

Application of usability criteria on the tool of inclusion of accessible content on moodle for blind

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1 Context

The use of virtual environments in e-learning is promoted access to higher education. Although one of the main advantages of distance learning is the inclusion, as this mode of education allows people from distant locations, to make their courses, there are barriers in the use of the environment Distance learning by the students. (SIQUEIRA, et al, 2010)

This context is consistent with the paradigm of social inclusion, which is to become the company a place for socializing of all, regardless of their needs and potential. " In this sense , supporters and advocates of inclusion , called inclusivists, are working to change society , the structure of their common social systems , their attitudes , their products and goods , their technologies etc. In all aspects : education, work, health , leisure , middle , culture, sports , transportation , etc. " (SASSAKI, 2003, p.2).

So on one hand there is the need to assign to the concepts of accessibility environments, configuring them to promote digital inclusion of people with disabilities, on the other, should incorporate the importance of accessibility in the actions of those responsible for inserting the contents.

2 Method

The method for this study consisted of three steps. In the first stage, with the description of the search tool to check its operation. Subsequently, we study the usability criteria proposed Nielsen (2012), adapting them to the chosen tool. Finally, the third step is to draft recommendations for the tool usability.

The tool describes the following articles published in Congress, to amend the internal code system Moodle 2.0, in order to facilitate the creation of accessible content for the visually impaired.

Although the tool provides accessibility, its effectiveness will depend on the user to make the integration of content, although a mandatory field, the lack of understanding about the importance of correct filling makes the purpose of the tool is not reached.

The recommendations apply to the following changes:

- Inserting Images in Content of Courses
- Inserting Tables in Content of Courses
- Inserting Sounds in Course Content
- Inserting Video

Therefore, some of the proposed recommendations based on usability heuristics proposed by Nielsen (2012).

Visibility of system status:

The system should always keep users informed about what is going on, through appropriate feedback. Correspondence between the system and the real world the system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system -oriented terms.

User control and freedom:

Users often choose system functions by mistake and will need an "emergency exit" clearly marked out the unwanted state without having to go through an extended dialogue.

Consistency and standards:

Users should not wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

Error prevention:

Even better than good error messages is a careful design which prevents a problem from occurring in the first place.

Recognition:

Minimize the user's memory load by making objects, actions and options visible. The user needs to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever necessary.

Flexibility and efficiency of use:

Accelerators - invisible to the novice user - may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Help users recognize, diagnose and recover from errors Error messages should be expressed in plain language (no codes), precisely indicate the problem and constructively suggest a solution.

Help and Documentation:

Even that is better than the system can be used without documentation, it may be necessary to provide help and documentation. Any information should be easy to search, focused on the user's task, list concrete steps to be performed, and not be too large.

3 Results

Besides increasing the description field for the heuristic "Visibility of system status" has improved as the notice of the description field is mandatory. This orientation is commonly done with an asterisk (*). With this implementation also meets the heuristic "Avoidance of errors" because it prevents a problem from occurring.

In terms of awareness, have been heuristics: Correspondence between the system and the real world, user control and freedom, Recognition, Aesthetic and minimalist design Help users recognize, diagnose and recover from errors.

In "Match between system and the real world" has room for improvement in matching the information needed to guide the user of the importance of the information inserted there.

Moreover, it is not enough to show the importance of filling the fields with the heuristic "Help users recognize, diagnose and recover from errors" has improved in enabling the user to obtain examples to fill the field.

However, all this information in the same window can go with the proposal of heuristic "Aesthetic and minimalist design", compromising the visibility of information. It also means not meet the heuristic "Recognition", which proposes a minimal charge to the user.

The heuristic "User control and freedom" to help solve this problem, causing the user to have the control and freedom of this information.

Both help to click on the insert image without the description field of the image, it is pertinent to show screen content- awareness message to fill the description field

On this screen the user will have control of the information to select the "Do not show this information again," as well as more information with examples on the link [Click here](#).

4 Conclusions

Despite the importance of the social and educational digital inclusion of disabled people, few initiatives are promoted in favor of that audience.

A tool to facilitate inclusion in Moodle Content Affordable, described in the article by Ulbricht, et al (2012), demonstrates a breakthrough in the corresponding accessibility for the visually impaired. Although the development of high relevance tool has dependence on the user to insert the contents effectively.

The lack of understanding about the importance of the correct completion of the fields, which makes the content accessible to the visually impaired, can cause the content- not attain the purpose of the tool. Therefore, in this article, we sought the importance of usability for work focusing on accessibility responsible for filling out the fields, raising awareness and guiding this user. In this case, based on heuristics improvements are proposed for the effectiveness of the tool.

The improvements relate to keep users informed about what is happening, using the language of users, with words, phrases and concepts familiar, rather than system - oriented terms. Thus there is the proposal to mark the field as required by asterisk (*), which in addition to preventing the error by not opting for the non-fulfillment, as in the current configuration does not have this orientation.

However , such information as the importance of guiding the content- to insert a text alternative can meet other heuristics such as: " Aesthetic and minimalist design " , compromising the visibility of information and also does not meet the heuristic " Recognition " , proposing a minimal charge for user. For implement such improvements follows the heuristic user control and freedom, causing the user to have the control and freedom to obtain such information , except when filling out the description field is not respected . In this case, the guidance information is displayed as feedback.

Is to assess in a second step, the user close to the real meaning of these improvements or identify other problems that can be remedied with changes in the tool.

5 References

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