (current coordinator of the City's Information and Open Government Unit), worked on the drafting of a FOI and Open Government bill, which never was discussed by the Lower House.

Both actors had previous experience in civil society organizations. Laura Alonso was the Executive Director of Fundacion Poder Ciudadano, an NGO aimed at advocate for greater transparency and to fight against corruption. Gonzalo Iglesias teamed up with Garagelab to work in several projects (see section 2.3).

¹³ Argentina still lacks a FOI law at the national level.

¹⁴ There are also other professional workings in other areas of the State trying to include OGD into the agenda. That is the case of Natalia Carfi. She is currently the General Director of the Legislative Modernization Unit in the Legislature of the City of Buenos Aires. She is currently advocating for the disclosure of legislative data in reusable formats, among other projects.

there. In that context, in 2009 a group of entrepreneurs from the private sector founded Garagelab¹⁵. At the same time, Gonzalo Iglesias (current General Coordinator of the Office of Information and Open Government) joined the organization “Poder Ciudadano” to develop “Money and Politics” (www.dineroypolitica.org). This website aims to allow people to access to the files submitted by Argentinean political parties regarding their expenses during the 2009’s legislative campaign in formats that can be freely used, reused, and distributed by anyone. Also, around the same period, in the city of Bahia Blanca, Province of Buenos Aires, an independent developer, Manuel Aristarán, created a portal called Bahia Blanca Public Expenditure¹⁶. In 2010 and 2011, both, Gonzalo Iglesias and Manuel Aristarán, joined Garagelab to work on several joint projects.

All these actors working from civil society organizations came together in early 2011 for an event in Santiago de Chile. Understanding the need to bring together developers and transparency advocates with a more traditional approach to the topic, Ciudadano Inteligente (Smart Citizen Foundation), Open Society Foundations and the World Bank Institute organized a workshop in Santiago¹⁷. Several actors from different Latin American countries were invited to discuss the use of ICT for Transparency. This meeting helped both groups of actors to share experiences and consider the possibility of developing joint projects. Then, in December of that same year, the first “Developing Latin America”¹⁸ was organized. This initiative brought together developers, journalists, and social activists to work on common projects for a couple of days. Two groups were responsible for the organization of the first edition of this event in the City of Buenos Aires: GarageLab and Wingu.

As previously mentioned, at that stage, although there was a limited demand for data by the actors of civil society, the stream of ideas that was generated around 2009 helped to create the Open Government Data policy in the City of Buenos Aires.

¹⁵ Garagelab was co-founded by Emiliano Kargieman and Dario Wainer on September 4, 2009. In 2010 and 2011 this group was focused on problems related to Public Data and Open Innovation, among other topics. An example of that work can be found in “Que pasa, Riachuelo?”, which is a monitoring platform based on public data aimed at providing visibility to the environmental problems of the Matanza Riachuelo Basin. This project was developed between Garagelab, FARN (Environment and Natural Resources Foundation) and the collaboration of other organizations.

¹⁶ <http://gastopublicobahiense.org/>

¹⁷ For more information on the event: <http://informacioncivica.info/mexico-2/nuevas-ideas-para-la-transparencia-y-la-tecnologia-en-latinoamerica/>

¹⁸ <http://desarrollandoamerica.org/>

4. POLICY DESIGN

In early 2011, those previously mentioned actors from the social media and e-government units of the City of Buenos Aires travelled to US to closely observe how teams in the cities of San Francisco and New York were working on issues related to the concept of openness applied to local governments (open cities). This communication and exchange of ideas with other cities, along with the support within the administration of actors near the Head of Government, helped to the promotion of OGD in the policy agenda to face the second term of Mauricio Macri.

As Rudi Bormann explained during an interview, the main element towards the first steps of the implementation of an open data policy is to get the most relevant person in the organization to embrace the project. He mentions that without that support it becomes very hard to convince a whole organization, especially in government where innovation is sometimes not embraced by many of their members. In the case of the City of Buenos Aires, he explains that they had the full support of the Mayor, but after that initial support they needed to convince the agencies. In order to get that extensive support, he suggests that one of the best strategies is to create a network of innovators inside the government and provide them with spaces to interact (such as a govcamp¹⁹) with each other in order to build a sense of an innovation community inside the organization (Baytelman 2013).²⁰

The beginning of a new administration²¹ in 2011 (although the same Chief of Government was re-elected) opened a window of opportunity to launch the OGD policy in the City of Buenos Aires. While Mauricio Macri continued as the head of the local government for a second term, there were several modifications in his administration such as changes in several Ministries together with the creation of the Ministry of Modernization²², which would house the future Office of Information and Open Government²³.

¹⁹ A Govcamp is an event for people that work in and around government. They do not have a pre-defined agenda, and usually organising using 'open space' methods in which participants introduce themselves briefly and the sessions are proposed and agreed at the start of the day. For more information see <http://govcamp.org>

²⁰ Full interview: <http://www.youtube.com/watch?v=ujlNe5Oth7I>

²¹ In some other cases, such as the example of Obama in 2008, the need to differentiate his administration from the previous one (Bush) created a propitious opportunity for those changes.

²² It was created to implement administrative reforms and also projects related to the "Smart City" agenda. It was later designated as the proper environment to accommodate the OGD project.

²³ Through the decrees 660/11 and 122/12

In November of 2011, a month after the local elections, the process of launching an OGD initiative started to gain momentum in the City of Buenos Aires. At the beginning of 2012 with the signing of the Open Government Decree (156/2012)²⁴, the office²⁵ in charge of implementing it was created. Rudi Borrmann would be selected as Director and Gonzalo Iglesias as General Coordinator. They surrounded themselves with a team of young professionals²⁶ with diverse backgrounds: political scientists, journalists, and developers, among others.

The Decree 156/2012²⁷ established the basis for the design and development of the Open Data portal aimed to *“facilitate the search, discovery and access to those public datasets, which help to promote transparency, encourage participation and collaboration of citizens in government affairs, and also to encourage innovation and social, economic and cultural development in the area of the City of Buenos Aires”*²⁸.

In the first few months after the establishment of the General Directorate, the members of the Information and Open Government team started to work on design of the policy they would later implement.

4.1 Main characteristics

One of the main features of Open Government Data policy in the City of Buenos Aires is the decentralized nature of the responsibilities towards the disclosure of government data. The responsibilities and "ownership" of the data are under a decentralized process. That is, each agency is responsible for authorizing the release of the data they produce. Thus, the Office of Information and Open Government is in charge, after seeking the authorization of the agencies, of publishing the data in their portal. However, they have no responsibility over the release (or withholding) of any particular dataset. This type of

²⁴ <http://www.buenosaires.gob.ar/gobierno-abierto/decreto-gobierno-abierto> (in Spanish)

²⁵ The signing of the decree together with the creation of a specific Unit to implement the project, gave the topic (and also to the General Directorate of Information and Open Government) the needed (mainly internally) political support.

²⁶ Currently, 18 professionals from professionals with a diverse background composed the office (they were 12 in 2012, when the office was created).

Most of them were coming from the private sector and civil society groups. Only 2 of them were coming from a previous post in the local public sector. From those 18 professionals, 4 of them have a permanent position while the remaining employees are working on one-year-contract bases (renewable at the end of each term).

²⁷ <http://www.buenosaires.gob.ar/gobierno-abierto/decreto-gobierno-abierto> (In Spanish)

²⁸ My own translation.

measure took some pressure off from the shoulders the newly created agency and, therefore, left some room for this new unit to focus on other aspect of the policy implementation. However, it is necessary to point out, following John Wonderlich, that this type of initiatives could be simply dismissed or ignored by agencies that decide not to release information (Wonderlich 2011).

