

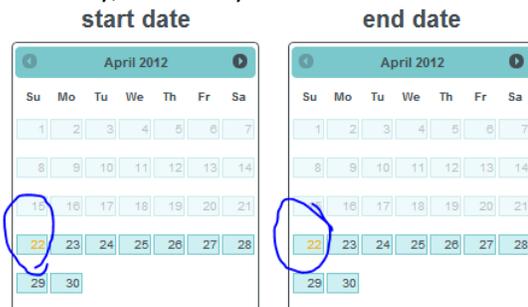
Heuristic Evaluation of TravelTech

Home Page

1. Good: **Start Date set to today, end date set to start date** (Tog's defaults, safety)

The start date initializes to today and the end date initializes to the start date which is a good basis for a planning tool and ensures that the user does not accidentally make a selection in the past.

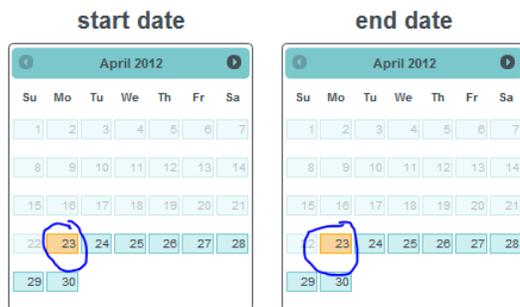
Recommendation: There are some situations in which it may make sense to start and end on the same day, but it may be more useful to select the day after for "end date."



2. Minor: **Date selection indicator differs** (Tog's Consistency, Consistency)

The default is a pale orange on blue, which presumably will be used if no selection is made, however, upon first selection the indicator that a day is selected changes to orange background.

Recommendation: Pick one of the two colors schemes to indicate selection.



3. Major: **Map component facilitates unnecessary functions** (Nielsen's minimalist design, learnability)

The use of the default map supports several modes that are unnecessary to accomplish the tasks – specifically, street view, and satellite view, and terrain overlays. The existence of each of these modes takes focus away from the task.

Recommendation: Remove street view, terrain overlays, and satellite (including labels) from the

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default Google map.



4. Minor: **Map information dialog doesn't close when losing focus** (Nielsen's consistency & standards)

When selecting a nearby person, a popup with information is revealed with "lightbox"-like (i.e. like when you select a photo and it comes to focus at the center of a photo app) appearance, however, clicking outside of the dialog (indicating the removal of focus) does not close the dialog to provide focus.

Recommendation: When a click is made outside of the dialog, and open dialog should go away to reveal the underlying map.

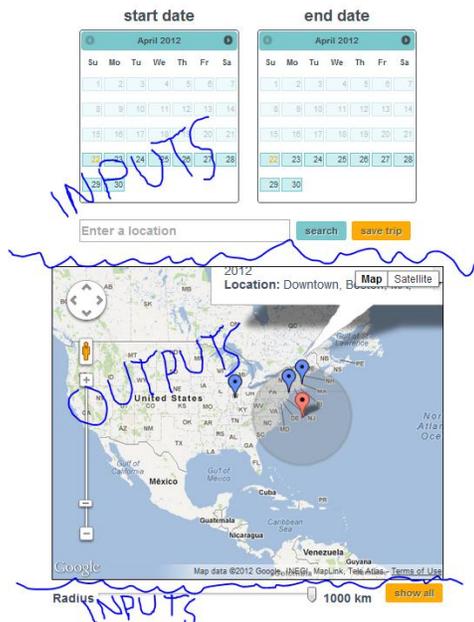


5. Major: **Map appears to be part of input workflow** (Shneiderman's dialog closure)

Due to the vertical layout of the page in a single grouping, it is easy to confuse the map, which displays results, from the various inputs. Actions should be organized by groups with a beginning middle and end to provide users a satisfaction of accomplishment.

Recommendation: Adopt a two column format with the inputs in the left column and the output

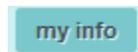
(the map) in the right column.



6. Major: **Font on buttons is difficult to read** (Tog's readability)

The use of shadowed gray font on pale blue and orange buttons is difficult to make out on moderate to high resolution screens (e.g. a common 13" laptop screen).

Recommendation: Employ a font that does not have a shadow, instead provide shadow to the button.



