

**Project advancing data justice research and practice
Final report**

Fundación InternetBolivia.org – Fiborg

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1. Introduction

The use of personal data by technology-based companies and governments with a weak or non-existent legal framework to protect the rights of citizens is a reality in northern countries as well as in the Global South, such is the case of Bolivia. This situation reproduces and multiplies previous inequalities inherent to the colonial scheme of domination and adds other new ones, always to the detriment of the most vulnerable populations.

On the one hand, this situation misrepresents vulnerable populations in databases, which can prevent them from accessing public services and exercising full citizenship and; on the other hand, personal databases cannot be accessed and used by individuals, especially the ones that are marginalized, due to the lack of open access technologies and the skills to analyze the data. They lose sovereignty over their own data and as a result, the power imbalances between companies, governments and people increase.

With this in mind, the project advancing data justice research and practice is executed in Bolivia by InternetBolivia.org Foundation, funded by the Center of Expertise in Montreal on Artificial Intelligence (CEIMIA) and within the framework of the Public Policy Pilot Partners program of the Turing Institute in the United Kingdom. The project seeks to identify the data ecosystem stakeholders, their power dynamics and the social inequalities and exclusions that affect vulnerable communities. For the analysis we used the six pillar model elaborated by the Alan Turing Institute and CEIMIA.

In order to identify the stakeholders, their power dynamics that goes against vulnerable populations and other discriminatory actions we conducted 31 interviews and one legal sectoral studies which includes Telecommunications and Financial sector regulation. The findings were presented in a workshop with some of the interviewees and other actors of the ecosystem that were interested, followed by a dialogue around the participants' own experiences on data justice and their suggestion to go ahead to reach a fairness database management.

We take as starting point to this research process, that the management of databases by governments and enterprises, are crossed by neocolonial precepts that increase the discrimination of vulnerable populations. A deep thinking on this practice is necessary to decolonize the process of datification of Bolivian society, which is incipient but is beginning to accelerate. For this, we understand that the Bolivian society is characterized by a long history of discrimination and hierarchy in relation to other cultures, ways of thinking and political organization in the country, which are also reproduced through this phase ideologically called plurinational but that would not have changed substantially, in terms of domination, discrimination and exploitation of the indigenous population¹.

In this neocolonial context, several cases of violations of privacy rights and personal data in Bolivia were spotlighted by the media and became part of the public awareness around this

1 Chávez, Patricia (2010): Cómo pensar la descolonización en un marco de interculturalidad. En: Descolonización en Bolivia. Cuatro ejes para comprender el cambio. <https://www.vicepresidencia.gob.bo/IMG/pdf/4-ejes.pdf>

topic during these last five years. These cases allows us to identify initially who could be the populations playing the subordinate roles on the initial datification process in Bolivia:

- Cases regarding privacy and intimacy. Through our digital security helpline S.O.S Digital, in the last two years we received more than 50 cases of **women** whose personal information was used to expose them or harass them in digital spaces. This figure is a small sample of a phenomenon that has become very common in digital life. Also there were cases that become very public and were showed in different media including the reveal of a High Magistrate's **HIV condition**, the sharing of a sex tape of **high profile women (one journalist and two politicians)** and the exposure of a list of **COVID-19 patients** during the pandemic.
- Cases regarding political use. We have registered at least two cases regarding personal data and political abuse. The first one was the registration of thousands of **citizens** in several political parties to get or maintain their legal status without the consent of the people involved. The political parties registered them using their ID numbers, their signature and their names, so they could. A second case was the use of databases of the General Service of Identification (SEGIP) to identify more than 500 members of the **political party in opposition**.
- Cases regarding cybercrime. In the last two years there were several cybercrime cases that use personal data to identify potential victims. During 2021, more than 100 clients of one Bank suffered financial fraud. According to the Bolivian Financial Authority (ASFI), these frauds were committed through accessing personal data of **bank clients**, ID numbers and cell phone numbers that were used to authenticate people. We have also received concerns about worried parents that claim that the phone numbers of their **children** (which were registered by their schools in order to be contacted by their teachers) were leaked and afterwards, used to contact those minors for grooming purposes.

2. Demographic questionnaire results from participants both in the interviews and workshops

During the research we conducted 31 interviews to different stakeholders: policy makers, companies, data scientists, developers, journalists and members of the public that are grouped in the three roles suggested by the CEIMIA and the Turing Institute: policy maker, developer and member of the public; and other two roles that were difficult to classify in those previous three: journalist and private companies. All the interviews were to single people except for one that was in a group, it was the one to the Ministry of Health.

We invited the interviewees to the workshop and also other people that were interested in the topic. At the end, we had 30 participants in the workshop. The complete list of interviewees and participants in the workshop with the details of their demographics can be found in

annexes while we present some statistics of the demographic questions of both moments below.

Interviewees

Role	Quan.	Level of education		Familiarity data and algorithm		Access to internet	
Member of the public	8	No formal education	0	Not familiar at all	5	No access	0
Policy maker	11	Some primary school	0	Slightly familiar	3	Very limited access	2
Developer	9	Completed primary school	0	Moderately familiar	8	Moderate access	3
Companies	2	Some secondary school	0	Very familiar	12	Unlimited access	26
Journalist	1	Completed secondary school	2	Extremely familiar	3	Total	31
Total	31	Some post-secondary school	2	Total	31		
		Completed post-secondary school	9				
		Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	18				
		Prefer not to say	0				
		Total	31				

Workshop

Role		Level of education		Familiarity data and algorithm		Access to internet	
Member of the public	12	No formal education	0	Not familiar at all	2	No access	0
Policy maker	9	Some primary school	4	Slightly familiar	5	Very limited access	4
Developer	4	Completed primary school	0	Moderately familiar	10	Moderate access	7

Companies	1	Some secondary school	0	Very familiar	9	Unlimited access	19
International cooperation	3	Completed secondary school	1	Extremely familiar	4	Total	30
Researcher	1	Some post-secondary school	5	Total	30		
Total	30	Completed post-secondary school	2				
		Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	18				
		Prefer not to say	0				
		Total	30				

3. Interviews

a. Background of the interview process

A first step for the interview process was to map the principal stakeholders of the data ecosystem in Bolivia based on our network and two previous publications², and also identify individuals and communities affected by the datification. We identified 100 actors as a result of the mapping: the main policy makers and some municipal ones, developers (software developers and data scientists), journalists, private companies and individuals from the public (LGBTQI, parents, students, activists, and a women leader of rural communities). The initial mapping is [here](#). We decided to interview people from a small municipality 2 hours and a half far from La Paz named Coroico³, so we could also get some information about a rural area.

