

HCI Project Milestone 4

Team Number : Team 18

Due Date: December 5 2016

Evaluation Methodology

Number of Evaluators – 4

Number of Issues Found – 8

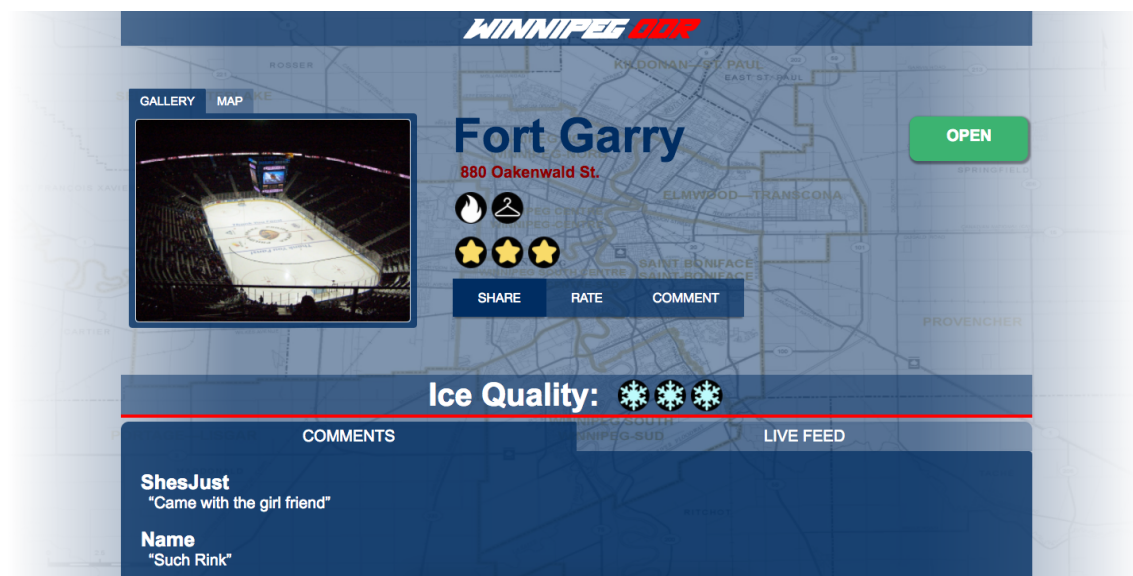
Number of Issues Found by Multiple Evaluators – 6

Explanation of Evaluation Process – Evaluators used the Jakob Nielsen Design Heuristics and on their own went through the website and making note of whenever they found that a heuristic was violated. Evaluators then took these notes and brought them to a team meeting where as a group we went over our findings and discussed possible fixes for the issues found. These findings were then put into report form and listed below.

