# Caring for My Neighborhood: a platform for public oversight

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Abstract. In this paper, we present the project Cuidando do Meu Bairro (Caring for my neighborhood), a tool that was adopted in the city of São Paulo in order to promote citizen engagement and better visualization of public budget expenditures. From unstructured and semi structured information, some public expenditures are geographically located. Some challenges faced, users demands and others ideas give the motivation for our ongoing work. A broader picture of this project is presented in order to give an idea of potential for linking government information about budget actions, budget amendments from the municipal legislative and the citizen feedback and/or participation in the budgetary process.

Keywords: public budget, open government data, semantic web

# 1 Introduction

Public budget should express an action plan in order to meet all the needs and priorities of the people. Its implementation should be as transparent as possible to allow extensive monitoring by the society. Since 2000, Brazil has been improving its accountability and transparency with Fiscal Responsibility Law [1], amended in 2009 by the Supplemental Law 131 [3], also known as the Transparency Law. This law states that all Brazilian public entities have to web publish detailed budget data in real time.

In the Transparency Law and later regulations, there is no mention about machine readability or other Open Government data (OGD) principles [2]. The only guideline closest to the OGD principles given to the Brazilian public entities is that they should provide down-loadable datasets. However, Open Government Data has been receiving growing attention and some budgetary web sites are compliant to some OGD principles [11].

Individuals and civil society organizations have been developing digital applications in order to generate many points of view regarding these data [10]. In Brazil, civil society participation and mobilization in general is more focused on the budget preparation of the cities and the monitoring of its execution. This can be explained by several factors, ranging from the possibility to include projects

to a specific community interest through the evaluation of national public policies in a scenario of growing decentralization, where the municipal level plays a fundamental role.

With this motivation we have developed the project named "Cuidando do Meu Bairro" (Caring for My Neighborhood). This project aims to provide a tool for citizens to exert social control and oversee individual expenses in the public facilities of their cities. In order to achieve this, public spending in the city of São Paulo is geo-located and displayed on a map, allowing anyone interested to make connections to her/his everyday life. The remainder of the paper is structured as follows. Section 2 presents the tool and some difficulties and others demands. Section 3 addresses our ongoing project and other possible extensions and finally, Section 4 concludes this work.

#### 2 Cuidando do Meu Bairro Tool

The Cuidando do Meu Bairro web application essentially collects semi structured (CSV files) and also unstructured (text) public data daily disclosed by the Planning Secretary of São Paulo City's website<sup>2</sup>, and places geographical references on them, generating points with different color codes. Figure 1 shows an example of a public expenditure map from the 2013 Budget in the city of São Paulo generated by the tool.

Four colors were used to show different stages, also exhibited in Figure 1. The progression of colors is in agreement with the stage of accomplishment of public expenditure, where budgeted (red color point) means that it was directly included by an Agency from the city hall or by parliamentary amendment in the City Council in the Annual Budgetary Law.

After the expense is budgeted, it can receive the commitment (green color), which would be the reservation of resources after the authorization or signature of service providing contract. Once the commitment is made and the service is performed, the expense is liquidated (blue point). One extra color, yellow, was included, which shows if there was any change in the budgeted value.

Beside this, the user also can see the percentage of expenditures placed on the map and also the amount of money that is in fact placed by the tool. It is important to give this picture because there are many expenditures that naturally cannot be placed, i.e. payroll, debts and others.

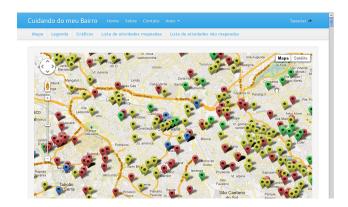
## 3 Cuidando do Meu Bairro Project

This toolis being used by many social leaders and civil society organizatins that comprises a network known as Rede Nossa São Paulo<sup>3</sup> (Our São Paulo network).

<sup>&</sup>lt;sup>1</sup> http://www.cuidando.org.br

<sup>&</sup>lt;sup>2</sup> http://sempla.prefeitura.sp.gov.br/orc\_homenew.php

<sup>&</sup>lt;sup>3</sup> http://www.nossasaopaulo.org.br



 ${\bf Fig.\,1.}$  Public expenditure map from the 2013 Budget in the City of São Paulo, generated by Cuidando do Meu Bairro

It gathers more than 600 civil society organizations working in areas as diverse as education, health, housing, environment, security and leisure.

This project is also a case study is in the context of the Open Data Research Network<sup>4</sup>, supported by the World Wide Web Foundation and the International Development Research Center (IDRC) and its objective is to give valuable information on how access to budget information affects the relationship between civil society and public administrators in district/municipal level.

Beside this, we are considering to mine other official sources of information in order to extract details about some expenditures. The main information source is the Official Gazette, which is a PDF document and contains legislation, jurisprudence and administrative actions. It contains a huge amount of information and describes, for instance, bidding and procurement which could substantively improve our project by providing elements for geographic location and other relevant information.

Nevertheless, a large amount of unstructured textual information is supposed to be processed before annotating and validating information that are publicly available. Some definitions found in the literature define semantic annotation as a specific schema to create and use metadata, enabling new methods of access to information [12]. Important related works are OpenCalais [6], Zemanta [4], Ontos [5], TextWise [7], LexML Project [8] and SIOP Project [9].

Another source of information comes from São Paulo City Council, which are the amendments to the city budget. These unstructured information may be parsed and mined in order to build an amendments map, possibly as a layer in Cuidando do Meu Bairro website. We also believe that some interesting analysis from 4-years datasets (the period of a city councilman's mandate) may show geographical and political influence in the city. This also may give interesting information about the legislative and executive powers dialogue in order to transform will (amendment) into action (committed and liquidated activities).

<sup>&</sup>lt;sup>4</sup> http://opendataresearch.org

The forth and last part comprises support for social interaction. Many alternatives are being considered: interface to social networks, a crowd sourcing platform, and a mobile application. The definitions will rise from discussions, interviews and surveys that will be conducted during 2013–2014 in the context of our case study in the Open Data Research Network previously presented.

Even tough these definitions are not given yet, it is also important to consider in the social interaction project component how to offer a communication channel between citizens and public authorities. By creating a request for information form, that will be filled by the citizen, sending it to the corresponding public entity and tracking and recording all this communication, we hope to contribute to citizen engagement and empowerment, knowledge sharing and transparency.

Figure 2 summarizes all ideas and/or ongoing work presented so far.

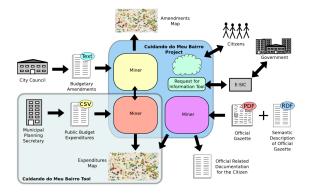


Fig. 2. An overview of Cuidando do Meu Bairro Project

## 4 Conclusion

In this paper Cuidando do meu Bairro tool was presented and briefly discussed. Also a broader scenario of Cuidando do Meu Bairro Project was a described.. Different sources of information, most of them unstructured, are considered in our ongoing work: many of them come from official entities (executive and legislative powers of São Paulo city), but others may come from user interaction (comments, photos, requests for information, etc.).

We hope that this work can show how public information, particularly municipal budgetary data, may influence the relationship between civil society and the government. Moreover, the aim is to bring elements into debate that subside guidelines for building both to civil society and government in order to improve the control mechanisms and monitoring of public resources and help the fight against corruption.

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