After that potential interviewees have been identified, we built [questionnaires for the three roles](#): decision makers, developers and members of the public; and sent letters and e-mails to ask for the interviews explaining the objectives of the interview, the topic and the institutions leading this initiative. We made some adjustments on the questionnaires after a pilot with one of the members of the team. Most of the interviews were made online due to the pandemic and some were held face-to-face, mostly the ones with people from Coroico. Each interview lasted from half an hour to two hours.

We obtain consent from the interviewees to record the interview and also to mention their names and roles in the final report. We received three requests of anonymity on the names but permission to record and mention the declarations in all cases. Afterwards, we transcript and translate all the interviews. You can find all the transcribed interviews in the annexes. As

2 Mapeo TIC en Bolivia <https://mapeoticbolivia.org/> and Calisaya & Ojeda, 2019 Mapeo de actores de la sociedad civil relacionados a datos abiertos en Bolivia <https://america-latina.hivos.org/document/mapeo-de-actores-de-sociedad-civil-relacionados-a-datos-abiertos-en-bolivia/>

3 Coroico is a municipality of almost 20.000 population. The Fundación InternetBolivia.org is executing another project about data protection in this municipality, as a result we networked with communities and other actors that make it possible to contact local women acting as leaders of their indigenous communities and staff from the town hall.

a last part, we invited the interviewees to attend the workshop. During all the process we coordinated with Alicia Boyd, from the Alan Turing Institute.

b. Summary of interviews and the six pillars

i. Ecosystem

The research allowed us to identify five groups of stakeholders:

- Database managers.
- Database owners/citizens.
- Regulators.
- Contractors/analyzers/data scientists.
- Users (journalists, activists, researchers).

Databases in Bolivia

The classification depends on who collects, registers and manages the data. Four types have been identified: public, private, NGOs or other civil organizations, and international organizations.

Public databases are created with the purpose of providing services to the population. This category also included data collected by surveys. According to the head of systems of National Statistical Institute (INE), for example, this institution works with two main sources of information:

- Public databases. The data is anonymized, and some data is transferred by interoperability.
- Surveys that this entity conducts such as continuous employment survey applied quarterly, household survey made annually, and sporadic surveys related to demographics, health, and other according to the situation.

As most of the interviewees declared public databases are divided in two groups: primary and sectorial. Primary databases are related to identity, there are two main offices. The General Personal Identification Service (SEGIP), which is the only institution empowered by law to issue identity cards throughout the entire country. Another one is the Civic Registration Service (SERECI), its main mission is to organize and manage the registration of people, specifically names and surnames, filiation, birth, personal status and death.

The second group of public databases are the sectoral. The interviewees mentioned some of the databases that they considered more important⁴ of the approximately 200 databases created by law, according to a study by AGETIC.

Private databases. According to an anonymous informant, three big monsters have been identified: the financial sector, supermarkets and delivery companies⁵. On the other hand, according to Nathaly Alarcón, who had the opportunity to talk with local banks in a survey conducted by her, some of these companies have the same problem and limitations as the public sector because they do not have the tools to analyze this information (...) they usually tend to store and not take advantage of it. He also points out that there is a lack of capacity, trained people and infrastructure in general. According to Esteban Lima, there are already some advances in terms of information processing of the delivery app PedidosYa (Bolivia), it analyzes the data collected and develops some other services using that.

There are some other private companies that are also collecting data but with no evidence of analysis using computers and data science: Telecommunications companies, the information generated in the National Chamber of Commerce, the Confederation of Private Businessmen, pension funds, academic institutions and pharmacies.

NGOs and international cooperation agencies have been identified as collectors and managers of data generated from surveys or opinion polls and also as data analysts for the government; these entities operate without a clear regulatory framework. Finally, the generation of data and administration of personal data by **civil society organizations** has been identified, but on a smaller scale.

ii. Interoperability

Is defined as any service offered throughout a platform. It has been designed to support machine-machine interaction for data exchange. According to Esteban Lima, the Public Prosecutor's Office is one of the entities that have taken advantage of the interoperability. The system *Justicia Libre* connects at least three different databases, SEGIP, SIREJ and the system managed by the Police National Office. According to Khantuta Muruchi, who works at AGETIC, the interoperability platform managed by this office has few entities willing to interoperate through the platform; she considers that the problem is cultural, the organizations consider data as their property.

iii. Power

There are several expressions of power dynamics in the process of datification of Bolivian society regardless it is in an initial phase. As a result of this still slow process, historically vulnerable groups are put apart from the innovation processes and that adds new inequalities to their existence.

The citizens are clearly identified as the least powerful actor by every interviewee. Several mentioned the concern about the extraction of their data and the lack of information about their rights.

- **Power dynamics based in technology.** One common expression of the power imbalances that is mentioned frequently while talking with decision makers as well as

4 Virtual Register Office (managed by National Tax Services), Digital Citizenship (AGETIC), Digital Signature (Agency for the Development of the Information Society in Bolivia- ADSIB), Trade Registry (Fundempresa), Migration Management System (National Unit of Immigration), BSISA, Bolivian Self-Identification Systems (National Hydrocarbons Agency), Unified Health System (Ministry of Health), RUDE Student Registry (Ministry of Education), Electoral Register (Civic Registration Service - SERECI), and Integrated System Judicial Registry (Magistracy).

5 This interviewee asked for anonymity and is identified as Anon2 in the lists of interviewees.

developers at private companies or independent consultants working on data science, is the power based on technology. This could be infrastructure (i.e. Who is the owner of the servers? Who has more skills to analyze the data?) or the tech knowledge as a barrier to access the data bases.

One expression of this tech-based power is the culture of secrecy as the most widely used way to secure databases and privacy rights. So, it is common for IT staff to say that “nobody can access the data” implying that the security protocols are perfect and enough, as a result, it is common that the only ones that have the right to access the data are the very few staff in charge of that, leaving no room for transparency principles. This way of thinking gives more power to the State and the companies (the ones responsible for the databases) and takes away access to information rights from the citizens.

- **Patrimonialism over the database.** Some public officials and private staff behave as if they have ownership of the databases and use them as a way to generate stability in their work. This cultural feature has been already mentioned by Muruchi in the paragraphs above. The regulations of the databases are not always explicit and depend on informal procedures that last as long as the specific staff is in place. Those regulations are a result of years managing those databases, are implicit, discretionary and become a source of power of the staff. They are the only ones that know how to manage the data, it is difficult to remove them but also is difficult for the citizens to make their rights to be respected because the rule of how to manage the data might change from one person to the other.
- **Complicated, outdated, and abusive regulations.** Another expression of power dynamics is the extremely complicated regulatory framework that is developed by numerous legal staff from the companies and the public institutions to rule the relationships with the citizens/consumers that do not have any option but opt-in contracts. In the sectoral research we have found several examples for the case of the telecommunications as well as the finance sector. Opt-in contracts are the common way to get a telecom or finance service (Interview Roger Romero, ex-employee of Telecommunications Authority).

