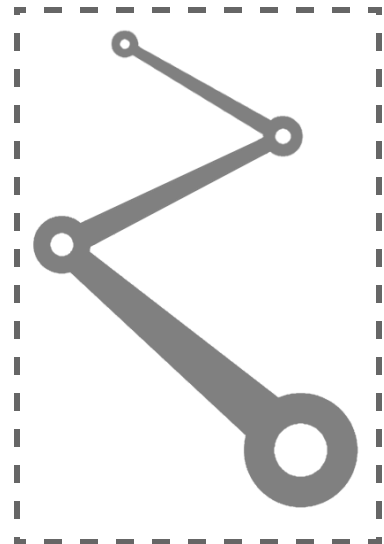# Relocation Assistant

Application Usability Study

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Motivation

The goal of the Relocation Assistant application project has been to be, for any given destination, useful for three target groups of people:

- Users who are relocating to the destination (moving)
- Users who are temporarily visiting a destination
- Users who already live at or near the destination

The application, as a platform for discovering places of interest, must do this in part by gathering the past and present experiences of its users to improve its results, but through a process that must be unobtrusive and therefore part of the natural process of use. After completing the app prototype, the Relocation Assistant team planned and carried out a usability study to determine if the product had met these goals and to identify areas of the design that could be improved to meet those goals and provide the best possible user experience.

Methodology

The study consisted of a series of usability tests. During each test session, the application was operated by a volunteer outside of the product's design team, while a team member observed and recorded their activities within the application. Volunteers varied in age and in living arrangement (living in their own home, living in an apartment, living with parents, etc). Testing proceeded according to a script developed for the purpose of providing goals for the volunteer within the test, but not guidance for usage

of the app itself. Goals were presented in the form of an imaginary persona in several specific situations, which the operator was asked to assume for the period of testing. The four scenario goals used were:

- Planning a trip to Atlanta and looking for attractions

- Living in Atlanta and looking for new restaurants to try

- Visiting a location as planned and updating the list as desired

- Beginning a plan for a second trip as an existing user

Besides being instructed to follow whatever navigational path came naturally to them, operators were instructed only to proceed at a slower pace than normal and explain their reasoning for navigations or performing actions within the app. Interactions were recorded with special care taken to note parts of the prototype that were especially difficult or easy to use. Any confusion about a specific aspect or feature within the app was noted. Any specific comments by the operator on areas of improvement or areas found to be well-implemented were also paid special attention.

Results

Many aspects of the application were found to be intuitive by the test users through the study, including both visual and navigational elements. The setup experience for first time users was found to be consistently frictionless until the point of adding places to visit. Regardless of any initial difficulty doing so, users quickly became accustomed to the process of searching for and adding places to their plan. Common mobile platform controls (the hamburger menu, back buttons inside activities) were used intuitively by

almost all participants. When presented with the option to link their Google account, almost all participants opted not to, but later stated that they would consider signing in if they had a reasonable amount of planning work stored on the app. The study also provided plentiful feedback on minor improvements that could be made in the interface, including:


- Changing the Back arrow button on deeper levels of the Place Discovery activity to return to the initial Place Discovery view (pictured), rather than returning to the Plan view.
- Adding a button to return directly to the Plan view from Location Information (pictured, bottom) after adding a place to the user's plan.
- Adding much more information about places, such at open hours on each day of the week, admission prices, etc.

Testing also uncovered several fundamental issues in the app's design:

