

Design Diary

Introduction and Association with the Literature

The gaming platform called Oyunlar 1 offers various games in different categories for young children. However, when a person enters the site to play games, many confusing design issues become apparent.

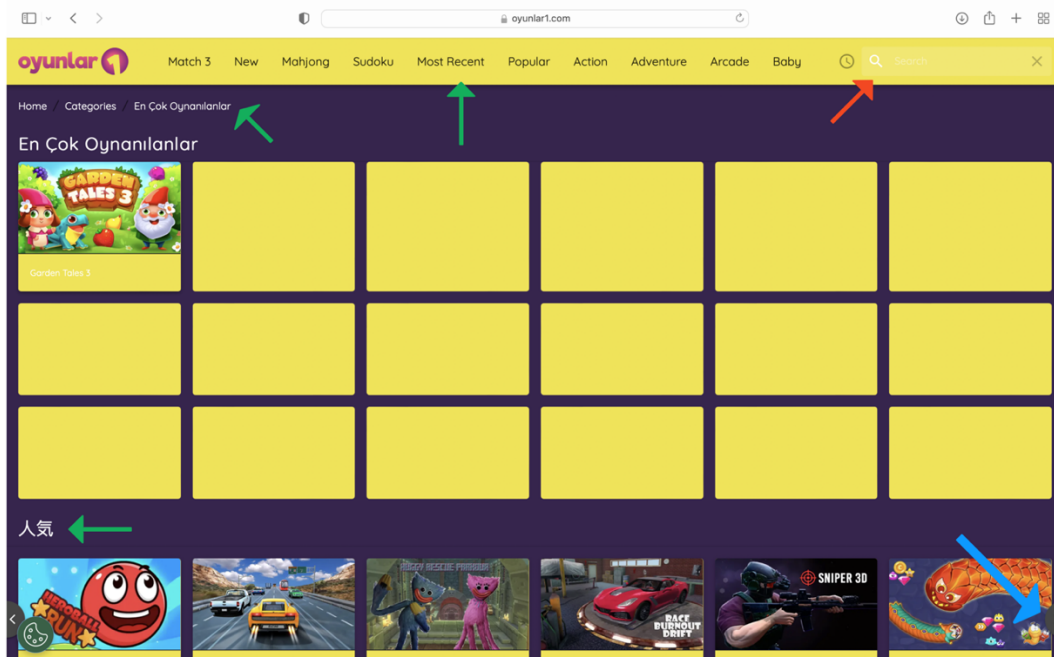


Figure 1: 'Most Recent' Category Screen

When the 'Most Recent' category in the navigation bar is clicked, the opened page is shown in Figure 1. Examining the design problems in the light of Don Norman's Seven Fundamental Design Principles (Norman, 2013, pp. 71-73), and Shneiderman's Eight Golden Rules of Interface Design (Shneiderman et al., 2016, pp. 95-97), errors and deficiencies are observed in several areas.

On the one hand, Oyunlar 1 website violates Norman's Seven Fundamental Design Principles (Norman, 2013, pp. 71-73). First problem is about the discoverability principle. The search bar located in the top right corner (pointed with a red arrow) and white colored texts written on a yellow background cannot be clearly seen due to the colors used. Users having difficulty locating the search feature can limit their ability to search for specific games. Secondly, the absence of highlighting for the 'Most Recent' category in the navigation bar while users are in that category neglects the discoverability principle because users cannot perceive the current state. Additionally, the website ignores the feedback principle. To clarify, the section designed to display games is divided into a static 18-grid format. It shows empty yellow grids if the number of games in that category is less than 18 (for example, only one game is shown in Figure 1). This issue is a HCI problem because the 'empty grid' issue violates Norman's feedback principle as it provides no feedback about whether more games are available or if there is a loading problem, causing user confusion. Violation of the affordances principle is due to the inaccessible position of the scroll button indicated at the bottom (pointed with blue arrow) in Figure 1. The scroll button is stuck to the far right/left of the screen without any padding, making it difficult for users to perform the right/left-scroll action easily.

On the other hand, Oyunlar 1 website lacks three of the Shneiderman's Eight Golden Rules of Interface Design (Shneiderman et al., 2016, pp. 95-97). To begin with, one of the features that does not comply is having texts in different languages (Turkish, English, Japanese) on the same page (pointed with green arrows). This violates the rule of seeking universal usability as content in different languages might confuse users who speak only one of those languages. Furthermore, despite clicking on the 'Most Recent' category in the navigation bar, the selected section of the navigation bar is not highlighted in the opened tab. This situation causes

difficulty for users in determining their current location because 'informative feedback' is not offered. Finally, despite having selected the 'Most Recent' category in the navigation bar, the opened tab displays the selected category as 'En Çok Oynanılanlar' ('Most Played' in English), aligning it with the 'Popular' category in the navigation bar, instead of 'Most Recent'. The reason for this being an HCI issue is that it contradicts Shneiderman's strive for consistency rule and creates confusion among users. This inconsistency can cause errors in user expectation.

