

CS 352 Introduction to Usability Engineering

Group 14 Project 9

Final Report

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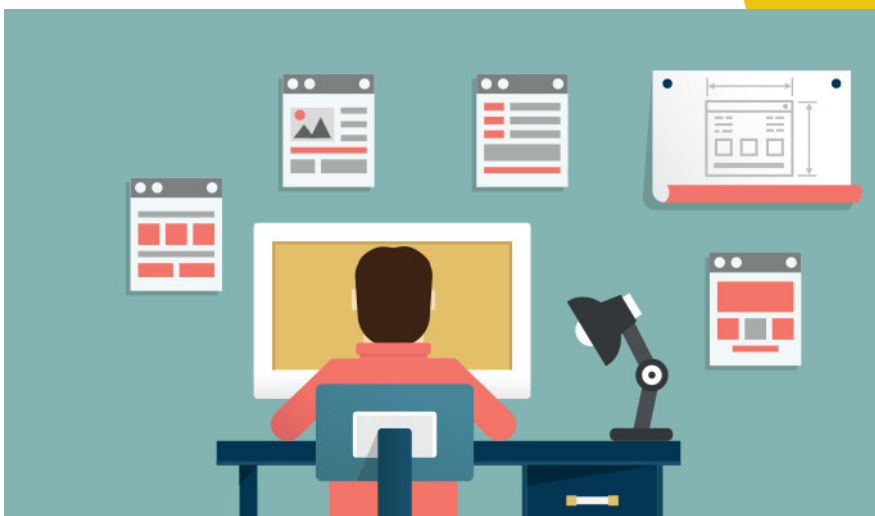
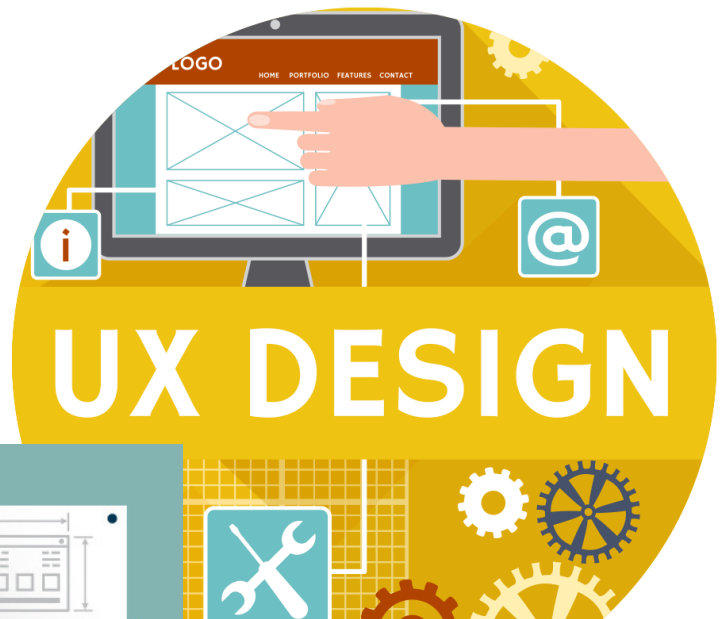


Image sources: https://www.toursbylocals.com/images/tbl_logo_dark.gif
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Abstract - The current mobile experience for the existing ToursByLocals.com site has a number of a major usability issues. The site is not optimized for mobile devices, and is difficult to read, navigate, and interact with while away from a desktop computer. This report represents our proposed changes to the user interface.

I. SUMMARY

The current mobile experience for the existing ToursByLocals.com site has a number of a major usability issues. The final version of our interactive prototype, which is a mobile interface designed to address these issues, features design elements informed by analytical and empirical evaluations, feedback from classmates, and the application of general design principles. Our target users are travelers who are:

- 20+ years old.
- Busy people who don't have the time to read guides, reviews, and do their own research when planning a trip.
- New travelers who aren't familiar with the usual resources for planning a trip.
- Experienced travelers who want local knowledge so they can find "off-the-beaten-path" experiences.
- Those comfortable making contact with a guide and paying via the internet.

