ABSTRACT
Although various scholars have researched issues regarding transparency of public policies websites, few have studied transparency made by civil society for citizens that want to do social control of governments. The need for transparency is caused by the information asymmetry between the public and the government. Furthermore, there is no model explaining which factors influencing transparency. Using literature, an initial model is created of factors influencing transparency of websites. Each one of those dimensions is detailed using one or more propositions derived from literature review. Factors found include interpretation, accessibility, data quality, usage, and facilitating conditions experience, age, gender, and education where found. The model will be validated in subsequent research.

Categories and Subject Descriptors
J.1 [Computer Applications]: Administrative Data Processing – government

General Terms
Management, Theory

Keywords
Transparency; Information asymmetry; Civilian Websites; Case study; Brazil

1. INTRODUCTION
Recently, the development of information and communication technologies (ICTs) and a legal framework in Brazil enabled the production of bases containing data that can be manipulated, filtered, or being crossed to build new applications. The majority of those data was on Portals of Transparency (PT) from Governmental institutions or Open Data Portals (ODP) provided them. In some cases, it was easily to have access to data, although other websites, including the majority of PT, were necessary to scrap data. In other others, hackers had to collect information by robots to make it useful for their purposes [19].

Which factors result in more or less transparency of websites is ill-understood. This articles aims to develop a model purpose toward civilian transparent websites. This should help to improve the transparency of website. Transparency is considered as the ability to find out what is going on inside government [24], through the several democracy tools as freedom of information act [25], transparency portals [23], open data portals and open government strategies [13], and other Brazilian tools inside on Legal Framework [19]. Transparency is aimed at reducing the information asymmetry between the public and the government. Information asymmetry is a concept that occurs when one party has more or better information than the other party; it assumes that at least one party to a transaction has better relevant information than the other(s) [1]. For example, the government has more knowledge why certain amount of money is spend than citizens. The reverse might also hold, the citizens might better know the problems with website and public employees. Asymmetries are almost inevitable and will limit transparency. Asymmetry is a problem that lies at the heart of transparency.

In this paper, we define transparency as the level citizens are able to know what is happening inside the government using the websites. We focus on their ability to know what is happening as all kind of factors, including the websites, but also personal characteristics like experience, education of persons influence the transparency.

Transparency in government is often considered in the literature as a regarded value and critical for democracy as well [5, 11]. However, in reality the term is more often preached than practiced, more often referred to than defined, and more often advocated than critically analyzed [11]. From this problematic found on literature, the concept of transparency have been thoroughly discussed and conceptualized. Journalists and communications scholars [6], social sciences and governance studies [12, 29], e-transparency [3] and others have its own concept based on their own point of view about transparency.

Furthermore, a common believe is that transparency can help citizens and stakeholders to monitoring and control better any asset (participation, government control, enterprise monitoring, etc.). However, these conceptualizations are focused on defining transparency and there are no models focused on which factors influence transparency as perceived by users. Although there are many factors are scattered among the literature. In this paper we adopt the user view. Our objective is to understand which factors of public websites are influencing the perceived transparency of users.
2. LITERATURE REVIEW APPROACH

Literature review was conducted by looking at the top e-government conferences and journals [30]. The conferences, ICEGOV, DG.O, IFIP EGOV and HICSS e-government track and investigating the journals Government Information Quarterly (GIQ), International Journal of E-Government Research (IJEGR), Transformational Government, People, Processes and Policy (TGPPP), e-government, an international journal (EGIJ) and Information Policy (IP). We identified relevant literature about transparency by searching for this term in the title and in the keywords over the period from 2000-2013. This resulted in the identification of 23 manuscripts. We used the references as a snowballing list of references to extend them. We used this literature to identify factors influencing transparency.

The literature review was used to identify factors influencing the transparency of websites.

3. MODEL

3.1 Model for transparency

The proposed model is derived from literature research and is a priori with four dimensions of interpretation, accessibility, data quality and usage of data. These factors designed as propositions with signs toward the dimensions shows that those factors are assumed, but not yet know. These factors will be detailed on the next sub-sections and presented in figure 1.

![Figure 1 – Model based on literature review](image)

3.1.1 Dimensions of Interpretation

Literature [27] is saying that interpretation of data can be very difficult because of natural problems of human cognition [7]. Interpretation needs information about how the data was collected and what might be concluded from it. As such on formal research methods [26], common people as citizens have some actions based on the same actions that scientists have doing research. From this point of view, it was identified several proposition that can influence positive and negatively on interpretation of data and websites from literature review.

- **Proposition 1 (P1): Easier interpretation of data results in higher transparency.**

Without easier interpretation or even an information or data, how citizens are used to consume, such as mass media for example, can result, if not distorted, in higher transparency [2, 16]

- **Proposition 2 (P2): presence of examples of the website product, the higher has a positive influence on interpretation.**

Probably at the first moment websites can be confusing and lower the attention of citizens, however, if examples can be easily demonstrated by videos, images or tutorials, it could have a positive influence on transparency for citizens because they become more familiar with data and how to use the transparency tool.