According to the Resolution 190-MMGC/2012, the Ministry of Modernization is in charge of setting the "*guidelines, procedures and protocols regarding the mechanism by which datasets are provided by the different areas of government to the General Directorate of Information and Open Government and published through Buenos Aires Data platform for possible reuse by citizens*"²⁹. It is important to notice that there is a lack of specific institutional mechanisms to solve disputes regarding the disclosure of certain databases. The only established mechanism to solve such disputes is the one stated by the city law 104³⁰ (FOI law). However, the requirement that information be presented in reusable formats is relatively alien to any FOI legislation.

While the Directorate of Information and Open Government does not count with the ability to control which databases are published or withheld, it is responsible for defining the technical standards for publication of the data shared by each of the information-producing agencies. As established in sections 5 and 6 of the Resolution No. 190-MMGC/2012:

Section 5. – It approves the minimum contents of the Licensing policy for the platforms of the Government of the City of Buenos Aires, as well as the Terms and Conditions for access and use of the data (Annex I).

*Section 6. - It approves as Annex II, the Form for the Delivery and Receipt of datasets, subscribed by the General Directorate of Information and Open Government - on behalf of the Ministry of Modernization- with every Unit to transfer information from each of the units through datasets for their disclosure and publication in the platform administered by the Ministry of Modernization*³¹

The team from the Directorate-General of Information and Open Government, in order to establish the basis for the implementation of the OGD policy, focused on three main

²⁹ My own translation.

³⁰ <http://www.cedom.gov.ar/es/legislacion/normas/leyes/ley104.html> and <http://www.cedom.gov.ar/es/legislacion/normas/leyes/anexos/drl104.html> (In Spanish)

³¹ My own translation.

areas of impact - 1) Accountability (empowering citizens), 2) Inclusion (improving service delivery), and 3) innovation. According to Iglesias³², this preparatory work and policy analysis differentiate this OGD initiative from many others.

These three areas selected by the team of the City of Buenos Aires also correlate closely with the three categories of OGD impact identified in workshops of the Open Data in Developing Countries Project and in the existing literature (Davies et. al., 2013).

- 1) One of those areas may be defined as **accountability and/or control** (internal and external). While the City already had an office (in charge of the implementation of Law #104) devoted to processing requests for access to public information, the proactive disclosure of data in reusable formats sheds some light, depending on the data to be released³³, into governmental actions and, thus, citizens could demand greater accountability and take informed decisions. In the case of the City of Buenos Aires, they understand the disclosure of this type of information as an enabler to empower citizens.
- 2) **Inclusion.** In this regard, Davies et. al (2013) highlight that open data could shift power imbalances that result from the asymmetry of information between government and citizens, while offering the potential of incorporating marginalised groups into public debate. In the case of the City of Buenos Aires, the Directorate of Information and Open Government not only works towards providing citizens with greater information but they also assist other agencies within the public sector in order to improve information flows. In both cases this improvement (more information towards citizens as well as a better flow within the public administration itself, from one agency to another) aims towards the enhancement of public service delivery as well as of other benefits provided by the city. In terms of incorporating marginalized groups, as Davies et. al (ibid.) note, these types of proactive disclosure of open data are not generally aimed to benefit a particular group. Thus, the City of Buenos Aires regulations on the topic do not references any type of specific population. However, externalities, coming

³² Interview: June 2013, Buenos Aires

³³ For a discussion on the different meanings of open government data and its consequences: Yu, H. and D. G. Robinson (2012). "The New Ambiguity of 'Open Government.'" 59 UCLA Law Review Discourse 178.

from the apps that are built with the data provided in the portal, could potentially benefit different groups (which cannot be anticipated when disclosing the data).

In that sense, all technologies provide a gap (a divide) during their early stages. As time goes by, the gap gets smaller (as it happened with most technologies from radio to TV) and a larger amount of people (from different groups) can be benefited by their implementation.

- 3) **Innovation and economic development.** This category emphasizes the promotion of information as a valuable asset, both internal and externally (to the society and the public sector itself). In this sense, the publication of open data allows innovators to use the data in order to create new products with social or economic value, or both.

After defining the main lines of work, the Office of Information and Open Government, needed to transform these areas of focus into concrete strategic activities. To carry out this task, they decided to divide the implementation of this new policy into two key areas: the first team is focused on the technical aspects of publishing open data, while the second team is focused on creating a community of users and contributors (inside and outside the public sector):

- 1) **Data Generation (Open Data):** This area is responsible for setting standards for the production, maintenance and storage of the data. Its main product is the Open Data platform.
- 2) **Content Management (Open Government Culture):** This area is responsible for building capacity within the various agencies of the local government (because, as previously mentioned, the Directorate of Information and Open Government does not own information assets but draws on assets from each one of the agencies of the city). In this regard, the team needs to build capacities in each of the public agencies for the project to thrive³⁴.

³⁴ As Borrmann stated, in relation to the long-term goal of this policy, *"in a few years the open government office should disappear. This is so because that means you've built enough capacity inside each agency"*. Baytelman, P. (2013). "Interview to Rudi Borrmann." (May 2013). Available at: <https://www.youtube.com/watch?v=ujlNe5Oth7I>

This area also focuses on building relationships with the community to help them use and demand data. The latest is an important part of their work as greater demand for government data also gives the Directorate of Information and Open Government more bargaining power with other agencies to demand greater amounts of data to be published via the OGD portal.

5. POLICY IMPLEMENTATION. INFORMATION AND OTHER RESOURCES

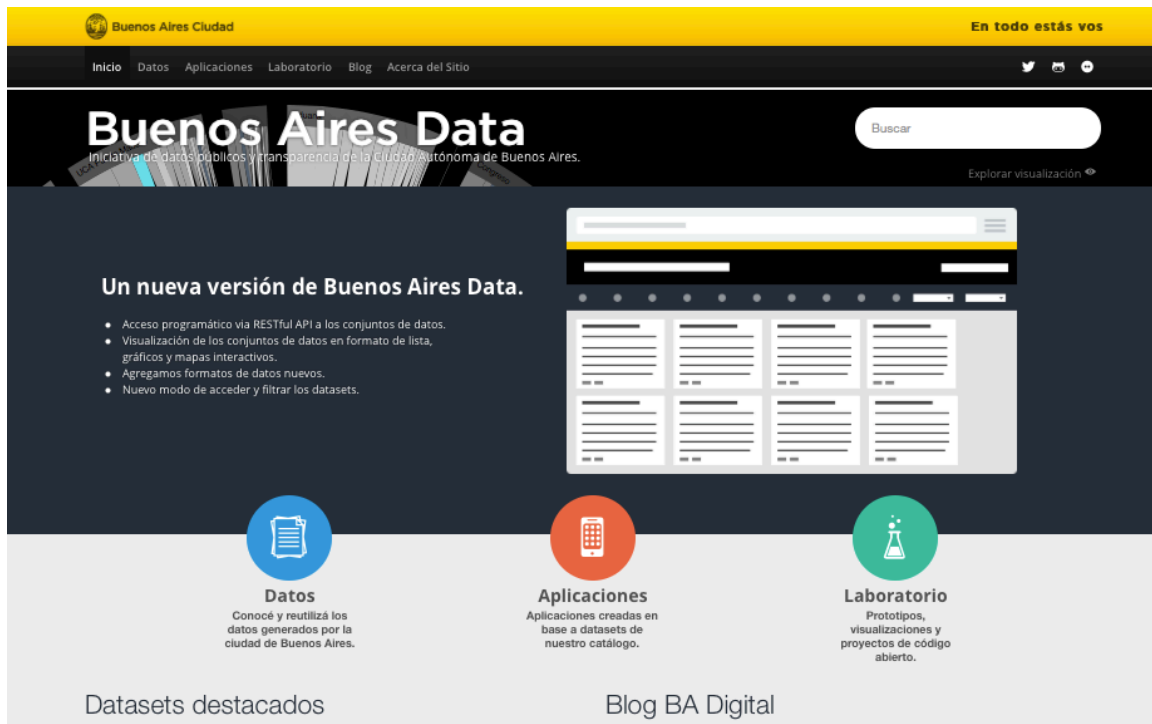
As mentioned in the previous section, the efforts of the Office of Information and Open Government are concentrated in two main areas: "Data" and "Culture". In this regard it is noted that, according to Iglesias, most of the resources of this agency are focused on the latest of these areas, aimed at building capacity and creating a community of user, as the responsibility over the disclosure is decentralized to each of the agencies.