The latest Terms and Conditions of the main services of the telecommunications sector, such as fixed telephony, mobile and Internet, for the main three ISPs operating in the country were approved in 2015 and 2016, which can be evidenced in the Administrative Resolutions posted in the Resolutions Registry System - SIREG. The problem lies not only in the outdated Terms and Conditions, but in the bottleneck that is being the Regulatory Authority. This leaves users without a regulatory framework to guarantee their rights against ISPs.

The Digital Citizen Bill has passed in 2018, it allows AGETIC to develop the platform where every citizen should authenticate in order to receive services from the State and fulfill any public paperwork. The sectoral legislative research showed that the Terms of use of this platform disclaims any liability for damages of any kind caused by security vulnerabilities in communications or information systems is exempt from any liability for damages of any kind caused by security vulnerabilities in communications or information systems, whether corresponding to digital citizenship mechanisms or to public and private entities that provide public services delegated by the State.

- **Data brokers and data black markets.** There are intermediaries that obtain databases or collect personal data to build databases and then after, sell them. They reify the personal data as a commodity. There are legal ones such as the financial data bureaus and illegal ones in a wide range from small ones as lonely entrepreneurs to big ones that are legal but the management of personal data that they profit from is not.

Raúl Angulo, Manager of the financial information bureau Infocred, explains that there are some companies that are contracted by the Banks to update personal information about their clients such as address or places of work. The companies are legal but handling personal data has no general or specific regulation.

Several interviewees declared that they have been offered different personal databases for marketing or political campaigning purposes. One person that asked to be anonymous declared that they bought the electoral database one year ago in an informal marketplace that is called feria 16 de julio, another one told us that he has been offered a personal database of 70.000 entries in \$us 5.000.

- **Imbalance of power due to lack of information.** Users are unaware of their right to access their credit information and there are very few cases in which credit history information is requested from the Bureau by natural persons.

Credit bureaus are designed to look after the interests of financial institutions and the health of the financial system, from which users benefit indirectly. But there is no direct benefit for users in general and this, according to Angulo, is due to the lack of education and information on the part of citizens.

- **Concern about concentration of data by the State.** There is a concern of the power of the State compared with private actors in collecting, analyzing and using the data. This concern is present especially between companies and startups reinforcing a liberal ideology of having less State as possible to avoid barriers for their activities. They also shared their suggestions on developing self regulatory mechanisms such as internal services to protect privacy rights of their associates. This is also an expression of political polarization. Any political party in power is suspected of accessing personal data to silence political disense. This concern counters the fact that the public sector is less digitised than the private sector, but is built around the public sector's ability to access data from entrepreneurs even if it does not analyze it.

iv. Equity

- **Some types of violence against women are impossible to report due the not existence of the categories in the database to guarantee human rights.** Between the types of violence against women that the Plurinational State of Bolivia recognizes in the Law 348 on all types of violence against women, there is not included the digital violence, so crimes such as identity theft, grooming, sextortion, digital harassment, are not recognized as crimes. The databases related to violence managed by National Police, executive and judicial bodies do not have the specific fields to register such violent activities against women.

Also, if the violence happens within a lesbian couple, the Law does not allow to report because it only recognizes violence from a man against a woman and only in a relationship with a man.

These situations have been described in other interviews the team held with the Police and other institutions that protect women from violence.

iv. Access

- **Open data is not a public policy.** Bolivia did not pass an Access to Information Law, so it makes it more difficult to claim for public data to be opened. The portal www.datos.gob.bo is a poor repository of 43 datasets that are outdated. Most of the public databases need to be cleaned, they are not ready to be opened. "Open data has not taken off as expected, because of the disorder of the databases themselves, so it is better to keep them closed. The information is chaotic and opening it up could create more problems". (Interview Alvaro Guzmán, Connaxis).

Nevertheless, there is a great project of geographical open data www.geo.gob.bo but at the beginning of 2021 the Vice Presidency of the State, who was in charge of this geoportal, closed it and had to reopened it as a result of a social campaign in protest. Now, it is online but with no staff to update it.

- **The need to build skills while opening data.** Anyway, it is not only a matter of opening databases and getting obsessed with the quality of the data, but also there is an urgent need to improve the skills not only to collect data but moreover, to analyze it and create value added with data. Otherwise, there is a risk to invest public resources to open data that will be used in the Global North, and as a result, we will increase the economic and digital gap between countries in the South and countries in the North. There are very few academic programs on data science in the country.
- **Digital gaps.** One condition that affects the ecosystem is the digital gap. To briefly define this situation, the majority of the people and organizations (including schools, universities, grassroots organizations, among others) are still struggling to get a stable and affordable connection in Bolivia. The most common connection is mobile and prepaid, which is expensive and is bought daily depending on the needs and money people have to buy some megas to navigate. This is a precarious way to be connected and that situation leaves the majority of the people with very few sources of information to develop a critical use of the Internet and about the consequences of datafication on their lives.

An example of this issue is the case of the Digital Citizenship portal, where few people are registered. By mid-2021, 33,000 people were registered. As a consequence, the Departmental Court of Justice of Cochabamba issued an Instruction N° 02/2020 that obliges people to register in Digital Citizenship in order to be able to present memorials in court and "exceptionally they will be presented in physical form". There was a case of officials in a court in the city of La Paz who refused to receive their memorial in physical form and that they had to present it through the aforementioned platform. The person concerned said that she did not know much about computers but had tried many times to register without success. In the end, this innovation becomes an obstacle to accessing justice.

v. Identity

- **Public institutions proposing solutions for invisibilized categories.** As Alex Bernabe, a LGBTQI activist, declared he has been part of meetings with the Vice ministry of Equity of Opportunities where they expressed their interest to include categories about sexual orientation and gender identity into the next census. Regarding that it is difficult to make direct questions about this sensitive feature of identity, they proposed to include a referencial one. For instance, do you know someone who is gay, lesbian or trans?

- **Doxing against anti-vax.** According to Alvaro Guzmán, CEO of Conaxis, there are cases of discrimination based on vaccine databases. He said with just the number of personal identification and the date of birth, anyone could get the vaccination information about anybody. Anti-vax people can be discriminated against. For instance, Rudy Callisaya, executive of the Magisterio Rural de La Paz and anti-vax activist has been exposed and attacked because even though he is publicly against vaccination he has been vaccinated. He argued that the access of his personal data information is part of an investigation and persecution by the government⁶.
- **Doxing against gay people.** Alex Bernabé, a LGBT activist, shared that on Twitter somebody exposed the identity of gay people through private pictures, without their consent. They discover that some people registered on Grindr, social networking app for gay, bi, trans and queer people, to access to nude photographs and then, they published them in social media exposing the identity of the holders.
- **Concerns about the data of minors and women to commit crimes.** Parents expressed their concern about the data of the children as a reaction to several cases of grooming, human trafficking, bullying, identity theft, crimes of sexual abuse via the Internet, and other criminal cases. Miriam Huara Huara, a leader of the mother association, explained the concerns and some cases that are shared in her association without any clue of how to help the victims and their parents in those cases.

