## Lichess Accessibility Report

Prepared by Turkish Braille Chess Community, this report provides an analysis of shortcomings identified in terms of accessibility of Lichess.org, both in game play and in general usage of various features of the website. A number of recommendations have also been provided for an improved experience by a blind or partially sighted user.

## Game Play:

Following issues refer to the problems and shortcomings encountered during game play and recommended solutions thereof:

- 1. When creating a game, the Blind Mode does not allow the selection of rating ranges. Although Lichess makes it as convenient as possible to be paired against an opponent of equivalent strength, it becomes more and more difficult to achieve it in slower time controls, as there are much fewer players wishing to play slow time controls. Therefore it is only reasonable and necessary to make sure the blind mode allows the creation of games against opponents within a desired range of rating points.
- 2. A notification must be provided for screen readers to read out requests challenging to a game. Although a bell sound is provided, this is highly ambiguous for some screen reader users.
- 3. This is rather a recommendation for general features of Lichess.org but if possible, allowed time limit to start the game must be extended, especially for tournament games. Players with less experience to navigate webpages find it difficult to locate some form controls, which sometimes causes them to lose games before making a move.
- 4. More commands should be added to facilitate the game play:
- In addition to the "Scan" command, three new parameters or separate commands must be added in order to read out the position of "white pieces", "black pieces" and "all pieces" at once.
- Abbreviating the "Scan" command as "s" should also be considered to make it similar to the commands like "c" or "l".
- A "berserk" command or a practical abreviation must be added to the valid commands
  during a tournament. As it stands, it is not possible to access the "go berserk" button before
  starting the game in the Blind Mode. We believe this is most easily solved by adding a new
  command.

- A new "info" command should be added to read out the details of the game such as
  "opponent name", "opponent rating", possibly "opponent country or flag" etc. Sometimes it
  may not be possible to wait until screen readers to read out game info at the beginning of
  the game and it is not very practical to navigate to the "game info" heading to read the
  information especially in faster time controls.
- A new "Premove" command (or "prem" for short) must be provided for users who have premove setting turned on. The command must accept the possible move as a parameter and should attempt to make it once the opponent's move is received.
- 5. A representative graphical board must be configurable and made available for partially sighted players who can see the board but can't use their device without screen readers. It would be highly desireable to move around the board as in the Winboard interface as well, if possible.
- 6. As a possible bug fix, the screen readers won't anounce the move if it is the same as the opposing player's last move. For example, when both sides castles short, the second castling move won't be read out. This is critical especially during recaptures.
- 7. We recommend implementation of an important feature: during game play, the short cut with "ctrl + 1, ctrl +2, ctrl +3 ..... ctrl + 0" key combinations may be used to read out the most recent moves by white and black.
- 8. Similarly, the most recent chat messages may be read out by the key combinations "alt + 1, alt + 2, alt + 3, ..... alt + 0". In any case, when a new chat message is received, the screen readers start reading the whole conversation. Only the last received message must be read.

## **General Usage**

Following issues refer to the shortcomings in the general functionality of the Blind Mode while using various features of Lichess:

- 1. The "Analysis Board" and "Opening Explorer" pages are not fully accessible in the Blind Mode and the command field only allows the "scan" and "p" commands. Move entry must be provided to allow users to analyse possible variations or creating a game from scratch. The live engine analysis provided in the regular mode should also be made available in the Blind Mode as well.
- 2. The "Puzzles" page does not allow move entry in Blind Mode. It is possible to get the position by reading the game score but not possible to solve the puzzle by entering a move. This should be fixed.

- 3. A filter must be added to the tournaments list. Even filtering the open tournaments based on time control types will do for most users.
- 4. In general, commands must not be case-sencitive. Especially during game play, commands entered as capital letters won't be accepted.
- 5. As an additional development to facilitate the access of blind and partially sighted players to Lichess, the output of the Blind Mode, including move announcements, server responses and information provided on the page should be translated and localized to the languages supported by Lichess. As a default option, the language of the Blind Mode should be set as the language selected from the settings for general access to the website. For this purpose, Turkish Braille Chess Community members are willing to help translate the relevant language data, provided that the data is publicly available or provided directly to them. Similarly, other Braille Chess Comunities in different parts of the world may be contacted for localization support.

## Conclusion

As The Turkish Braille Chess Comunity, we found Lichess.org highly accessible and we are interested in the upcoming development of new features and improvements. Lichess.org has become an exemplary project to demonstrate the possibility of making an accessible design with which physical differences of chess players may be circumvented. Hereby we express our desire to contribute to the development process and we will do our best to support people who work on the technical aspects of the project. We extend our most sincere gratitudes to those who conceived the idea of an online platform where chess can be played by anyone and everyone.