Circular Menu

A Future User Interface Project

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1. Introduction

Websites are often filled with content. Cramming everything on the main page is obviously not possible, so it is needed to classify everything on different pages and then being able to access them. This was solved by creating navigation menus. From that small part of the website, usually at the top, people could easily access whatever part of the website they wanted, with help from drop-down sub-menus when needed.

Since then, nothing much as changed to access this navigation menu. Be it with the mouse, or the keyboard, or a mix of both, it seems pretty widely accepted that this is the definite version of menus and accessible them.

However, with the advent of different technologies, it might be time to change the way people interact with that pretty fundamental element of websites (and surely multiple others). Our group thought it could be a good idea to use the Eye Tracker to interact with the navigation menu, which would make it faster.

The standard menu is not suitable to eye tracking because of its small size, but creating a large, circular menu at the center of the screen would be a good way of offering an easy to see way of choosing rapidly. Hence we started working on the Circular Menu, which aims to offer a easy way of accessing the navigation menu of website with the aid of eye trackers.

1. The Circular Menu

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* 1. The Extension

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* 1. The Circular Wheel

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* 1. The Eye Tracker

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1. Evaluation
   1. The Experiment

To figure out if the Circular Menu brings anything to the users, we designed a small experiment.

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* 1. Qualitative Evaluation

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* 1. Quantitative Evaluation

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* 1. Conclusions

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1. Conclusion and Future Works

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As for future works, there are a couple things that come to mind. The first one concerns the Circular Menu and would be a requirement to make it a widely-used application. Making the extension compatible with all website (or a majority) would be a large progress, but that would require either a lot of work and/or advanced knowledge of CSS/JS. A bonus point would be to hide the navigation menu when the Circular Menu is activated.

Another, more practical idea would be the implementation of the Circular Wheel for Favourites, which are more easily implementable (browser-based instead of website-based), less accessible for the users and also quite practical for usual navigation.

All in all, this was an interesting experiment with some potential with the future, and we are glad to have taken this class and had the possibility to experiment with the Eye Trackers.

Referenced Web Resources

Articles

[1] Eko Indarto: Recommender Systems, available: <http://recommender-systems.readthedocs.io/en/latest/recommenders.html> , accessed 23.05.2018.

[2] Christopher Clifton: Data Mining, available <https://www.britannica.com/technology/data-mining>, accessed 23.05.2018.