In the Bolivian municipality Coroico, there is an increasing concern about violations against digital rights of women and children. They want to build a personal database to register the different violations against women and children. Because of this social concern and to avoid revictimization of women, this municipality is planning to pass a municipal personal data protection Law in the next months.

- **Slight use of AI.** We did not find any mention of the use of Artificial Intelligence that result in discrimination even though there are some initiatives of AI going on. Edwin Salcedo from Catholic University and Álvaro Guzmán from Connaxis recognize the use of AI for academic research and for a marketing company, while the interviewee Anon2 told us he worked for a Bank in the analysis of their clients personal database that they manage. Connaxis mentions that they have AI labs for marketing but they do not apply it because it is not regulated.

Companies, especially banks, are analyzing the personal databases that they have for marketing purposes but they do it secretly because there is not a clear regulation that allows them to do it.

vi. Participation

- Even though there is not a Personal Data protection Law in place in Bolivia, it is usual that Government offices that manage the main personal data bases have specific regulations for their administration. This is less common for private companies, supermarkets or pharmacies, for example, do not have any regulations for the management of their customers' databases (finance entities and ISP are exceptions, they have some regulations). Few of those public offices include some form of social participation and consultation, transparency, and considerations of privacy rights. We found three experiences: one at the National Institute of Statistics, another one in the

6 Ver: <https://www.atb.com.bo/sociedad/activista-antivacuna-confirma-que-recibi%C3%B3-la-dosis-de-johnson-&-johnson>)

Service of Taxes, and the last is the Council for Information and Communication Technologies of the Plurinational State of Bolivia (CTIC-EPB).

Miguel Medina, Head of computing department Informática del INE declared that the new Law of official statistics in Bolivia (Law 1405, November 1, 2021) states transparency as a principle of statistical data. As a result, this institution brings good practices on transparency. “With the objective to promote transparency, we publish the indicator, database, and the methodology. They are guided by ISO 27001”.

The interviewee Anon1 is a developer and worked in several public institutions, one was the Service of Taxes that presented the system to extend electronic receipt. He told us that there was a process of consultation for the design of that tool with SMEs and other interested parties and, as a result, they changed the way of registration of some fields answering a specific request.

The Council of Information and Communication Technologies of the Plurinational State of Bolivia (CTIC-EPB) was created by the Supreme Decree N°2514. It is a space designed to discuss specific issues that are relevant in the field of ICTs for the implementation of electronic government and elaborate technical regulations of Telecommunications and ICTs. Through the Council, proposals for regulations, standards, protocols, guides, catalogs and other technical mechanisms for the operation of coordinated policies among government institutions are developed, such as the Guidelines for the adequacy and publication of open data in Bolivia⁷. This space is open to citizens and people in general who are involved in ICTs but very few individuals of the civil society participate.

- **Need to find a clear benefit to inspire a massive participation.** It is difficult to imagine that many individuals will be willing to participate in the design and decisions of the databases, as Esteban Lima explains: “These are still very difficult issues to deal with -referring to the debate of the draft of Personal Data Protection Law- I think we still need to work out what would be the benefit, what would be the way for people to become more involved in this. When we make a call for an open meeting with the public, there are usually few people.”
- **Not all forms of social participation lead to more equitable ecosystems.** There are problems of corruption of social participation that become an intrinsic part of institutions and the ways of doing things in some sectors. Miriam Huara Huara, the representative of the social organization of mothers, comments on the need to be responsible in the function but also recognizes that sometimes there are some people who are corrupt and ask for any type of favor from anybody in power or with money.

vii. Knowledge

The issue of databases has not yet emerged from its technical sphere. Some global scandals such as Cambridge Analytica and some local cases such as those mentioned in the introduction have impacted public opinion, but it is not yet common to understand the role of database management in these scandals. Thus, there are still no reflections on the decolonisation of data towards data justice. Bolivian society is not yet as data literate as its northern peers and even less so than several neighboring countries such as Argentina, Colombia or Chile.

When we develop outreach activities on issues related to data justice, we notice that there is a tendency to relate the need to have a more just data management with cybercrime and the

⁷ <https://wilfredojordan.com/lineamientos-para-la-adequacion-y-publicacion-de-datos-abiertos-en-bolivia/>

danger of becoming a victim of any kind of digital crime. That is the most common actual understanding of the issue.

5. Workshop

a. Background of the workshop process

The workshop took place on March 9th. in Salón Vienna, in La Paz. We divided the workshop in two parts, each one lasted two hours. In the first part, 13 people from civil society and the staff of the municipality of Coroico participated and it was oriented to bring some critical information and basics because some of them have a weak background on data issues.

Then, all the 13 people stayed and some others arrived, the new ones were developers, policy makers, representatives of international cooperation, one researcher and one representative of a Bank. There were 30 people in total without the Fiborg team. Some of the attendants were interviewed in the phase of research but others were invited without previous interviews. For the presentation of the research findings we printed out an [informative leaflet](#) with some of the findings to facilitate the understanding and promote the dialogue. A detailed report on the workshop can be found in the Annex 3.

b. Summary of workshops responses and the dynamics

We present the comments of the participants at the workshop as they came out. Some conversations during the workshop showed some new topics that did not appear in the interviews phase.

● Power

Participants of the workshop commented that when the government recognizes the identity of the people at a cost is an abuse of power from the part of the government, since people who do not have resources cannot access to have/renew/change identity documents and other government procedures. Participants have also noted that this aspect is closely related to the Equity pillar.

The lack of control mechanisms in the use of data is also an important aspect, because not being able to freely access one's own data does not allow access to complaints or other procedures that should be clearer. They gave the example that if your wallet was stolen, how can you present your identity document to make the report if usually that identity document is kept in the wallet and would also be lost. And there should be a way to be able to file a complaint with the fingerprint, for example since it is also registered as personal data.

The government manages the database of all registered people, however it leaves out people who are not registered and this prevents groups of the population from not having access to basic services, which are Human Rights.

● Equity

The vulnerability existing in various groups of our society, mainly agearies, of which there is often no regulations that can be responsible for guaranteeing their rights; shared the example of elderly people who do not have personal documents, therefore, nor do they have documents of their assets; and unscrupulous people take advantage of this situation. They also commented on the example that in census sheets, or questionnaires, the databases to be taken are incomplete, since they do not include various types of gender and / or sexual orientation. In these same ones, there are no

different categories taking into account that we live in a multicultural and multilingual country.