Recommendations & Proposed Solution

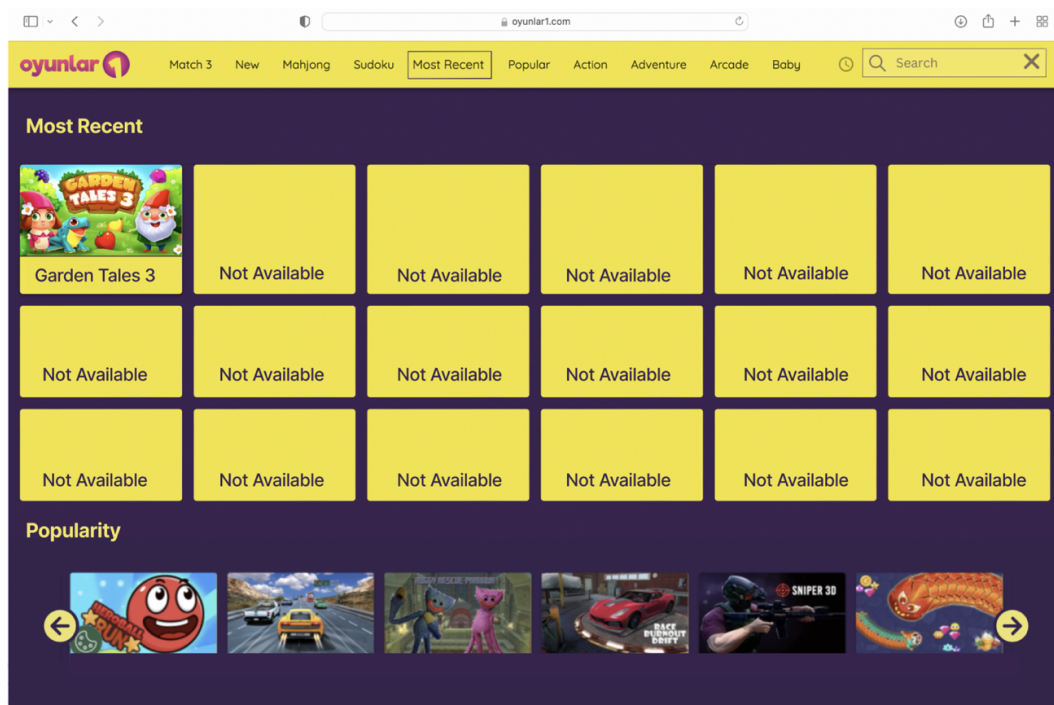


Figure 2. New design of 'Most Recent' category screen

With the new design, the HCI problems related to Don Norman's Seven Fundamental Design Principles fixed. Discoverability principle requires to see possible actions and that was achieved by enhancing the visibility of the search bar and the white text on the game page using vibrant colors. Again, to achieve discoverability, the current page (Most Recent) is highlighted

on the navigation bar, so users are now able to understand the current state. Additionally, without making significant changes to the overall design of the 18 static grids, the required information is provided to users about the absence of games, ensuring compliance with feedback principle. Finally, scroll bars, were made easily usable through new designs and locations, aligning with the affordances principle (2013, pp. 71-73).

The suggested design also aims to follow Shneiderman's Eight Golden Rules of Interface Design. Firstly, following the seek universal usability rule, texts in Turkish and Japanese were translated into English to avoid issues arising from international variations. Moreover, to ensure users could perceive the transition between categories, the selected category was highlighted on the navigation bar, offering informative feedback. Lastly, despite selecting 'Most Recent,' the tab displays 'En Çok Oynanılanlar'. The redesign follows the rule strive for consistency by labeling the chosen category as 'Most Recent' (Shneiderman et al., 2016, pp. 95-97).

References

Norman, D. (2013). The Psychology of Everyday Actions. In D. Norman, *The Design of Everyday Things* (Vol. 2). New York: Basic Books.

Shneiderman, B. et.al. (2016). *Guidelines, principles, and theories*. Ch.3 pp. 81-120. Designing the User Interface: Strategies for Effective Human-Computer Interaction, 6th Edition. Pearson.

The Figma Link

https://www.figma.com/file/fP3G4SIHibEfzoTeY55FEZ/cerendinc_hw1?type=whiteboard&node-id=0%3A1&t=yjiZWc1C93KNryju-1