To fulfill their objectives, over the past year and a half, the Directorate of Information and Open Government has launched a variety of activities. All of these initiatives are framed within the 3 main areas, earlier described. Some of their products are: the Open Data portal, events and competitions, as well as the Government Lab.

5.1 Buenos Aires Data

Buenos Aires Data is the government data catalogue, publishing datasets in digital reusable formats, with which applications are built and around which other events and activities of the Office of Information and Open Government are created. On the portal can be found a list of datasets on diverse topics including health, education, transit and culture, among others³⁵.

³⁵ <http://data.buenosaires.gob.ar/dataset>



Source: <http://data.buenosaires.gob.ar>

The platform was built, like many other platforms of this type in the world, implementing CKAN³⁶, an open source data management system. However, by the end of 2012, after almost a year of work, the team from the Information and Open Government office identified some obstacles regarding this platform:

- It failed at providing programmatic access to some of the datasets.
- It was not friendly enough for non-technical users.
- There was too much emphasis placed on the technical side of the project and, therefore, relegating the community building aspects. (Milanese 2013)

In early 2013, to face some of the obstacles they encountered during their first year, the team decided to implement CKAN's newest version, CKAN 2.0. Both adaptation and implementation of this new version (like they did with their first version) were carried out by their own "in-house" programmers³⁷. This new version of the platform aims at addressing the above-mentioned obstacles by:

³⁶ <http://ckan.org/>

³⁷ No software developer, or any other technical consultant, was hired to perform this task. The developers working in the Office of Information and Open Government were in charge of customizing and deploying the platform, as well as other initiatives involving programming skills.

- Providing programmatic access to the data in order to simplify their use by third parties or for any “in-house” designed application.
- Reflecting the products developed by the community as well as the events, or any other project, organized by the General Directorate to build a greater community.
- Reaching a wider audience by providing visualization tools and data analysis accessible for any audience.

In terms of the data-licensing framework, the Information and Open Government team first decided not to use a pre-existing scheme but to develop its own policy. The licensing terms aimed at reflecting the idea that a dataset is open if anyone is free to use, reuse and redistribute it, subject only to share-alike attribution and requirements. In this sense, according to this licensing policy, all datasets available on the website were subject to these terms and conditions, together with some specific requirements applicable to particular cases. The possibility that this type of licensing framework could create problems³⁸ with other users who do not find this situation consistent with its licensing policies, led to the implementation of Creative Commons for all the contents in the city in September 2013³⁹.

By mid-2013, Buenos Aires presents more than 70 available datasets (see annex 2) in the Open Data platform⁴⁰. These sets grouped a number of individual databases as well as providing the same dataset in different formats. 13 of these groups are from the Ministry of Culture, 12 from the Ministry of Urban Development, while the Treasury and the Justice Ministry provided 9 datasets each (authors own classification). Then the Ministry of Modernization, Cabinet Secretary and the Ministry of Environment and Public Space, they each provide 5 to 6 sets of data. The Ministry of Education and the Ministry of Economic Development created 3 and 2 sets, respectively. Lastly, another 4 agencies provided 1 set each⁴¹.

³⁸ Licensing, in general terms, has brought not mayor debates in the City of Buenos Aires. However, some large companies have complained about the need for “attribution” stated in the Buenos Aires City license, as well as most of the Creative Commons ones. This particular issue arose in particular in regard to the transit and transport data.

³⁹ <http://www.infotechnology.com/internet/La-ciudad-de-Buenos-Aires-utilizara-Creative-Commons-por-default-para-sus-contenidos-20130823-0003.html>

⁴⁰ <http://data.buenosaires.gob.ar/dataset>

⁴¹ Juan Belbis notes that there is a distinction to be made between the authors and the agencies responsible for the datasets, since although the authors of the data are each of the agencies, in terms of responsibility for the publication, it can be noticed that almost 30% of the datasets belongs to the Ministry of Modernization

A successfully Open Data policy can effectively implemented if each of the agencies, in charge of generating the data, presents the necessary capacity to produce and disclose those datasets in open formats and also if civil society actors, interested in the topic, are able to access and use that data. In that sense, a list of activities created to reach the community around Open Government in Buenos Aires will be presented in the following paragraphs. In creating these initiatives the General Directorate of Information and Open Government acts as a "mediator" between the two main components of this policy: agencies and civil society actors (from individual developers to NGOs).

5.2 Events

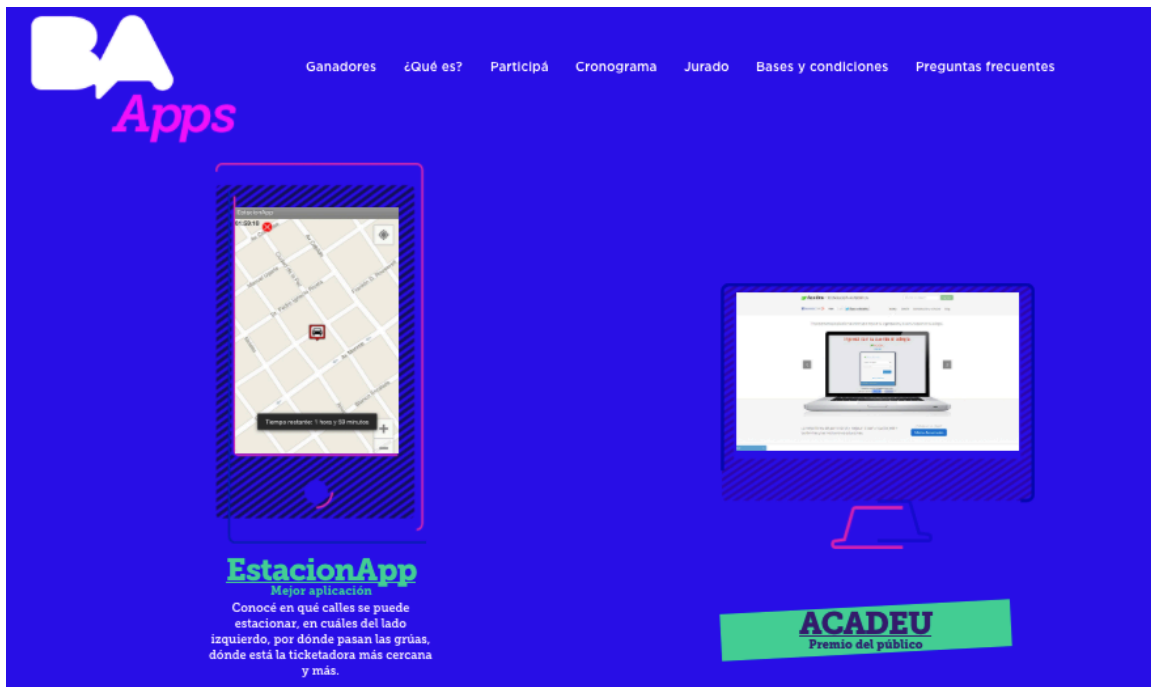
The events organized by the General Directorate of Information and Open Government aim at approaching civil society actors to use the published data, but also to encourage public officials to learn new ways to solve public-interest problems. Some of these events, since the beginning of the Open Data policy in Buenos Aires in early 2012, are:

- **BAHackaton 2012 and 2013:** In its first edition, this event brought together developers, designers, entrepreneurs and government officials to work on the development of mobile applications (Mount 2012). In its second edition, in 2013⁴², the BAHackaton aimed at solving public-interest problems, which were introduced before the event in order that greater sustainability of the products and the teams developed at the event could be guaranteed.
- **BAapps (2012)** During the second half of 2012, a contest was organized in order to create applications based on the use of public data from the City of Buenos Aires⁴³. Participants had three months to develop projects based on various public interest issues.