The lack of respect for identity and privacy in the handling of media to elaborate news cannot be left behind, frequently they publish the names of the victims rather than the name of the perpetrators, who are the ones who should be widely disseminated.

Last but not least, social media and its subtle forms of discrimination. Many times the algorithm, after analyzing our data and devices, leaves aside important and necessary data to have a clearer point of view on some situation or subjects.

- **Access**

Access to the internet, access to personal data, access to appropriate and complete information is a clear flaw in our country. Large companies often instead of facilitating access and improving connections are concerned with setting obstacles, related precisely to the management of data. They also commented that we do not have accessible and sufficient data/information to make complaints, in case the rights are violated.

- **Identity**

Databases are often incomplete, and it is difficult to identify with what is proposed; for example, if someone is neither mestizo nor Aymara, they feel completely invisible when they try to reduce their identity when registering their data for some reason. They also commented that there are no categories that identify everyone, and not only refers to cultural issues, but also to gender. Many times the abuse of power is also internalized in this problem, because it is as a result of this abuse of power that many people are forced to lose their identity.

- **Participation**

The participation of attendees in their environments with respect to data management is not very active, because they feel vulnerable to things that may happen and that they cannot and do or don't know how to handle. It is difficult for everyone to complain about their rights and not be victims of bad information if they are not encouraged to participate, mainly because of the lack of information, and the fear of being scammed.

The importance of active participation is closely related to knowledge, and good information and training on the subject. They commented: "Rarely do people feel completely safe when they want to file a complaint, because there are terms that have not been deepened when consenting to the handling of our data."

- **Knowledge**

In our country the lack of knowledge on the subject is one of the biggest and most notorious problems, because not knowing about the issue is that the population (normally vulnerable) does not have the tools to demand their rights, nor the capacity and security to claim.

c. Opportunities, challenges and solutions

Some conversation during the workshop and interviews mentioned some opportunities, challenges and solutions:

- A great opportunity to promote the participation of people on the management and benefits of databases managed by the public offices in Bolivia is the Law on

Participation and Social Control⁸ that aims to “consolidate the Participation and Social Control as transversal and continuous elements of public management; and in the processes of planning, monitoring the execution and evaluation of public policies and the actions of the Plurinational State, in all its spheres and territorial levels.” And it is valid for all the public entities.

- As public staff and officials usually need a legal framework in order to move anything in the public sector, this norm could be of great help for that, but there are also other needs on skills, it has been mentioned the need to develop capacities in the public sector about big data, data mining and other similar subjects, not only about the technicalities of these topics but also on data justice and digital rights.
- Still in the topic of regulations, there is an urgent need to update the Laws, norms and regulations on digital rights, cybercrime, access to information, telecommunications and financial sectors. The update should be made including vulnerable groups in the discussion.
- There is also a need to share more information on how the process of datification works, and that should be massive. One way of liberating the people from the subordinate roles is through information and education.
- To state spaces of coordination and discussion about the importance of databases with representants of vulnerable group such as gay, lesbians, trans, bi, people who live with VHS, children, women organizations, native people and elder people. In that way, it would be more possible to bring the marginalized and affected ones to the table.
- To promote the discussion and passing of personal data protection bill with the executive and legislative branch.
- To bring technical assistance to AGETIC on datification and help them to develop the first public policy on data governance and data architect.
- A suggestion in order to balance the power of the State when concentrating personal data is to create mechanisms similar to the conciliation centres as part of the structures of associations of professionals and Commerce chambers. This is a proposal regarding the legitimacy crisis that is affecting the government in a country that is politically and socially polarized.

6. Conclusion, critical reflection and recommendations

The datification process in Bolivia is still incipient in the private sector, and nonexistent in the public administration. Nevertheless in three types of private companies some initial exploration with AI and other analysis of data is being run. These types of companies are finance sector, delivery companies and supermarkets.

Although incipient, it is already noticeable that datification excludes the most vulnerable populations because it reproduces the discriminatory biases formed since colonial times and recreated in a neo-colonialism of data. Indigenous populations, women, the elderly, the powerless people and the political opponents that are not in power are the ones in the role of subordination.

To impact on the imbalance of power in addition to addressing structural weaknesses such as the lack of technological literacy and the issues of connectivity and the digital divide, but also to help generate a critical political awareness of the effect of technology on the neo-colonial

8 <http://www.gacetaoficialdebolivia.gob.bo/edicions/view/487NEC>

systems that prevail in our countries. In other words, it is a political approach that must accompany public policies of digital inclusion and digital literacy. It must succeed in uniting the technical with the political.

The interviewees identify the government and the digital platforms as the actors that extract the personal data but not the local companies, even though certain types of local companies (supermarkets and pharmacy chains, for instance) are the only ones that do not have any regulation to manage the personal databases they hold. In other words, some individuals of the communities feel as targets of the government and the international companies, especially of the digital platforms, but the awareness of the data extractive approach is not fully developed in the case of local companies and international cooperation agencies.

There are a few trained people who work as data scientists and they work for international and national private institutions. This is one of the main reasons why the process is incipient and almost non-existent at the public administration.

The data justice debate is not included in the public agenda in Bolivia due to lack of information and other needs that seem to be more basic such as water, sanitation or education. Individuals are not aware of the importance of personal data. It is common for them to raise awareness of data protection implications only when they become victims of any kind of cybercrime. In that way, awareness is closely associated with different kinds of crimes: doxing, grooming, identity theft, human trafficking, among others that sadly became common during the last two years.

We have gotten some evidence of a black market of personal and non personal databases driven by legal and illegal companies, ranging from companies that are legal but manage personal data without consent to individuals who perform their tasks illegally. It is not clear if all the interactions are based on regulations. This market is motivated to work illegally since Bolivia does not have a Law for the protection of personal data. However, there are constitutional guarantees and actions that people can demand but are time demanding and also expensive.

Patrimonialism of public and private databases: operators develop a sense of ownership of the databases, which inspires a culture of secrecy that goes against principles of transparency and respect for the right of access to information.

Last but not least about the critical points, about open data, in order to avoid broadening the gaps between the Global North and the Global South, policies of opening data must go aside with policies of capacity building in data collecting, cleaning, and analyze. Otherwise, there is a risk to invest public resources to open data that will be used for other actors, not the holders from whom the data is being extracted.

We detected some good practices in the public sector, this does not mean that there are not in the private sector but that we did not found any due to the qualitative research methodology which is not all-encompassing and representative but casuistic:

- The proposal of the Vice-Ministry of Equal Opportunities to include LGBTQI sexual orientation and gender identity options on the census ballot.
- Examples of participation in database management in the public sector: National Taxes Office and the Statistics Institute and also the CTIC about the creation of technical normas of technology and telecommunications.
- And also, the Statistics Office about transparency, following ISO 27001 they publish the indicator, the database, and the methodology.