Issues Found

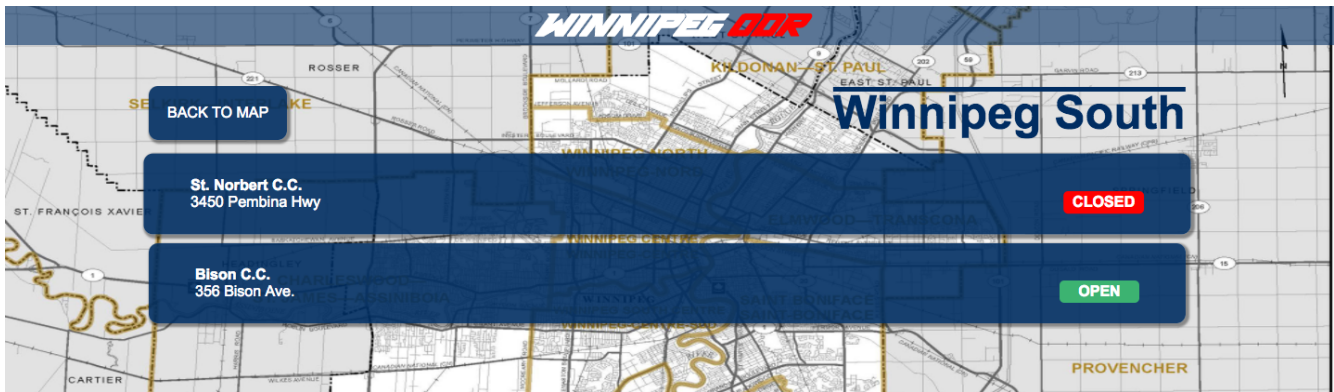
1. Navigation back from a rink page

One of the major issues we noticed was the lack of a back button on the rink pages which would allow for the return to the list of rinks in an area. This violates the user control and freedom heuristic. This function is needed when navigating since you can select a rink from the list of rinks and interact with the page, but if a user navigated to a rink by mistake or wants to switch pages you have to use the browser features to revert to the previous page. Below is the rink page lacking a return feature.



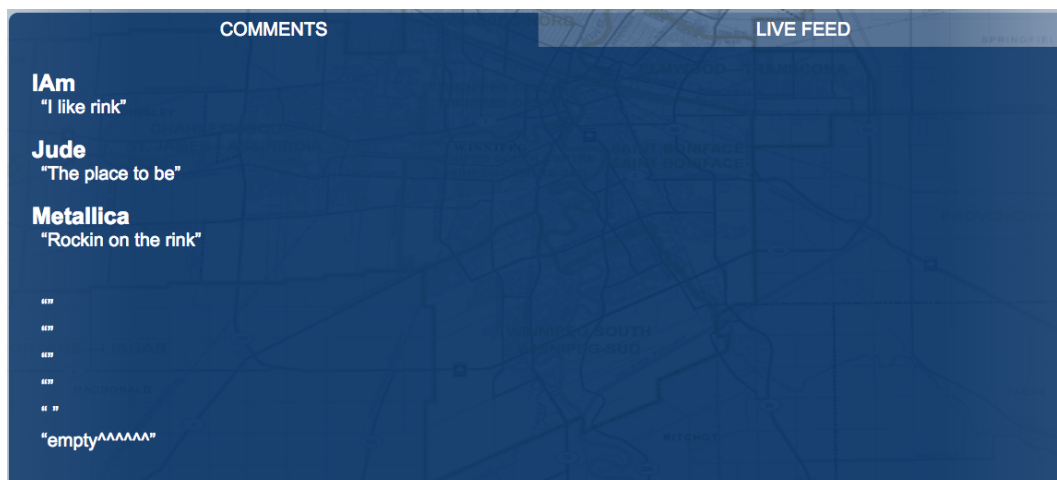
2. Sorting of rinks

We anticipate that a user may experience a bit of difficulty when navigating a long list of rinks in an area. In our current implementation we organize the rinks by open and closed, this produces an issue as the user may have to search the whole page to find the rink they are looking for. As such, adding a way to sort the list alphabetically or perhaps by distance from the center of the area. This violates the flexibility and efficiency of use heuristic. The sort feature could have been as simple as a button at the top of the list that could be clicked in order to change the filed by which the rinks were sorted.



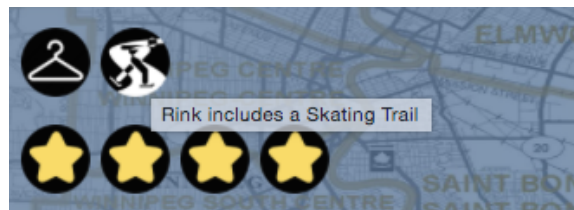
3. Error checking when posting and commenting

Currently our application posses no error checking when users post comments. As such, things like empty entries, fowl language, and other possible errors in typing would be posted. This violates the error prevention heuristic. When entering comments if you choose to just post one without any entry at all it will still post but shows blank quotes where the post should be. Also entering any inappropriate language will also post without censorship. To correct this we should of included error checking and character replacement to make this friendly to younger users as well as keep the posts cleaner.



4. Amenity legend

A rather large visual issue with our application is that amenities don't explicitly state their meaning. This violates the help and documentation heuristic. When navigating to a rink there are images which for most will easily identify if there are bathrooms available, a warming shack, etc.. Hovering over these icons state their meaning but many users don't know that the hover function is there. However, if the user is on a touch screen device or is unaware of the hover-able option then they will not be able to tell what the icon means. A possible solution to this problem could be adding a "Legend" button to open a pop up window that would help give users a better understanding of what the icons mean.