- Saving places for later and the Saved Places list are not usable intuitively without first being explained to users. Almost all testers expressed confusion with regard to this feature.
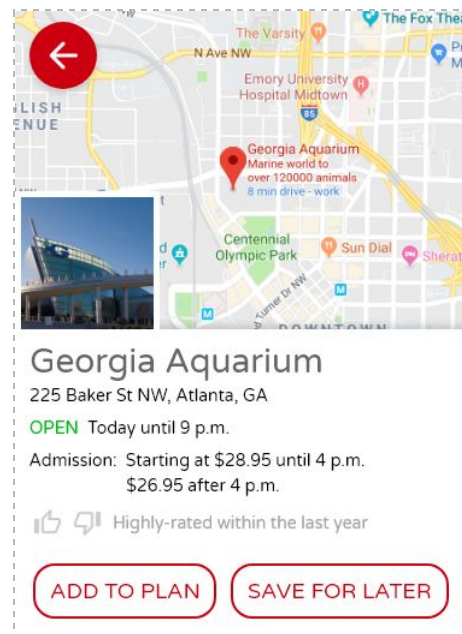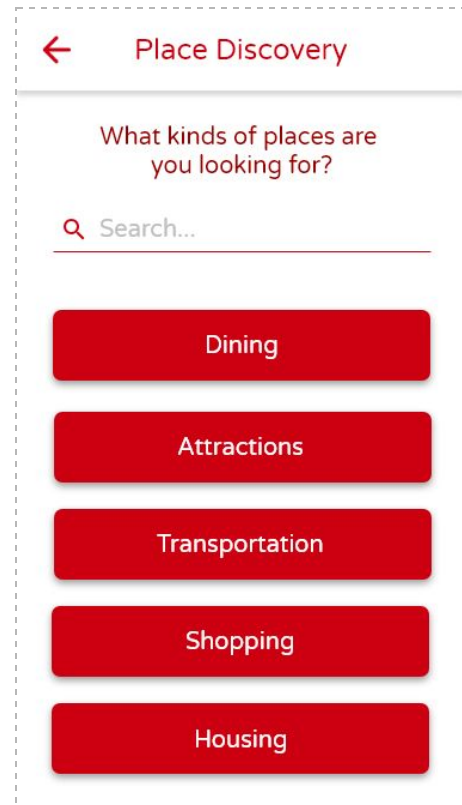
- Usage of the term 'trip' to refer to any plan is confusing for users who are moving permanently to a destination or searching their local area for places to visit.
- The three options presented for every place in the user's plan (Endorse, Dislike, and Remove) do not fit well within the process of plan maintenance. Though use of the Remove button came naturally after visiting a given place, test users expressed that the action did not necessarily seem appropriate in the checklist-like context of the plan.
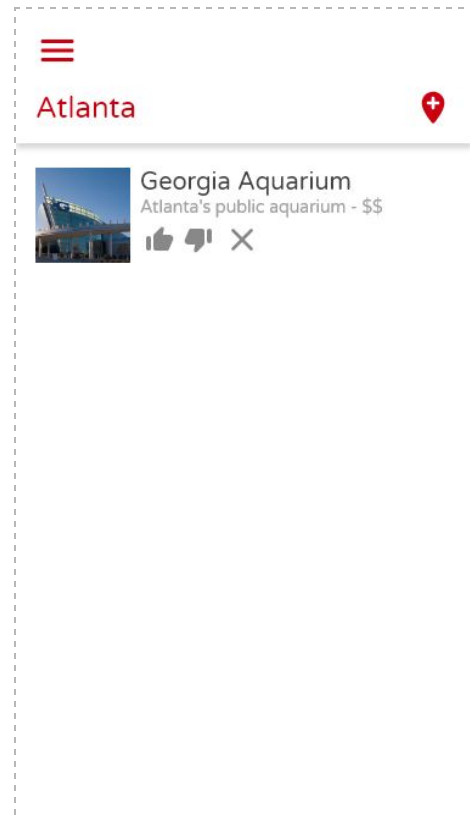
Next Steps

Based on feedback from the volunteers, several aspects of the prototype will be improved by the Relocation Assistant team to solve many of the problems that were discovered. A couple of improvements have already been made, which are:

- Adding physical address, open hours, and some admission pricing information to the Location Information page.
- Adjustment of the first-time setup process to include asking the user for their particular use-case (moving, travelling, or exploring locally) and tailoring their experience appropriately based on that information.

In addition to these changes, several more adjustments can be pursued to further improve the user experience:

- Add elements to the experience that introduce users to Saved Places, or possibly even re-evaluate the use cases of the feature and its inclusion in the app.

- Evaluate the use of the up/downvoting rating system and Plan management, and make any changes necessary to create a cohesive and intuitive Plan management experience.

- Improve ease and directness of navigation between Plans, Place Discovery, and Location Information by adding necessary buttons or changing existing ones.

All of these modifications will create a more robust experience and viable application concept, which will be prepared for more in-depth and functional prototyping.