II. JUSTIFICATIONS

A. Based on Design Principles

- **Detailed menus added and swiping removed (based on visibility).** Earlier prototypes displayed less options on hamburger menus and more guesswork to access specific screens. We have added more options to allow the user to know the full range of options. Previous prototypes also contained a swipeable gallery to show tours nearby. This has since been replaced by a 'Nearby Tours' button so eliminate the possibility that the implied swiping functionality will not be recognized. These can be seen on screens 1b and 14.
- **Message statuses and pop-up screens added (based on feedback).** Checkmarks indicating that a message was delivered/read were added to the messaging system so as to explicitly whether messages have gone through. Also, pop-up confirmation screens were added to show actions have been completed successfully. These can be seen on screens 11a and 12b.
- **Pop-up error messages added (based on constraints).** We have added pop-up error messages that demand user attention when an error has been made. This ensures that the user will be informed and helped to adjust whatever information is incorrect without forgetting and wasting valuable time. This can be seen on screens 13-a2.
- **Directional arrows added (based on mapping).** In this version, we have added many directional arrows to make it more clear where specific buttons will lead. For example, '>>' symbols were added after the title 'Near You' in order to clearly demonstrate that clicking there will provide more information on this topic. Also, downward-facing v's were added to 'show more' buttons to symbolize that they can be expanded below. These can be seen on screens 1b and 11e.
- **Consistent header and footer (based on internal consistency).** Within this version of the mobile site, we have maintained the same header and footer on every page so that the user may always navigate out of the site's current state and back to wherever he/she wants to go. For example, clicking the logo at the top center or any screen will direct the user back to the home page.
- **Help icon changed and buttons made to stand out (based on affordance).** In previous versions, our icon representing the 'help menu' was a question mark. We have decided to switch this question mark to an 'i' symbol that is often used to represent information. This allows the user to get a more accurate sense of what will be contained within that menu. Also, buttons were made

to pop out more in order to send a clear signal that they can be clicked. These can be seen on screen 15.

B. Based on Previous Feedback

- **Reduction of header size (based on feedback from a professional UX designer).** The page header; containing the hamburger menu, company logo, and help menu, was quite large in earlier versions of the prototype. The size was reduced by 10-20% so that the screen space did not feel dominated by the header, and to leave more screen space for the page content. This can be seen on all screens.
- **Replacement of the home page background (based on feedback from design gallery #1).** The background image on previous versions of the prototype did not give a good indication of the function of the website, and as such it has been changed to a picture of a tour guide. This can be seen on screen 1.
- **Space out layout of 'guide information page' (based on feedback from design gallery #1).** Earlier versions of the prototype had a more cluttered layout for this page, with tours and reviews side by side. These have been spaced out, and the reviews have been moved well below the fold so that users can choose to scroll down and read them if they wish. This can be seen on screens 11-11e.
- **Increased the size of the calendar (based on feedback from design gallery #1).** Previous versions of the prototype had a smaller calendar at the side of the screen. The size has been increased to make it easier to read. This can be seen on screen 8a.
- **Move advanced search options onto their own screen (based on feedback from design gallery #1).** Early versions of the prototype had the advanced search options always present at the top of the search results page. This information cluttered the page and did not need to be permanently displayed. The advanced search options have therefore been moved to their own screen, allowing them to be expanded and presented in a more readable fashion. This can be seen on screens 6-6d.
- **Addition of 'Tours near you' to home page (based on feedback from design gallery #1).** The home page in earlier prototypes contained only the search bar. Additional options have been added below the fold to draw in users who are not sure what they are looking for. This can be seen on screen 1b.

C. Based on Analytical Work

- **Added message statuses.** Checkmarks indicating that a message was delivered/read were added to the messaging system. This feedback gives users valuable information regarding the current state of their communication with their guide. Without this feedback, the process is less transparent and more frustrating for users. This can be seen on screen 12.
- **Redirect mobile users to m.toursbylocals.com.** According to best practices for mobile interfaces, it should be obvious to users that they are accessing a

mobile version of the web site. This is accomplished by redirecting mobile traffic to a specific subdomain, and giving users the ability to switch to the full desktop site if they want to (a link is available in the site footer). This decision is intended to eliminate any confusion caused by major differences between the mobile/desktop site.

- **Added confirmation screens and pop-ups.** Several new confirmation screens and pop-ups have been incorporated into the current prototype. Confirmation messages are the first line of defense when it comes to providing users with adequate feedback regarding actions they have just taken. Without these confirmation messages, it was difficult or impossible for users to know if they had successfully registered, saved a tour, or saved a guide.
- **Made buttons/links more obvious.** There were several clickable elements in our initial concepts that had ambiguous appearances and could have been mistaken as simple plain text. We underlined these links and made buttons look more "clickable" to provide affordances indicating the nature of these elements.
- **Added landscape view.** Best practices for mobile interfaces suggest testing the UI in both landscape and portrait mode to determine if any new usability issues arise based on screen orientation. We included an example view of our home page in landscape mode to show that the UI could support either scenario. This can be seen on screen 1a.
- **Made hotspots larger.** Several elements in our early concepts and prototypes did not maximize the amount of clickable real estate to support mobile users. For example, instead of just making the name of a tour clickable in the search results, the entire search result card is now clickable.