6. Annexes

Annex 1. List of demographics - Interviewees and participants in the workshop

Also, the list can be found [here](#).

<p style="text-align: center;">List of interviewees - Research in Bolivia Advancing data justice research and practice</p>							
No.	Name	Organization	Role	Country	Level of education	Data and algorithm familiarity	Internet access
1	David Oliva	Abogado	Private company	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
2	Eduardo Trigo Frigerio	CATELBO	Private company	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Not familiar at all	Unlimited access
3	Álvaro Guzmán	Company Connaxis	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
4	Anon2	Data scientist	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
5	Edwin Salcedo	Universidad Católica Boliviana	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access

6	Esteban Lima	Consultor	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
7	Gabriela Meléndez	Bolivian Mind Blockchain	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
8	Karem Infantas	Genera Center	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Slightly familiar	Unlimited access
9	Monica Canaza	HackLab	Developer	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
10	Nathaly Alarcón	Data Scientist	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
11	Raúl Angulo	Infocred	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access
12	Wilfredo Jordán	Periodista de Datos	Journalist	Bolivia	Completed post-secondary school	Moderately familiar	Unlimited access
13	Alex Bernabé Colque	Fundación de Igualdad LGBT	Member of the public	Bolivia	Completed post-secondary school	Moderately familiar	Moderate access

14	Jocelyn Pijuan	Estudiante	Member of the public	Bolivia	Some post-secondary school	Moderately familiar	Very limited access
15	Luz Lizbeth Quino	Estudiante	Member of the public	Bolivia	Completed secondary school	Slightly familiar	Very limited access
16	Miriam Huara Huara	Madre de familia	Member of the public	Bolivia	Completed secondary school	Not familiar at all	Moderate access
17	Norma Poma	Dirigenta Bartolinas	Member of the public	Bolivia	Some post-secondary school	Not familiar at all	Moderate access
18	Olga Paredes	Activista wikimedia	Member of the public	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
19	Pablo Andrés Rivero	Activista	Member of the public	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
20	Rubén Hilare Quispe	Jaki Aru	Member of the public	Bolivia	Completed post-secondary school	Not familiar at all	Unlimited access
21	Anon1	Servicio de Impuestos Internos	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
22	Ariel Espinoza	Dirección general de migración	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
23	Carolina Martínez	Ex-Autoridad del Sistema Financiero	Policy maker	Bolivia	Completed post-secondary school	Extremely familiar	Unlimited access
24	Cecilia Chacón	Ex-Concejala municipal de La Paz	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access

25	Gustavo Durán	Gestora Pública	Policy maker	Bolivia	Completed post-secondary school	Moderately familiar	Unlimited access
26	Jimena Quiroga	Ministerio de Educación	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
27	Khantuta Muruchi	AGETIC	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
28	Mauro Rojas	Gobierno Autónomo Municipal de La Paz	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Not familiar at all	Unlimited access
29	Miguel Angel Medina	Director de Informática Cartografía e Infraestructura INE	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
30	Roger Romero Díaz	Ex-Telecommunications Authority	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Slightly familiar	Unlimited access
31	8 people	Ministry of Health	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
Members of the Ministry of Health that attended the interview							
1	Alejandro Lima	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access

2	Ezequiel Cerruto	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
3	Jorge Beilis	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
4	José Luis Delgado	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
5	José Manuel Gutierrez Llano	Ministerio de salud	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
6	Luis Calle	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
7	Oswaldo Ajuacha	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access
8	Pabel Ajata	Ministerio de salud	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Unlimited access

**List of participants - Workshop in Bolivia -
Project advancing data justice research and practice**

From 16:30

No.	Name	Organization	Role	Country	Level of education	Data and algorithm familiarity	Internet access
1	Yanira Sullca	Teatro Coroico	Member of the public	Bolivia	Some secondary school	Slightly familiar	Very limited access
2	Luz Lizbeth Quino	Teatro Coroico	Member of the public	Bolivia	Completed secondary school	Slightly familiar	Very limited access

3	Jocelyn Pijuan	Teatro Coroico	Member of the public	Bolivia	Some post-secondary school	Moderately familiar	Very limited access
4	Kevin Brayan Aruquipa	Teatro Coroico	Member of the public	Bolivia	Some post-secondary school	Moderately familiar	Moderate access
5	Maria Renée Escobar	Teatro Coroico	Member of the public	Bolivia	Some secondary school	Very familiar	Moderate access
6	Kristel Arlette Figueredo	Teatro Coroico	Member of the public	Bolivia	Some secondary school	Slightly familiar	Unlimited access
7	Angel Gabriel Encinas Monje	Teatro Coroico	Member of the public	Bolivia	Some secondary school	Slightly familiar	Unlimited access
8	Alex Bernabé	Igualdad (LGTBIQ)	Member of the public	Bolivia	Completed post-secondary school	Moderately familiar	Moderate access
9	Norma Poma	Ejecutiva de Federación Mujeres	Member of the public	Bolivia	Some post-secondary school	Not familiar at all	Moderate access
10	Olga Paredes	Activista Wikimedista	Member of the public	Bolivia	Some post-secondary school	Not familiar at all	Moderate access
11	Víctor Zárate Coaquira	Alcaldía de Coroico	Policy maker	Bolivia	Some post-secondary school	Moderately familiar	Very limited access
12	Iván Sillo	Alcaldía de Coroico	Policy maker	Bolivia	Completed post-secondary school	Very familiar	Moderate access
13	Huari Jacques	Alcaldía de Coroico	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
From 18:30							
No.	Nombre	Organización	Role	Country	Level of education	Data and algorithm familiarity	Internet access
14	Edwin Salcedo	Universidad Católica Boliviana	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access
15	Anon2	Anon	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access

16	Nathaly Alarcon	Women in Machine Learning and Data Science (WiDS)	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
17	Oscar Laura Guarachi	Bolivian Mind Blockchain	Developer	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
18	Veronica Rocha	Oxfam	International cooperation	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Slightly familiar	Moderate access
19	Marcia Pacheco Ortega	UNODC	International cooperation	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
20	Sergio Condemayta	UNODC	International cooperation	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
21	Daniela Silva	Gestora Social	Member of the public	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
22	Carlos Bonadona	Independiente	Member of the public	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access
23	Lesly Zerna	Gobierno Autónomo Municipal de La Paz	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
24	Miguel Angel Medina	Instituto Nacional de Estadística	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access
25	Leonor Arias Irusta	Instituto Nacional de Estadística	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Extremely familiar	Unlimited access

26	Cecilia Chacón	Instituto Boliviano Urbanismo	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
27	Khantuta Muruchi	Agetic	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
28	Iver Cruaygua Gutierrez	Ministerio de Educación	Policy maker	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Very familiar	Unlimited access
29	Pablo Rossell	Banco	Private company	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access
30	Jazmin Mazó	ICC (Universidad Católica Boliviana)	Researcher	Bolivia	Hold advanced degree (Masters, PhD, or equivalent formal qualifications)	Moderately familiar	Unlimited access

Annex 2.