(Information Systems Agency). That is so because the Information Systems Agency is the one responsible for the technical process of releasing a large percentage of those datasets. Belbis, J. (2013). Buenos Aires, Buenos Datos. Datos abiertos: Panorama e impactos sectoriales en América Latina y el Caribe. OD4D, Cepal

⁴² <http://digital.buenosaires.gob.ar/ba-hackaton-2013-todos-los-proyectos/>

⁴³ <http://digital.buenosaires.gob.ar/se-lanzo-el-primer-concurso-de-aplicaciones-de-la-ciudad-buenos-aires-apps/>



Source: <http://data.buenosaires.gob.ar>

- **GobCamp Buenos Aires (2012)** was an informal meeting between public officials⁴⁴ and a wide range of civil society actors. This meeting was designed following an “unconference” structure: small talks or sessions created by participants regarding problems of the City.

These events are not the only opportunity for different actors involved in the Open Data field to exchange ideas and projects, as in early 2013 the Government Lab was created.

5.3 Government Lab

The Government Laboratory is a physical space in the Information and Open Government office. This space was created to host meetings, every day of the year, among public officials, developers, NGOs members, academics, and other actors. This initiative aims at helping those actors to work collaboratively to solve public-interest problems to benefit all the to benefit all inhabitant of the city. This space is key for the Office to achieve their goal of creating a greater demand for data and to strengthen the community around them.

⁴⁴ <http://digital.buenosaires.gob.ar/el-ba-gobcamp-2012-en-video-y-una-infografia-a-modo-de-resumen/>



Source: <http://digital.buenosaires.gob.ar>

6. USERS

One of the main objectives of the OGD-implementing team in the City of Buenos Aires is to create a community around the use of the published data. By doing so, it encourages the development of innovative products, closing the open data feedback loop.

Even before the establishment of the General Directorate of Information and Open Government, a community around OGD started to be created. As noted earlier, around 2009 a small number of developers and members of civil society organizations were already working on these topics (in the beginning with few available resources but investing many hours of work to clean and to access data that were not yet released in reusable formats). Over the past few years Open Government Data has gained popularity and become a “mainstream” topic among developers and organizations working on government transparency and access to public information. These actors play a crucial role in OGD policies, as not every citizen is eager to engage with

transparency initiatives (due to a lack of interest, skills or resources). Thus, the existence and capacity of technically skilled intermediaries is likely to be an important determining factor for the success of open data interventions.

Some of these intermediaries may focus on creating applications to simplify the access and use of the raw data (examples of this type of infomediaries are more related to "tech-savvy" organizations, individual developers as well as visualization's experts) and some others may help with information distribution and citizens' engagement to demand accountability (this role is commonly associated with transparency NGOs and journalists).

Buenos Aires Data website <data.buenosaires.gob.ar> contains a large number of applications⁴⁵, which were built using the data provided in the portal (some of them are results of the aforementioned competitions and events). These applications are based on data from a variety of topics, such as education, transit, culture, and security, among others. Despite this variety and the actors that have been involved in creating these applications, the use of OGD is still limited⁴⁶ (not only in the case of the City of Buenos Aires but in most of these initiatives).

⁴⁵ See annex 3 for a list of some of those applications, compiled by the General Directorate of Information and Open Government from the City of Buenos Aires
<http://concursos.buenosaires.gob.ar/buenos-aires-apps/apps/>

⁴⁶ Moreover, the agency in charge of implementing the OGD initiative is not always aware of the actual use of the data by third parties (the more datasets and users, the more difficult to track every application or report) Sometimes, only when a problem occurs with one of the datasets, the administrators of the OGP portal could become aware of the users of such data.



Source: <http://data.buenosaires.gob.ar>

One of the possible explanations for this limited use is related to the lack of joint work pursued by the different communities of users. Those communities need each other's contributions to make the most out of the published data and, therefore, create a greater demand for OGD. In that sense, the variety of groups using (or interested in using) the data has just only recently begun to collaborate with each other.

Independent developers as well as journalists, academics and members of NGOs have just started to become aware of the need to work together. The events held, since 2009, by GarageLab⁴⁷, Developing Latin America⁴⁸, and Hacks Hackers⁴⁹, together with the contests and other meetings organized by the Office of Information and Open Government in 2012 and the first half of 2013, have all contributed to bringing these actors closer together.

While they have managed to start to collaborate with each other, achieving a long-term

⁴⁷ <http://www.garagelab.cc>

⁴⁸ <http://desarrollandoamerica.org>

⁴⁹ <http://www.meetup.com/HacksHackersBA/>

sustainable partnership does not seem to be a simple task. Differences in approaches, languages, skills create some barriers to interaction. However, those differences are the key elements that make this collaboration necessary. To have provisions on formats for disclosure, to have clear licenses allowing data re-use, to secure proactive disclosure of more politically sensitive information, and to solve accountability problems with new tools are all tasks which require a closer collaboration from the different groups loosely connected to open data.

Short-term funding is also a major issue for many projects, as well as the need of NGOs for "in house" developers and/or tech savvy project managers. Even though some interesting projects have arisen from short-term collaborations, the need to have tech savvy staff (developers or managers) inside the organizations, according to many transparency-oriented NGOs, is a key feature for sustainable partnerships and data-driven activity. This is particularly important for organizations whose approach derives from legalistic and paper-based approaches to government information and, therefore, who may lack technical knowledge and know-how to take advantage of emerging opportunities from open data initiatives.

A clear analogy, for the obstacles that these partnerships are facing, was introduced during the Transparency Camp 2012⁵⁰ (organized by the Sunlight Foundation in Washington DC). In the meeting, the development of applications and other ICT products for greater transparency was compared to the process of building a house. In that sense, *"the advocate/NGO worker is the future tenant of the house. They have to live with the outcome, so it needs to be built for their needs. The programmer is the contractor, they have the technical expertise to actually build the house. However, in this relationship there is often not an architect. You can use pre-existing plans, but to meet the unique needs of the advocate, you need someone who understands the needs of the advocate who also understands how houses are best built. This is often the missing piece"* (Shaw 2012).

All the above-mentioned difficulties are important for the development of OGD policy and therefore, need to be taken into account. However, they are not the only reason for the limited use of data. One of the key aspects that should be considered is that the

⁵⁰ <http://transparencycamp.org/>

disclosure, together with the use and reuse, of raw data brings great changes to the way all of these actors, outside and inside government, perform their daily tasks (in particular the groups that are not necessarily related to technology developments). Therefore, many of those actors may present resistance (and will, probably, keep presenting it in the near future) to these developments and changes.

On the bright side, even though all these obstacles might have played a part in this process, they have not prevented a small community from starting to emerge around the use of open government data. Yet, to exploit the vast potential of the data and to achieve greater government transparency, demand accountability, as well as promote participation, there is still a need for greater dialogue and joint efforts. Besides the obstacles one thing is clear: by sharing skills and knowledge, these partnerships among all the different actors can improve the design and impact of technology-driven projects. (Berdou 2011)

In that sense, some projects have just begun to be implemented with limited resources but with a lot of dialogue among several stakeholders. Thus, the Huesped Foundation (a NGOs aimed at fighting HIV/AIDS) has begun to make use of the Government Laboratory provided by the Directorate-General of Information and Open Government in order to build an application to promote awareness about centers for HIV free testing and for distribution of condoms. This initiative, still under development, is being created with no budget but with the assistance of independent developers and the expertise of the Office of Information and Open Government. This type of collaboration could be taken, in the future, as an example of what can be done with limited resources but with an efficient and productive collaboration from several actors interested in the topic.