D. Based on Empirical Work

- **Exclusion of suggested tours on Home Screen.** Earlier prototypes displayed a section showing featured tours located near the user. According to interviews, this was found redundant and was removed. This can be seen on screens 1 and 19.
- **Inclusion of a 'Tours Nearby' button.** In later informal interviews, the exclusion of a 'tours nearby' was criticized. As a result, an option to search nearby was added to the home screen, but less pronounced and placed after the fold. It can be seen on screens 1b and 19a.
- **Date selection and advanced search modified.** Earlier prototypes feature a calendar with the user just pressing the date to select. However, this was found to be confusing to users. This was changed to allow for a scrollable method to select month, date, and year. This new method is the default for iOS would be familiar to users. This is found on screen 6a and 6c.
- **Guides have credentials listed.** During interviews, users expressed desire for guides to display their credentials in some fashion, or possess links to offsite

locations to view the credentials. As a result, a small section detailing the tour guides credentials was added to the prototype. This can be seen on screen 11.

- **Remodeling of the help button.** In early prototypes, the help button linked to a shallow menu featuring another button labelled 'help' in addition to 'how it works'. In order to clarify this, the icon for the help button was modified to a general information button. The options found within the help button were also modified for clarity. These changes can be found on screens 15, 15a, 15b, 15c, 15d. Screen 19 displays the modified icon.
- **Increased usage of bookmarking.** Initial prototypes feature a shallow but promising bookmarking feature, allowing users to bookmark their favorite tour guides. Based on interviews, this was found to be a popular feature. Its functionality was added to other sections of the prototype, such as favorite tours, shown on screens 14, 16a, and 16b.

III. CHANGES SINCE DESIGN GALLERY #2

- **Rearrangement of 'my profile'.** The 'my profile' pages were rearranged so that the hamburger menu links straight to saved tours, saved guides, my reviews and my bookings. This allows for a shorter sequence of steps for users to access their saved information. Removing these elements allowed us to include some extra information on the 'my profile' page. Furthermore, some user profile information was added to the top of the saved tours, saved guides, my reviews and my bookings pages.
- **Legend added to availability calendar.** A legend was added to the availability calendar to make it clearer to users what the color-coding means.
- **Added price and tour length to search results page.** The previous search results page contained only the rating and description. It was pointed out that since users can search by price and tour length, this information should be displayed on the search results page.
- **Minimized the header's height.** The header was shrunk to give greater screen space to the immediate content. In following informal interviews, it was noted that if the header were to be reduced in size, it would not detract from its usability.
- **Crafted a non-logged in path of user movement.** A brief path of available options was added to the prototype to allow the user to explore creatively. Following design gallery 2, it was noted that users felt pressured to register immediately and were at a loss of freedom. The users felt pressured to register and would be less motivated to explore the features.
- **Removed tombstones found on Slide 2.** The blank screens found in previous prototypes on slides 2, 2a, and 2b were removed from the prototype. This change occurred as a result of internal discussions over the professional presentation of the prototype.

- **Added a confirmation screen for removing a tour guide or favorite guide.** Navigating through the user menu, there is now a confirmation screen obfuscating the process of removing favorited guides and favorites tours. Based on feedback following design gallery 2, confirmation screens were added to enhance the user's safety while exploring and learning.
- **Allowed user to access tour receipt from My Bookings view.** Originally the user could only print a receipt when the option was available immediately after booking a tour. A button has been added to the My Bookings screen that allows the user to access this receipt at any point. This gives more freedom to the user and allows them to access important system feedback (successful tour confirmation) at any point after booking.
- **Redesigned the homepage.** The image that serves as the background of the homepage was changed to give the user a clear idea of the services offered by our site yet still contain muted colors and not be distracting. Also, in order to give more options and grab the user's attention, we have added some features to the homepage which were not previously available. These include searching for tours nearby and suggesting tours in popular cities. These features were given icons representing their functionality to make it explicitly clear what they do.
- **Changed the Save button in the Chat screens to Export.** This was a change made based on feedback on Piazza; a classmate there noted that we did not have a way to access saved chats in the interface. Instead of adding that, the group decided to allow the user to export a chat to plain text for use as he or she sees fit.
- **Added visual elements to text on screen 15 for more interest.** We discussed this page and some other subsequent pages and decided that more visual variety would be more engaging for users. Therefore, we added some related pictures to this and other pages.
- **Improved scent on the "?" button by changing it to the universal circled "i" for information button.** This was directly as a result of a student comment on Piazza. It was noted that the question mark was not clear to one user. After discussing, the group decided that it would be clearer to use the universal symbol for an information desk, something new users might be inclined to tap.

IV. FLOWCHART AND PROTOTYPE

A flowchart showing how the screens flow through the interface has been included with this document and can be found in appendix A. The final prototype has been included in a separate document, and can also be downloaded using the following link: <http://1drv.ms/1jH4OrL>

V. APPENDICES

A. Appendix A - A flowchart showing how the screens flow through the interface

