AMArî: a reporting interface for accessibility evaluations

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ABSTRACT
Accessibility evaluation and monitoring actions are distributed activities based on the analysis and verification of a huge amount of data. In this paper we present an application prototype, which produces accessible and personalized outputs (by means of graphics and tables) in a feasible way, on the basis of Web pages accessibility validations, thereby making data more understandable and accessible to distributed Web authoring/editorial staffs.

Categories and Subject Descriptors

General Terms
Measurement, Design, Verification.

Keywords
Accessibility monitoring, accessibility evaluation, data results.

1. INTRODUCTION
The goal of monitoring the status and progress of Web sites accessibility is usually reached by means of long and articulate validations done by distributed editorial stuffs. The availability of automatic evaluation tools partially assists these activities but the monitoring is far from being actually supported.

The aim of this paper is to present the design and implementation of AMArî (Accessibility Monitoring Application Reporting Interface), a tool devoted to support authors/editors involved in the implementation and assessment of accessibility. AMArî is meant to be Web based and accessible, providing reports both as graphics and tables. Each AMArî user can define a set of personalized views on data gathered by using an accessibility evaluation tool (Vamola [1]) and stored by means of a monitoring system (AMA, [2, 3]). Each view can: (i) represent the whole data set or a part of it, (ii) refer to a single Web site or to a group of them, (iii) show data focusing on one or two of the possible dimensions, (iv) be statically computed and stored or show everyday changes in the accessibility status. In the following of this paper we will describe main AMArî features and how users can set characteristics to create different couples of charts and tables, to exploit accessibility evaluation results from different points of view.

2. AMArî ISSUES
AMArî is an open source application based on PHP, HTML, CSS and AJAX technologies. AMArî Web interface has been designed and developed according to WCAG 2.0 and ARIA guidelines and it provides adequate alternatives to charts, aiming to be accessible itself.

AMArî users can set their own widgets, by means of setting options. Once created, such widgets will be always available through the user’s AMArî home page. Each widget corresponds to a specific set of results, shown as a chart and as a related table (which provides the same data and information of the corresponding chart, as a bi-dimensional textual alternative, as shown on Figure 1), based on one or two dimensions, which can be chosen by the following ones:

(i) Time: temporal dimension can be set as a single date or as an interval. Users can choose such dates so as to set the most recent accessibility evaluation as a single date or as the last date of an interval. This means that the widget will update data results time by time, whenever the validation system computes accessibility evaluations.

(ii) Single or group of Web sites: each widget can show accessibility evaluation results of a single Web site (letting an in-depth evaluation, page by page and/or error by error) or of a group of Web sites. Web sites can also be grouped into cat-
3. SETTING WIDGETS

In order to create a new widget, a wizard has been developed to support users in setting all the characteristics of accessibility evaluation results they would like to report. The first option is related to temporal issues. As for the second option, users can choose one or two types of characteristics which will be the most important in the widget, among (ii), (iii) and (iv) items of the list above. After that, on the basis of these characteristics, AMArí will propose different steps, according to the lacking information to complete the widget. Finally, on the basis of user’s preferences, AMArí proposes a set of available charts, which can be different, according to already chosen options. On the left of the AMArí interface, a summary of such options (Figure 3) will be always available, so as to let users back and change them.

Once set the dimensions and all the options, users can save the widget with a name and a description. Then the widget will be shown in the AMArí home page and it will be always available. Thus, each user’s AMArí home page is customized, showing a set of personalized widgets, on the basis of user’s choices. For each widget, information about title, description, chart type, date and temporal interval and data types are shown. Clicking on the widget title, it is possible to access to the chart and the corresponding table. A suitable legend follows each chart.

4. CONCLUSIONS

AMArí has been designed and implemented to support authors/editors involved in the implementation and assessment of accessible Web sites. It provides a feasible and accessible system to exploit a huge amount of data resulting by accessibility evaluations and monitoring activities. Its interface lets the users create their own points of view about gathered data.

5. REFERENCES