7. IMPACT AND CONCLUSIONS

7.1 Impact

One of the most discussed issues regarding Open Data initiatives is the need to measure its impact, together with the difficulties this assessment presents. In the particular case of the City of Buenos Aires, there is no particular framework to measure impact. As any other public project, the OGD initiative should meet targets which are established at the beginning of each year. However, this type of exercise does not

represent a proper assessment of OGD impact, but only a measure of the daily activities of the office responsible for OGD.

The report the Office is providing to other several agencies at the end of each term are related to the outcomes (events and other activities) they set at the beginning of the period in order to achieve their outcomes in the long run. Moreover, those tasks and smaller goals are not set on stone, as they have a flexible approach and they are willing to change their path along the way.

A lack of understanding concerning the impact of OGD policies can be attributed to many causes. One of them could be related to the different goals that a range of actors are pursuing when advocating for greater disclosure of OGD. The other reason could be related to the absence of a theory of change when designing OGD initiatives, or when using government data to produce new applications.

Like the FOI field (Calland, R and Bentley, K, 2009), some anecdotal evidence can be found about some of the changes that OGD has produced. However, there is a lack of systematic assessments of these policies and their relationship to greater government transparency, participation in decision-making, as well as economic development (as they have been the most frequently announced goals when implementing OGD policies around the world).

The main goal pursued by FOI as well as Open Data advocates is to create a cultural change that allows the passage from secrecy to the disclosure of information and open Government Data "by default"⁵¹. In this regard, the General Directorate of Information and Open Government is currently working on promoting that cultural change within the public administration. However, as Iglesias explains, their ultimate goal is not to achieve OGD "by default" but Open Government Data "by design"⁵². This implies that all public agencies, in the future, should produce and collect information and data, taking into account that such information and data will be published following protocols that allow them to be reused by third parties. This type of strategy requires not only changes in the

⁵¹ Principle 1. G8 Open Data Charter and Technical Annex: Office, C. (2013). G8 Open Data Charter and Technical Annex. [G8 communiqué and documents](#).

⁵² Gonzalo Iglesias- Interview. June 2013.

flow of information within the public sector, but also (and perhaps more important) a change in public servants' mind-set in terms of their relationship to the information they produce and/or collect. Thus, cultural changes⁵³ are neither a simple process to be implemented nor easy to be measured.

Lastly it is important to address that counting visits to a website and/or the number of 'downloads' of certain datasets or documents cannot be presented as indicators of usage, and much less, of the impact of any of these policies. In many cases, these initiatives are compared to one another in terms of number of published documents and datasets as well as number of visits. However, any conclusions based on such flimsy metrics are unlikely to be robust.

There is no proper impact assessment without the presence of a theory of change, against which to measure results. In the case of the City of Buenos Aires, the theory of change behind their activities is related to their 3 main outcomes: empowered citizens, improvement of service delivery, and innovation. They aimed to achieve those changes through a push-pull strategy (publishing data while creating the demand in the community for further disclosures).

7.2 Some final thoughts

Over the past two decades the way in which individuals access government information has changed. The principle behind FOI and OGD is similar, however the tools and the formats in which that information is published have varied. Open Government Data initiatives introduce a new way to access and use the data produced and held by governments. This report presented some of the main features of the OGD policy in the City of Buenos Aires, in particular, together with some of issues that need to be taken into account to improve this type of initiatives, in general.

Open Government Data policies, by relying on proactive publication of information tends not to encourage confrontation between civil society actors and governments, as it could be the case with some information requests under FOI laws when governments are not willing to release the requested information. This proactive disclosure of information, in

⁵³ Such changes require State policies and long-term strategies.

the context of open data policies, might partially explain why, unlike FOI laws, many of these policies were driven (or at least not resisted) by actors within the public sector (top-down approach to the design of the policy). In global term, while the FOI diffusion took several years, local and national governments in many countries quickly adopted Open Data policies. This is the case of the City of Buenos Aires where the Chief of Government provided an extensive support to this policy, as explained by this initiative's Director, Rudi Bormman.

At the stage of implementation, information disclosed in the framework of open data initiatives in cities is focused, often very successfully, on providing information about city services such as transport, cultural activities. Examples of this disclosure are the more than 70 datasets provided by the City of Buenos Aires in their Open Data portal. Yet, in terms of one of the main Open Data goals, "transparency towards accountability", open data initiatives don't seem to be as successful. In that sense, the city of Buenos Aires is part of the rule and not the exceptions.

In that same line, OGD portals are among the most common commitments made by governments to get closer to the idea of Open Government, as those portals can provide an appearance of government transparency. However, in practice, Open Government Data initiatives in cities seem to be closer to the idea proclaimed under the "smart cities" label than to the Open Government principles. A city can offer new ways for people to access public services they deliver but it doesn't mean that they provide the information and institutional channels for citizens and organizations to know how those services are funded, implemented (among the vast amount of information a city, or any other government, should disclose to get closer to the idea of an open government).

For a local (or any other government) a focus on the effective and timely disclosure of politically important data is the only way to really get closer to the idea of an open government. However the focus on a proactive approach and the potential offered by technology seduces cities towards taking the option(s) that deliver minimal advantages in the terms of transparency and accountability. Therefore whilst the potential and promise of Open Government Data is enormous, its impact in terms of achieving Open Government at this point in time, it is still limited.

In that sense, it is left to be seen if this policy (in the City of Buenos Aires as well as in other cities and countries) will scale and what kind of real impact will produce in the long run, or if only a few skilled actors will take advantage of these public resources.

8. Annex 1

Five Dimensions of OGD Policies

This framework was developed by Silvana Fumega, Manuella Maia Ribero, Ricardo Matheus, and Fabrizio Scrollini at the beginning of the “Opening Cities” project.

Dimension	Description of Dimension	Guide Questions
Emergence	It explores how these policies came into being.	How did local open government data policies come into place? In particular what factors led these local government to adopt open government data policies? How OGD policies were designed?
Policy Design	It explores the design of OGD policies.	What kind of characteristics these policies have? Who are the key players in terms of designing policies? What kinds of governance mechanisms are in place to solve controversies? To which extent these policies comply with the 8 Open government Data Principles?
Information Provision and Resources	It looks at the state capacity and resources needed to carry on a OGD policy at a local level.	What kind of information is provided? Which kind of platform cities use to publish raw data? What kind of challenges cities face to publish data? Which resources cities need to establish these policies?
Users	This dimension seeks to understand who are the users of OGD portals.	Who is using raw data? What kind of interest drives users? What kind of data users find more helpful? What kind of data would users like to see and in which terms?
Impact	This dimension seeks to understand what kind of emergent impact OGD policies have.	What kinds of applications are being built based on open data? How should impact be measured? What application could be built if data was available?

ANNEX 2- DATASETS- BUENOS AIRES DATA

This table was created by the end of 2013 (December), with the complete list of datasets available in the portal <http://data.buenosaires.gob.ar>. The structure of the table is based on the framework developed by the ODDC network facilitators to gather information throughout all the projects of the network.

