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ListAssist

Usability Test Report

HCI 440 Usability Engineering—Spring 2008   Group 4

Executive Summary

ListAssist is an application being developed by mobiQuad for mobile devices. It is a list management tool for those who like being organized, those who are very busy, and even those who tend to be forgetful. ListAssist allows users to manage lists of items, categorize items, associate lists to specific locations, set reminders, share lists with others, and more. ListAssist 1.0 will accommodate users with normal cell phones.

Thus far, mobiQuad has researched and defined requirements, brainstormed and analyzed several conceptual designs, prototyped a model based on one of the conceptual designs, and completed one round of usability testing. The results of the usability testing will be used to identify possible improvements that can be made for the next iteration of the prototype.

This Usability Test Report documents the information and feedback collected by mobiQuad during the testing sessions. It discusses the issues brought up by users, proposes solutions to identified weaknesses in the design, and captures observations made by the team.

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Usability testing for mobiQuad's ListAssist utilized the initial prototype design. Testing was conducted using five participants over the course of a 3-hour period. The selection criteria for participants was for each to be enrolled in DePaul University's Spring 2008 Usability Engineering course. Testing was conducted by asking each participant to perform three ListAssist scenarios by interacting with a paper version of the prototype and simulating key presses on a paper mock-up of a generic mobile phone keypad. Due to time constraints, the fifth participant was only able to complete two scenarios.

Each testing session was conducted by one mobiQuad testing facilitator, a prototype simulator, and an observer. While the facilitator acted as the primary communicator with the user, other mobiQuad members provided support by participating in discussions and interjecting when they saw opportunity to gather more feedback.

The facilitator followed the testing script to introduce the user to ListAssist and the scenarios, and also asked post-scenario and post-test questions. As the user attempted to complete each scenario, the simulator modified the prototype mockup to react as the application would to the user's actions. The user was allowed to progress at his/her own pace, without interference from the mobiQuad team, unless the user made a comment or asked a question. Users' comments and answers to questions, as well as mobiQuad observations were recorded by the observer using an online survey.

After the testing sessions were completed, mobiQuad analyzed the collected data, identified commonalities in the feedback, and discussed findings. The results are documented in this usability test report. The team will now begin work on refining the prototype based on their analysis of this usability test, with a focus on eliminating the weaknesses that users had identified.

Usability Issues

Usability issues discovered during ListAssist's first usability test are shown here in order of priority.
1 = high, 2 = medium, 3 = low

Scenario One

Priority	Problem	Potential Solution(s)
1	Optional fields are unclear.	Change visual representation of required fields with possible delineation to emphasize differentiation from optional fields.
3	Creating a new list from within the process of defining a new item is unclear.	Change "New Item" soft key to "New List". However, this specific scenario would not be as frequent as adding a new item to an existing list. Possibly no change needed. Test further.
3	No clear way of accessing drop down menus.	Add in help file. User understood concept after short learning curve in acclimating to the mock-up mobile phone keypad.

Scenario Two

Priority	Problem	Potential Solution(s)
1	Highlight is too light, hard to see.	Darken highlight for active field.
1	No "mark all"/"unmark all" option.	Add to menu as option.
2	No search option for finding specific items without going into lists.	Add search option.

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Priority	Problem	Potential Solution(s)
3	Icons do not have clear meaning (i.e. arrows, extra notes icon; bell for reminder had no complaints)	Add in Help file. Try different icon design.
3	No "undo all" option.	Add to menu as option.
3	Red strike-out perceived as unfavorable by some.	Use a red "x" or check instead of a red line. [This was an aesthetic preference among test participants. Other participants thought the red strike-out was a favorable metaphor.] Possibly add option to set user preference for mark representation.

Scenario Three

Priority	Problem	Potential Solution(s)
1	Contact selection screen has awkward interface.	Change interaction for "New Number" option. Possibly create a different screen for it or have text field recognize as new number if there is no match in user's contact list.
1	"Unmarked Items" was not optimal default choice.	Change default to "Entire List"
1	"SMS Text" confuses some users.	Change to "Text"
1	No send "Marked Items" option.	Add option to menu.

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Usability Issues

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Priority	Problem	Potential Solution(s)
2	No search first and/or last name.	Implement functionality that will return both first and last name matches based on user input.
3	Drop down not initially obvious.	It is anticipated that the user will learn this functionality relatively quickly if not initially intuitive. It was noted by the users in the testing process that this process is "memorable".

General ListAssist Issues

Priority	Problem	Potential Solution(s)
1	"See All Lists" not clear as method to return to home screen.	Change wording of "See All Lists" to "Main Menu" or "Home".
1	Terminology not consistent: back/cancel; add item/new item	Update to reflect consistent terminology: "Close" for closing a menu, "Cancel" for terminating an action in progress without saving, "Add Item" instead of "New Item"

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Additional Considerations

In addition to the usability issues, mobiQuad made several other observations during testing. A surprising user comment was in recognition of a design goal: the paper "look" of ListAssist as a metaphor for a paper list. Other issues revealed insights into how testing results may be affected by the design of the test and testing process. These include:

- The mock-up keypad had different keys than some users were expecting and the key labels were not clear to other users. Future test sessions will consider providing instructions on using the keypad.

- The prototype screens showed icons not referenced by scenarios, causing some confusion among users. Furthermore, feedback on icon design was not elicited. This will be addressed in future testing.

- Some users thought the highlight used for menu options was too light to distinguish on the paper prototype. This may not be indicative of an actual phone display, and should be tested in the high-fidelity prototype phase.

- One user noted that when adding a new item from the main screen, it was unclear which list it belonged in. This will be made a focus in future tests.

- Some post-test questions (e.g. ease of exiting ListAssist) did not produce conclusive data, due to references to functionality not included in the scenarios. Additional testing will have scenarios that incorporate this functionality.

- The most complex scenario of testing was presented first, leading to a longer learning curve for the first three users. A decision was made to change the first scenario for other users, easing them into ListAssist. A future consideration is to either simplify the complex scenario or to begin the test with the simplest scenario first.

Finally, almost all users commented that ListAssist was easy to use once they "got the hang of it." This is generally true: most software has a learning curve and ease of use is improved by experience.

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Contributions

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Everything, and then some (see below)

Maggie Hong

Everything, and then some (see below), document design/compilation

Melissa Schulte

Everything, and then some (see below)

Josh Varga

Everything, and then some (see below)

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Everything, and then some: Observation and data collection and analysis. Update for executive summary and methodology. Document additional observations for consideration. Suggestions and feedback on prioritization and potential solutions. Document editing.