7. Major: **Search field does not search when hitting enter** (Nielsen's consistency & standards, efficiency)

With major search engines, and a large majority of web applications, hitting enter in an autocomplete will perform the search; however, here this is not the case resulting in an external consistency issue. Further, it is unclear due to the presence of two buttons next to the search field, which would be performed upon clicking enter. My expectation might be the orange "save trip" since that stands out more; however, my hope would be that it is the search. Recommendation: When rearranging the format so that inputs are delineated from outputs, change it so that hitting enter, losing focus, or timing out in the location field update the map.

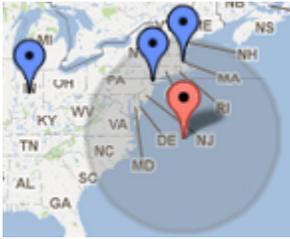


8. Major: **"Show all" does not change radius** (Nielsen's visibility of system status)

The radius scrollbar can be used to filter the radius of the search. Hitting "show all" removes this filter, but there is no feedback to indicate that this is the case which may result in confusion with respect to why points are showing up outside the indicated radius.

Recommendation: Perhaps alter the status bar to show a radius up to "ALL" so that when show all is clicked the radius bubble present on the map is removed and the visible radius properly

indicates that the mode of being unfiltered.



9. Major: **“Save trip” provides no visual feedback of action** (Shneiderman’s feedback)
When clicking “save trip” there is a brief shift of the button to indicate the press; however, there is no additional visual feedback that the trip has actually been saved.
Recommendation: Display a message indicating that the trip has been saved, or take the user to the “my info” page with the trip just created being highlighted.



10. Minor: **“Trip Details” should indicate the dates** (Nielsen’s recognition, not recall)
A user may know he’s going to Berlin in June, but he may not remember the dates that he specified to this tool, therefore, it may be useful to display those dates in the “Trip Details” section since presumably this will also be the order in which the trips are sorted.
Recommendation: Display the dates underneath each trip in a smaller font with less value so that if necessary a user can see the specific dates indicated, but otherwise they are able to scan over them in favor of the stronger valued and larger Trips.

Trip 1: Boston, MA
Trip 2: Berlin, Germany
Trip 3: Beijing, China

11. Minor: **Calendar color scheme incorrectly assumes button color scheme** (Nielsen’s consistency)
The color of the calendar headers and rounded border make the top of the calendar look like a button based on the color of the navigation buttons as well as the search button, however, they do not act like the other buttons and therefore should probably have some form of contrast from them in order to avoid false consistency.
Recommendation: Color the calendar headers differently.



12. Major: **Workflow not obvious** (Nielsen’s help & documentation)
There is no explanation of the workflow, and generic default text such as “Enter a location” does

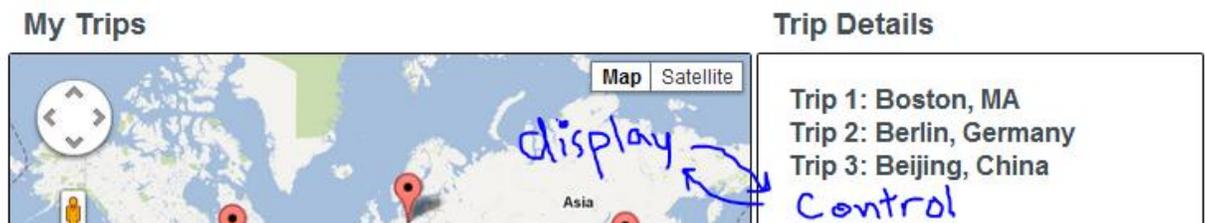
not make it obvious either. Clearly I am selecting two dates and a location, but why?
Recommendation: Include some sort of text indicating function such as “Plan a trip” and perhaps even an about page which

My Info Page

13. Major: **Control consistency between pages** (Nielsen’s consistency & standards)

The workflow on the front page follows a left to right, top to bottom input workflow. Though the output is sort of confusingly put in the middle, the majority of controls are place top center. On the “my info” page, however, the controls to select a trip are placed on the right thus causing an internal consistency issue.

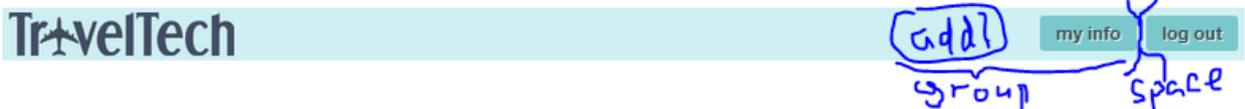
Recommendation: Put the controls on the left and the map on the right so that the page is visually similar to a rearranged front page. You might actually even consider merging the two into one page which welcomes the user and has their existing information and then adds a new location much like the way that Google maps adds a new waypoint.



