

Assignments

First Assignment – Web Site Evaluation Report

Report due on: 14/03/2024

In addition to your final project, this class wants to give you the opportunity to reflect on mismatched interactions, assistive technologies, and related issues.

As a first assignment, we ask you to submit an accessibility report by filling out [this online form](#).

We suggest here some websites you could work on, but you could consider any other website you think is worth analyzing.

- <https://www.trenord.it/>
- <https://www.trenitalia.com/it.html>
- <https://www.eventbrite.it/>
- <https://www.ticketone.it/>
- <https://www.comune.milano.it/>
- <https://www.repubblica.it/>
- <https://pinacotecabrera.org/collezioni/>
- <https://triennale.org/>
- <https://www.vinted.it/>
- <https://glovoapp.com/>
- <https://www.zara.com/>
- <https://www.youtube.com/>
- <https://www.webtoons.com/>
- <https://twitter.com/home>

Report evaluation

Question	Weight
Is the report delivered on time?	0.1
Is all the information requested in the report provided by the student?	0.6
Is the report well written, have all the checks been done adequately?	0.3

Second Assignment – Exclusion identification

Group presentation on 25/03/2024

- Identify possible exclusions, within the analyzed website, or in other contexts

- Evaluate the impact of the identified exclusions on the analyzed website and on other types of websites
- Create a 10 min presentation on your findings


The presentation must include 1 persona who is excluded from the usage of the web site **due to the barriers you found out**, and the related story of Web User (you can find examples here <https://www.w3.org/WAI/people-use-web/user-stories/>)

Example

- Website analyzed: <https://www.trenitalia.com/it.html>
- Identified problems:
 - o Gathering specific information using screen readers is very difficult
 - o Screen readers do not interpret correctly the calendar widget

Possible extensions of the identified problems to other websites: widget interpretation might cause problems to food-ordering website, where a big part of the experience happens through widgets.

Possible persona description:



Jane Doe

20 Yrs – Student

Interest 1
Interest 2
Interest 3
Interest 4

Who is Jane?

Jane is a second-grad student passionate about tech, sports and food.

When studying, she looks for information on the web to refine her research.

During her free time, she likes to try new take-away food with her friends.

Jane went through an eye surgery last week, which will require bandage to both eyes for 4 weeks.

Impairments and solution used

- Temporary limited vision capacity

Jane uses a voice assistant to gather information for her study, yet for her it's very difficult to dig deeper into a specific topic by using voice (she does not even know how to use a screen reader!)

- Jane is not able to order food via app or Webapp, she asks her friends to support her

How to overcome

- Create a voice-bot which can read calendar widget onto a website
- Create a calendar widget which is designed to enable a voice interaction
- Design a Q&A engine capable of answering and explaining about a topic on a particular page

Story of Web user: Jane is a 20 yrs old student who underwent eye surgery last week, and she won't be able to use her sight for the next 4 weeks. Jane frequently gathers information for her research online, and she's worried because she found it very difficult to keep having the same study workflow with both eyes bandaged. Things were even more complicated when she tried to order food online. It was impossible!

Jane discovered there's great potential with voice-based interaction such as ChatGPT. Unfortunately, she could not retrieve the various information through the entire conversations and could not perform any other action (such as food ordering or delivering).

Presentation Evaluation

Question	Weight
Do the students correctly address all the points requested?	0.6
Do the students deliver the content in a clear way?	0.1
Is the exclusion correctly identified and discussed?	0.2
Does the presenter respect the time and presentation format?	0.1

Third Assignment – Concept/Technical Feasibility

Group presentation on 09/05/2024

- Starting from your analysis, choose one exclusion aspect from the ones you identified for the previous assignment and refine it. Example of possible solutions can be:
 - A web augmentation mechanism to automatically interpret the page HTML and add proper HTML tags that can be in turn interpreted by the browser (for visual rendering) and by a conversational agent (for vocal rendering)
 - Within a conversational system for data exploration (querying a DB/data warehouse) a new story-telling paradigm to describe data extracted from a DB (tabular or graphic format) through conversation
 - A brand-new paradigm/technology/device (e.g., Web conversational browsing through Alexa or through a smart object (e.g., Raspberry-based)
 - Integration among existing technologies (e.g., screen readers and conversational assistants)
- **By 18/04:** you should have a clear idea of the concept of your project and of its technical feasibility and start working on the prototype. Discuss your idea with the professors during the previous lectures.
- Presentation of your concept/prototype: **09/05**

Presentation Evaluation

Question	Weight
Do the students deliver the content in a clear way?	0.1

Quality of the identified requirements and concept	0.2
Technical feasibility/concept applicability	0.5
Innovation potential	0.2

Useful links

Reports

Automatic Report Tools

- W3C list of automatic accessibility checker: <https://www.w3.org/WAI/ER/tools/>
- Wave: <https://wave.webaim.org/>
- Google Lighthouse: <https://developer.chrome.com/docs/lighthouse/overview/>

W3C Report Framework

- W3C Easy-Check: <https://www.w3.org/WAI/test-evaluate/preliminary/>
- WCAG EM Report: <https://www.w3.org/WAI/eval/report-tool/>

Other links

- Contrast checker: <https://accessibleweb.com/color-contrast-checker/>
- Web Developer extension (remove CSS, images, etc...): <https://chrispederick.com/work/web-developer/>
- Web Aim's Research on Screen Readers: <https://webaim.org/projects/screenreadersurvey9/>
- Aria Labels: <https://www.w3.org/TR/WCAG20-TECHS/ARIA14.html>
- Aria Patterns: <https://www.w3.org/WAI/ARIA/apg/patterns/>
- Microsoft Inclusive Design: <https://www.microsoft.com/design/inclusive/>
- Story of Web Users: <https://www.w3.org/WAI/people-use-web/user-stories/>