

Summary of Accessibility Testing of PressReader apps (iOS 5.3.8 and 5.4.1; Android 5.3.18 and 5.4.19)

Conducted by the [National Network for Equitable Library Service \(NNELS\)](#)

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The opinions and interpretations in this publication are those of the authors and do not necessarily reflect those of the Government of Canada.

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About NNELS:

The National Network for Equitable Library Service (NNELS) is a digital public library of books for Canadians with print disabilities, and an advocate for an accessible and equitable reading ecosystem for their users. NNELS supports principles of openness, inclusion, and choice. NNELS is hosted by the BC Libraries Cooperative, a community service not-for-profit cooperative and a national leader in information and technology services.

Our team of Accessibility Testers has expert knowledge in the areas of accessibility testing, analysis, software development, and leadership. The team works to educate and advise publishers, technology vendors, and public libraries on best practices for accessibility. Our testers have lived experience with a range of print disabilities, including blindness, low vision, and learning disabilities.

Introduction

This is a short summary of the accessibility report for the PressReader mobile apps in iOS and Android devices. It contains highlights of the most relevant findings. The full version of the report presents detailed information about the different sections of the app; including examples, detailed findings, and recommendations for fixing the barriers that our testers identified. Please refer to the [full report](#) for information on the testing of the PressReader website on Windows, Safari, and Chrome OS. Please note that while this summary report focuses on barriers and challenges, there were several areas in which the apps performed well; this information can be found in the full report.

For this report, our team of testers evaluated the accessibility of the PressReader apps for people with print disabilities¹ and found that the apps, as of April 2019, presented several barriers for users of assistive technologies. While the amount of access to newspaper and magazine articles is impressive, testers could not easily navigate the apps and website due to all the unlabeled controls and buttons, as well as the complex interface.

The objective of testing was to assess the usability experience of readers with print disabilities, and determine to what extent they can access newspaper and magazine articles through their local public library effectively and efficiently. People with print disabilities use [screen readers](#), [refreshable Braille displays](#) and other assistive technologies in their computers and devices to access information.

To ensure usability and accessibility of an application by people with print disabilities, all functions and controls must be accessible using assistive technologies. The DAISY Consortium explains that the basic assumption of accessibility evaluations is that reading systems “should support reading with eyes, ears, and fingers.” ([DAISY Consortium, 2017](#))

Testing approach

NNELS developed a list of criteria for testers to perform a structured review of the accessibility of mainstream library reading applications. We drew on the [guidelines](#) that the DAISY Consortium developed for the systematic assessment of the accessibility of hardware and software-based reading systems. This methodology allows us to determine the accessibility of the functions and features of each reading application from the user perspective.

All testers performed several tasks, corresponding to the different functions of the application, and answered questions systematically. The questions for all functions are grouped into various categories, including:

- Library access – Creating an account, login, searches, results and downloads
- Reading – Screen reader resuming at the same position; pausing before different sections; reading image descriptions; correct pronunciation of words in other languages; text to speech indicating emphasis
- Navigation – Moving through different elements in an article such as headings, paragraphs, as well as spelling words
- Visual adjustments - adjusting colour contrast, font sizes and types, or margins

¹ Print disabilities are defined by Canada’s Copyright Act and include visual, mobility, or comprehension impairments such as dyslexia.

Summary of Accessibility Priorities

The most important priorities across iOS and Android are:

- Label buttons and fix other element labels. Ensure that all buttons in the app (for both iOS and Android, as well as in the website) are labeled with text. Unlabeled buttons are not easily identifiable by people who rely on screen readers.
- Design the size of buttons and tabs to be large enough for gesture interaction. Throughout the mobile apps, many of the buttons are quite small; the smaller buttons are the more difficult it is for a user to find them when exploring the screen by touch.
- Have publications open in text view by default if a screen reader is active, or at least offer the option to set text-view as the default in the app settings.

iOS with VoiceOver

Interface

The testers using iOS with VoiceOver (Apple's built-in screen reader), found that the PressReader interface needs to be more predictable and consistent for blind people to find it usable. One way to help this is to improve navigation for users with print disabilities. This includes labeling all navigation buttons, and/or having the navigation tabs at the bottom of the screen need to be consistent on every page. Additionally, buttons need to be large enough to interact with; as it is now, they are too small.

Searching

The search function only allows the user to type in one letter; while this is enough to locate the newspaper/magazine, it is not ideal because the user cannot narrow their search even more, which is very important if there are many search results.