Row added	City	Dataset	Period of coverage	Format	Last updated	Category
17/12/2013	Buenos Aires	Historical Protective Areas (Areas de Proteccion Historica)	2013	CSV	17/04/2013	Planning and Development
17/12/2013	Buenos Aires	Healthy Stations (Estaciones Saludables)	2013	CSV	23/12/2013	Health and Public Safety
17/12/2013	Buenos Aires	Weather Information (Informacion Meteorologica)	2011-2012	CSV/PDF	17/04/2013	Environment/Geography
17/12/2013	Buenos Aires	List of Inspectors of the General Public Revenue Agency (Inspectores de la Agencia General de Ingresos Publicos)	2012-2013	CSV	17/04/2013	Civic Administration and Services
17/12/2013	Buenos Aires	List of Inspectors of the Government Control Agency (Inspectores de la Agencia Gubernamental de Control)	2012-2013	CSV	17/04/2013	Civic Administration and Services
17/12/2013	Buenos Aires	Highway's Status (Estado de la Autopista)	2013	API	17/04/2013	Transportation
17/12/2013	Buenos Aires	Trees' Census (Censo Arbolado)	2011	CSV	20/12/2013	Environment/Geography
17/12/2013	Buenos Aires	Travel Agencies (Agencias de Viajes)	2013	CSV	3/06/2013	Sport, Leisure, and Culture
17/12/2013	Buenos Aires	Bicycle Shops (bicicleterias)	2013	CSV	20/12/2013	Transportation
17/12/2013	Buenos Aires	Bicycle repairers in public space (Bicicleteros en Via Publica)	2013	CSV	20/12/2013	Transportation
17/12/2013	Buenos Aires	Official Gazette (Boletin Oficial)	2008-2013	ZIP/PDF	3/06/2013	Legislation and Licensing
17/12/2013	Buenos Aires	Programme of the Tango World Championship and Festival (La programación del Festival y Mundial de Tango)	2012	CSV	3/06/2013	Sport, Leisure, and Culture
17/12/2013	Buenos Aires	Programme of Summer in the City (Programa de Verano en la Ciudad)	2012	CSV	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Animated BAFICI (BAFICI animado)	2012	CSV	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	BAFICI	2010-2013	CSV/ZIP	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Buenos Aires Contemporary Dance (Buenos Aires Danza Contemporanea)	2012	CSV	3/06/2013	Sport, Leisure, and Culture

20/12/2013	Buenos Aires	Emerging City (Ciudad Emergente)	2009-2012	CSV/ZIP	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Tourist accommodation (Alojamiento Turistico)	2013	CSV	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Monitoring awarded public works (Seguimiento de Obras Adjudicadas)	2012-2013	CSV	3/06/2013	Infrastructure – Physical and Service/ Civic Administration and Services
20/12/2013	Buenos Aires	Registered public works (obras registradas)	2011-2012	CSV	3/06/2013	Infrastructure – Physical and Service/ Civic Administration and Services
20/12/2013	Buenos Aires	Event planners' registry	2013	CSV	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Highways Road Safety (Seguridad Vial Autopistas)	2004-2013	CSV/PDF	3/06/2013	Transportation
20/12/2013	Buenos Aires	Buenos Aires Shakespeare	2012	CSV	3/06/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Hospitals' cover areas (Areas hospitalarias)	2013	CSV/SH P/PDF	3/07/2013	Health and Public Safety
20/12/2013	Buenos Aires	Neighbourhoods (Barrios)	2013	CSV/SH P/PDF	3/07/2013	Planning and Development
20/12/2013	Buenos Aires	Code of Urban Planning (codigo de planeamiento urbano)	2013	CSV/SH P/PDF	3/07/2013	Planning and Development / Legislation and Licensing
20/12/2013	Buenos Aires	Police Stations (Comisarias)	2013	CSV/SH P/PDF	3/07/2013	Health and Public Safety
20/12/2013	Buenos Aires	Communes (comunas)	2013	CSV/SH P/PDF/H TML	3/07/2013	Planning and Development
20/12/2013	Buenos Aires	School districts (distritos escolares)	2013	CSV/SH P/PDF	3/07/2013	Education and Social Services
20/12/2013	Buenos Aires	Green Spaces (espacios verdes)	2013	CSV/SH P/PDF	3/07/2013	Environment/Geography
20/12/2013	Buenos Aires	Learning establishments (establecimientos educativos)	2013	CSV/SH P/PDF	3/07/2013	Education and Social Services
20/12/2013	Buenos Aires	Train lines (Lineas de Ferrocarril)	2013	CSV/SH P/PDF	3/07/2013	Transportation
20/12/2013	Buenos Aires	Blocks (manzanas)	2013	CSV/SH P/PDF	3/07/2013	Planning and Development
20/12/2013	Buenos Aires	Non-Ionizing Radiation (RNI) Measurement	2013	CSV/SH P/PDF	3/07/2013	Health and Public Safety
20/12/2013	Buenos Aires	Plots (Parcelas)	2013	CSV/SH P/PDF	3/07/2013	Planning and Development
20/12/2013	Buenos Aires	Police districts (secciones policiales)	2013	CSV/SH P/PDF	3/07/2013	Health and Public Safety
20/12/2013	Buenos Aires	Possible flooding sites (sitios posibles de anegamientos)	2013	CSV/SH P/PDF	3/07/2013	Environment/Geography
20/12/2013	Buenos Aires	Drains (sumideros)	2013	CSV/SH P/PDF	4/07/2013	Infrastructure – Physical and Service
20/12/2013	Buenos Aires	Operations of Civil Defense (operaciones de defensa civil)	2005-2012	CSV/SH P	26/07/2013	Health and Public Safety
20/12/2013	Buenos Aires	Concessions of Parking	2012	CSV	29/07/2013	Transportation

013	Aires	Stations (playas de estacionamiento consecionadas)				
20/12/2013	Buenos Aires	Book shops (librerias)	2013	CSV	29/07/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	PCB transformers (Transformadores de PCB)	2013	CSV/SH P/PDF	29/07/2013	Infrastructure – Physical and Service
20/12/2013	Buenos Aires	Cultural Agenda (Agenda Cultural)	2012-2013	RSS/API/ PDF	9/08/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Libraries (Bibliotecas)	2013	CSV/SH P/PDF	13/08/2013	Education and Social Services
20/12/2013	Buenos Aires	Streets (calles)	2013	CSV/SH P/PDF	13/08/2013	Planning and Development
20/12/2013	Buenos Aires	Highways (Autopistas)	2013	CSV/SH P/PDF	30/08/2013	Transportation
20/12/2013	Buenos Aires	Public Officials' salaries (sueldos de funcionarios)	2012-2013	CSV/XLS	3/09/2013	Finance / Civic Administration and Services
20/12/2013	Buenos Aires	Sound Pollution (Contaminacion Sonora)	2011-2013	CSV	5/09/2013	Health and Public Safety
20/12/2013	Buenos Aires	Approved Budget (presupuesto sancionado)	2005-2012	CSV	9/09/2013	Finance/ Civic Administration and Services
20/12/2013	Buenos Aires	Interactive Map (Mapa Interactivo)	2013	API/HTM L/ZIP	12/09/2013	Planning and Development
20/12/2013	Buenos Aires	Land Use Survey (relevamiento usos del suelo)	2008-2011	CSV/SH P/PDF/H TML	17/09/2013	Infrastructure – Physical and Service
20/12/2013	Buenos Aires	Protected bikeways (Ciclovías Protegidas)	2013	CSV/SH P/PDF	30/09/2013	Transportation
20/12/2013	Buenos Aires	Subways (Subterranos)	2013	CSV/SH P/PDF	30/09/2013	Transportation
20/12/2013	Buenos Aires	Primary Attention Centers (Centros de Atencion Primaria)	2013	CSV/SH P/PDF	30/09/2013	Health and Public Safety
20/12/2013	Buenos Aires	Hospitals (Hospitales)	2013	CSV/SH P/PDF	30/09/2013	Health and Public Safety
20/12/2013	Buenos Aires	Neighborhood's Medical Centers (Centros Medicos Barriales)	2013	CSV/ZIP/ PDF	1/10/2013	Health and Public Safety
20/12/2013	Buenos Aires	Universities (Universidades)	2013	CSV/ZIP/ PDF	22/10/2013	Education and Social Services
20/12/2013	Buenos Aires	Consulates (Consulados)	2013	CSV/ZIP/ PDF	22/10/2013	Civic Administration and Services
20/12/2013	Buenos Aires	Embassies (Embajadas)	2013	CSV/PD F	22/10/2013	Civic Administration and Services
20/12/2013	Buenos Aires	Fire Stations (Cuarteles de Bomberos)	2013	CSV/ZIP/ PDF	22/10/2013	Health and Public Safety
20/12/2013	Buenos Aires	Traffic flow per toll units (Flujo Vehicular por Unidades de Peaje)	2003-2023	CSV/PD F	24/10/2013	Transportation
20/12/2013	Buenos Aires	Public Bikes' Stations (Estaciones de Bicicletas Públicas)	2010-2013	CSV	5/11/2013	Transportation
20/12/2013	Buenos Aires	Public Bikes (bicicletas publicas)	2010-2013	CSV/ZIP	5/11/2013	Transportation
20/12/2013	Buenos Aires	Registration of Manufacturers, Repairers and Refillers of fire extinguisher (Registro de	2013	CSV	15/11/2013	Health and Public Safety

