Accessibility in Journalistic Responsive Websites

Gilberto Balbela Consoni [1], Priscila Menezes Siqueira [2], Augusto Gowert Tavares [3]

Universidade Federal de Pelotas - Centro de Artes
Alberto Rosa Street, 62, Pelotas, RS, Brazil, 96010-770

[1] gilberto.consoni@ufpel.edu.br, [2] priscila.siqueira@live.com, [3] augustogowert@gmail.com

Context

The contemporary design applied to digital media requires fluidity in the Graphical User Interface (GUI) design due to the variety of devices where websites are accessed. The diversity of screens and their resolutions between desktops, tablets and smartphones, requires precise adjustments to meet the needs of users in each context. The Responsive design technique allows the GUI designs to fit fluidly between devices in order to solve issues of different dimensions of the project components, enabling presets for grid, fonts and images. From a critical look at the application of this design technique, it is observed that important design techniques can be passed over in favor of responsiveness, as is the issue of accessibility of these interfaces. By the hypothesis that responsive design has not followed the accessibility techniques, this research investigated the accessibility on responsive websites. The technique of Responsive Design is defined and characterized. The main obstacles for people with disabilities are addressed as regards the limitation of vision. The research technique applied for the investigation was direct observation of four journalistic websites. The results showed that interface designers need to pay attention to visual accessibility issues for achieving the Responsible Responsive Design.

Method

Based on Marcotte (2010), pioneer in Responsive Web Design, and W3C's (World Wide Web Consortium) accessibility guidelines, this research explores visual qualities of Responsive Web Design. Focusing on obstacles that visual impaired users face while browsing the web. Consists in the analysis of journalistic responsive websites through direct observation, to answer the research question, whether responsive design is following accessibility techniques or not.

The main obstacle to visual impaired users is associated with information consumption. The following studies tests four journalistic websites (two Brazilian, two international). Nationals are represented by *G1*, the main communication channel in Brazil, and *Folha de São Paulo*, the biggest printed newspaper in Brazil. Worldwide is illustrated by *The New York Times (NYT)*, the most famous journalistic company in the world and the Britannic *The Guardian*, header of digital technology adoption.

Categories were defined according to W3C's (Web Accessibility Consortium) instructions. **Text Size:** is it possible to increase or decrease text size? **Contrast:** Is it possible to adjust contrast and font colours? **Information Hierarchy:** Does the grid follows an structure through mobile and desktop? What are the the breakpoints? **Image Size:** Is it possible to zoom images? Does the images have captions?

Results

Before analysing each category, it is necessary to inform that Folha's and NYT's websites does not have 320px breakpoints. Lately, those pages are not considered responsive, as they present a different mobile version, established over the media type @handheld. This diagnostic has not interrupted the research, as accessibility techniques would also be available medias alike.

Starting with text, 320px responsive websites do not offer the possibility of changing text size. This tool is noticed in mobile versions of Folha de SP and NYT. On the other hand, the 1024px breakpoint of Folha and G1 do not include the tool. Only NYT and The Guardian allow the user to change text size in desktop. The only website who allows changing text size in both versions is The New York Times, which has a responsive version at 1024px and an @handheld to smartphones.

In terms of contrast, the obstacle is even bigger as only NYT's @handheld version allows text colour modification. Anyhow, it is possible to change the whole interface colour due night shift tool. The practice inverts colours as in a photographic negative. The entire amount of websites do not allow typeface changing. However, they present readable typefaces, without serifs.

Hierarchy challenged whether the content has the same placement between desktop and smartphone. G1 and The Guardian took front in this division. Hierarchy is important because users access websites through different gadgets. Lately, if users are familiar with desktop's template, they expect to see the same structure on smartphones. Sadly, this consistent arrangement is available in only two websites.

The last section has no results. Not one website displayed audio transcription tools for images. Folha's version offers audio transcription to news in its desktop version, however it is not available to images. Related to zooming images, G1 and Folha do

not offer this functionality in either desktop or mobile version. On the other hand, NYT and The Guardian allow zooming in both interfaces. When accessed through desktops, the presence of zooming would not be an obstacle as most web browsers present a default zoom tool. However, this functionality is not available to smartphones. Lately, visual impaired people who access G1 and Folha de S. Paulo's websites through a mobile device would have visualization issues.

Conclusions

The analysis affirms its hypothesis that visual impaired users still face obstacles (previously informed by WAI) in information consumption through responsive websites. Users who need to enlarge body text, change contrast or zoom images would not access information clearly. The worst scenario represents users lost in information due hierarchy issues between mobile and desktop versions.

The present case limits its analysis to four journalistic websites. Handheld variants of NYT and Folha de São Paulo respect some accessibility rules and are ready to receive visual impaired users. The responsive base websites, on the other hand, still have lots to improve. Even assuming very influential broadcasters, it is necessary to amplify the studies in order to get more enthusiastic results. Finally, responsibility for information access will be only achieved when users are contemplated in the project statement.

References

1. MARCOTE, E. Responsive Web Design. A List a Part: London, 2010.
2. O'REILLY, T. What Is Web 2.0: Design Patterns and Business Models for the Next Generation of Software. O'Reilly Media, 2005. Disponível em <http://www.oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web20.html>. Acesso em 10 jun. 2016
3. ROYO, Javier. Design Digital. São Paulo: Rosari, 2008.AUTHOR, A et al . Title. Publication. Editor: City, year. Number of edition, total number of pages.
4. World Wide Web Consortium. **Web Accessibility Initiative (WAI)**. Disponível em <https://www.w3.org/WAI/>. Acesso em 10 jun. 2016