

EVALUATION REPORT 2

Heuristic Evaluation

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1) Short description of the undergrad design:

iPATTS is the application which will be used to keep track of user's travel. This application will take the input as start-point of travel, end-point of travel and time required to complete the travel. This can be fed using GPS or manual entry. iPATTS, in future, will be used to design transportation services for the residents and identify the travel behavior after analyzing the frequency and time of their travel.

This application requires to create an account only with Michigan tech email id. No other email ids are allowed this makes sure there is not any intruder other than Michigan tech domain. Currently there are options of adding trip and editing it. One can use GPS co-ordinates or manual entries while filling up the locations.

2) UI Domain of the application:

Since it is a web application, it belongs to the web UI domain. iPATTS also has a manual entry facility which will come under text UI domain as it will use key-board to enter the details. Application can be used on smartphones as well as desktops so it will belong to web UI domain. All the data entered by user is saved for further analysis so it comes under catalog UI.

3) List of Heuristic Usability principles for Web and Text UI domain:

i. Sufficient Information:

Information provided should be valid and complete. It should not be too much neither too less. Both of cases make no sense to analysts.

In iPATTS this principle can come in picture when someone is using manual entry feature. While using GPS, we get the locations co-ordinates along with name on that location on the maps available online. When using manual entries, the name cannot match the one on maps or can pop up multiple locations. So, it is necessary to train users or prompt them to enter valid data.

ii. Visibility of system status:

The system is supposed to inform the user about present scenarios.

In this application, after successful addition or editing of trip, there should be a message regarding successful activity.

iii. Match between system and real world:

System should be able to decode user's language and users should not find system's language obscure.

This principle can again come in picture while entering data manually.

iv. Error prevention:

Prevention is always better than cure!!!

Some random entries can be made by users just to deviate the average of data from normal point. These entries can be found out by observing travel trend of that user.

- v. Help and documentation:
Help should be provided along with documentation to have less unnecessary information fed.

Help feature should be added to application. This can help shifting users doing manual entries to GPS entry because of accuracy provided by it.

- vi. Feedback:
It is always good to be adaptive in nature.

The application should have a feedback section where users can post the problems they encountered during the process or any suggestions they have for next versions.

- vii. Efficiency of use:
Design minimize the time required for completion of task.

Auto-filling of date and time by current time is given the application which is helpful for users. Along with this a virtual keyboard can be provided with aesthetic design.

- viii. User control and freedom:
Function chosen by mistake may end up in unnecessary data. User should have freedom to choose a method for rectifying it.

In this application, “edit trip” option is provided but there is no option of deleting the existing entry which should be added.

- ix. Aesthetic design:
Design should attract users and should not make them feel bored while entering data.

The application can be decorated by some animations and using capital letters while giving suggestions or showing errors.

4) Usability Problems:

- i. There is no help and feedback feature (violation of help, feedback and documentation principles)
- ii. We cannot eliminate duplicate entries at the start.
- iii. There is no “back” button provided to come out of current window.
- iv. While saving trips, user should be asked if he/she needs to have a review.
- v. Users should not be allowed to enter destination unless they have entered origin of trip.

5) Critical usability concerns:

- i. Trip should be started after entering the origin.
- ii. For shorter trips, there can be hassle while entering the data.
- iii. Trips which are too short in distance should not be entered in the application. This limit on distance should be fixed somewhere by developers.

6) Short story for above concerns:

Elena is a senior tech student under Dr. Zhang. She uses iPATTS for recording her trips on her smartphone. When was travelling to Rekhi from Fisher Hall, she hardly got any time to enter the details. Moreover, she feels like not recording such small trips of a distance less than 30 meters. So, Elena tried to delete this trip but she did not find the feature in iPATTS. Just for fun, once she only entered the destination and not the origin of trip. There was no error message after performing this. She tried to give a feedback about this but she did not find feedback tab anywhere on the window. After entering her travel details to Walmart, she kept checking if everything was right or not because she did not receive any message about successful completion of entry.