

Engaging users in the development of Möbius: How did readers evaluate the Möbius Player in pilot phase 2?

The Möbius Player is a mobile application that opens new possibilities to experience books in an immersive manner, engaging the readers through the combination of text, 3D-audio, and visualisations. Via the Player, readers gain access to digital books that expand upon the traditional ebook and audiobook format, leading to an immersive and unique experience. The Player aims to expand the current reading experience and therefore, compete with other growing media formats (i.e., gaming, streaming, music, etc.). Between July - September '22 a first prototype of the Player was tested as part of pilot phase 2, where users were randomly selected on the streets in Belgium, Spain, in combination with two living labs in Finland and Poland that organised controlled testing sessions with users. The participants navigated through the Player application and were asked to listen to the related 3D-audio track. Afterwards, the participants were asked to evaluate their experience via a brief survey. Overall, the Player reached over 200 participants.

The results of pilot phase two provide insights into the needs of users and provide guidance for the further development of the Möbius Book Player app. Below, we summarise the main findings.

Multimedia

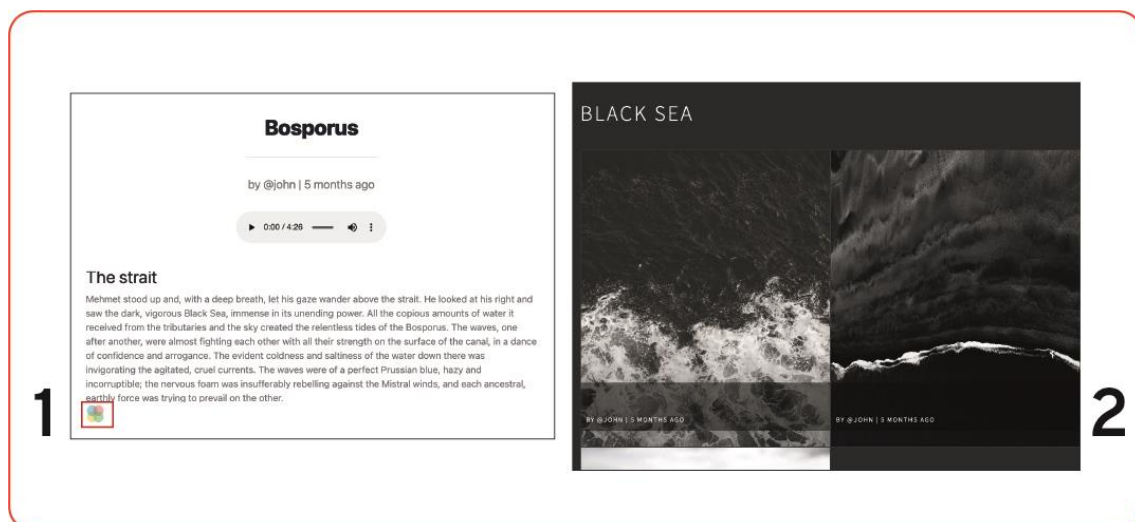


Image: visualisation of a story in the Player app

One of the Player's main features is the integration of visual elements (i.e., pictures and videos), allowing creators to visualise their stories. Therefore, users (readers) experience the story through the lens of the creator(s). Second, the visuals expand upon the traditional format (physical books and ebooks), breaking loose from the traditional reading experience. Users can decide to view the visuals by clicking on the highlighted icon in the figure above, which will currently redirect the user to the visual (in this example, a set of pictures). While testing the Player, users had the opportunity to provide feedback and share their opinion of the application, and this per feature

available (i.e., UI, visuals, 3D-audio, etc.). The input we received presented the positive features of the application, whilst highlighting the current bottlenecks and points for improvement.

Participants evaluated the multimedia in the Player app as follows:

- **Content:** looking at our findings, we can see that users have a positive attitude towards the multimedia elements. The majority agreed that the added content contributes to the story.
- **Control:** the visual content does add value to the overall experience, but from our findings we can conclude that – how the content currently is displayed, doesn't align with the user's expectations. This refers to the redirection that occurs when users access the content. Looking at the figure, we see that users need to click on the highlighted icon, which will redirect to a separate page, and therefore, interrupt the readers' experience. From the user's feedback, it's clear that the current system should be reconsidered. Meaning that users expect a continuous reading experience that doesn't interrupt while consuming the added content.

3D audio

To make the Möbius a truly immersive experience, the graphical elements are supported by an exciting audio format, namely 3D-audio. 3D-audio tracks allow users to experience audio differently, where three tracks are available: the narrator, music, and sound effects (SFX). While testing the Player, users experienced the 3D-audio and shared their feedback. Just as the multimedia content, users gave valuable feedback regarding the 3D-audio and listening experience.

Participants evaluated the audio tracks as follows:

- **Content:** from the survey, we see that the users were rather neutral toward the 3D-audio integration and the feedback displayed different opportunities for improvement. First, the desire for more content variety, meaning implementing multiple audio tracks that users can switch between. For example, a variety of users did like the narration element, but didn't enjoy the narrators' voice, and therefore, integrating different audio-stems from different narrator could be the solution. This is also the case for the music and SFX, which some can become monotonous, so the option to alter these stems would be a solution. Still, we have to nuance some of the feedback, this because users only listened to a brief fragment of a story, but the goal of the Möbius books is to publish stories where the mood and setting follow the stories narrative, where also the SFX and music will change.
- **Control:** during the testing, users only had the option to play or mute the 3D-audio, meaning that there wasn't the option to control the individual tracks (i.e., narrator, SFX, and music). From the feedback, it became clear that control over the individual tracks is a necessary feature that users expect. Users expect to be able to adjust the volume and/or mute the separate tracks. This problem can be solved by integrating audio mixer, which our technical team is working on.

Overall user experience

Besides the immersive features, users explored the first Player prototype, interacting with the different screens such as login page, personalization through recommendations, book library, etc. Keeping in mind that it's the first prototype presented, the overall design was rather minimal, but still professional. Overall, Interface and user-experience were aspects on which much feedback was received. Below, we summarise the highlights:

- **Readability:** overall, the readability of the application was rather positive, but certain elements from traditional reading experiences (ebooks) were missing. For example, features such as the option to bookmark pages, take notes, highlight/underline, change font and size, etc. are features that users would like to see in future versions of the Player.
- **Ease of use:** due to its early stage of the application, users stressed the importance of more user-intuitiveness in terms of personalization of your account (i.e., genres, likes, dislikes, etc.), layout, workflow of the app, the lack of a social dimension, etc. Yet again, the early stage of the Player is the reason whereby these elements are currently lacking -or not available.
- **Content flow:** In line with the previous comment on redirection, improvements could be made both for the execution and the presentation of the additional content (e.g., in-text or overlay).

To wrap up this blogpost, we can say that **users were overall excited about the idea of an immersive reading application that allows them to experience books in a new and unique manner.** We received plenty of feedback that will help us develop an even better prototype of the Player, where the current lacunas will be addressed. Therefore, stay tuned for future blog posts and updates on the Möbius website and our socials!