14. Catastrophic: **“My info” has no visible way to return to home** (Tog’s visible navigation)

When going to the “my info” page, there’s no visible way to return to the home page where you can add new trips. Also, it’s unclear why there is need for the “my info” button when already on that page.

Recommendation: Perhaps include a “add trip” button next to the “my info” and separate from the “logout” and provide some highlighting to indicate which page the user is currently viewing.



15. Cosmetic: **Casing is inconsistent across pages** (Nielsen’s consistency)

The “start date” and “end date” are lowercase, however, “Radius” is capital, and on the “my info” page the headers are capitalized.

Recommendation: Pick one capitalization scheme and stick with it. This is initially one of those things that I didn’t notice, but was a minor annoyance after looking using the page more extensively.

start date **end date** vs. **Radius**

16. Good: **Use of borders to separate control from display** (Nielsen’s visibility of system status)

The use of borders provides a quick and easy visual distinction between the trips and the details/editing control.

Recommendation: Keep the borders 😊

17. Major: **Discoverability of trip details is not efficient** (Nielsen's flexibility & efficiency)

In order to view the trip details it is necessary to click on the corresponding pin; however, it is just as likely that a user may want to click on the trip listed in the trip details.

Recommendation: Make the trip listed in the trip details a link which performs the same action as clicking the pin.



18. Catastrophic: **"Trip Details" has no visible way to return to "my info"** (Tog's visible navigation)

Accessing a trip's details yields a separate state with no visible way to go back to the previously viewed state. Further, pressing back actually navigates back to the home page.

Recommendation: Fix the back button to undo the last action rather than navigate between pages, and rather than providing a means to go back, remove this trip detail view by merging the dates into the top-level view.



Appendix

This appendix just provides some definitions of the heuristics considered as a handy reference for definitions used above.

Nielsen Heuristics

1. Match the real world (L)

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

2. Consistency & standards (L)

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform conventions.

3. Help & documentation (L)

Even though it is better if the system can be used without documentation, it may be necessary

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to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

4. User control & freedom (S)

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

5. Visibility of system Status (S)

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

6. Flexibility & efficiency (E)

Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

7. Error prevention (S)

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

8. Recognition, not recall (S)

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

9. Error reporting, diagnosis, and recovery (S)

Error messages should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

10. Aesthetic & minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

Tog's First Principles

For definitions, see <http://www.asktog.com/basics/firstPrinciples.html>.

1. Anticipation
2. Autonomy
3. Color blindness
4. Consistency
5. Defaults
6. Efficiency
7. Explorable interfaces
8. Fitt's Law
9. Human interface objects

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10. Latency reduction
11. Learnability
12. Metaphors
13. Protect users' work
14. Readability
15. Track state
16. Visible navigation

Shneiderman's 8 Golden Rules

1. Consistency
Consistent sequences of actions should be required in similar situations; identical terminology should be used in prompts, menus, and help screens; and consistent commands should be employed throughout.
2. Shortcuts
As the frequency of use increases, so do the user's desires to reduce the number of interactions and to increase the pace of interaction. Abbreviations, function keys, hidden commands, and macro facilities are very helpful to an expert user.
3. Feedback
For every operator action, there should be some system feedback. For frequent and minor actions, the response can be modest, while for infrequent and major actions, the response should be more substantial.
4. Dialog closure
Sequences of actions should be organized into groups with a beginning, middle, and end. The informative feedback at the completion of a group of actions gives the operators the satisfaction of accomplishment, a sense of relief, the signal to drop contingency plans and options from their minds, and an indication that the way is clear to prepare for the next group of actions.
5. Simple error Handling
As much as possible, design the system so the user cannot make a serious error. If an error is made, the system should be able to detect the error and offer simple, comprehensible mechanisms for handling the error.
6. Reversible actions
This feature relieves anxiety, since the user knows that errors can be undone; it thus encourages exploration of unfamiliar options. The units of reversibility may be a single action, a data entry, or a complete group of actions.
7. Put user in control
Experienced operators strongly desire the sense that they are in charge of the system and that the system responds to their actions. Design the system to make users the initiators of actions rather than the responders.
8. Reduce short term memory load
The limitation of human information processing in short-term memory requires that displays be kept simple, multiple page displays be consolidated, window-motion frequency be reduced, and sufficient training time be allotted for codes, mnemonics, and sequences of actions.