Improving Web Accessibility with PleaseDoNotAccess.io

CS489 Team 5

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Website Accessibility

- "the inclusive practice of ensuring there are no barriers that prevent interaction with, or access to, websites on the World Wide Web by people with **physical disabilities**, **situational disabilities**, and socio-economic restrictions on **bandwidth and speed**."

What cases should be considered in Web Accessibility?

- Visual: Low vision, Color weakness
- Motor / Mobility: Motor disorders
- Auditory: Hearing impairment
- Seizures: Photosensitivity, Sensitive images
- Cognitive: Cognitive and learning disabilities

What tools are available to improve visual Web Accessibility?

- Screen readers
- Screen zoom
- Voice / Speech to text
- Keyboard overlay

Pop-ups cause problem in visual accessibility



50% off buy it right now Sample.10

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Our new product

AnNoYiNg PoPuP

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Lightbox

Floating bar

Chat pop-up

New window

Pop-ups cause problem in visual accessibility

- Changes order between page contents (disrupts Screen Readers)
- Restrict the flow of attention (disrupts screen zoom)
- Hard to close (small, unnamed buttons)



- ← Design intention
- 1 Recognize pop-up
- 2 Click close button
- 3 Read web page

Screen readers →
Read from top → bottom
(not in the order where
the contents are shown)

```
HTML:

style: z-index=

1000000

<div class = "title" > nple.io <div>
<div class = "body" > 1. ... </div>
<div class = "adbox" > ... </div>
<div class = "body" > 2. ... </div>
...
```

Some tools to block such pop-up ads exist

- Still, they cannot cover every ads
- Mainly disable Google AdSense
- Other pop-ups and ads may not be blocked





Plan 1: Pop-up Detector

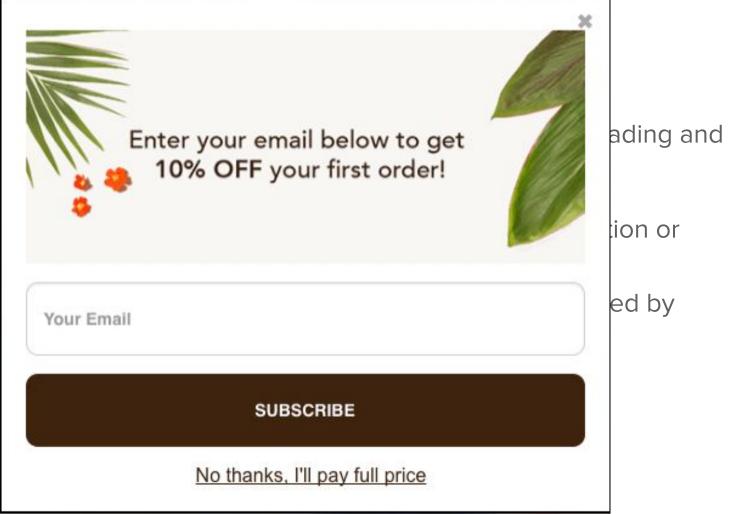
To avoid pop-up notifications that interrupt the flow of screen-reading and user vision, we will develop a pop-up detector.

- It is designed to change the layer order of a pop-up notification or highlight its close button (x-button).
- This z-index-based solution also works for pop-ups not filtered by Adblock.

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Plan 2: PleaseDoNotAccess.io

We plan to develop **PleaseDoNotAccess.io**, an experience of the web page with the worst accessibility.

- Inspired by <u>User Inverface A worst-practice UI experiment</u>
- Users can experience several elements that ruin accessibility.
- It also provides simple solutions (e.g. our pop-up detector) or tips to improve the accessibility for each element.
- It might contain a vote for the worst element and its ranking table.

Plan 2: PleaseDoNotAccess.io

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