- **Proposition 3 (P3): Simple language has significant positive influence on transparency.**

If the idea is to produce transparency for everyone, data and information must be on language accessible to majority of people, facing problems as lack of time, access to education and advanced technological equipment, and other typical problems of developing countries [20].

- **Proposition 4 (P4): higher information quality has a significant influence on interpretation.**

No matter for what or which, literature have been pointing out that data quality is an important subject for several managerial aspects, for example for disasters response, orchestrating information or for public transparency of budget, data, public services, etc. [19]. Below there a collected literature review and theirs propositions about data quality and transparency.

- **Proposition 4a: higher updated information has a significant influence on data quality.**

Updating data is an important aspect for transparency, because the more updated is the information, the more useful it is for any person, even if you are trying to produce an historical perspective [18].

- **Proposition 4b: higher data completeness has a significant influence on data quality.**

If information is important, its completeness is one of the most important quality of this data because without that, probably its usage is compromise [19].

- **Proposition 4c: higher data accuracy has a significant influence on data quality.**

The data must be accurate. Spreadsheet errors due to misinterpretation or misunderstanding can may compromise the quality of transparency, and therefore, the user experience [15].

3.1.2 Dimension of Accessibility

Accessibility was identified as a dimension that can influence positive and negatively on interpretation of data and websites from literature review [28]. From this point of view, several propositions were selected.

- **Proposition 5: higher accessibility has a significant positive influence on transparency.**

In Brazil have been showing that the more accessible the website is, major the probability of good economical return. From this perspective, is possible to suppose that the accessibility has a
positive influence on transparency for citizens as websites’ users [21].

- Proposition 5a: Simple language has significant positive influence on transparency.

If the idea is to produce transparency for everyone, data and information must be on language accessible to majority of people, facing problems as lack of time, access to education and advanced technological equipment, and other typical problems of developing countries [20].

- Proposition 5b: data overload has a significant negative influence on accessibility.

Sometimes data can be distributed on an overloaded format. What means that there are more data than the necessary to be used or in any kind of format that obligates user to search or do actions besides he is used to, not allowed or don’t have the knowledge necessary to find information inside it. This can discourage people to continue on the website or using information wrongly [15, 16].

- Proposition 5c: Adhesion to standards has a significant positive influence on accessibility.

Literature shows that audience can also depend on how accessible is your website and what is the level of technologies usage. Further that, there is international recognized patterns and guidelines on the area for websites [31].

- Proposition 5d: Unified use of technology has positive influence on accessibility.

Addiction from an accessible website, it is important to have audience to spread information and its “products” [22]. For example, data being presented on widely spread technologies. Not everybody has state-of-art technology, mainly the poor, people who most need data and information to change theirs situation. [9]. The lower are the requirements, the higher are the usage by people.

3.2 Facilitating Conditions

In the UTAUT model gender, age, experience and voluntariness of use [28]. For transparency literature indicates that experience might be an important variable. We expect that education level and income might be conditions that can facilitate or influence negatively on user experience.

3.2.1 Experience

Interpretation is likely be dependent on the past experience of the persons with these type of data. An experienced users might need less time to understand what can be done with the data [16, 28].

- Proposition 6a: the influence of interpretation on transparency will be moderated by experience.

- Proposition 6b: the influence of accessibility on transparency will be moderated by experience.

3.2.2 Gender

There is no gender better or worse, but different. For instance, they have a lot of different interests. Some topics that are more toward female interest and others male interest [8]., For specific publics, there are peculiarities that should be perceived during the planning to achieve them [4].

- Proposition 7a: the influence of interpretation on transparency will be moderated by gender.

We do not expected that gender will moderate the relationship between accessibility and transparency, as male and females are expected to have the same level of accessibility.

3.2.3 Age

Literature [10, 14] points out that age is an important condition, being on whether in childhood, adolescence, adulthood and elderly. Depending on which age you are working, you have to construct websites focusing that group and perceiving what are the group peculiarities. In Brazil, recently there is identified a crisis of participation due institutional problems of democracy [17].

- Proposition 8a: the influence of interpretation on transparency will be moderated by age.

3.2.4 Level of Education

The competencies required by 21st century workers at all levels within the global workforce include being digitally literate, possessing hard skills and soft skills, and having accessibility. In Brazil the level of education is highly associated to income, access and experience (time of usage) of telecommunications (cellphone, Internet, computers).

- Proposition 9a: the influence of interpretation on transparency will be moderated by the level of education.

- Proposition 9b: the influence of accessibility on transparency will be moderated by the level of education.

4. CONCLUSIONS AND FURTHER RESEARCH

There is a vast amount of literature available about trust of websites, however, there is less literature about transparency of websites. A model containing factors influencing transparency of government websites was developed based on literature review and further refined using the case studies.

The model is based on two main dimensions (accessibility and interpretation). Each of them have sub-dimensions that impact transparency. Further that, it was identified the dimension of facilitating conditions, with the sub dimensions of age, gender, education and experience.

In our next research steps we will first test the model within a case study followed by a survey to test the model.

5. REFERENCES