5. Quick navigation for a regular user

If you were a regular user of our application you may find that the steps required to check the status of your favorite rink are lengthy and require a considerable amount of data transfer. As such, it would be beneficial to add a way for a power user to load directly to their rink without navigating through the map and then the list. Currently this violates the flexibility and efficiency of use heuristic. The issue could be resolved by allowing a search at the main page so users can type the rink they want. This search would not produce a list of rinks but rather take the user directly to the page with the rink information. As such, we could implement this as some sort of typeahead or dropdown search.

6. Confusion of Rating Method

An interesting issue that we discovered during discussion is when rating a rink you need to use the icons as a way of choosing the rating. This may appear confusing as the words below each make you think you could just select the words as well. The "Poor" to "Excellent" ratings are only highlight when hovering over the icons which can make this look deceiving. This violates the flexibility and efficiency heuristics. To fix this we could allow selecting the rating names as well as the icons.

7. Map area selection

Our current method of selecting an area of the city involves clicking an expandable button in the area you wish to select. This represents a violation of the match between the system and real the world and could also represent a violation of recognition over recall. Our current method produces a bit of an inconsistency as the areas of the city are not very clearly separated and defined. If a user is unaware of the name of the area of the city in they live, they may just click the button that appears closest to their

home. A potential solution, and coincidentally our original design, would be to have the areas of the city enlarge upon hovering. That way you could very easily see what area of the city you fell into.

8. Post / Review confirmation

Having some sort of feedback in when a user makes a comment or a rating on a rink would be good as currently the window just closes and the user is left unaware if their comment or rating was successful. A possible solution to this problem could be a simple thank you message that pops up when you submit your comment. In all reality, if this system was put into full production then there would have to be some sort of user authentication before they could post a comment or rate. This issue isn't an exact violation of a heuristic but would be a very nice feature to catch any potential errors that may arise when a user posts or leaves a review.

Conclusion

From our discussion we drew a few conclusions. We did produce a very good, minimalistic, application that allowed for very smooth and fast user experience. However, there were still a few problems and oversights that occurred in our design. Things as small as selecting the rink rating by word instead of icon was something that none of us had even thought of until we tried to click it and it didn't work. Some things, such as the back button on the rink information page, were genuine oversights on our part and left us quite astonished that we missed something so basic when the milestone feedback pointed it out to us. Over all we were very proud of our work on this project and plan on updating it to fix these heuristic violations we found as a learning experience.

Appendix

Evaluator - Jansen Lazaro

Heuristics Violations

1) Lack of a search bar

Violation – Flexibility and efficiency of use

Explanation – There is no search bar for advanced or frequent users to find rinks desired. A search bar can speed up the task. Users are unable to just search for a rink they are looking for, they have to manually find the area in the map to find the rink.

Fix – Implement a search bar on the rink list and home page in a location that is easy to find.

2) Missing back button in rink pages to go back to the rink list.

Violation – User control and freedom

Explanation - When a user access a rink page they are unable to go back to search for a new rink. They would need to either press the back button in the browser's address bar or go back to the home page.

Fix – Add a back button on the rink pages.

3) Posting empty comments

Violation – Error prevention

Explanation of Issue – Users are allowed to post empty comments and still have the comment be posted to the comment section.

Fix – Check for an empty string in the comment field. We could also implement a log-in feature to avoid spam and to possibly add more features.

4) No sorting in the rink list

Violation – Flexibility and efficiency of use

Explanation – There is no sorting feature for advanced or frequent users to sort the rink alphabetically or sort by rink status. Users have to scroll through the rink list to find the desired rink they are looking for.

Fix – Implement a sort button that would allow users to sort the rinks alphabetically or by rink status to find the desired rink faster.

Evaluator - Mardel Maduro

Heuristics Violations

1)

Lack of back Button to return from Rink Pages to Rink Lists

Heuristic Violated - User control and freedom

Explanation of Issue – There is no circulation between the rink pages by links or buttons. Once a user accesses a page they are stuck there and unable to return to the rink list or homepage unless they use the web browser's address bar to access those pages by entering the page addresses manually.