		Fabricantes, Reparadores y Recargadores de matafuegos)				
20/12/2013	Buenos Aires	Economic Districs (Distritos Economicos)	2013	CSV/ZIP/PDF	22/11/2013	Finance / Civic Administration and Services
20/12/2013	Buenos Aires	Public Wifi hotspots (Puntos de Wi-Fi Publico)	2013	CSV	22/11/2013	Planning and Development
20/12/2013	Buenos Aires	Visits to the website of the Governement of the City of Buenos Aires (Visitas a la web del GCBA)	2011-2013	CSV/ZIP	27/11/2013	Information Management
20/12/2013	Buenos Aires	Air quality (calidad del aire)	2011-2013	CSV	27/11/2013	Environment/Geography
20/12/2013	Buenos Aires	Centralized Catalogue of the City's public libraries network (Catálogo Centralizado de la red de bibliotecas públicas de la Ciudad)	2013	ZIP	28/11/2013	Education and Social Services
20/12/2013	Buenos Aires	Film Sets (Sets de Filmacion)	2011-2013	CSV	9/12/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Nightclubs (locales bailables)	2013	CSV	23/12/2013	Sport, Leisure, and Culture
20/12/2013	Buenos Aires	Accredited Private Security Companies (Empresas de Seguridad Privada Acreditadas)	2013	CSV	23/12/2013	Health and Public Safety
20/12/2013	Buenos Aires	Advertising Spot by the Government of the City of Buenos Aires (Pauta Publicitaria)	2011-2013	CSV/XLS	18/12/2013	Finance / Civic Administration and Services

ANNEX 3

LIST OF APPS

This list was built with information provided by the General Directorate of Information and Open Government. All these applications were built and submitted in a series of events organized by that Office.
Spreadsheet version: <https://drive.google.com/file/d/0B49ZtmN-sAd2VmhsCFNnTnFTRjA/edit?usp=sharing>

	Event	author	appLINK	platform	Status
+Cerca/BA	BA Apps 2013	Conrado Lopez Soutiric	mascerca/ /apps/details?id=com.ecobici	android	Active
ABRA	BA Apps 2013	CARLOS BAYONA	i.ecobici	android	Active
Acadeu	BA Apps 2013	Joaquín Magneres	https://acadeu.com/	web	Active
AgendaBA	BA Apps 2013	Sergio Carranza	30pkpfegc58d7x/agenda.ba	file dropbox	No Active
Alertas Buenos Aires	BA Apps 2013	Sofrecom Sofrecom	om/es-ar/store/app/alertasba/faac8523-f9d0-404e-abea-	windows phone	Active
Asado App	BA Apps 2013	Nico Garcia Bocca	http://www.nico.im/asado/	ios, android	Active
Aula365 App Mobile	BA Apps 2013	Aula365	/apps/details?id=com.competir.aula365.mobile&hl=es	android	Active
Auto abandonado	BA Apps 2013	Lucas Sebastian Avellaneda	caba.com.ar/	web	Active
Ayundando a Reciclar Buena	BA Apps 2013	Cristian Guastí	com.ar	web	Active
B&A	BA Apps 2013	YliebeA	nd	web	No Active
BA Museums	BA Apps 2013	Manuel Minetti	om/es-ar/store/app/ba-museums/214f0067-d01b-	windows phone	Active
BA punto medio	BA Apps 2013	Leonardo Benveniste	/apps/details?id=air.com.vesel.BAPuntoMedio	android	Active
Ba Reportes	BA Apps 2013	Alejandro Ariel Meza	reportes.com.ar/app/	web	Active
Bacuname	BA Apps 2013	Ale Reca	http://www.bacuname.com	web	Active
Baires informada	BA Apps 2013	Pedro Sanguinetti	/apps/details?id=ar.com.pgibairesguide	android	Active
BAQi	BA Apps 2013	Leandro Briglio	/apps/details?id=com.baqi	android	No Active
Bicipius	BA Apps 2013	Santiago Favaro	http://www.bicipiusapp.com/	android	Active
Bigdatamachine	BA Apps 2013	Bigdata	net/	web	Active
Bikestorming	BA Apps 2013	Mati Kalwill	m/	web	Active
Buenos Aires (BAA)	BA Apps 2013	Ariel Deroche	/apps/details?id=dev18.baturismo&hl=es	android	Active
Buenos Aires Taxi Control	BA Apps 2013	Bs As Taxi Control	/apps/details?id=ar.uba.dc.gcmovil.bsastaxi	android	Active
BuzzUp!	BA Apps 2013	Leandro Carabajal	http://bit.ly/BuzzUpAPK	file	No Active
Calles históricas	BA Apps 2013	Nico Monjes	om.ar	web mobile	Active
ChitChat	BA Apps 2013	Igniz	http://www.chitchat.com.ar/	web	Active
Cómo voy?	BA Apps 2013	CátaroMap	r/como-voy.php	web	Active
Conoce BA	BA Apps 2013	Federico Grochal	/apps/details?id=com.fgrochal.turismo	android	Active
Dónde?	BA Apps 2013	Giuliano Cervella	.com.ar/	android, web	Active
Datos Democráticos	BA Apps 2013	Germán Lena	m.ar/	web	Active
delivery control	BA Apps 2013	Pablo de Mario	m.ar/	web	Active
DiscountMe	BA Apps 2013	DiscountMe	ar/web/	web	Active
Dónde estoy? Beta	BA Apps 2013	Ariel Cessario	yxs6y24rzo3om3x/DondeEstoy.apk	file	No Active
dondeducar	BA Apps 2013	Pedro Prete	m/	web	Active
EntrenaYa	BA Apps 2013	Nicolas Martin Cohen	/en/capital-federal	web	Active
Estacionapp	BA Apps 2013	Nico Fakiel	/apps/details?id=com.app.estacionamiento&hl=es	android	Active
Finger-touch Buenos Aires	BA Apps 2013	G20apps	/apps/details?id=com.g20apps.turismoBsAs	android	Active
Gamba	BA Apps 2013	Agustin Sgarlata	a.app	android	Active
GeoChagas	BA Apps 2013	Nicolas Lound	/geochagas/	web	No Active
Geolupa	BA Apps 2013	Leonardo Herrero	http://www.geolupa.com/	web	Active
Guía Eco Vegetariana	BA Apps 2013	Guía Eco Vegetariana	na.com.ar/	web	Active
Holdy	BA Apps 2013	Rodrigo Gutierrez	http://www.holdy.org/	android	Active
Hospeda	BA Apps 2013	Gabriel Passadore	/apps/details?id=com.hospeda.mobile	android	Active
Juntate, la aplicación para or	BA Apps 2013	Diseño web 30f	http://www.juntate.net	web	Active
Localizar Emergencia	BA Apps 2013	Daniel ángel Molina	om/	android	Active
Mapa de Mascotas	BA Apps 2013	Dos Patas	mascotas/	web	Active
Nutri Alerta	BA Apps 2013	Juan Irungaray	http://alerta.ficargentina.org/	android	Active
Orientame	BA Apps 2013	martinch	r/orientame	web	No Active
Parba	BA Apps 2013	Leandro Fantin	d/0B94xXYHr6EoVkwXfY1Od29nMVU/edit?usp=sharin	file	No Active
Properati	BA Apps 2013	runix	http://www.properati.com.ar/	web	Active
Reciclando	BA Apps 2013	Pablo Pallocchi	/apps/details?id=com.mandarin.reciclando	android	Active
Runego	BA Apps 2013	Runego	http://runego.com	web	Active
Smart Travel Planner	BA Apps 2013	Daniel Gini	/apps/details?id=com.stp&hl=es_419	android	Active
Valores en tu zona	BA Apps 2013	Roman Avila	biliario.com/valores/pp/d734485063?ml=8&affid=2104183	web	Active
Virtual Tours	BA Apps 2013	Matias Hilaire	http://wifri.com.ar/	IOS	Active
Wifri	BA Apps 2013	ID4You Design	http://wifri.com.ar/	web	Active
Y qué hacemos?	BA Apps 2013	Lucas Recoaro	bsites.net/	web	Active
Viajo en Bondi	BA Apps 2012	Benjamin Pieres	http://viajoenbondi.com/	web	Active
Agustín Alejandro Vazquez Baillan	BA Apps 2012	Agustín Vazquez	/apps/details?id=agustin.vazquez.cortes	android	Active
Charlie Deane	BA Apps 2012	Charlie Deane	http://www.poolami.com/		No Active
Me voy en bici	BA Apps 2012	Maria Emilia Bosatta	/apps/details?id=agustin.vazquez.bicis	android	Active
Estado Trafico	BA Apps 2012	Marcos Milohanich	d=DEDB224FADEF9147&id=DEDB224FADEF9147%21	file	No Active

