Dyslexia Online Reading Helper

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BACKGROUND RESEARCH

Dyslexia is a specific learning disability in reading. It also known as reading disorder, is characterized by trouble with reading despite normal intelligence. Problems may include difficulties in spelling words, reading quickly, writing words, "sounding out" words in the head, pronouncing words when reading aloud and understanding what one reads. It affects 3–7% of the population, however, up to 20% may have some degree of symptoms. It has several different diagnosis, which are Central dyslexias, Peripheral dyslexias, and Neglect dyslexia. They are a group that needs to be helped.

http://geon.github.io/programming/2016/03/03/dsxyliea

Comparative Research and Proposal

I can find many institutions that help patients improve their reading skills, and many website that offer dyslexia treatment that is expensive. But according to my research, there is no similar website as my topic. However, I still found some tools to help e-readers, such as OpenDyslexic.

The patients may set the font that is easy to read on their computer and use the voice tool to read the article. However, sometimes it is not possible to use a personal computer. Then, my website can help them modify the easy reading text-fonts online.

Target Audience Test

In target audience testing, I got a lot of feedback and one of the audiences has dyslexia.

The first point is that the font is too small to read.=>Increase the font size.

The second point, due to the lack of introduction and tips on the page, the user does not know the purpose of the page, except for the dyslexia user. =>Add "About" page and tip when loading.

Third, users need to manually clear the text in the textarea. =>Click the textarea and clear.

Fourth, the link button fails. =>Solve the link content loading problem.

Finally, login page pop out. => Click "account" page and show the login/signup in page

Challenges

Using links to read web content then generate new pages without ads is the biggest challenge I have encountered.

If only using the most primitive javascript to grab the website's content, I can't do it, even using JQuery. After searching, I choose to use the mercury API, even though it still spent me more than 8 hours to figure it out how to load the api by Ajax and json, since the instructions on the website is confused me, and display the result out of the loading function.

```
curl -H "x-api-key: qkqEY2g2zCZci9HmVxQ5RnY5zUrYY0j2Kbwk342m"
"https://mercury.postlight.com/parser?url=https://trackchanges.postlight.com/building-awesome-cms-f034344d8ed"
```

Also, I was struggling how to open a new window by JavaScript and edit the context and style. Eventually, I found I can link a outside CSS file instead of edit style in JavaScript.

In conclusion, https://stackoverflow.com are my best friend.