31 interviews transcribed and translated from Spanish.

(In a separated file)

Annex 3. Detailed report on the workshop

Workshop summary

La Paz, Bolivia, Wednesday 9th., March 2022

Data Justice: Inclusive and fair management of personal and non personal data

The program of the workshop was divided in two parts: the first one was addressed to members of civil society and from Coroico Municipality, in order to share basic information about data, databases and Data Justice in Bolivia. The second part included all the people who were already attending plus some of the interviewed subjects to complete this investigation. They have specific roles such as developers and policy makers; also other guests who showed interest in this matter. In the first part of the workshop we had 13 attendees, and in the second one we had 30.

The full program happened as follows:

Data Justice: Inclusive and fair management of personal and non personal data

Place: Vienna Restaurant, Federico Suazo and Batallon Colorados St.

16:30-20:30

Time	Activity	Strategie	Responsibles
16:30 - 16:45	Welcome dynamic for our guests and presenters	-"Self Labeled" Each attendee picks 3 tags and introduces him/herself to the group	Mariana Ottich
16:45 - 16:55	Who has my data? Types of data, types of database, servers, regulations laws	Presentation; questions and interventions	Eliana Quiroz
16:55- 17:10	Where are Servers hosted? Which are their regulation laws?	Group dynamic	Everybody
17:10 - 17:20	Data justice: Injustice and unfair management of personal data. 6 pillars for Data Justice	Presentation	Eliana Quiroz
17:20 - 17:30	Data justice: Injustice and unfair management of personal data. 6 pillars for Data Justice	Clasification of anecdotes and personal stories on the matter	Everybody, pair work
17:30 - 18:30	Business model of Digital platforms	Presentation; questions and interventions	Cielito Saravia

18:30 - 18:45	Break		
18:45- 18:55	Welcome to Second part of the Workshop	Contextualize the project and its importance	Cristian León
18:55 - 19:20	Research findings	Presentation; questions and interventions	Eliana Quiroz
19:20- 19:35	Internet as a Human Right: Personal data	Dramatization	Tania Oroz and young people from Coroico Municipality
19:35- 20:10	Propositions for fair management on database	Group debate. Analyze the following questions 1. What kind of injustice we find in data management, and how do I live it, design it, choose it? 2. Is it possible to include criteria of greater social justice in database management? How can it be done? What do we need to achieve it?	Mariana Avilés. Support: Mariana Ottich, Cielito Saravia, Lu An Méndez
20:10- 20:30	Proposals for fairer database management	Group presentation and analysis	Everybody
20:30	Closure	Final words	Mariana Avilés

The workshop began with a presentation of the 13 participants who assisted in the first part of the session. With a self labeling dynamic, focused on the presentation of the attendees and having them gain confidence so they can participate actively, and express themselves freely. The audience of the first part was diverse:

- Young students from college and university in the municipality of Coroico.
- Public workers of the town hall of Coroico.
- An LGBTQI+ individual.
- An activist.
- A woman leader of a rural community.

Additionally, the activity motivated participants to notice how a person's tags/characteristics can feed or motivate the construction of a database.

After, there was an open presentation which answered questions related to Who has my data? Types of data, types of databases, administrators, servers, regulatory framework that can be found [here in Spanish](#).

From the beginning of the presentations, attendees participated actively, expressing opinions, telling anecdotes, asking questions, and comparing the things they learned with situations of their day to day. Some people found this information somewhat familiar, for others it was new content.

They commented on several important points related especially to their identity and the abuse of power that is often experienced in the communities where they live, not specifically abuse by people, but by companies. There are several telecommunications companies that, for example, took advantage of the pandemic time, because virtual classes were the only access they could have to a schooled environment, and not everybody had access to it due to the

high prices on connection. They also commented that their information and computational needs are rarely met, and if they ever ask for example to know what document they are signing, or why that amount of data is needed, they do not receive any clarifying answer, they simply have to settle for the phrase: "This is how it is exposed by the managers."

Something that caught the attention of the public is the relation between headliners and those responsible for data management. This, because it was a topic that they did not know at all and several examples had to be made to clarify the concepts.

-Personal data belongs to individuals, not to those who collect it in databases.

-Those responsible are the companies that have and manage the data of the headliners (International companies, delivery companies, government databases, etc.). To handle personal data they must ask for consent of use from the headliners of the personal data.

-Many times it is difficult to distinguish between these two terms, because their definition is not known by everyone, much less their handling. After the presentation, questions such as

"How do I know who handles my data? What is my information for? In which database can my information be? What is the difference between general personal data and sensitive personal data? Where is all this information recorded? How can all this saved information affect me in the future?"

Attendees did not stop showing interest in the subject. At the time of closing this part of the workshop, they learned to use the website

<https://digital.com/best-web-hosting/who-is/>

to identify where the data of certain institutions of interest are hosted. A brief practice was made looking for the place of accommodation of the websites of Banco Unión (government bank) and AGETIC (Electronic Government and Information and Communication Technologies Agency).

Next, a presentation began on the business model of digital platforms whose backup slides are [here](#) and with the following content:

1. Trigger questions: Have you had the feeling that the cell phone can hear your conversations? Or whenever you search for something on Google, is it as if it reads your mind?

2. Facebook doesn't listen through your phone, but it does have ways to observe your online behavior: Personal Data.

2.1 Data collected by technology companies

3. Meta Database Data Leak <https://www.businessinsider.co>

4. Databases: candidates, femicides, registration lists (paper), filtered databases of state sites infected with Stealer malware (with Bolivian examples).

5. Data is used to:

5.1. Marketing (offer services to users with greater precision, based on their tastes and behaviors)

5.2. Behaviors are defined by profiling personalities - OCEAN^[1]_{SEP}.

5.3. Glass Room: Companies of the empire - Google companies.

6. Value of data: Cybercrime is the world's 3rd largest economy, according to FBI: Internet Crime Complaint Center (IC3) annual cybercrime report.

Videos were also presented demonstrating the great interest of digital platforms especially in personal databases to be able to know the interests of future consumers, doing population studies and also explaining how artificial intelligence works.

Then we went to the break which was the time for the other participants of the second part to arrive and join the workshop. In this second part, 17 more people joined, reaching a total of 30 participants. The profiles of the 17 new people are:

- Public officials of the Institute of Statistics, Ministry of Education, AGETIC and Municipal Government of La Paz.
- Independent and university data scientists, representatives of banking and international cooperation.

