Providing Information from Brazilian Politicians Using Linked Data

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EXECUTIVE SUMMARY

Since its inception, the Web has undergone continuous evolution in order to improve itself as a means of global communication and information sharing. Open Government Data are increasingly being published on the Web, contributing to the transparency and the reusability of public data. At the same time, the use of Linked Data has been increasing in recent years, enabling the development of better and smarter applications. This chapter presents a case on the publication of Open Government Data using the Linked Data practices, by creating a data set of Brazilian politicians with information collected from different sources. This is the first dataset providing Brazilian linked data.

INTRODUCTION

Information and Communication Technologies (ICTs) have promoted a revolution in the information sharing, building a new relationship between government and citizens. This new relationship originated the so-called Electronic Government, which allows a more accessible, efficient, democratic, and transparent government.

Within this context, the concept of Open Government Data extends this relationship by providing the availability of government information in open and accessible formats to enable reuse and interconnection between information from different sources, thus generating new knowledge (W3C Brazilian Office, 2010).

Nowadays, much government data are available on the Web, but this information is most often offered without the use of standards, in proprietary formats and structured for user interface presentation, making it difficult for third-party systems to automatically reuse it. For better exploiting the potential represented by the government information, the data must be available in standard, open and accessible formats (Agune, Filho, & Bollinger, 2009).

There are several ways to publish Open Government Data on the Web, but according to Berners-Lee (2008), the purposes expected for government data are best served by using Linked Data techniques. Within the context of the Semantic Web, the term Linked Data is used to describe a set of practices to publish, share and connect structured data on the Web in order to increase the value and usefulness of these data (Bizer et al., 2009).

There is a global movement of governments, organizations, and people publishing Open Government Data. At the same time, the use of Linked Data has been increasing in recent years, strongly supported by the W3C (World Wide Web Consortium) and Tim Berners-Lee, considered the inventor of the Web. However, several challenges must be overcome so that the Web can be used as a global database.

Brazil has a lot of government data published on the Web, but there are only a few government initiatives that give full access to these data in structured and open standards. Therefore, some initiatives are emerging in order to extract the data, make them open and give them new value through different applications.

According to the United Nations E-Government Survey 2010 (United Nations, 2010), which provides a global assessment in the field of Electronic Government, Brazil ranks 61st, losing 16 positions since 2008. Several factors are responsible for the decline, such as the lack of online services and poor telecommunications infrastructure. The report also highlights Brazilian initiatives on Open Government Data that must be followed.

Within this context, publishing Open Government Data and using Linked Data on the Web is important nowadays. Thus, the work described in this chapter aims to contribute in publishing Linked Data from Brazilian politicians on the Web with

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