Fix – Implement a button that links back to the rink list, thus allowing users to easily navigate back and forth from all pages.

2)

Lack of a search bar for the rinks on the homepage

Heuristic Violated - Flexibility and efficiency of use

Explanation of Issue – The lack of a search bar halts frequent/advanced users from speeding up finding their desired rinks. They are unable to just search for the desired rink and instead have to find the area on the map, find the rink in the rink list and access the rink's page.

Fix – Implement a search bar on the homepage in a location that is easy to find once on the homepage and that isn't obstructing any other element on the page.

3)

No Explicit Documentation of On-Hover Explanations for Amenity Icons on Rink Page

Heuristic Violated - Help and documentation

Explanation of Issue – If users are unaware as to the meaning behind each of the amenity icons on the rink pages, they aren't told that hover over each icon explains their respective meanings. They would only find them out via exploration.

Fix – Could have documentation or a cue somewhere on the site to allow people to know that they can hover the mouse over the icons for an explanation.

4)

Allows for the posting of empty comments by users with no name

Heuristic Violated - Error prevention/Help users recognize, diagnose, recover from errors

Explanation of Issue – When commenting on a rink, users are allowed to have both their name and comment as an empty string and still have the comment be pushed to the comment section.

Fix – Implement a check for an empty string in both the name and comment fields by using an if statement and send out a warning as well as prevent the post from being pushed to the comment section. Another fix to this issue could be to implement default values from the name and comment fields.

Evaluator - Connel Trevena

Heuristic evaluation –

- Back button missing on rink information page

The lack of back button on the rink information page represents a violation of the User Control and Freedom heuristic as the user has no clear way to navigate back to the list of rinks. This is a rather large oversight on our part as we had a button implemented that allowed a user to move back from the rink list to the map page but failed to implement one in the rink information page.

- Area of selection in the map page

Although our buttons to select an area of the city are interactive they are not a particularly accurate way to select an area. This is because the map doesn't have very well defined boundaries between the sections and as such you may end up using the location of the button as an indication as to what section you are selecting. For example, you may just click the button that looks closest to your house, however that may be in an area that is actually further away from your house. This is a violation of the Match between system and real world heuristic.

- No rapid way to access a single rink

For regular users, there is no way to quickly get to information on their preferred rink. If a regular user wanted to check the status of the rink they frequent they would have to go through all the pages which would take time. The alternative could be a type-ahead search box on the home page that could take you directly to your preferred rink. This is a violation of the Flexibility and Efficiency of Use heuristic.

- Error checking when submitting a review

Currently there is no error checking to prevent someone from posting a review with a blank name or comment. This is an issue because you don't want the review section filled with empty reviews. Also, a review is non-editable, this may not be a huge issue but is a nice feature to have as you may change your mind down the road or perhaps realize a spelling error in the comment. This represents a violation of the Error Prevention heuristic.

- Response message upon submitting a review or comment.

There is currently no user feedback when a user makes a comment or review of a rink. This is not so much a violation of a heuristic as a definite feature that could be added as it is a nice thing to have.

- Application help

Our application currently has no help documentation which could be useful. However, we do leverage the use of tooltips as much as possible when you hover over icons among other things. This represents a violation of the Help and Documentation heuristic.

- Ordering of the rink list

On our rink list page, it is currently sorted by rinks that are open followed by rinks that are closed. However, this is not a very efficient way for a user to search if they are looking for a specific rink. As such, it would be beneficial to allow the user to sort by things such as alphabetical, distance from the center of the area, etc. This represents a violation of Flexibility and Efficiency heuristic, also a violation of the Match between system and real world.

- Legend of rink amenity icons

We use various icons to represent the amenities that are located at a rink. We have a hover over tooltip that allows you to see that what the amenities are. However, if you were on a touchscreen device such as a phone then you would not be able to access the tooltip and therefore may be confused as to what the icon means in terms of amenities. This represents a violation of Visibility of System Status, or perhaps Consistency and Standards.