WebGis Bsasciudad.com.ar	BA Apps 2012	Adrian Escalada	http://bsasciudad.com.ar/		No Active
Ei Ciclista Urbano	BA Apps 2012	Alvaro Collado	gfree.com/index.php	web	Active
EnCamello.com	BA Apps 2012	Lucas Todres	http://www.EnCamello.com/	web	No Active
DineroTaxi	BA Apps 2012	Carlos Baglieri	http://www.dinerotaxi.com/	web, android, iOS, bb	Active
BsAsCultural	BA Apps 2012	Ramiro Galván	pp/bsascultural/id572347453?mt=8	iOS	Active
dataBA	BA Apps 2012	Hernán Peralta Alvear	http://dataBA.tel/	web	Active
BuenosAiresAlerta	BA Apps 2012	Juan Biscione	http://212.199.114.43/adhoc/		No Active
Martes Rojos	Hackaton 2013	Guada Urri	http://martesrojos.org/	web	Active
Changuito	Hackaton 2013			web, mobile	No Active
Piano sin barreras	Hackaton 2013	Ariel Scarpinelli	barreras.herokuapp.com/	web	Active
Mapart	Hackaton 2013	Ezequiel Liauria			No Active
Mapeo de Villas	Hackaton 2013		com/	web	Active
Museos BA	Hackaton 2013		ba.herokuapp.com/	web	Active
Kiwi	Hackaton 2013	Pablo Paladino	2013/05/kiwi-estacion-automatizada-de-bicicletas-		Active
BikestormingEBA	Hackaton 2013	Mati Kalwili	/demoba/	web	Active
Mi BsAs por MobileNinjas	Hackaton 2012	Gonzalo Orsi, Santiago Raffo, Guillermo Winkler			
BAVida por TinyCo	Hackaton 2012	Gabriel Stock, Ezequiel Becerra			
MetroLibros por NN	Hackaton 2012	Ignacio Raffa, Nicolás Vilela			
PlayBafici por Open Rest	Hackaton 2012	Alan Reid, Nicolás Melendez, Pablo Saladino, Sebastián Scarano			
Social Bicing por SocialBicing	Hackaton 2012	Sergio Kaplan, Leandro Peralta, JuanMa Simmons, Sebastian Massacane			
BA.SOS por Lector Global	Hackaton 2012	Christian Escalante, Damian Bergia, Sebastian Pereyra, Carlos A. Diaz			
Yeca por Nyan Nyan	Hackaton 2012	Demian Ferreiro, Esteban Invernizzi, Mariano Simone, Mariano Vicente			
Andá en Bici por andaenbici	Hackaton 2012	Ariel Scarpinelli, Dario Milfores			
Bibliotecas-BsAs por Bibliotecas-BsAs	Hackaton 2012	Maximiliano Pretzel, Mariano Tugnairelli, Facundo Matias Rodriguez Arceri, Santiago Risaro			
Cultura en las calles por Cultura en las calles	Hackaton 2012	Gaston Gerchkovich, Martha Semken			
Ac-gcba por Omilen Team	Hackaton 2012	Guido De Benedetti			

ANNEX 4

SOME OF THE KEY EVENTS IN THE DEVELOPMENT OF THE OPEN DATA POLICY IN THE CITY OF BUENOS AIRES

For the interactive version, go to:

<http://cdn.knightlab.com/libs/timeline/latest/embed/index.html?source=0Ao9ZtmN-sAd2dG5FZmN4LUIUZDR3SzRlaHF2TU03NkE&>

Type	Level	Title	Start	End	Description
Law	Local Government	Law on Access to Public Information (104/1998)	1998		It regulates the right to access government information in the City of Buenos Aires
Event	International	Transparencia 2.0	May 5th, 2011	May 6th, 2011	Workshop on Transparency and Technology in Latin America
Event	International	Developing Latin America	Dec-11	December 2011	Hackathon
Law	Local Government	Ministries Law (4013 Article 16)	2011		Creation of the Ministry of Modernization- It dictates that the Ministry of Modernization is in charge of the implementation of the IT policies
Law	Local Government	Ministries Law (4516 Article 1)	2013		It dictates that the Ministry of Modernization is in charge of the implementation of the IT policies
Decree	Local Government	Decree on "Open Government" (156/2012)	2012		It sets the bases for the Open Data Initiative in the City of Buenos Aires
Resolution	Local Government	Resolution 190/2012 (Ministry of Modernization)	2012		It establishes that the Ministry of Modernization is in charge of setting the "guidelines, procedures and protocols regarding the mechanism by which datasets are provided by the different areas of government to the General Directorate of Information and Open Government and published through Buenos Aires Data platform for possible reuse by citizen"
Implementation	Local Government	Deployment of CKAN	Early 2012	End of 2012	open source data management system
Implementation	Local Government	Deployment of CKAN 2.0	Early 2013		open source data management system
Implementation	Local Government	Creative Commons License	Sep-13		All the content in the websites of the City of Buenos Aires are licensed under the Creative Commons Attribution 2.5 Argentina
Decree	Local Government	Decree on Access to Information. Public bodies. Centralized and decentralized bodies, and autonomous	12/11/2013		All data produced, stored and collected by the various agencies of the Centralized and Decentralized Administration and the autonomous agencies of the Government of the Autonomous City of Buenos Aires (which are not exempt by any specific rule) will be published so as to facilitate their discovery, search,

		agencies (478/ 2013)			access, redistribution and reuse by citizens in the data.buenosaires.gob. website
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Interviews and workshop's participants:

- Paula Alzualde
- Natalia Carfi
- Leandro Cahn
- Romina Colman
- Gonzalo Iglesias
- Rosario Pavese
- Alan Reid