In the list of search results, there is an unlabeled button prior to each newspaper or magazine. This button contains the name of the newspaper/magazine and the label itself is on the next element. There is a similar issue on the publications screen, which has a few unlabeled buttons. When the user navigates past the search and filter to the newspapers, they find this unlabeled button beside each newspaper, which for example could have the name of "Toronto Star," but the actual label is on a separate element when swiping right with VoiceOver.

In result lists, items have buttons whose labels do not describe their function (e.g., "iArrow") – all buttons should have meaningful labels.

Downloading

When the user downloads a publication, the screen begins refreshing once every few seconds. This severely impairs the ability to navigate the app at all, as every refresh causes VoiceOver to stop speaking, and sometimes to lose focus when the screen changes. This

happens when PressReader is downloading a publication, and the screen refreshes happen all throughout the app so it becomes very frustrating to use until all downloads have finished.

To remove downloaded magazines/newspapers, the user must go to the “iCustomize” button and click on edit, but the edit screen presents the same problem where each item has an unlabeled button associated with it. When tapping the “Add to My Publication” button, it changes to simply read “My Publication.” For clarity, it should be something like “Unfollow” or “Remove from My Publication.” Pressing this button a second time does in fact remove it from My Publication and changes it back to an add button.

Reading

There is an unlabeled button associated with each magazine/newspaper on the downloaded tab when it is set on grid view. When the user clicks on the “iCustomize” button to change the view from grid view to list view, the unlabeled button containing the name of the newspaper/magazine is replaced with an “AM Radio” button, which reads the article using text-to-speech.

The default reader is page view, which is not accessible, as it is image-based. In order to read articles, a user relying on VoiceOver has to go to customize and change the view to text. As it is currently setup this switch is difficult to access, and is not an intuitive process. For readers relying on assistive technology, text view is the optimal option, and it should be easy for the user to switch to this view without any barriers. Currently VoiceOver users need to tap-and-hold the “iCustomize” button to activate it, then get past some unlabeled checkboxes to the text view option.

Android with TalkBack

Android testers found the reading and navigational experience for magazines and newspapers different, although the testers did note a few similar problems for both resources.

Reading

When a magazine opens, a “Listen” button appears. It is only presented via TalkBack, and not visually, which can be problematic for instructing users on app usage.

After clicking “Listen” the app did start processing and opened the magazine, but there was no audible indication that the request to play the content was in process. By swiping around the screen the tester was able to find the title of the first article, but also discovered that the title is followed by seven unlabeled buttons. The tester was able to determine that the fourth button is the “Play” button, but before the user could select this button it started to play on its own. This did not cause an issue with the tester until they wanted to navigate to a different section, or pause the audio. The magazine would continue to play, and the playback volume is at the same level as TalkBack, which makes performing additional navigation after it starts to play rather challenging.

If the app is closed, without pausing first, the magazine continues to play even after pressing the “Home” button to return to the device’s home screen. Sighted assistance is required to reopen the app, select the appropriate magazine, and press the “Pause” button. It is critical that the magazine stops playing after it is closed, and when a user navigates to another page of the app.

The newspaper view is vastly less accessible than the magazine view. The screen opens on a full-page graphical experience, which hides even the Android “Back,” “Home” and “Overview” buttons at the bottom of the screen. In order to pull up the navigation pane the user must first double-tap anywhere on the screen. The ability for a user to have the app default to a text view would improve accessibility.

Navigation

Testers found that navigating magazines is not simple. Once it starts playing, the user must swipe down to reach the article name. A three-finger swipe will move forward and back through the articles, which is helpful for users. However, once the magazine starts reading the user must swipe back through the unlabeled buttons with a single finger, counting them until the “Pause” button is reached.

In the newspaper view, testers noted that access to certain buttons is only available for brief moments. When reading, a user must quickly swipe over to and click the “page_slider” button before the controls disappear, and then the user is returned to the graphical view. This causes an inconsistent and frustrating interaction since then navigation menu is so prone to appearing and disappearing. Users with print disabilities may rely on assistive technology, which means they require more time to complete tasks.

Conclusion

In this summary we highlighted the main barriers of the PressReader platform for readers with print disabilities. For details and specific examples, please see the full report.

By amending the development process and interface of this app, readers with print disabilities will be able to fully experience what PressReader has to offer them.