

Comparing advances in e-government usability and Web design: A Spanish-Bolivian e-observatory

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ABSTRACT

This document presents the principles, objectives and ideas behind the Spanish-Bolivian e-observatory initiative (e-Observatorio Boliviano-Español: E-OBE). This project intends to observe the Spanish and Bolivian Web in order to analyze the evolution of Web design and usability in these countries. On the other hand, e-government efforts and advances in Spain and Bolivia will be also a focus point for this initiative. We consider that observing and comparing Web and e-government evolution in Spain and Bolivia will report interesting and useful findings, valuable for both research and practitioner communities in these countries, and for the HCI community in general. A first report about a long term observation of 34 Bolivian websites was recently published; related and similar works are planned to be developed in the future.

Categories and Subject Descriptors

H.5.1 [Multimedia Information Systems]: *Evaluation /methodology, Hypertext navigation and maps.* H.5.3 [Group and Organization Interfaces]: *Web-based interaction.*

General Terms

Performance, Design, Human Factors, Standardization.

Keywords

Spain, Bolivia, Usability, Web Design, e-government.

1. INTRODUCTION

The Web has evolved from single static HTML contents to very complex dynamic and interactive contents. This evolution was accompanied with the rapid spread and evolution of evaluation and design methods [3, 12]. Changes in the Web affected the way people, business and government communicated between. Nowadays users, organizations and governments can count with better web, e-business and e-government services and

applications, respectively. This rapid development both offers an opportunity to study the changes being made and requires agents which evaluate and analyze these changes.

The E-OBE initiative intends to observe the Spanish and Bolivian Web space in order to analyze and compare the changes being made on both specific and general web sites. At the same time e-government initiatives and systems will be specially studied in order to propose, analyze and highlight advances and developments in this area.

The authors and their collaborators believe that comparing the advances and changes in this technological area will produce interesting results which would provide a better understanding on the way the Web is changing in Spain and Bolivia, which are the common aspects of these changes and which ones are the main differences of these processes.

Similarities in the social and historic context of Spain and Bolivia will help to develop the comparison studies. Of course, the differences in other facets of development will be a scenario to prove the validity of some generalizations about Information and Communication Technologies (ICT) and the Web. Comparing how the Web and other ICT technologies are being implemented in developed and in-developing countries would provide interesting and useful results for the HCI community and the public in general.

2. ANTECEDENTS

The poor information available in relation to information and communication technologies (ICT) in Bolivia was one of the first motivations to develop this project. Currently there are no data or publications about web design and usability issues with exception of a first study [14] which will be commented in the First Results section. Even though ICTs are considered an important factor for the country's development [1, 10] the quantitative and qualitative data related to them are scarce [4, 5, 6]. At the same time, HCI initiatives and communities are still in an incipient stage of development. Specific HCI education and training are rare in the Bolivian educational institutions.

On the other hand, there is a mature HCI community in Spain which promotes the applying and adaptation of general HCI principles to the Spanish context. The CHISPA and AIPO associations are the main promoters of HCI in this country. Also teaching and training of HCI subjects and practices are of main

interest for the Spanish HCI community. Complete annual reports about the state of ICTs are a common practice in Spain [13].

One of the most important general research efforts in Spain is the UsabAIPO initiative [7]. This study intends to analyze the usability of the Spanish public universities homepages. Also they propose a heuristic evaluation model adapted to the Spanish context.

3. MOTIVATION

As it was explained, one of the most important factors to start this project was the unavailability of data about the development of ICTs –and specifically about the Web. To obtain data about the development and experiences related with the Web and ICTs are by themselves a sufficient reason to develop this project.

In addition to this, it was considered an interesting, and challenging, objective to compare the data that would be obtained to the information coming from the Spanish context. Common points (such as language, diversity) and clear differences (v. gr. geographic and economic situation) build an extraordinary scenario in which analyze Web and ICTs evolution.

4. METODOLOGY

In order to obtain and update base data related with the Bolivian Internet users there were contacted a number of contacts from different Bolivian universities. They will be in charge of developing different ethnographic and usability studies directly in the Bolivian medium, following a previously defined protocol. Also there will be developed various usability tests on Spanish and Bolivian websites in order to determine the usability levels of them, applying directly or adapting different usability evaluation methods [2, 7, 8, 9].

The results will be analyzed in order to obtain particular and general conclusions, taking in account the common points and differences stated previously.

5. FIRST RESULTS

Between years 1998 and 2007, 34 Bolivian websites were observed in order to study their evolution and changes. The first results of this study were presented in the Latin-American conference on HCI: CLIHC 2007 [14]. This article reports the incipient state of usability and accessibility subjects in Bolivia, in despite of the modern look of Bolivian Web designs.

6. CONCLUSIONS

This proposal presents the E-OBE initiative. It intends to analyze and compare the evolution of Web and ICTs in the Spanish and Bolivian scenarios. The project will pay special attention to e-government experiences and applications [11].

The differences and coincidences in the Web and ICT aspects of Spain and Bolivia will give an interesting study scenario, in order to analyze and confirm hypothesis related with the Web and ICTs in general.

7. FUTURE WORK

The qualitative results presented in [14] will be contrasted in a quantitative study, using a variant of the model proposed by the UsabAIPO group.

Ethnographic studies related with ICTs will be developed and reported in the short term. It is necessary to obtain an updated and clear profile of the Bolivian users.

The results of the evolution of Bolivian websites will be compared to results from similar works developed in Spain.

The E-OBE project is a long term effort which will provide the results of the comparison of the Spanish and Bolivian technological contexts.

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