The second part of the workshop began with welcome words by Cristian León, Director of the Internet Bolivia Foundation, later moving on to the presentation of results of the investigation and workshop of proposals. The presentation of the results was in charge of Eliana Quiroz, who also made a brief introduction regarding the theoretical framework and the methodology they have applied. The presentation was focused on the findings of data justice research in Bolivia.

To ease the understanding of the participants, a triptych with the summary of findings and a presentation found here, both in Spanish, were distributed. During the explanation of the fundamental pillars, examples are presented, and questions are also answered:

"How do I realize that my data is being breached? How can we help discriminated populations become more informed? How do I know if the form I'm filling out is legal or illegal? If I don't dare to ask what they do with my data, where can I find out? How can I make a report if my documents have been stolen? Why is there no system that brings together all our information and facilitates bureaucratic issues in the country?"

Most of the entries were related to the vulnerability of personal data that is requested in various entities. Participants expressed concern that they do not know whether public and private entities have regulations that support them in requesting such documents.

Then, we proceeded to the presentation of an 11-minute play product of a reflection of some young people from the municipality of Coroico about the Internet as a Human Right and the violation of personal data. Some of the contents of the work presented were:

- The overrated importance of social media.
- The lack of equity in the relations of the management of social networks and the misuse of them, demonstrating false and discriminatory attitudes as if it were something normal in the action of the human being.
- The overvaluation of telephone networks that forces to consume much more than they offer, in terms of telephony and internet.
- The abuse of personal data used to commit fraud and deceive people.
- The lack of equity when receiving classes during the pandemic (since March 2020). Many teachers had no access to or knowledge of the management of any platform, and in several families, they could not cover the costs of payment for connections of several children at once.
- The digital connectivity divide that mainly affects rural areas and far from urban centers.
- The deficiency of the police service to take care of citizens in their digital activities but also of citizens with careless actions despite digital security recommendations.

This work was welcomed by the participants of the workshop for its capacity to raise didactic awareness of this problem. This presentation made it possible to make visible with real

examples the economic and social problems that the use of information and communication technologies, digital justice and the use of data bring to the population.

Once the explanations were finished, working groups of between were formed with the aim of working on specific questions. Little by little they began to launch ideas and comment on anecdotes about it, most people talked about the vulnerability and abuses of power that people who handle data have. In the teams formed, they had to answer the following question:

What situations of injustice in data management can I identify when managing data?

It has been chosen to organize the ideas expressed in the plenary according to the pillars related to help the search of inclusive and fair management of personal data, this to ease understanding and focus on the importance of society waking up to such a broad and significant issue.

- **Power**

It was commented that the fact that the government recognizes identity at a cost is also an abuse of power on the part of the government, since people who do not have resources cannot access to have/renew/change identity documents and other government procedures. Participants have also noted that this aspect is closely related to the Equity pillar.

The lack of control mechanisms in the use of data is also an important aspect, because not being able to freely access one's own data does not allow access to complaints or other procedures that should be clearer. They gave the example that if your wallet was stolen, how can you present your identity document to make the report if usually that identity document is kept in the wallet and would also be lost? And there should be a way to be able to file a complaint with the fingerprint, for example since it is also registered as personal data.

The government manages the database of all registered people, however it leaves out people who are not registered (Again, this pillar related to equity) and this does not allow the entire population to have access to basic services, which are a Human Right.

- **Equity**

The vulnerability existing in various groups of our society, mainly agearies, of which there is often no regulations that can be responsible for guaranteeing their rights; shared the example of elderly people who do not have personal documents, therefore, nor do they have documents of their assets; and unscrupulous people take advantage of this situation. They also commented on the example that in census sheets, or questionnaires, the databases to be taken are incomplete, since they do not include various types of gender and / or sexual orientation. In these same ones, there are no different categories taking into account that we live in a multicultural and multilingual country.

The lack of respect for identity and privacy in the handling of media to elaborate news cannot be left behind, they mentioned how many times the name of victims are published and not the name of aggressors or perpetrators, who are the ones who should be widely known so that society knows them.

Last but not least, social media and its subtle forms of discrimination. Many times the algorithm after analyzing our data and devices, leaves aside important and necessary data to have a clearer points of view on some situation or subjects

- **Access**

Access to the internet, access to personal data, access to appropriate and complete information is a clear flaw in our country. Large companies often instead of facilitating access and improving connections are concerned with setting obstacles, related precisely to the management of data. They also commented that we do not have accessible and sufficient data/information to make complaints, in case the rights are violated.

- **Identity**

Databases are often incomplete, and it is difficult to identify with what is proposed; for example, if someone is neither mestizo nor Aymara, they feel completely invisible when they try to reduce their identity when registering their data for some reason. They also commented that there are no categories that identify everyone, and not only refers to cultural issues, but also to gender. Many times the abuse of power is also internalized in this problem, because it is as a result of this abuse of power that many people are forced to lose their identity.

- **Participation**

The participation of attendees in their environments with respect to data management is not very active, because they feel vulnerable to things that may happen and that they cannot and do or don't know how to handle. It is difficult for everyone to complain about their rights and not be victims of bad information if they are not encouraged to participate, mainly because of the lack of information, and the fear of being scammed. The importance of active participation is closely related to knowledge, and good information and training on the subject. They commented: "Rarely do people feel completely safe when they want to file a complaint, because there are terms that have not been deepened when consenting to the handling of our data."

- **Knowledge**

In our country the lack of knowledge on the subject is one of the biggest and most notorious problems, because not knowing about the issue is that the population (normally vulnerable) does not have the tools to demand their rights, nor the capacity and security to claim.

As a final part of the workshop, the groups presented their work and commented on some aspects that caught their attention. The second question encourages inquiry into proposals to promote greater data fairness:

Understanding situations of inequality, how to change these situations as a society? Is it possible to include criteria of greater social justice in database management? How could it be done? What does it take for that?

As a conclusion, we could notice that an analytical sense was awakened in the attendees regarding the topic during the session, since they did not stop asking questions and examining examples. Many people mentioned that they realized the number of rights that are violated by not having transparency in the handling of data by the companies that handle them; they do not propose any governance plan in this regard.

For many people it is not clear what is legal and what is not, and many people fear that this lack of information could be used against them at some point in their life (a credit history for example).

Nor is there an entity that guarantees rights from the judicial system, since it is not easy to face large companies that abuse their power and have better management and knowledge of the technological impact in different social contexts.

Having a transparent regulation of data would also help a lot to know and be sure that personal data will not be misused without consent.

They mentioned in the plenary, and this is entirely related to the reflective awakening that has resulted from the workshop. In our national context, it is evident how data systems are not designed to fulfill services, and are simply implemented copied from other countries and perhaps other decades, without taking into account the reality, and the needs existing today in our country.